

2023 REGIONAL FLOOD PLAN REGION 6 SAN JACINTO

July 2023

PREPARED FOR THE SAN JACINTO
REGIONAL FLOOD PLANNING GROUP

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Flood Mitigation Project (FMP)



Title **Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South**

ID# **063000315** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the rainfall event by more than 340 acres in a pre-Atlas 1% rainfall event.

Watershed HUC# (if known) **120401040203, 120401040303, 120401040303** Emergency Need? **No**
 Drainage area (mi² est.) **13**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **3,403** # of structures **1,015** Critical facilities **4**
 Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **24**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

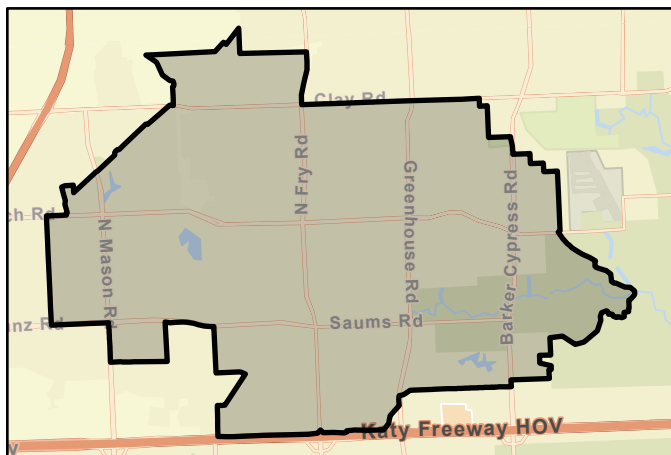
Population removed from 100-yr **-** # of structures removed from 100-yr **-**
 Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**
 Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$27,817,750** % Nature-Based **0** BCR **0.73**
 Recurring costs **\$1,685,341** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Blalock Road Drainage Improvement Project**

ID# **063000327** Sponsor **Piney Point Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed drainage improvements project will replace an undersized drainage system on Blalock Road, tie into drainage improvements on South Piney Point Road, and provide improvements on a drainage area that frequently experiences drainage issues.

Watershed HUC# (if known) **120401040303** Emergency Need? **No**
 Drainage area (mi² est.) **1**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **1,519** # of structures **364** Critical facilities **0**
 Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **6**
 Number of low water crossings **0** Historical road closures **-**

100-Year Flood Risk Reduction

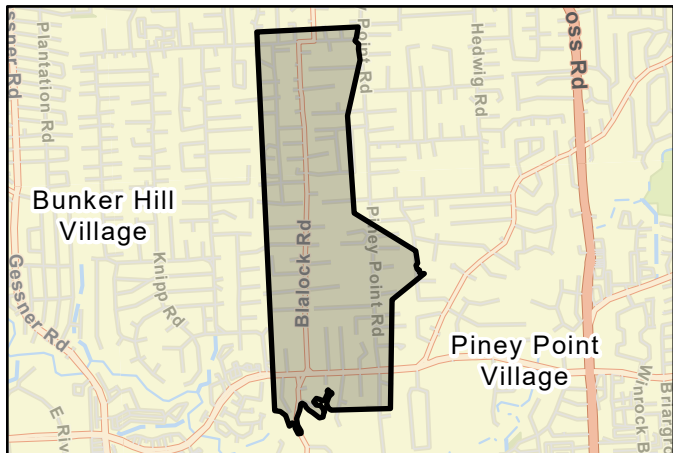
Population removed from 100-yr **498** # of structures removed from 100-yr **54**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

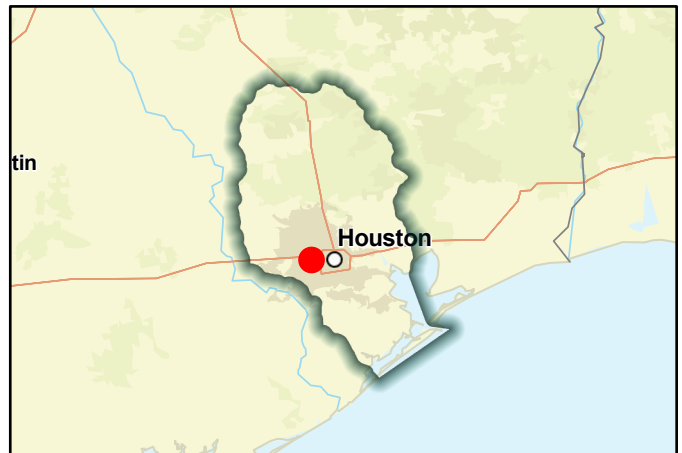
Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$19,323,500** % Nature-Based **0** BCR **0**
 Recurring costs **\$1,170,700** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection**

ID# **063000128** Sponsor **Gulf Coast Protection District**

RFPG recommend? **No** Reason for Recommendation **Yields no direct flood risk reduction benefits and does not have a BCR.**

Project Description

Ecosystem restoration efforts planned along the GIWW such as the restoration of wetlands and islands, construction of breakwaters, and oyster reef scaling will provide natural buffer from coastal storm surge and prevent erosion.

Watershed HUC# (if known) **120401030201,120401030108,12040103010** Emergency Need? **Yes**

Drainage area (mi² est.) **1,559**

Associated FME's **999999** County **Brazoria,Galveston,Fort Bend,Chambers,Harris,Liberty**

Associated FMS's **999999** Associated FMP's **063000127**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **Yes** Local? **No** Playa? **No** Other? **No**

Population at risk **423,473** # of structures **141,236** Critical facilities **2,320**

Farm/Ranch land impacted (acres) **13,922** Roadway(s) impacted (length) **2,432**

Number of low water crossings **82** Historical road closures **82**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Environmental, Low Impact Development Features** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

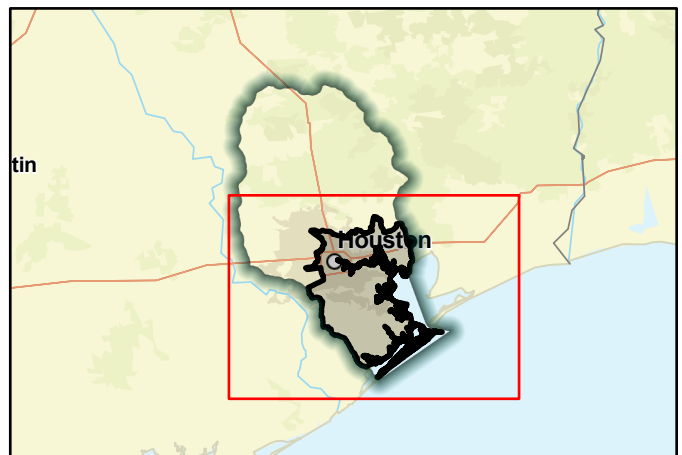
Estimated Cost

Project Cost **\$1,200,169,000** % Nature-Based **100** BCR **-**

Recurring costs **\$72,712,360** Issues **Right-of-Way, Permitting, Relocations**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction**

ID# **063000328** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed project includes widening sections of the Keegans Bayou main channel and a 1,600 acre-feet detention basin.

Watershed HUC# (if known) **120401040401, 120401040501** Emergency Need? **No**

Drainage area (mi² est.) **23**

Associated FME's **999999** County **Fort Bend,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **20,045** # of structures **3,717** Critical facilities **57**

Farm/Ranch land impacted (acres) **5** Roadway(s) impacted (length) **95**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **16486** # of structures removed from 100-yr **2009**

Critical facilities removed from 100-yr **29** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **150** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

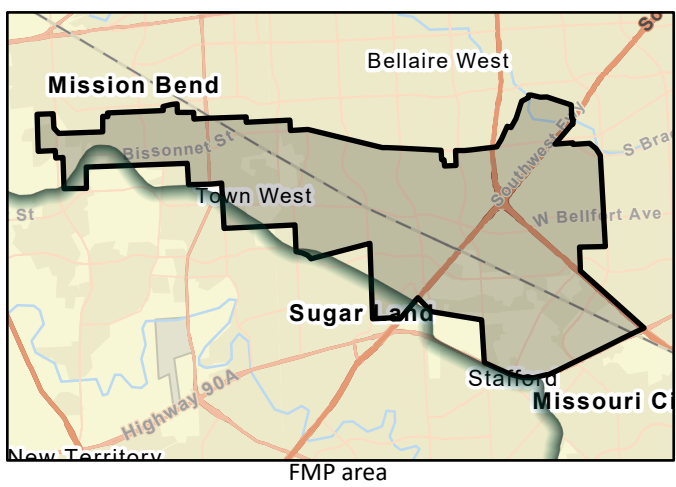
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$190,218,000** % Nature-Based **0** BCR **0.94**

Recurring costs **\$11,584,276** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown**

ID# **063000027** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Projects submitted as part of the CDBG MIT grant in the Brays Bayou Watershed which include regional channel and detention projects including D133 (Bintliff Ditch) and Sharptown Drainage.

Watershed HUC# (if known) **120401040401** Emergency Need? **Yes**
 Drainage area (mi² est.) **128**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Population at risk **6,750** # of structures **267** Critical facilities **26**
 Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **34**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

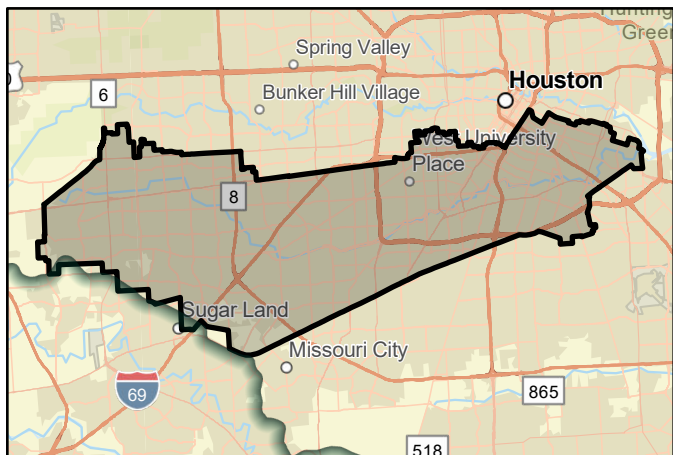
Population removed from 100-yr **2890** # of structures removed from 100-yr **160**
 Critical facilities removed from 100-yr **4** Farm/Ranch land removed from 100-yr (acres) **0.00166**
 Road removed from 100-yr (miles) **5** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$107,061,000** % Nature-Based **0** BCR **0.13**
 Recurring costs **\$6,486,302** Issues **Right-of-Way, Acquisitions, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Brazoria County NFIP Technical Material**

ID# **063000136** Sponsor **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Place copies of FEMA Flood-related technical bulletins in County libraries.

Watershed HUC# (if known) **120402040300,120402040200,12040204040** Emergency Need? **No**

Drainage area (mi² est.) **1,482**

Associated FME's **999999** County **Brazoria**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **38,626** # of structures **18,848** Critical facilities **248**

Farm/Ranch land impacted (acres) **8,584** Roadway(s) impacted (length) **328**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

Impacts

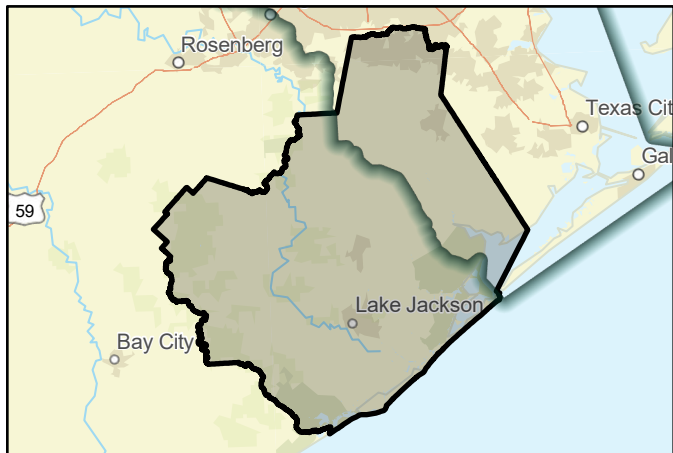
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$21,000** % Nature-Based **0** BCR **-**

Recurring costs **\$1,063** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105**

ID# **063000058** Sponsor **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Reduce flooding in the Caney Creek watershed by benching/widening a 7.8-mile-long stretch to increase conveyance capacity. Must be constructed with detention at FM1097 or detention at SH105 to capture runoff from Caney Creek.

Watershed HUC# (if known) **-** Emergency Need? **Yes**
 Drainage area (mi² est.) **371**
 Associated FME's **999999** County **Harris,Liberty,Montgomery,San Jacinto,Walker**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Population at risk **3,232** # of structures **2,146** Critical facilities **0**
 Farm/Ranch land impacted (acres) **64** Roadway(s) impacted (length) **46**
 Number of low water crossings **3** Historical road closures **3**

100-Year Flood Risk Reduction

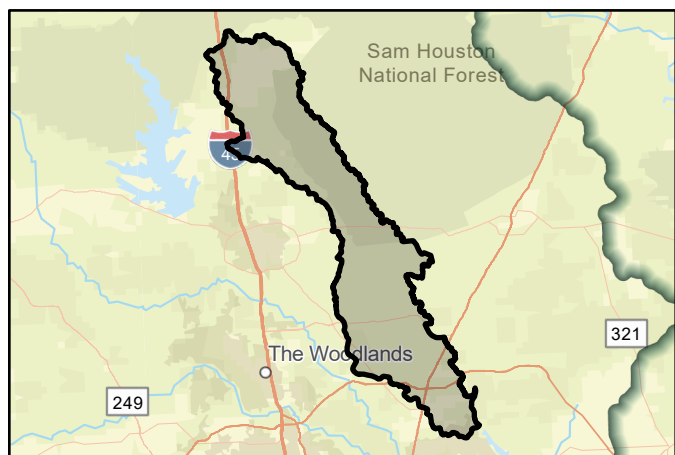
Population removed from 100-yr **2228** # of structures removed from 100-yr **1297**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **27.31976891**
 Road removed from 100-yr (miles) **42** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$469,000,000** % Nature-Based **0** BCR **0.30000001**
 Recurring costs **\$31,939,132** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts, Transportation**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

A unified land development code combines all land use controls into a single document with a logical structure that is user friendly. Cost is time, data and preparation of a unified land development code.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

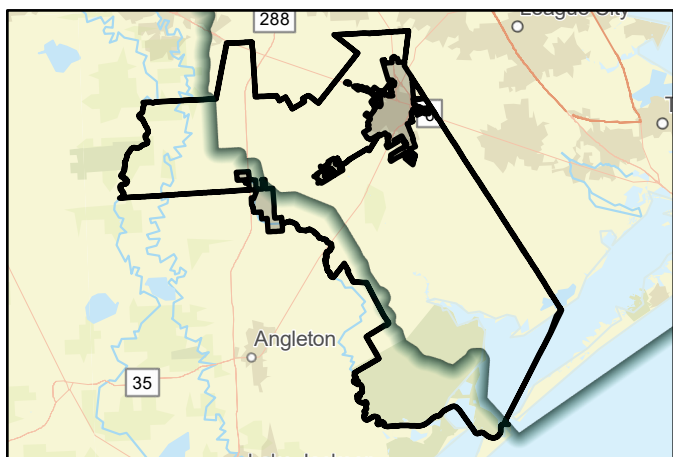
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

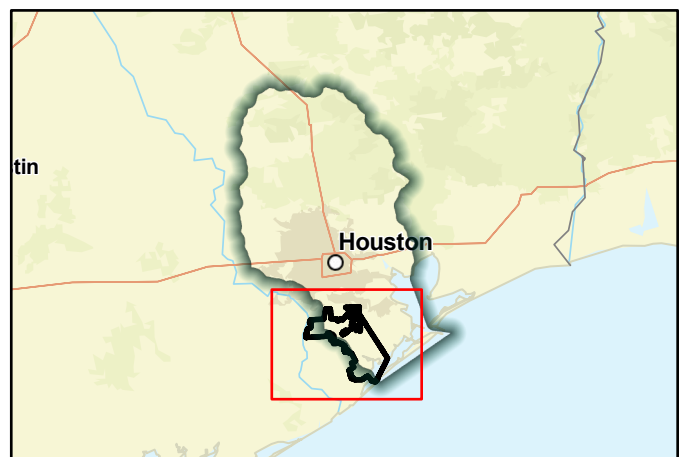
Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Update regulations and permit requirements to address enhances hazard mitigation strategies.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

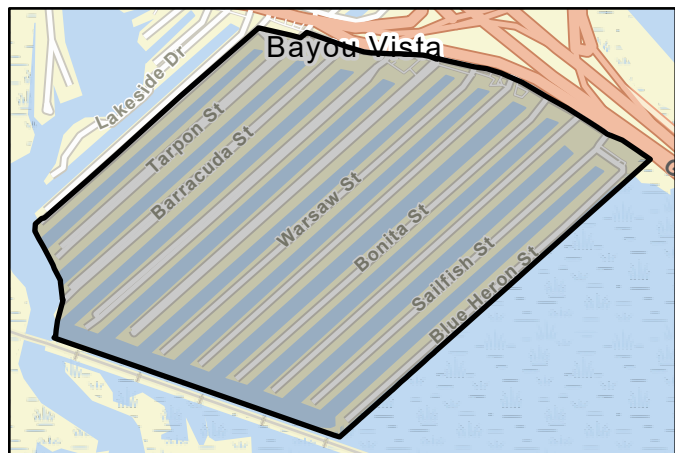
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Clear Lake Shores - Implement Stormwater Management Practices**

ID# **063000139** Sponsor **Clear Lake Shores (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The Stormwater management plan is focused on six minimum measures regarding what is being done to prevent stormwater pollution. Annual reporting and renewals are required to ensure compliance is met.

Watershed HUC# (if known) **120402040100** Emergency Need? **No**

Drainage area (mi² est.) **1**

Associated FME's **999999** County **Galveston,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **2,597** # of structures **633** Critical facilities **4**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **9**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Environmental** Reduction in # of road closures over 10 years **-**

Impacts

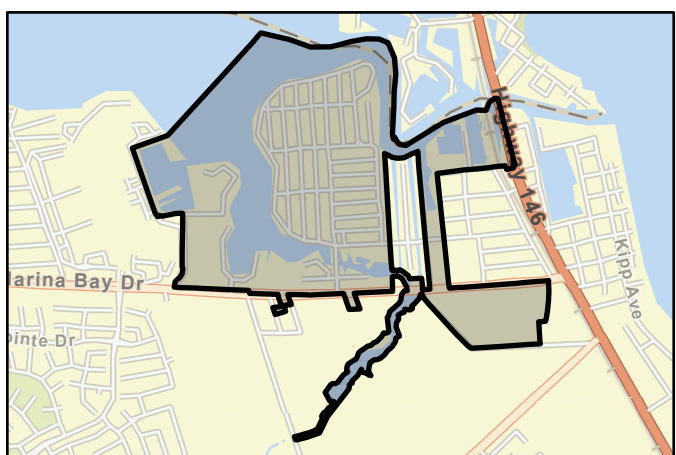
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **-**

Recurring costs **\$5,514** Issues **Right-of-Way, Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Clear Lake Shores - Improve Regulations and Permit Requirements**

ID# **063000140** Sponsor **Clear Lake Shores (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Update regulations and permit requirements.

Watershed HUC# (if known) **120402040100** Emergency Need? **No**

Drainage area (mi² est.) **1**

Associated FME's **999999** County **Galveston,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **2,597** # of structures **633** Critical facilities **4**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **9**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

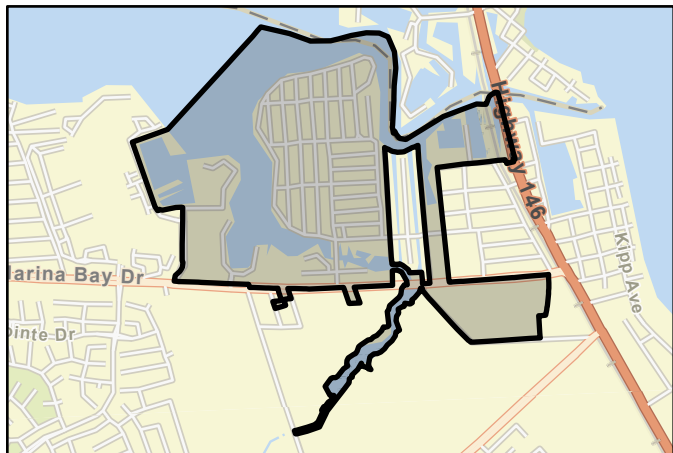
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **5**

Recurring costs **\$5,514** Issues **Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

The city shall adopt a land-use ordinance which prohibits building residential or commercial structures in the 100-year floodplain.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

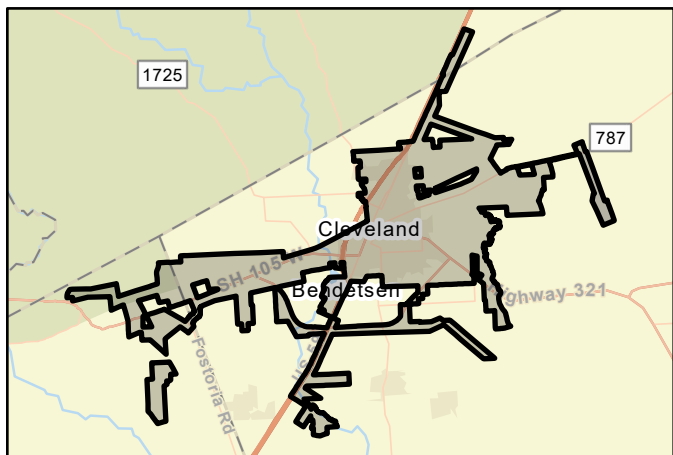
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Adopt a land use ordinance which requires any structure within the 100-year floodplain to be elevated 2 feet.

Watershed HUC# (if known) Emergency Need?
 Drainage area (mi² est.)
 Associated FME's County
 Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?
 Population at risk # of structures Critical facilities
 Farm/Ranch land impacted (acres) Roadway(s) impacted (length)
 Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

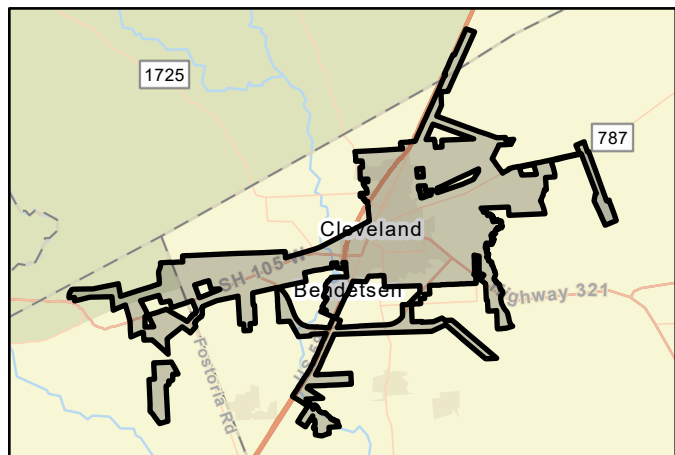
Population removed from 100-yr # of structures removed from 100-yr
 Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)
 Road removed from 100-yr (miles) Low water crossings removed from 100-yr
 Other benefits Reduction in # of road closures over 10 years

Impacts

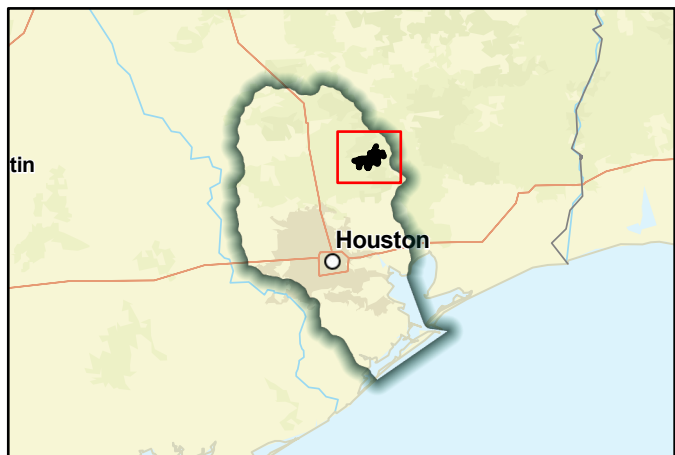
Negative impacts? Negative impacts description
 Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR
 Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Cleveland Ordinance Update Pipeline Right-of-Way**

ID# **063000126** Sponsor **Cleveland (Municipality)**

RFPG recommend? **No** Reason for Recommendation **Yields no direct flood risk reduction benefits and does not have a BCR.**

Project Description

Adopt 25-foot setback from pipeline right-of-way.

Watershed HUC# (if known) **120401030201,120401030108,12040103010** Emergency Need? **No**
 Drainage area (mi² est.) **19**
 Associated FME's **999999** County **Liberty, Montgomery, San Jacinto**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **1,037** # of structures **261** Critical facilities **0**
 Farm/Ranch land impacted (acres) **29** Roadway(s) impacted (length) **27**
 Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

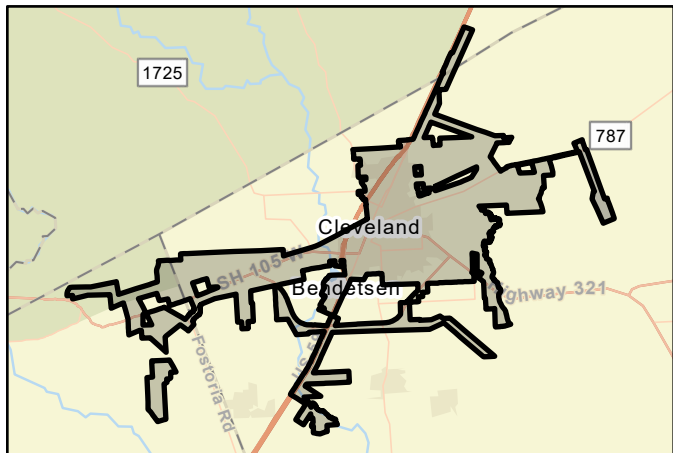
Population removed from 100-yr **-** # of structures removed from 100-yr **-**
 Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**
 Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$55,000** % Nature-Based **0** BCR **-**
 Recurring costs **\$2,783** Issues **Right-of-Way**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I**

ID# **063000424** Sponsor **Friendswood (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.

Watershed HUC# (if known)	120402040200,120402040100	Emergency Need?	No
Associated FME's	999999	Drainage area (mi ² est.)	21
Associated FMS's	999999	County	Galveston,Harris
		Associated FMP's	999999

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Population at risk	16,927	# of structures	4,952	Critical facilities	189
Farm/Ranch land impacted (acres)	728	Roadway(s) impacted (length)	575		
Number of low water crossings	11	Historical road closures	11		

100-Year Flood Risk Reduction

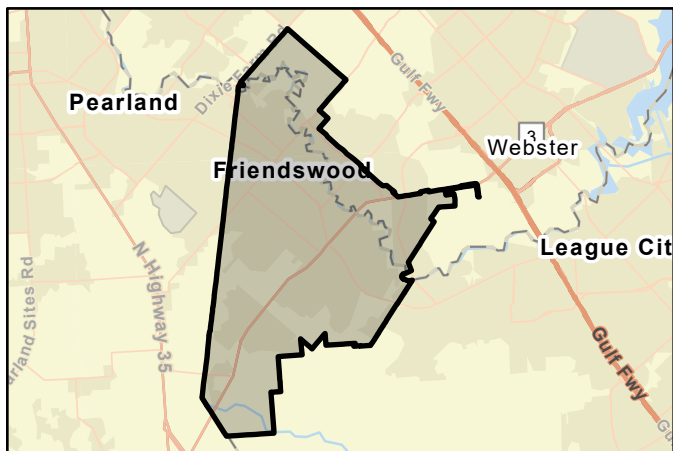
Population removed from 100-yr	-	# of structures removed from 100-yr	172
Critical facilities removed from 100-yr	2	Farm/Ranch land removed from 100-yr (acres)	2.84645985
Road removed from 100-yr (miles)	7	Low water crossings removed from 100-yr	0
Other benefits	-	Reduction in # of road closures over 10 years	0

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$65,800,000	% Nature-Based	0	BCR	0.03
Recurring costs	\$10,000	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Friendswood Ordinances and Regulation Update**

ID# **063000113** Sponsor **Friendswood (Municipality)**

RFPG recommend? **No** Reason for Recommendation **Project has been completed.**

Project Description

Adopt higher codes and update ordinances and regulation to promote hazard mitigation strategies.

Watershed HUC# (if known) **120402040200,120402040100** Emergency Need? **No**

Drainage area (mi² est.) **21**

Associated FME's **999999** County **Galveston,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **4,640** # of structures **1,680** Critical facilities **2**

Farm/Ranch land impacted (acres) **18** Roadway(s) impacted (length) **38**

Number of low water crossings **5** Historical road closures **5**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

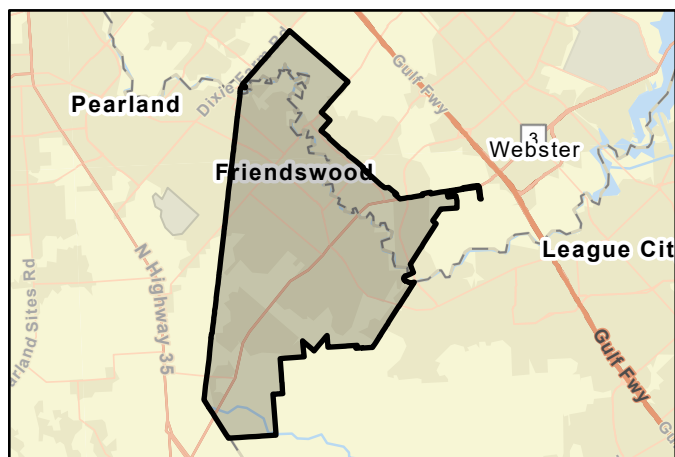
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

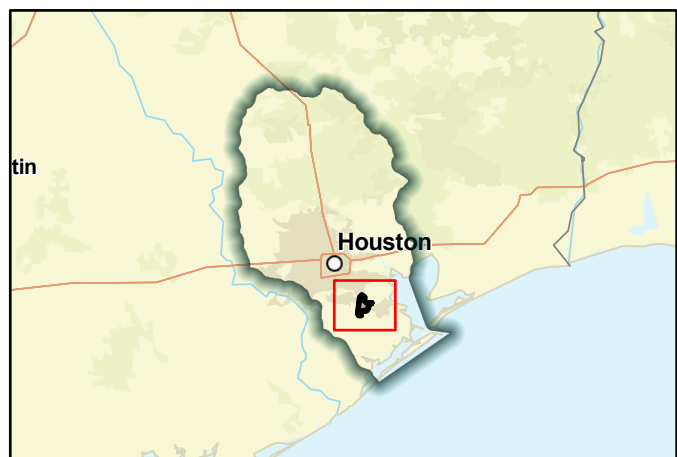
Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **5**

Recurring costs **\$5,514** Issues **Right-of-Way, Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Galveston- 37th Street Improvement Project**

ID# **063000311** Sponsor **Galveston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The project proposes storm sewer improvements coupled with implementing a stormwater pump station to addressing 100-year event flooding and improve access to major evacuation routes.

Watershed HUC# (if known) **120402040200** Emergency Need? **No**
 Drainage area (mi² est.) **212**
 Associated FME's **999999** County **Galveston**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **Yes** Local? **No** Playa? **No** Other? **No**
 Population at risk **3,732** # of structures **146** Critical facilities **8**
 Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **5**
 Number of low water crossings **-** Historical road closures **-**

100-Year Flood Risk Reduction

Population removed from 100-yr **3741** # of structures removed from 100-yr **146**
 Critical facilities removed from 100-yr **8** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**
 Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

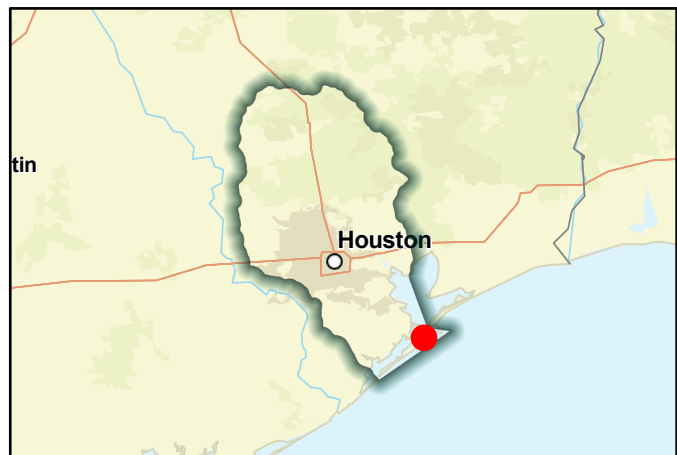
Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$75,000,000** % Nature-Based **0** BCR **0.08**
 Recurring costs **\$290,000** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Yes Reason for Recommendation

Project Description

Consider adoption and enforcement of freeboard requirement into City's Flood Damage Prevention Ordinance.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Yes Coastal? No Local? Yes Playa? No Other? No

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

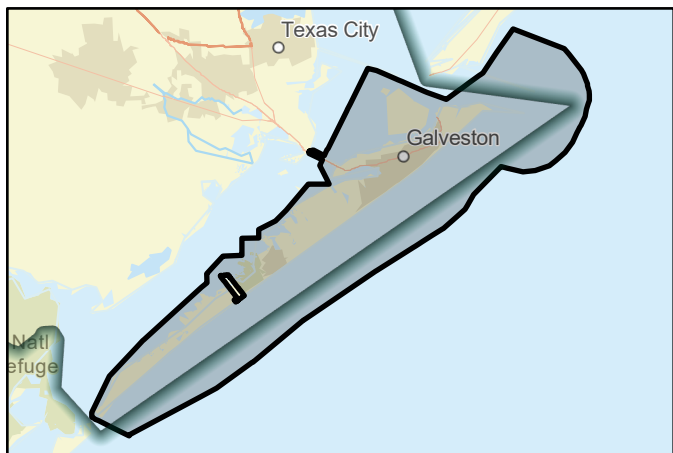
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Develop proposed land use mapping to allow easier consideration of hazards.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

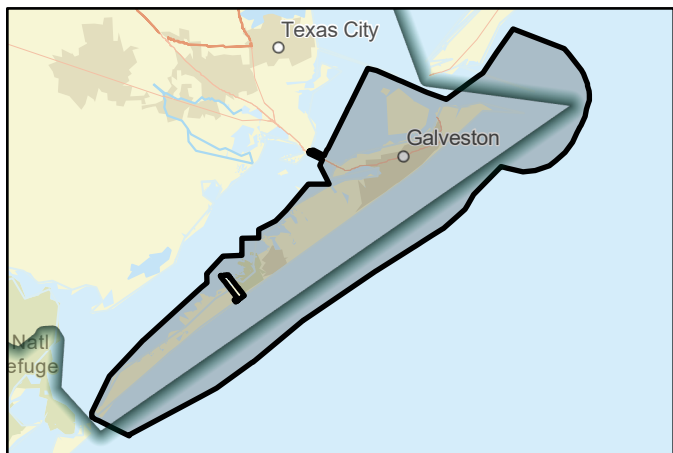
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Hitchcock - Improve Regulations and Permit Requirements**

ID# **063000142** Sponsor **Hitchcock (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Improve regulations and permit requirements to promote hazard mitigation strategies.

Watershed HUC# (if known) **120402040300,120402040200** Emergency Need? **No**

Drainage area (mi² est.) **91**

Associated FME's **999999** County **Brazoria, Galveston**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **5,294** # of structures **2,655** Critical facilities **12**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **73**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

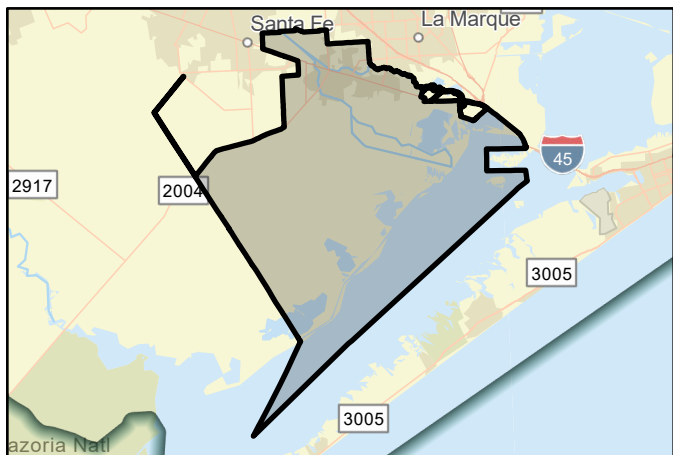
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **5**

Recurring costs **\$5,514** Issues **Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Improve regulations and permit requirements to promote hazard mitigation strategies.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

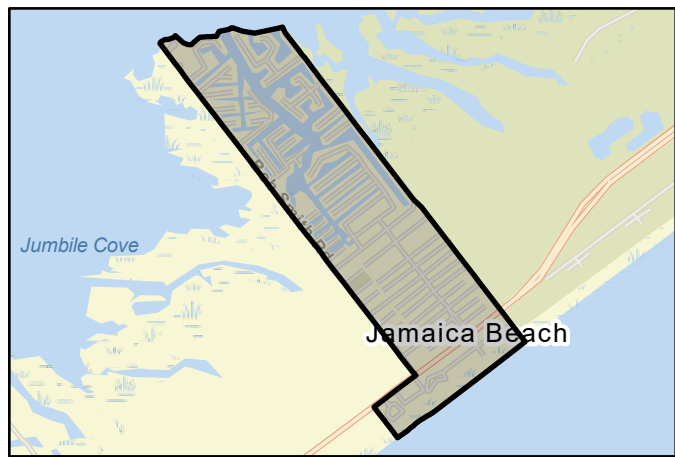
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Improve regulations and permit requirements to promote hazard mitigation strategies.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

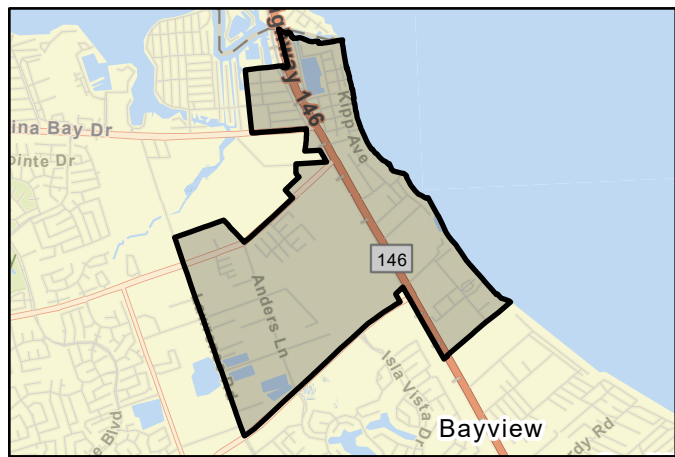
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Update floodplain ordinance to ensure compliance with minimum standard of NFIP.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

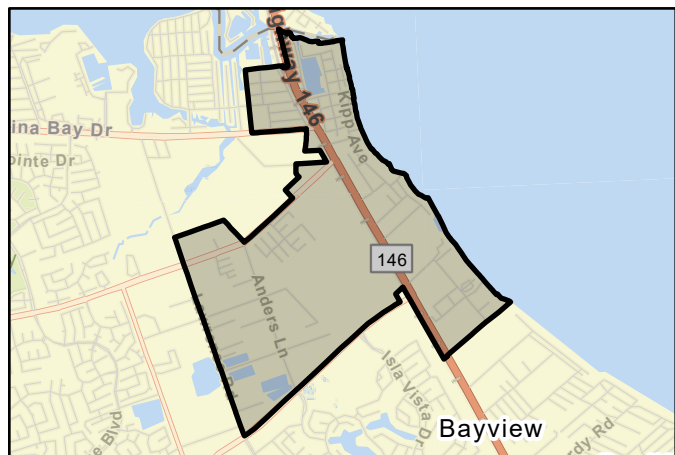
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of La Marque - Improve Regulations and Permit Requirements**

ID# **063000146** Sponsor **La Marque (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Improve regulations and permit requirements to promote hazard mitigation strategies.

Watershed HUC# (if known) **120402040200** Emergency Need? **No**

Drainage area (mi² est.) **14**

Associated FME's **999999** County **Galveston**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **1,455** # of structures **829** Critical facilities **g**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **31**

Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

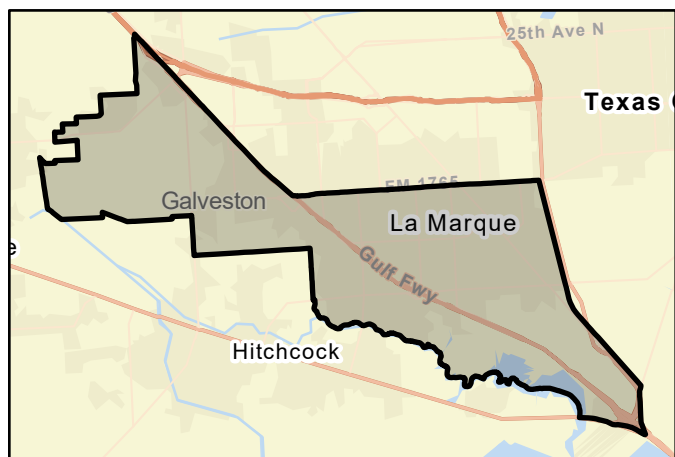
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **5**

Recurring costs **\$5,514** Issues **Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Yes Reason for Recommendation

Project Description

Update city ordinance to require 24" of freeboard in the floodplain.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Yes Coastal? No Local? Yes Playa? No Other? No

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

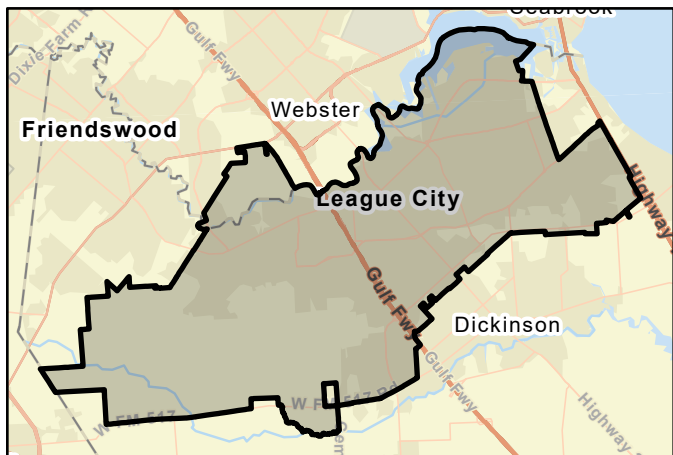
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

The city shall adopt a land use ordinance which requires any structure within the 100-year floodplain to be elevated 2 feet above base flood elevation.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

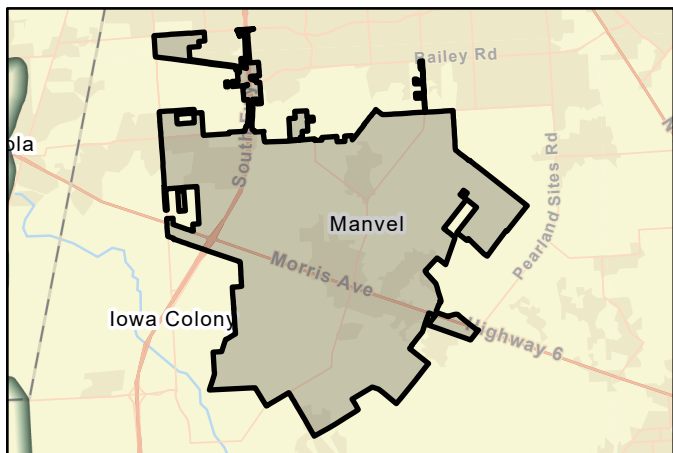
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

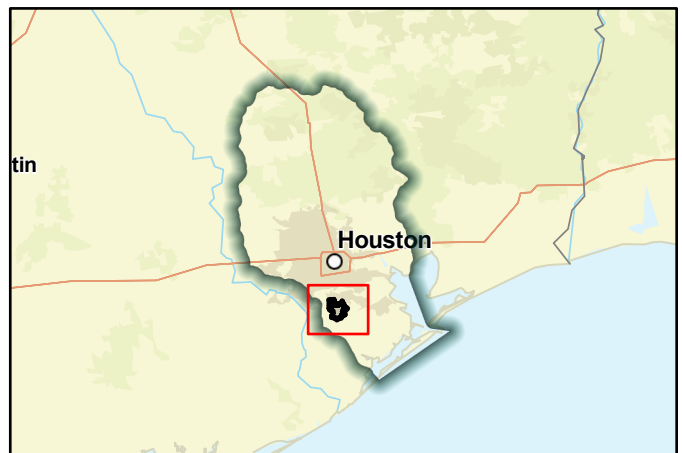
Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Improve GIS database to include repetitive loss properties areas and flooded structure data. Data to be used for future drainage infrastructure planning and to provide outreach and emergency services to residents in substantial risk zones.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

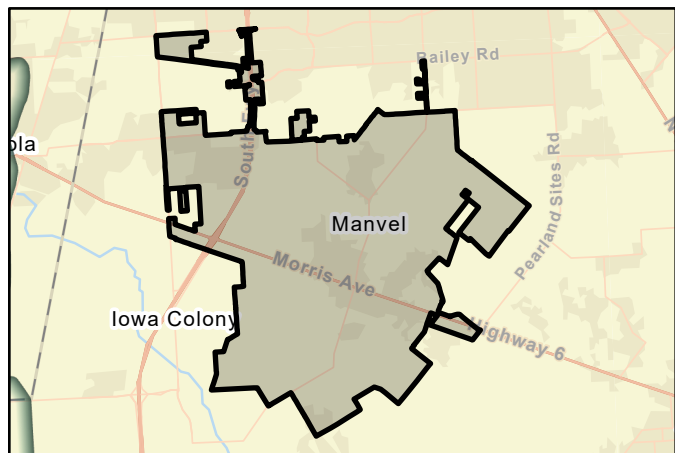
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

The city shall adopt a land-use ordinance which prohibits building residential or commercial structures in the 100-year floodplain.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

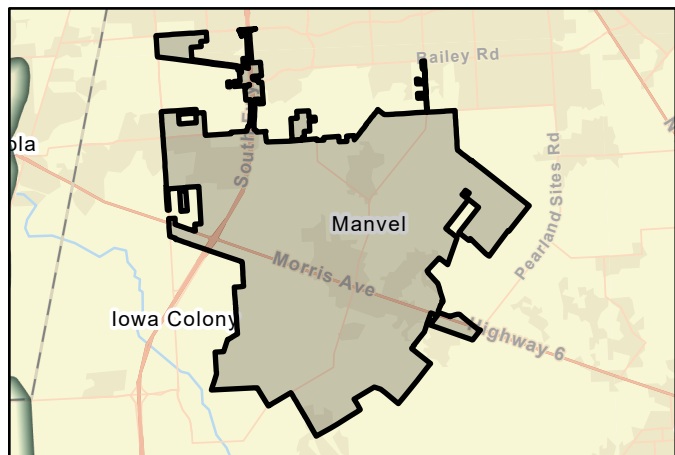
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

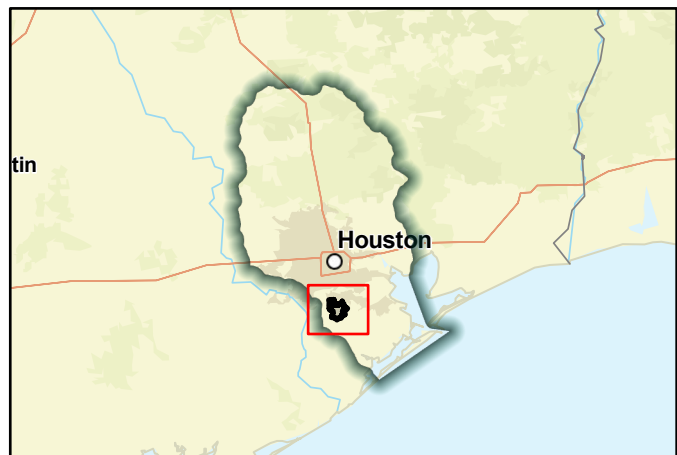
Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **City of Santa Fe - Improve Regulations and Permit Requirements**

ID# **063000149** Sponsor **Santa Fe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Update and/or develop regulations and permits to address hazards prone to the area and include any changes in future development area.

Watershed HUC# (if known) **120402040300,120402040200** Emergency Need? **No**

Drainage area (mi² est.) **17**

Associated FME's **999999** County **Galveston**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **748** # of structures **400** Critical facilities **1**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **4**

Number of low water crossings **9** Historical road closures **9**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

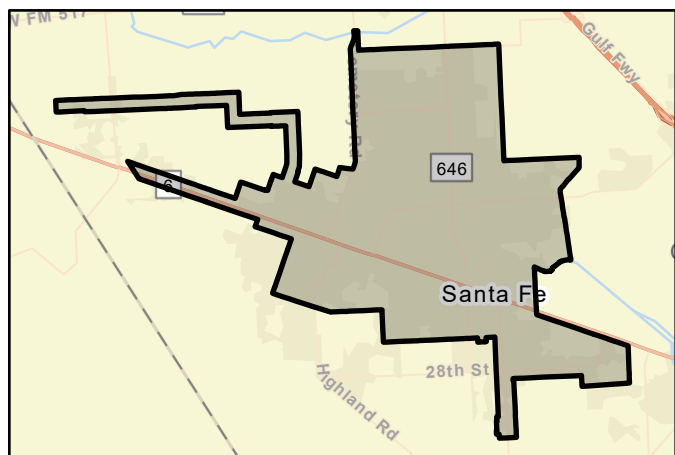
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$109,000** % Nature-Based **0** BCR **5**

Recurring costs **\$5,514** Issues **Permitting**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Project Description

Update and/or develop regulations and permits to address hazards prone to the area and include any changes in future development area.

Watershed HUC# (if known) Emergency Need?

Drainage area (mi² est.)

Associated FME's County

Associated FMS's Associated FMP's

Existing 100-Year Flood Risk

Flood risk type: Riverine? Coastal? Local? Playa? Other?

Population at risk # of structures Critical facilities

Farm/Ranch land impacted (acres) Roadway(s) impacted (length)

Number of low water crossings Historical road closures

100-Year Flood Risk Reduction

Population removed from 100-yr # of structures removed from 100-yr

Critical facilities removed from 100-yr Farm/Ranch land removed from 100-yr (acres)

Road removed from 100-yr (miles) Low water crossings removed from 100-yr

Other benefits Reduction in # of road closures over 10 years

Impacts

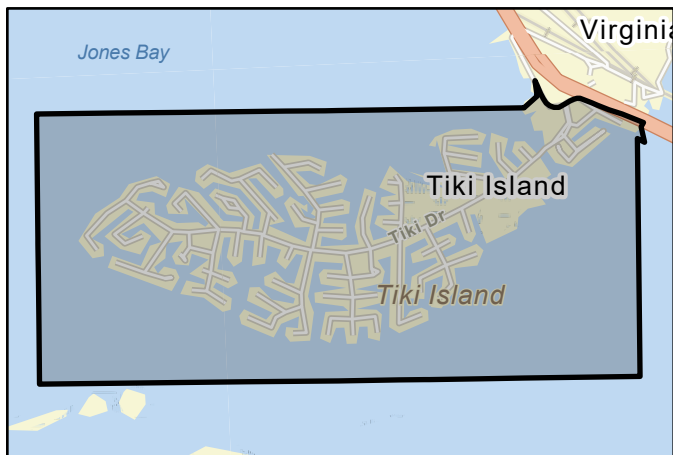
Negative impacts? Negative impacts description

Water supply contributions? Water supply contribution description

Estimated Cost

Project Cost % Nature-Based BCR

Recurring costs Issues



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)**

ID# **063000474** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed project includes channel improvements and inline detention from Cullen Boulevard to Pearland Parkway along with additional offline detention basins to mitigate for impacts from additional conveyance in the mainstem of Clear Creek.

Watershed HUC# (if known)	120401040501, 120401040502, 120401040703, 120402040100, 120402040200, 120402040400	Emergency Need?	No
Associated FME's	-	Drainage area (mi ² est.)	201
Associated FMS's	-	County	Harris, Fort Bend, Brazoria, Galveston
		Associated FMP's	-

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Population at risk	57,612	# of structures	18,615	Critical facilities	144
Farm/Ranch land impacted (acres)	316	Roadway(s) impacted (length)	446		
Number of low water crossings	5	Historical road closures	0		

100-Year Flood Risk Reduction

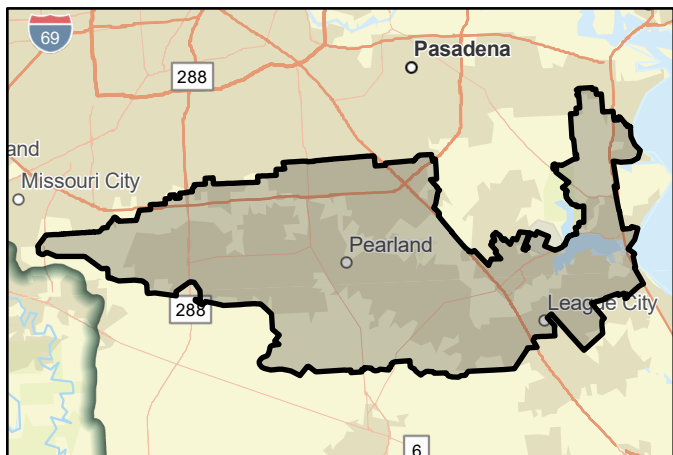
Population removed from 100-yr	-	# of structures removed from 100-yr	770
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$295,267,680	% Nature-Based	0	BCR	0.54
Recurring costs	\$582,554	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)**

ID# **063000357** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Program implementation plan for the design and construction of 22 regional detention basins (12,800 ac-ft) in the Cypress Creek watershed K100-00-00 based on the Cypress Creek Watershed and Major Tributaries Regional Drainage Plan Update(February 2020).

Watershed HUC# (if known) **120401020104,120401020106,12040102010** Emergency Need? **No**

Drainage area (mi² est.) **119**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **49,086** # of structures **16,233** Critical facilities **158**

Farm/Ranch land impacted (acres) **90** Roadway(s) impacted (length) **264**

Number of low water crossings **0** Historical road closures **3**

100-Year Flood Risk Reduction

Population removed from 100-yr **9880** # of structures removed from 100-yr **2814**

Critical facilities removed from 100-yr **18** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **27** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

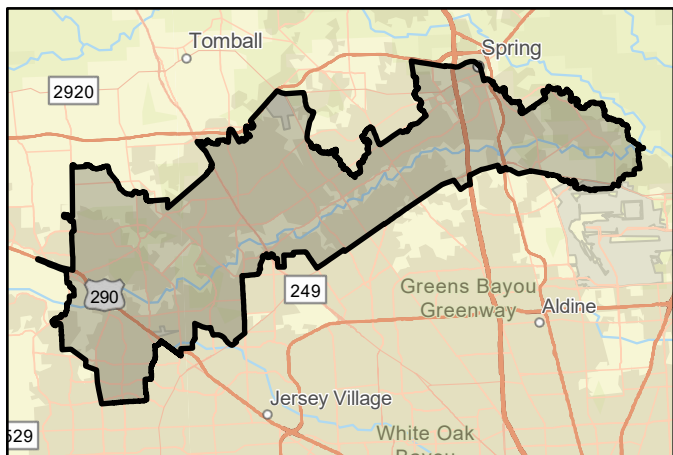
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$550,000,000** % Nature-Based **0** BCR **0.284**

Recurring costs **\$91,000** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects)**

ID# **063000476** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Provides for design and construction of two detention basins in the Cypress Creek watershed, including a new 4,756 ac-ft detention basin and an expansion of an existing HCFCFCD detention basin along K500-01-00 from 531 ac-ft to 9,336 ac-ft of storage.

Watershed HUC# (if known) **120401020104** Emergency Need? **No**
 Drainage area (mi² est.) **274**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Population at risk **0** # of structures **18,530** Critical facilities **144**
 Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **448**
 Number of low water crossings **4** Historical road closures **-**

100-Year Flood Risk Reduction

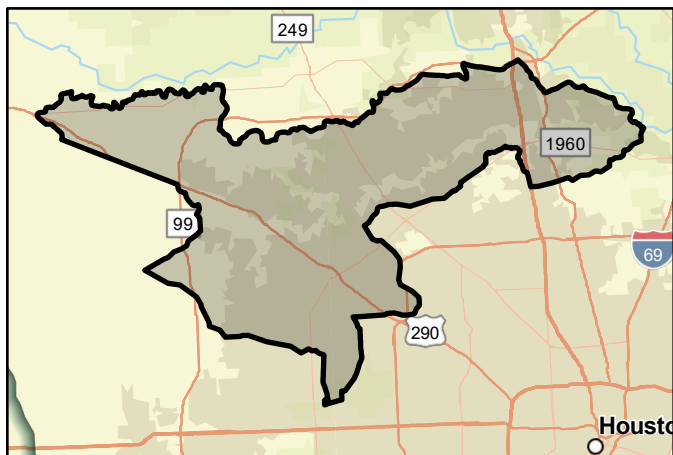
Population removed from 100-yr **7070** # of structures removed from 100-yr **1488**
 Critical facilities removed from 100-yr **10** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **22** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$345,329,984** % Nature-Based **0** BCR **0.391**
 Recurring costs **\$20,921,852** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Danubina Drainage Improvements**

ID# **063000422** Sponsor **Baytown (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This CDBG-MIT application involves the installation and construction of improvements along Hull Gully, detention, and storm sewer improvements along Hunnicutt Street.

Watershed HUC# (if known)	120401040705, 120401040706, 120402030105, 120402030106, 120402030200	Emergency Need?	No
Associated FME's	999999	Drainage area (mi ² est.)	48
Associated FMS's	999999	County	Chambers,Harris
		Associated FMP's	999999

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Population at risk	428	# of structures	137	Critical facilities	0
Farm/Ranch land impacted (acres)	-	Roadway(s) impacted (length)	5		
Number of low water crossings	0	Historical road closures	-		

100-Year Flood Risk Reduction

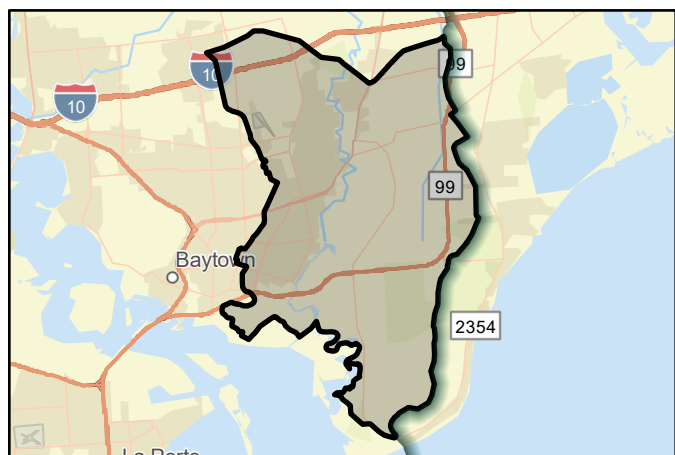
Population removed from 100-yr	304	# of structures removed from 100-yr	111
Critical facilities removed from 100-yr	0	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	10	Low water crossings removed from 100-yr	0
Other benefits	-	Reduction in # of road closures over 10 years	0

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$18,467,088	% Nature-Based	0	BCR	0.96
Recurring costs	\$1,124,645	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)**

ID# **063000402** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed project includes the design and construction of approximately two miles of channel improvements along N100-00-00, channel improvements to a short segment of N109-00-00, and a detention basin to mitigate downstream impacts.

Watershed HUC# (if known)	120401010502, 120401040602, 120401040604, 120401040605, 120401040606, 120401040701,	Emergency Need?	No
Associated FME's	999999	Drainage area (mi ² est.)	67
Associated FMS's	999999	County	Harris
		Associated FMP's	999999

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Population at risk	8,805	# of structures	2,569	Critical facilities	34
Farm/Ranch land impacted (acres)	39	Roadway(s) impacted (length)	67		
Number of low water crossings	2	Historical road closures	0		

100-Year Flood Risk Reduction

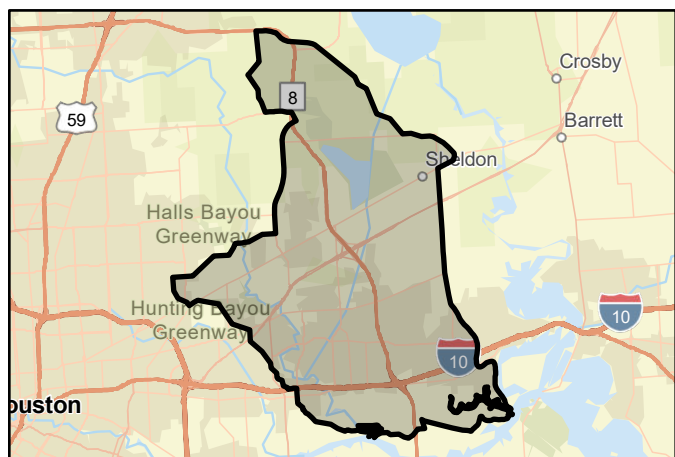
Population removed from 100-yr	3664	# of structures removed from 100-yr	379
Critical facilities removed from 100-yr	8	Farm/Ranch land removed from 100-yr (acres)	0
Road removed from 100-yr (miles)	14	Low water crossings removed from 100-yr	0
Other benefits	-	Reduction in # of road closures over 10 years	0

Impacts

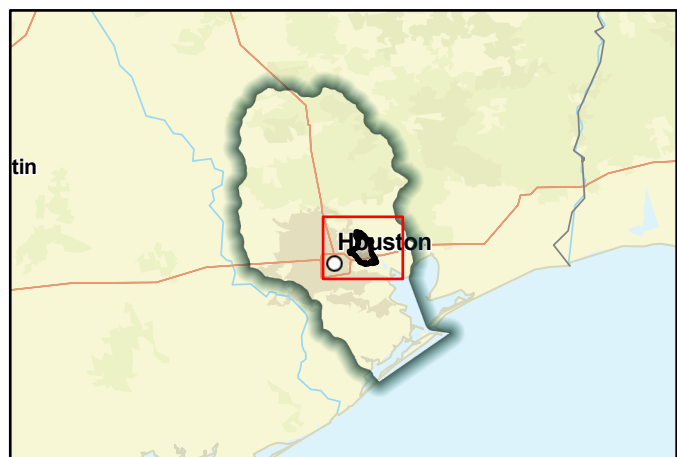
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$30,360,000	% Nature-Based	0	BCR	0.46
Recurring costs	\$1,848,924	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)**

ID# **063000313** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Design and Construction of Dinner Creek Stormwater Detention Basin (U520-01-00-E003). Project would expand the existing detention basin to ultimate conditions and incorporate both detention and retention.

Watershed HUC# (if known) **120401040202,120401040201,12040104020** Emergency Need? **No**

Drainage area (mi² est.) **21**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **1,377** # of structures **306** Critical facilities **1**

Farm/Ranch land impacted (acres) **14** Roadway(s) impacted (length) **8**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **42**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**

Other benefits **67 acre-ft of retention volume, recreation** Reduction in # of road closures over 10 years **0**

Impacts

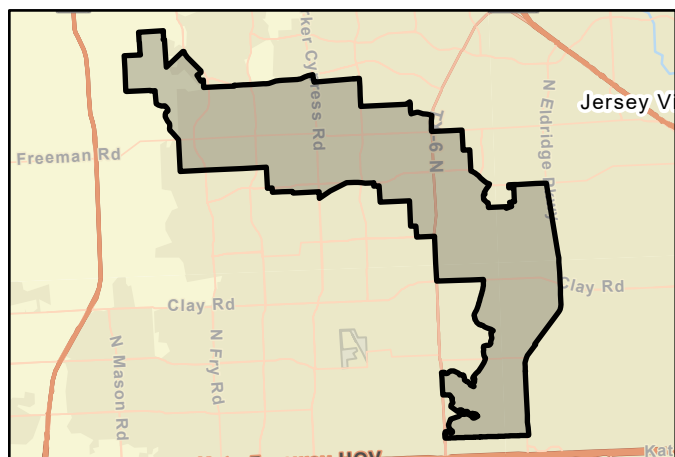
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$33,080,232** % Nature-Based **0** BCR **0.04**

Recurring costs **\$938,000** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)**

ID# **063000389** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed project includes channel improvements, upsizing of culverts, siltation removal, local drainage improvements, and a stormwater detention basin within White Oak Bayou Tributary E116-00-00.

Watershed HUC# (if known) **120401040302,120401040304** Emergency Need? **No**

Drainage area (mi² est.) **7**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **36,556** # of structures **14,652** Critical facilities **155**

Farm/Ranch land impacted (acres) **6** Roadway(s) impacted (length) **140**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **24**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

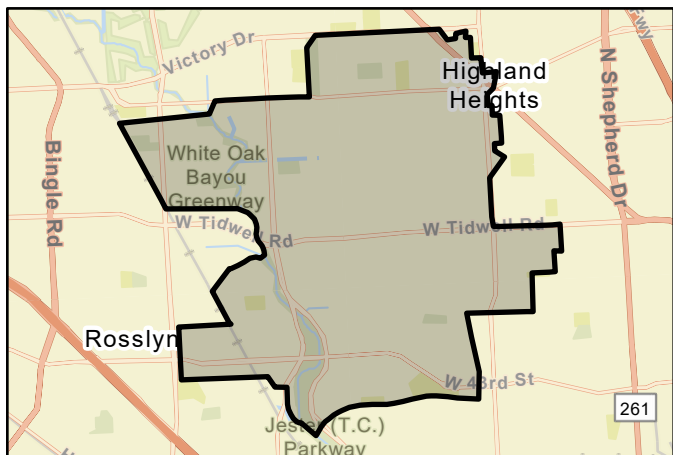
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$8,375,000** % Nature-Based **0** BCR **1.47**

Recurring costs **\$510,037** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)**

ID# **063000473** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project includes three regional detention pond cells along Langham Creek within the Addicks Reservoir watershed to mitigate peak discharges expected with new development in the area.

Watershed HUC# (if known) **120401040201** Emergency Need? **No**
 Drainage area (mi² est.) **55**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **356** # of structures **54** Critical facilities **0**
 Farm/Ranch land impacted (acres) **8** Roadway(s) impacted (length) **1**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

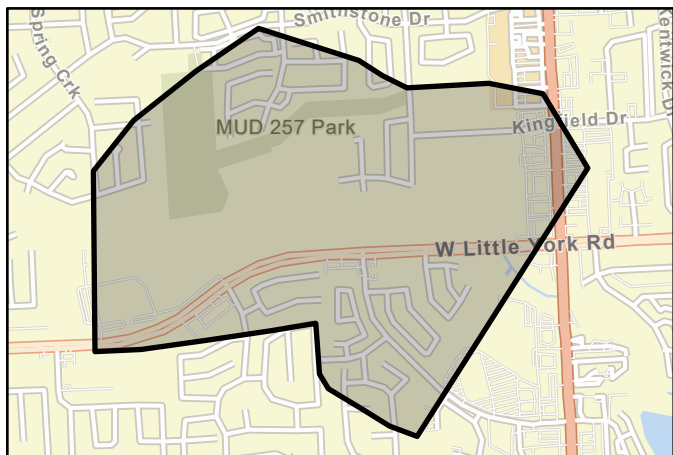
Population removed from 100-yr **-** # of structures removed from 100-yr **5**
 Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**
 Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$2,553,000** % Nature-Based **0** BCR **0.05**
 Recurring costs **\$154,674** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)**

ID# **063000319** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides for design and construction of three offline detention basins in B509-03-00 and B509-04-00.

Watershed HUC# (if known) **120402040100,120401040703,12040104070** Emergency Need? **No**
 Drainage area (mi² est.) **59**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **3,757** # of structures **1,387** Critical facilities **6**
 Farm/Ranch land impacted (acres) **23** Roadway(s) impacted (length) **31**
 Number of low water crossings **2** Historical road closures **3**

100-Year Flood Risk Reduction

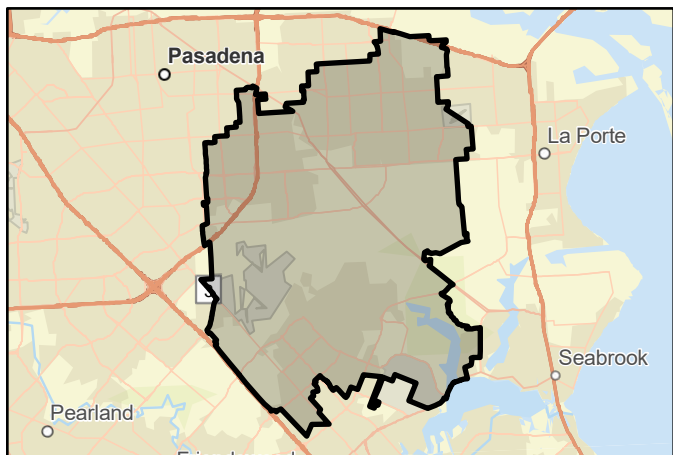
Population removed from 100-yr **114** # of structures removed from 100-yr **15**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$34,850,000** % Nature-Based **0** BCR **0.01**
 Recurring costs **\$2,111,391** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **East Fork San Jacinto River - Winters Bayou Detention**

ID# **063000059** Sponsor **San Jacinto (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The goal of the detention facility is to reduce flooding in the East Fork watershed by constructing a 1.60-mile-long earthen impoundment that captures runoff from Winters Bayou.

Watershed HUC# (if known) **-** Emergency Need? **No**
 Drainage area (mi² est.) **409**

Associated FME's **999999** County **Harris,Liberty,Montgomery,San Jacinto,Walker**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **2,559** # of structures **1,896** Critical facilities **3**

Farm/Ranch land impacted (acres) **72** Roadway(s) impacted (length) **73**

Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **1412** # of structures removed from 100-yr **651**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **5.86065578**

Road removed from 100-yr (miles) **17** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$134,000,000** % Nature-Based **0** BCR **0.47**

Recurring costs **\$10,007,205** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts, Transportation**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Galveston Bay Surge Protection Coastal Storm Risk Management**

ID# **063000127** Sponsor **Gulf Coast Protection District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Federal projects identified in the Texas Coastal Study (2021) including Boliver Gates, Galveston Sea Wall Improvements, Ecosystem Restoration, Galveston Ring Barrier system, Clear Creek & Dickinson Bayou Gates, and non-structural measures.

Watershed HUC# (if known) **120401030201,120401030108,12040103010** Emergency Need? **Yes**

Drainage area (mi² est.) **1,905**

Associated FME's **999999** County **Brazoria,Galveston,Fort Bend,Chambers,Harris,Liberty**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **Yes** Local? **No** Playa? **No** Other? **No**

Population at risk **266,742** # of structures **103,716** Critical facilities **3,158**

Farm/Ranch land impacted (acres) **10,544** Roadway(s) impacted (length) **1,681**

Number of low water crossings **39** Historical road closures **39**

100-Year Flood Risk Reduction

Population removed from 100-yr **346773** # of structures removed from 100-yr **75744**

Critical facilities removed from 100-yr **2086** Farm/Ranch land removed from 100-yr (acres) **4693.63183594**

Road removed from 100-yr (miles) **1056** Low water crossings removed from 100-yr **16**

Other benefits **Environmental, Public Uplift, Low Impact** Reduction in # of road closures over 10 years **16**

Impacts

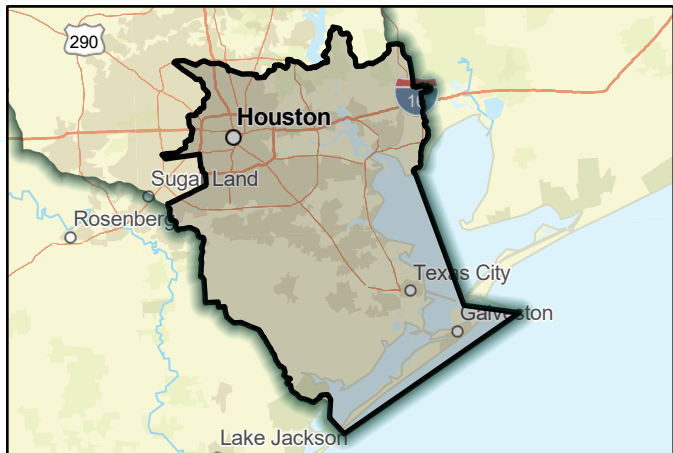
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

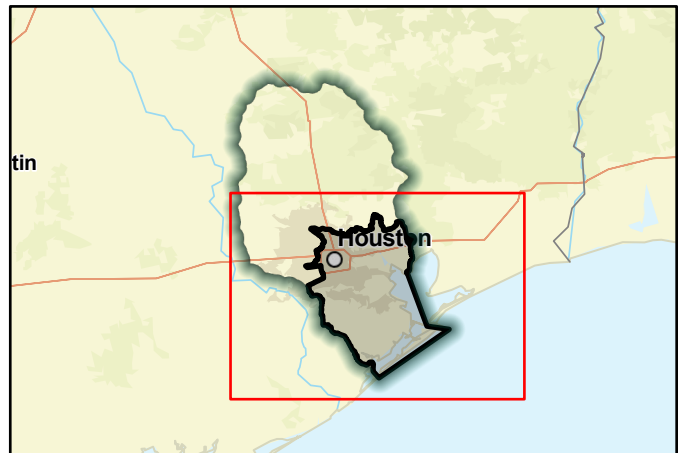
Estimated Cost

Project Cost **\$24,107,064,000** % Nature-Based **0** BCR **1.90999997**

Recurring costs **\$1,399,698,560** Issues **Right-of-Way, Permitting, Acquisitions, Relocations, Environmental Concerns**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Goose Creek Flood Risk Reduction**

ID# **063000334** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The project includes three phases of development. Phase 1 includes a regional detention basin and channel improvements along two segments of Goose Creek for a total length of 1.65 miles. Phase 2 includes a regional detention basin and channel improvements

Watershed HUC# (if known)	120401040705, 120401040706, 120402030104, 120402030105, 120402030106	Emergency Need?	No
Associated FME's	999999	Drainage area (mi ² est.)	27
Associated FMS's	999999	County	Harris
		Associated FMP's	999999

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Population at risk	5,318	# of structures	980	Critical facilities	34
Farm/Ranch land impacted (acres)	50	Roadway(s) impacted (length)	17		
Number of low water crossings	1	Historical road closures	1		

100-Year Flood Risk Reduction

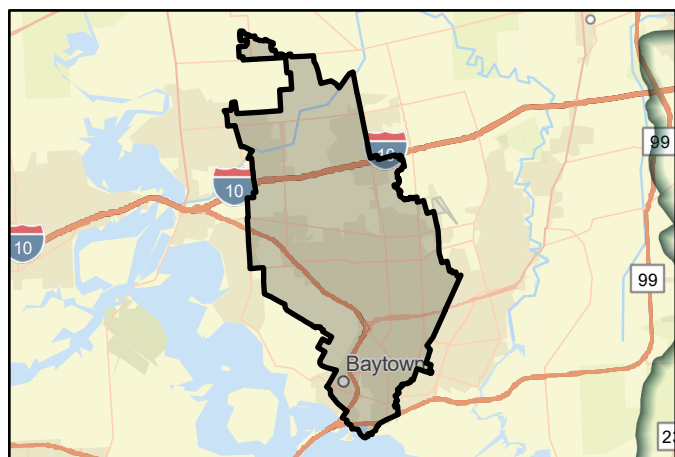
Population removed from 100-yr	1283	# of structures removed from 100-yr	269
Critical facilities removed from 100-yr	9	Farm/Ranch land removed from 100-yr (acres)	0
Road removed from 100-yr (miles)	28	Low water crossings removed from 100-yr	0
Other benefits	-	Reduction in # of road closures over 10 years	0

Impacts

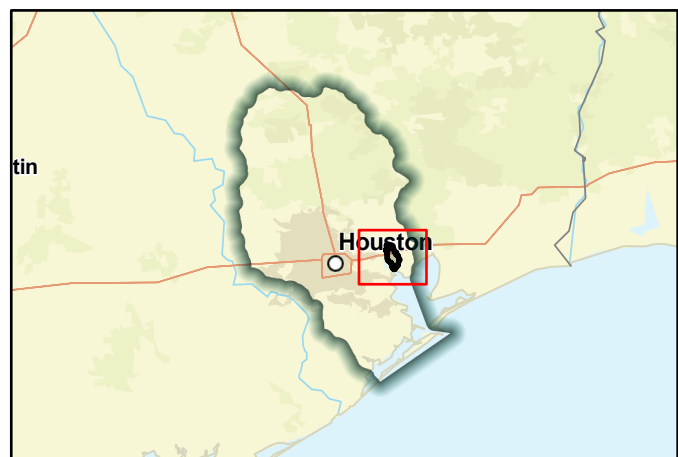
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$46,493,360	% Nature-Based	0	BCR	0.48
Recurring costs	\$2,831,445	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Greens Mid-Reach**

ID# **063000167** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Projects aim to reduce water surface elevations within Greens Bayou, specifically within the mid-reach. Phased project encompassing channel conveyance improvements throughout the mid-reach and 5 total stormwater detention basins.

Watershed HUC# (if known) **120401040601,120401040604,12040104060** Emergency Need? **Yes**

Drainage area (mi² est.) **166**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **49,996** # of structures **4,420** Critical facilities **88**

Farm/Ranch land impacted (acres) **30** Roadway(s) impacted (length) **98**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **21508** # of structures removed from 100-yr **1816**

Critical facilities removed from 100-yr **21** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **25** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

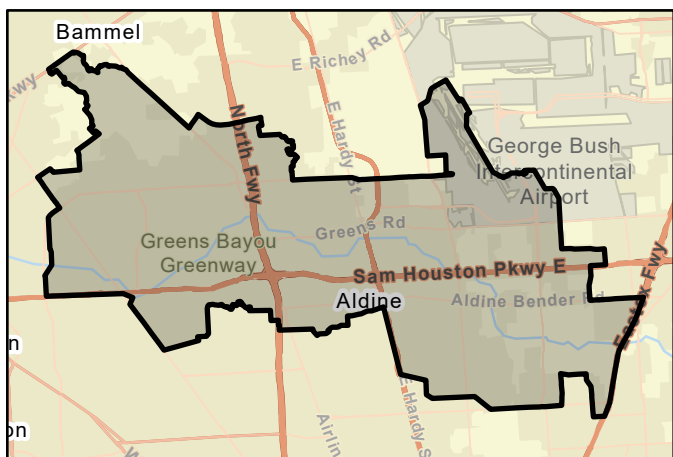
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$120,284,000** % Nature-Based **0** BCR **2.13000011**

Recurring costs **\$7,287,419** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02**

ID# **063000397** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides for the design and construction of flood mitigation improvements including detention basins along P118-23-00 and concrete lining P118-23-02. (2018 Bond Project C-26 & C-27)

Watershed HUC# (if known) **120401040605,120401040601,12040104030** Emergency Need? **No**

Drainage area (mi² est.) **2**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **1,108** # of structures **289** Critical facilities **0**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **2**

Number of low water crossings **0** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **1109** # of structures removed from 100-yr **286**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **23** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

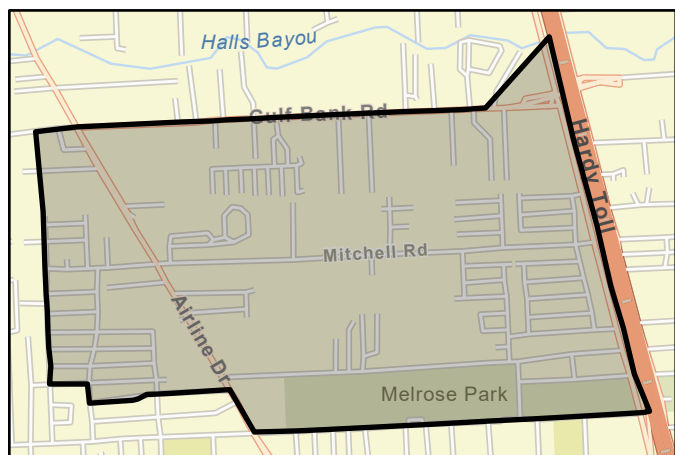
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$31,317,000** % Nature-Based **0** BCR **0.482**

Recurring costs **\$1,897,344** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01**

ID# **063000399** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides analysis and preliminary design (Alternative 3b) for detention basin, widening of existing channels, and extension of channel P118-25-01 (Halls Bayou Tributary).

Watershed HUC# (if known) **120401040605,120401040601,12040104030** Emergency Need? **No**

Drainage area (mi² est.) **52**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **38,873** # of structures **13,531** Critical facilities **92**

Farm/Ranch land impacted (acres) **14** Roadway(s) impacted (length) **137**

Number of low water crossings **7** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **3088** # of structures removed from 100-yr **952**

Critical facilities removed from 100-yr **3** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **5** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

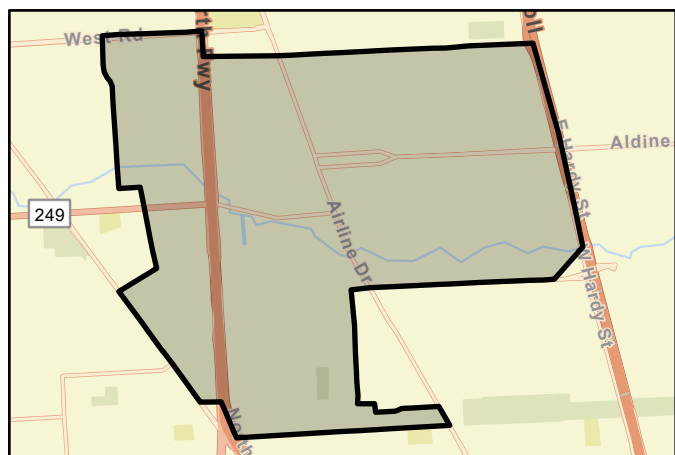
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$14,938,614** % Nature-Based **0** BCR **0.958**

Recurring costs **\$905,057** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00**

ID# **063000400** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides analysis and description of the existing flooding conditions within the P118-27-00 catchment area and consequently develops flood risk mitigation alternatives, including detention basin and channel improvements.

Watershed HUC# (if known) **120401040605,120401040601,12040104030** Emergency Need? **No**

Drainage area (mi² est.) **6**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **1,083** # of structures **326** Critical facilities **5**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **3**

Number of low water crossings **5** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **1811** # of structures removed from 100-yr **325**

Critical facilities removed from 100-yr **5** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **26** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

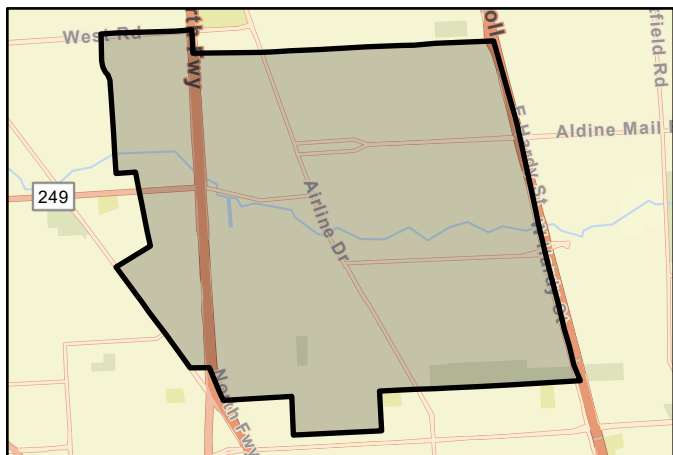
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$23,679,032** % Nature-Based **0** BCR **2.18**

Recurring costs **\$1,420,742** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Halls Bayou Drainage Project Bond C-01**

ID# **063000470** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Provides for design and construction of drainage improvements to P118-26-00 including approximately 119 acre-feet of total storage between two basins and the replacement of a channel with RCBs.

Watershed HUC# (if known) **120401040605,120401040601,12040104030** Emergency Need? **No**

Drainage area (mi² est.) **52**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **1,593** # of structures **677** Critical facilities **0**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **3**

Number of low water crossings **3** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **0** # of structures removed from 100-yr **677**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **3** Low water crossings removed from 100-yr **1**

Other benefits **-** Reduction in # of road closures over 10 years **1**

Impacts

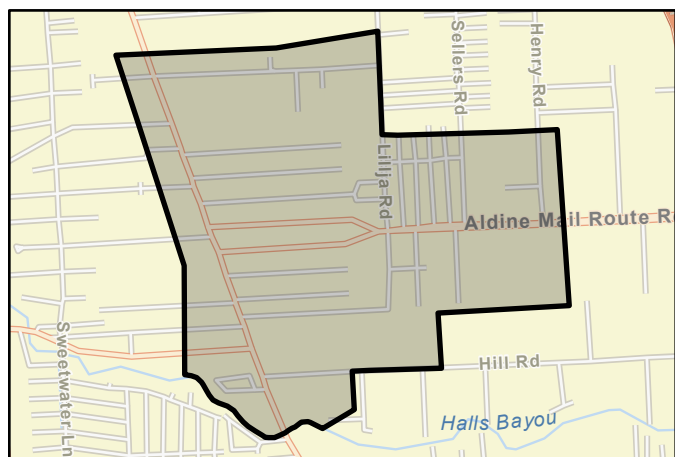
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$22,385,161** % Nature-Based **0** BCR **2.31999993**

Recurring costs **\$710,716** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Halls Bayou Watershed Mitigation Application 1 - CDBG MIT**

ID# **063000040** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Projects submitted as part of the CDBG MIT grant in Halls Bayou which include five (5) regional channel and detention projects including C-28, C-41 Hardy West, C-41 Mainstem, C-30, and C-23.

Watershed HUC# (if known) **120401040605,120401040601,12040104030** Emergency Need? **Yes**

Drainage area (mi² est.) **44**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **43,667** # of structures **15,541** Critical facilities **96**

Farm/Ranch land impacted (acres) **15** Roadway(s) impacted (length) **139**

Number of low water crossings **7** Historical road closures **7**

100-Year Flood Risk Reduction

Population removed from 100-yr **9386** # of structures removed from 100-yr **3023**

Critical facilities removed from 100-yr **6** Farm/Ranch land removed from 100-yr (acres) **0.032652**

Road removed from 100-yr (miles) **17** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

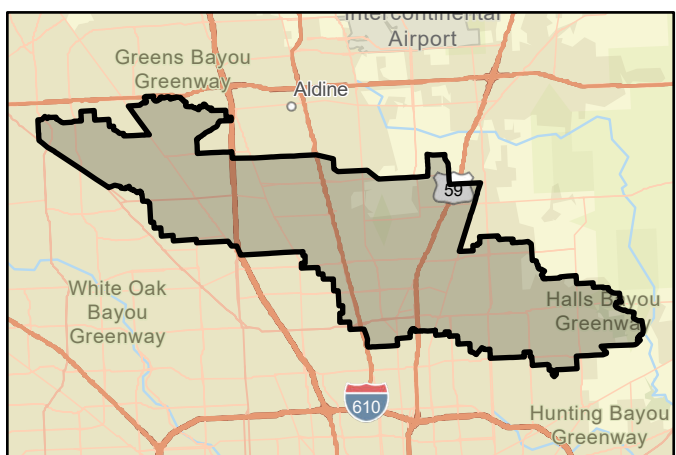
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$99,653,000** % Nature-Based **0** BCR **1.46000004**

Recurring costs **\$6,037,488** Issues **Right-of-Way, Acquisition, Utility Conflicts, Environmental Concerns**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Houston Fifth Area Flood Mitigation**

ID# **063000417** Sponsor **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This unfunded CDBG-MIT application involves installing various storm sewer infrastructure in the Fifth Ward and Market Square areas within the City of Houston.

Watershed HUC# (if known) **120401040701** Emergency Need? **No**
 Drainage area (mi² est.) **41**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **6,289** # of structures **2,162** Critical facilities **19**
 Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **36**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

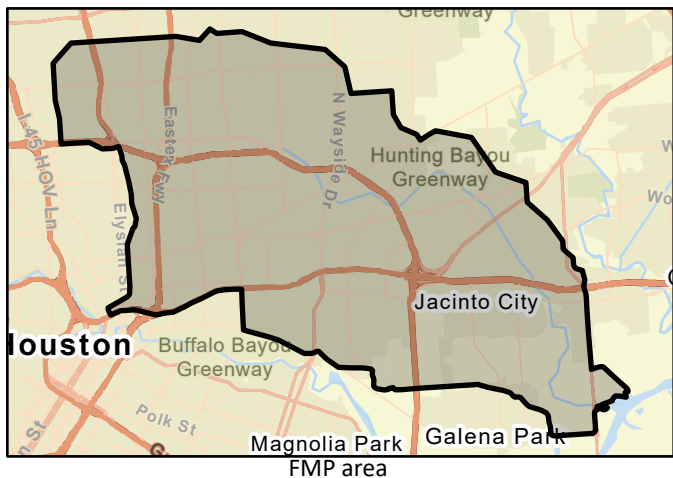
Population removed from 100-yr **4125** # of structures removed from 100-yr **1306**
 Critical facilities removed from 100-yr **16** Farm/Ranch land removed from 100-yr (acres) **1.751e-05**
 Road removed from 100-yr (miles) **16** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$89,753,487** % Nature-Based **0** BCR **1.87**
 Recurring costs **\$5,437,724** Issues **-**



Flood Mitigation Project (FMP)



Title **Houston Kashmere Gardens Area Flood Mitigation**

ID# **063000434** Sponsor **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The project includes improvements to storm sewer, roadside ditch systems, culverts, sewer inlets, and the construction of detention basins.

Watershed HUC# (if known) **120401040703,120401040604,12040104060** Emergency Need? **No**

Drainage area (mi² est.) **31**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **2,985** # of structures **1,221** Critical facilities **5**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **21**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **1494** # of structures removed from 100-yr **457**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **0** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

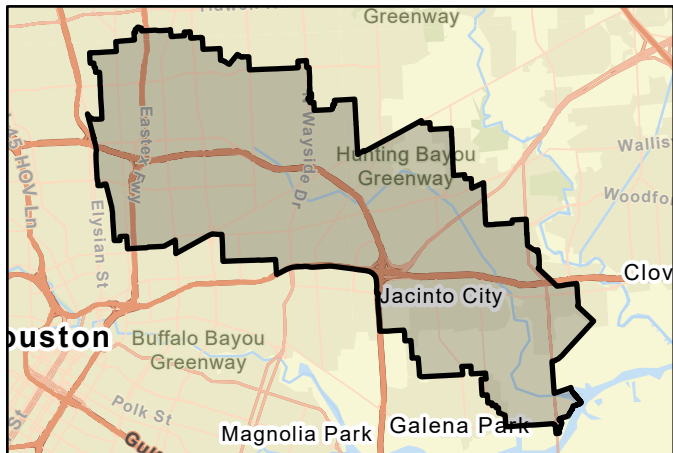
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$94,879,859** % Nature-Based **0** BCR **1.09**

Recurring costs **\$5,748,306** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Houston Port Area Flood Mitigation**

ID# **063000418** Sponsor **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The project includes storm sewer improvements on nearly every street in the Pleasantville neighborhood to improve conveyance capacity and construction of a detention basin.

Watershed HUC# (if known) **120401040701** Emergency Need? **No**
 Drainage area (mi² est.) **41**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **2,550** # of structures **765** Critical facilities **20**
 Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **14**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

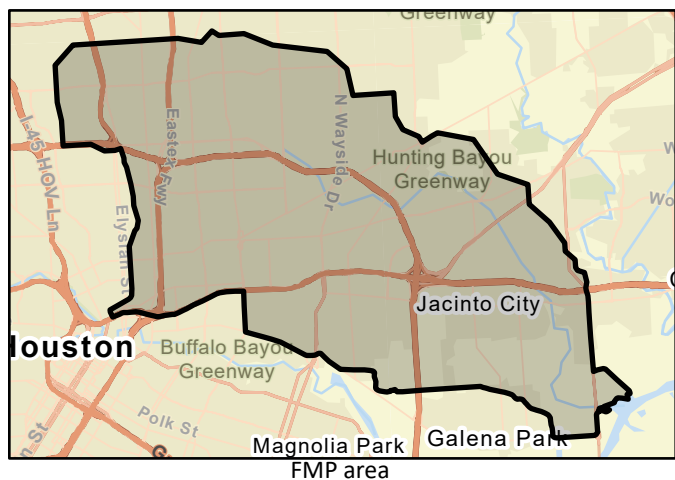
Population removed from 100-yr **1912** # of structures removed from 100-yr **538**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **0.24239976**
 Road removed from 100-yr (miles) **2** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$99,021,350** % Nature-Based **0** BCR **0.3**
 Recurring costs **\$5,999,219** Issues **-**



Flood Mitigation Project (FMP)



Title **Houston Sunnyside Area Flood Mitigation**

ID# **063000468** Sponsor **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Includes new storm sewer trunk systems on major thoroughfares & new or improved neighborhood storm sewer systems. Will also require construction of detention basins to mitigate the proposed improvements.

Watershed HUC# (if known) **120401040402,120401040502,12040104050** Emergency Need? **No**

Drainage area (mi² est.) **24**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **22,844** # of structures **7,876** Critical facilities **97**

Farm/Ranch land impacted (acres) **4** Roadway(s) impacted (length) **105**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **4760** # of structures removed from 100-yr **1410**

Critical facilities removed from 100-yr **20** Farm/Ranch land removed from 100-yr (acres) **0.03077**

Road removed from 100-yr (miles) **9** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

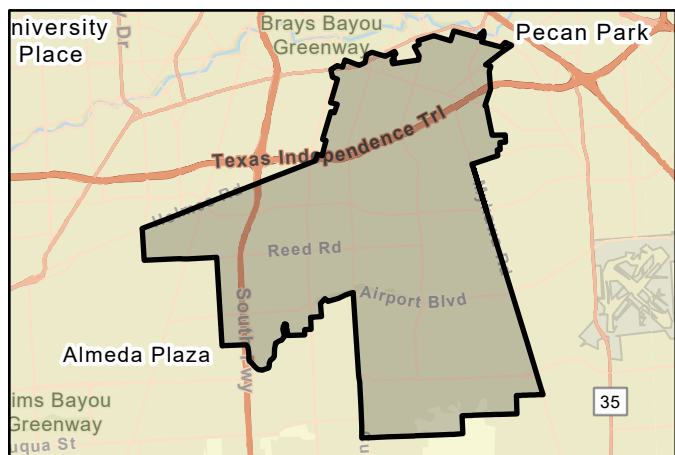
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$111,281,647** % Nature-Based **0** BCR **1.2**

Recurring costs **\$551,258** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Kingwood Diversion Ditch (G103-38-00)**

ID# **063000360** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Improvements to the Kingwood Diversion Ditch include channel modifications, flow diversion from Bens Branch, bridge replacements, as well as a new outfall to the West Fork San Jacinto River.

Watershed HUC# (if known) **120401010404, 120401010501, 120401030110, 120401030402** Emergency Need? **No**

Drainage area (mi² est.) **22**

Associated FME's **999999** County **Harris, Montgomery**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **3,414** # of structures **79** Critical facilities **18**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **2**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **3244** # of structures removed from 100-yr **49**

Critical facilities removed from 100-yr **10** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **25** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

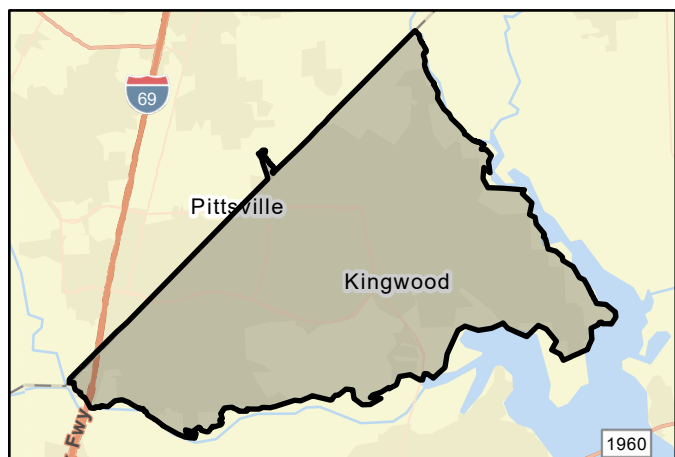
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$62,938,000** % Nature-Based **0** BCR **0.03**

Recurring costs **\$3,832,924** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek**

ID# **063000060** Sponsor **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The goal of the detention ponds is to reduce flooding in the Lake Creek and West Fork watersheds by constructing earthen impoundments that captures runoff from Garrett's Creek, Caney Creek, & Little Caney Creek.

Watershed HUC# (if known) **120401010101,120401010301,12040101030** Emergency Need? **Yes**

Drainage area (mi² est.) **104**

Associated FME's **999999** County **Montgomery,Grimes**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **449** # of structures **479** Critical facilities **0**

Farm/Ranch land impacted (acres) **198** Roadway(s) impacted (length) **18**

Number of low water crossings **5** Historical road closures **5**

100-Year Flood Risk Reduction

Population removed from 100-yr **383** # of structures removed from 100-yr **355**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-4.00026083**

Road removed from 100-yr (miles) **5** Low water crossings removed from 100-yr **1**

Other benefits **-** Reduction in # of road closures over 10 years **1**

Impacts

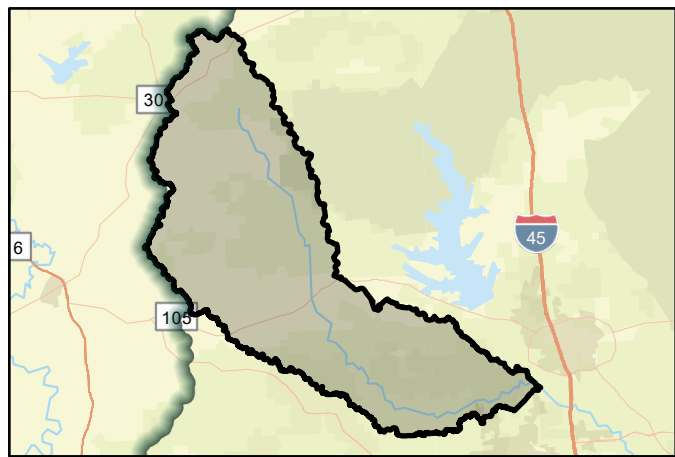
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$291,000,000** % Nature-Based **0** BCR **0.25999999**

Recurring costs **\$7,849,952** Issues **Right-of-Way, Permitting, Acquisitions, Relocations, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3**

ID# **063000026** Sponsor **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The LCC Alt. Combination 3 as proposed as part of the LCCDBFMP (2021), including detention channel benching, a diversion tunnel, capacity improvements, and an auxiliary opening.

Watershed HUC# (if known) **120402040200,120402040100** Emergency Need? **No**

Drainage area (mi² est.) **110**

Associated FME's **999999** County **Brazoria,Galveston,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **10,260** # of structures **3,642** Critical facilities **18**

Farm/Ranch land impacted (acres) **131** Roadway(s) impacted (length) **119**

Number of low water crossings **9** Historical road closures **9**

100-Year Flood Risk Reduction

Population removed from 100-yr **3653** # of structures removed from 100-yr **911**

Critical facilities removed from 100-yr **8** Farm/Ranch land removed from 100-yr (acres) **16.10678864**

Road removed from 100-yr (miles) **26** Low water crossings removed from 100-yr **1**

Other benefits **-** Reduction in # of road closures over 10 years **1**

Impacts

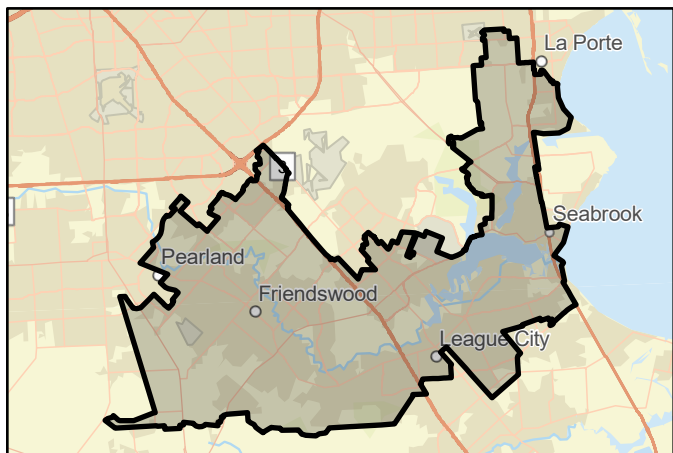
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

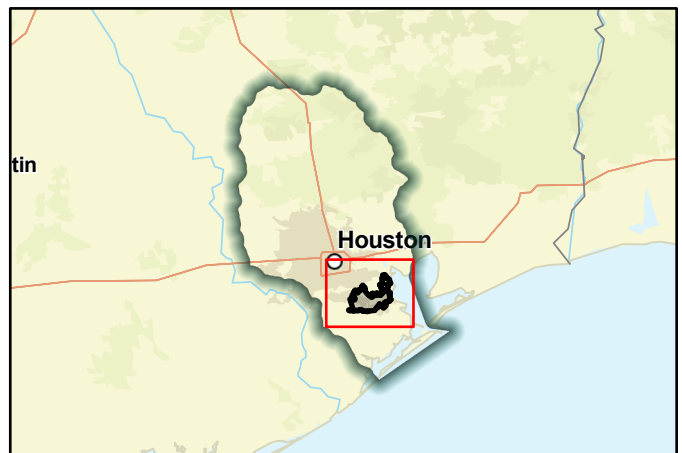
Estimated Cost

Project Cost **\$1,150,000,000** % Nature-Based **0** BCR **0.06**

Recurring costs **\$69,672,864** Issues **Right-of-Way, Permitting, Acquisitions, Relocations, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)**

ID# **063000475** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides for design and construction of a 311 ac-ft dry-bottom detention basin and 20-ft of channel improvements to P118-21-00.

Watershed HUC# (if known) **120401040604** Emergency Need? **No**

Drainage area (mi² est.) **52**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **1,750** # of structures **642** Critical facilities **0**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **7**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **0** # of structures removed from 100-yr **4**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **0.006135**

Road removed from 100-yr (miles) **0** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

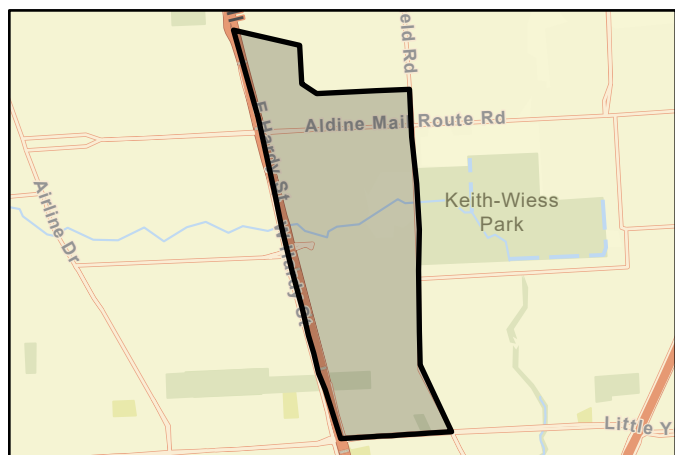
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$40,780,000** % Nature-Based **0** BCR **0.21**

Recurring costs **\$481,200** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)**

ID# **063000471** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides for design and construction of four detention basins providing approximately 602 ac-ft of storage in the Halls Bayou watershed. Includes a half mile of channel improvements to P118-00-00.

Watershed HUC# (if known) **120401040604** Emergency Need? **No**

Drainage area (mi² est.) **52**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **1,936** # of structures **886** Critical facilities **13**

Farm/Ranch land impacted (acres) **1** Roadway(s) impacted (length) **11**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **319** # of structures removed from 100-yr **76**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

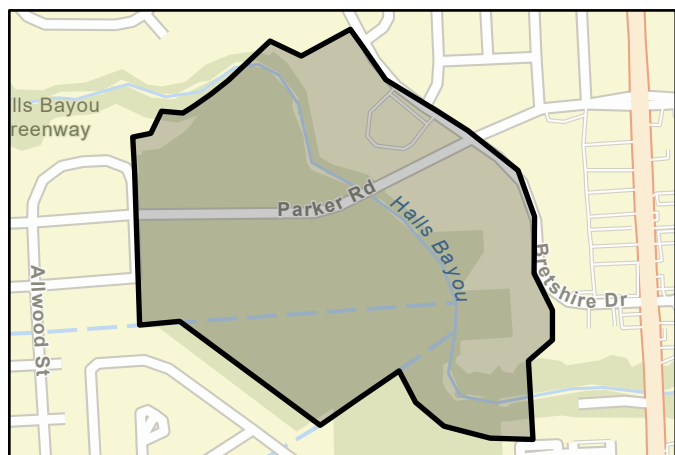
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$38,230,000** % Nature-Based **0** BCR **0.18**

Recurring costs **\$1,052,400** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)**

ID# **063000469** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Project consists of ROW acquisition and construction of a detention basin near Veterans Memorial which provides approximately 460 acre-feet of storage.

Watershed HUC# (if known) **120401040604** Emergency Need? **No**

Drainage area (mi² est.) **52**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **38,916** # of structures **13,748** Critical facilities **91**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **127**

Number of low water crossings **7** Historical road closures **-**

100-Year Flood Risk Reduction

Population removed from 100-yr **1037** # of structures removed from 100-yr **292**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **6** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

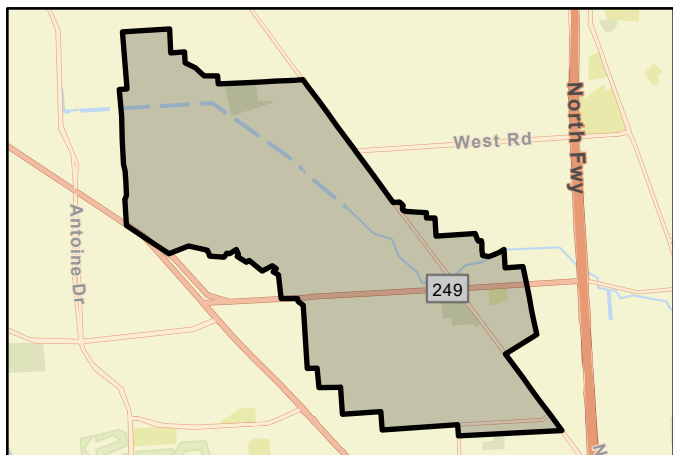
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

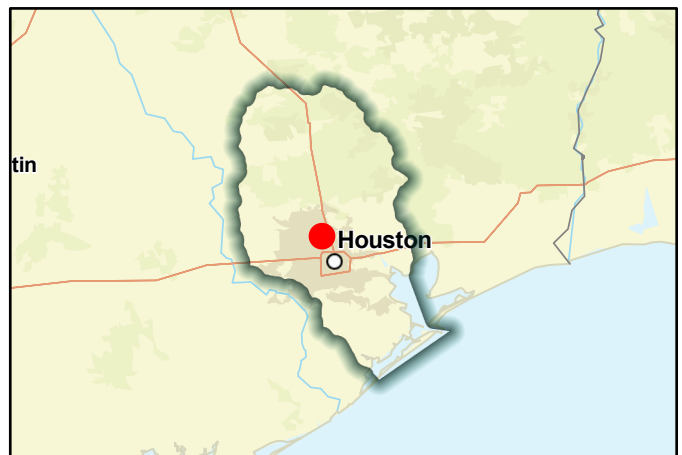
Estimated Cost

Project Cost **\$35,250,000** % Nature-Based **0** BCR **0.49**

Recurring costs **\$1,783,197** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Mary's Creek Lower, Middle, and Upper Segment**

ID# **063000056** Sponsor **Pearland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

A part of the Pearland Master Drainage Plan (2019), this channel improvement alternative includes channel benching to increase conveyance capacity, bridge/culvert replacement to remove hydraulic restrictions, and regional detention to provide mitigation.

Watershed HUC# (if known) **120402040100** Emergency Need? **No**

Drainage area (mi² est.) **17**

Associated FME's **999999** County **Brazoria, Galveston**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **10,044** # of structures **2,711** Critical facilities **9**

Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **54**

Number of low water crossings **1** Historical road closures **-**

100-Year Flood Risk Reduction

Population removed from 100-yr **7614** # of structures removed from 100-yr **2324**

Critical facilities removed from 100-yr **6** Farm/Ranch land removed from 100-yr (acres) **8.499667**

Road removed from 100-yr (miles) **34** Low water crossings removed from 100-yr **1**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

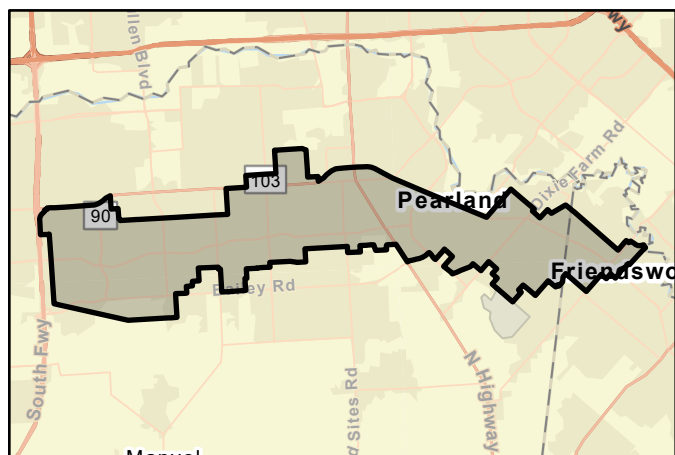
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$154,039,904** % Nature-Based **0** BCR **0.16**

Recurring costs **\$9,322,532** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **P118-E006 (Hardy West) (2018 Bond Project C-41)**

ID# **063000477** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Proposal of the Hardy West Detention Basin (P118-00-00-E006). Project consists of 2 basins providing 400 acre-ft of detention volume adjacent to Halls Bayou and separated by P118-25-00.

Watershed HUC# (if known) **120401040604,120401040304,12040104060** Emergency Need? **No**
 Drainage area (mi² est.) **52**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Population at risk **9,997** # of structures **3,665** Critical facilities **3**
 Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **23**
 Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

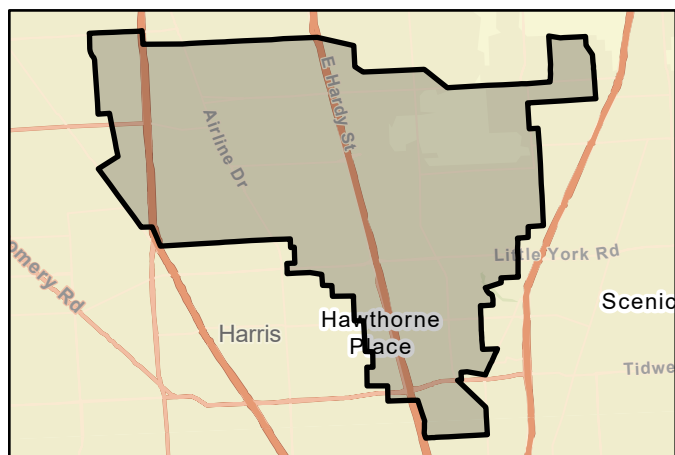
Population removed from 100-yr **121** # of structures removed from 100-yr **61**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$32,052,767** % Nature-Based **0** BCR **0.38**
 Recurring costs **\$709,154** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)**

ID# **063000396** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project provides for design and construction for the second phase of the Aldine Westfield North Detention Basin in the Halls Bayou watershed.

Watershed HUC# (if known) **120401040604** Emergency Need? **No**
 Drainage area (mi² est.) **52**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **9,316** # of structures **3,412** Critical facilities **3**
 Farm/Ranch land impacted (acres) **3** Roadway(s) impacted (length) **22**
 Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

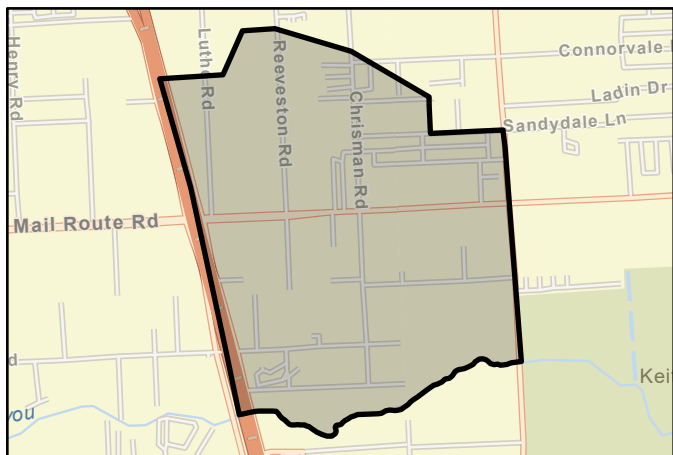
Population removed from 100-yr **423** # of structures removed from 100-yr **129**
 Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **0** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$10,371,000** % Nature-Based **0** BCR **0**
 Recurring costs **\$415,000** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek**

ID# **063000061** Sponsor **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Widen 4.3-mile-long stretch to increase conveyance capacity. Must be completed with 4.7-mile-long detention at SH105 and 3.2-mile-long at Walker Creek to reduce flooding in Peach Creek watershed.

Watershed HUC# (if known) **120401030110,120401030102,12040103010** Emergency Need? **Yes**

Drainage area (mi² est.) **158**

Associated FME's **999999** County **Liberty, Montgomery, San Jacinto, Walker**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **2,166** # of structures **1,516** Critical facilities **1**

Farm/Ranch land impacted (acres) **16** Roadway(s) impacted (length) **45**

Number of low water crossings **6** Historical road closures **6**

100-Year Flood Risk Reduction

Population removed from 100-yr **1855** # of structures removed from 100-yr **1146**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **2.85938144**

Road removed from 100-yr (miles) **24** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

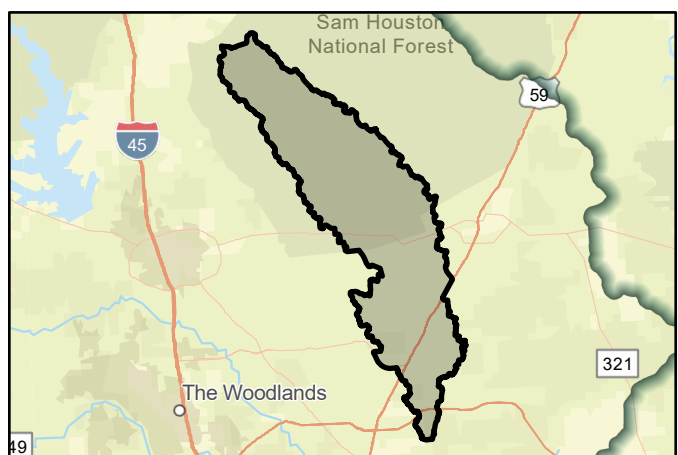
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$810,000,000** % Nature-Based **0** BCR **0.25999999**

Recurring costs **\$48,657,712** Issues **Right-of-Way, Permitting, Acquisitions, Relocations, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards**

ID# **063000186** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Project proposed to improve conveyance within the D111-00-00 channel between Bellaire and University Boulevards. The LOS of the channel is increased from a 10-year event to a 50-year event. Mitigation volume is provided in the Meyer SW Detention Basin.

Watershed HUC# (if known) **120401040402** Emergency Need? **No**
 Drainage area (mi² est.) **2**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Population at risk **1,410** # of structures **33** Critical facilities **4**
 Farm/Ranch land impacted (acres) **-** Roadway(s) impacted (length) **3**
 Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

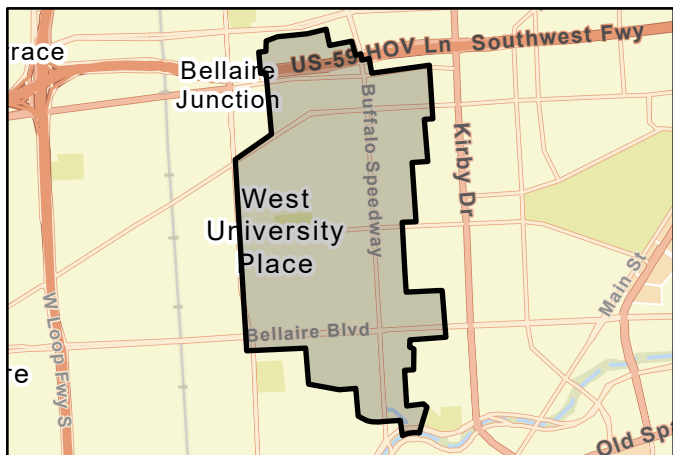
Population removed from 100-yr **54** # of structures removed from 100-yr **8**
 Critical facilities removed from 100-yr **2** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **3** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$19,916,965** % Nature-Based **0** BCR **1.23**
 Recurring costs **\$721,000** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project)**

ID# **063000472** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project includes the design and construction of three detention basins (226 ac-ft) along South Mayde Creek (U101-00-00).

Watershed HUC# (if known)	120401040203	Emergency Need?	No
Associated FME's	999999	Drainage area (mi ² est.)	45
Associated FMS's	999999	County	Harris,Waller
		Associated FMP's	999999

Existing 100-Year Flood Risk

Flood risk type:	Riverine? Yes	Coastal? No	Local? No	Playa? No	Other? No
Population at risk	8,067	# of structures	2,339	Critical facilities	43
Farm/Ranch land impacted (acres)	269	Roadway(s) impacted (length)	49		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

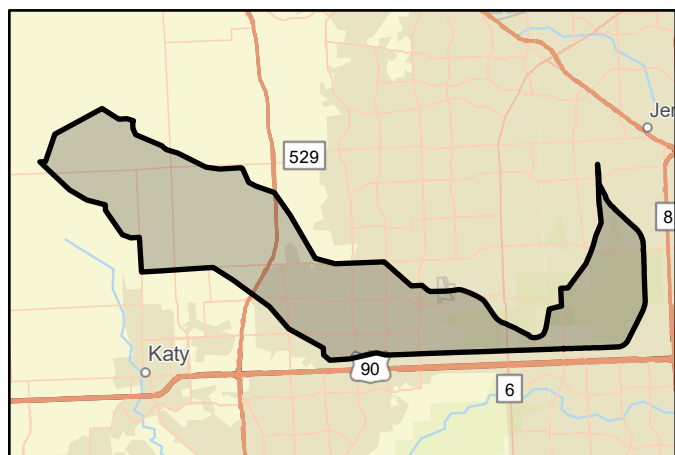
Population removed from 100-yr	194	# of structures removed from 100-yr	59
Critical facilities removed from 100-yr	0	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	0	Low water crossings removed from 100-yr	0
Other benefits	-	Reduction in # of road closures over 10 years	0

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Project Cost	\$11,440,000	% Nature-Based	0	BCR	0.18
Recurring costs	\$693,094	Issues	-		



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements**

ID# **063000321** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The proposed project includes the expansion and extension of existing detention basins to alleviate historical and potential future riverine flooding within the Armand Bayou Watershed.

Watershed HUC# (if known) **120401040703, 120402040100** Emergency Need? **No**

Drainage area (mi² est.) **59**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **18,858** # of structures **6,363** Critical facilities **28**

Farm/Ranch land impacted (acres) **59** Roadway(s) impacted (length) **150**

Number of low water crossings **4** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **1110** # of structures removed from 100-yr **230**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **0.339**

Road removed from 100-yr (miles) **1** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

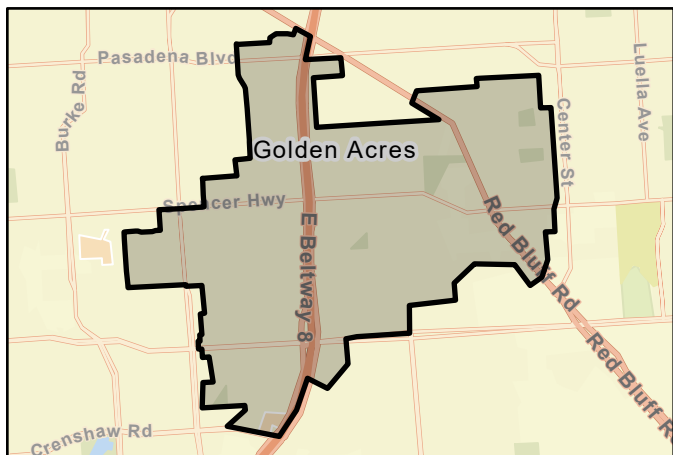
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$9,450,000** % Nature-Based **0** BCR **0.81**

Recurring costs **\$575,505** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Rivershire West - Grand Lake Creek Watershed**

ID# **063000453** Sponsor **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project is located in a residential neighborhood and consists of benching, floodwalls, and upsizing culverts to route and contain flow. Additionally, there are proposed bridge modifications to reduce impediments to water flow

Watershed HUC# (if known) **120401010207,120401010401** Emergency Need? **No**

Drainage area (mi² est.) **2**

Associated FME's **999999** County **Montgomery**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **1,890** # of structures **690** Critical facilities **10**

Farm/Ranch land impacted (acres) **2** Roadway(s) impacted (length) **11**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **566** # of structures removed from 100-yr **100**

Critical facilities removed from 100-yr **1** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **2** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

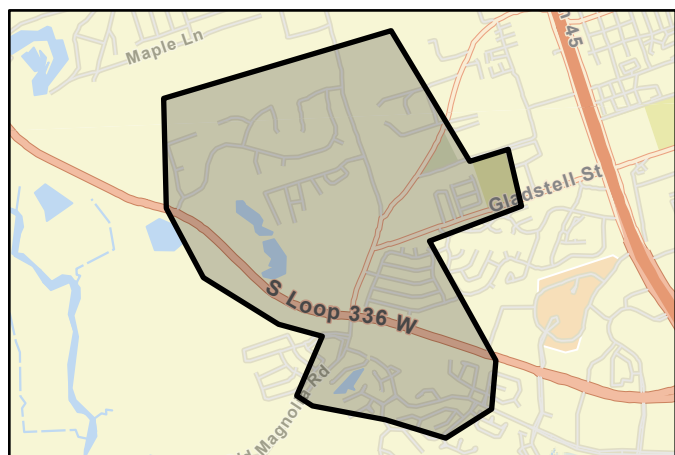
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$30,000,000** % Nature-Based **0** BCR **0.11**

Recurring costs **\$1,600,544** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel**

ID# **063000037** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Projects submitted as part of the CDBG MIT grant in the Sims Bayou Watershed which include three (3) regional channel and detention projects including C147/C547, Saltwater Ditch, and C506.

Watershed HUC# (if known) **120401040703,120401040402,12040104050** Emergency Need? **Yes**

Drainage area (mi² est.) **93**

Associated FME's **999999** County **Fort Bend,Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **14,516** # of structures **4,367** Critical facilities **59**

Farm/Ranch land impacted (acres) **5** Roadway(s) impacted (length) **55**

Number of low water crossings **4** Historical road closures **4**

100-Year Flood Risk Reduction

Population removed from 100-yr **9352** # of structures removed from 100-yr **2283**

Critical facilities removed from 100-yr **32** Farm/Ranch land removed from 100-yr (acres) **2.46273494**

Road removed from 100-yr (miles) **17** Low water crossings removed from 100-yr **2**

Other benefits **-** Reduction in # of road closures over 10 years **2**

Impacts

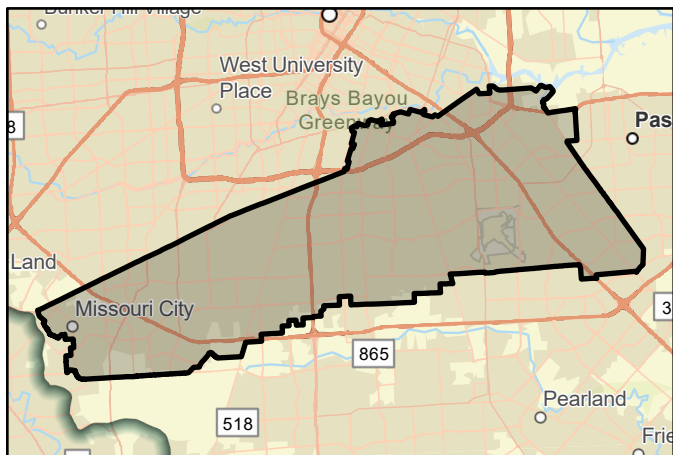
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$99,653,000** % Nature-Based **0** BCR **1.79999995**

Recurring costs **\$6,037,488** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek**

ID# **063000062** Sponsor **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

8.9-mile, 200-foot-wide benched improvement 4-feet above the flowline of Woodlands channel and 6.9-mile, 300-foot-wide benched improvement 4 feet above I-45 channel. Must be completed with detention on Birch Creek and Walnut Creek.

Watershed HUC# (if known) **120401030110,120401030102,12040103010** Emergency Need? **Yes**

Drainage area (mi² est.) **386**

Associated FME's **999999** County **Harris,Waller,Montgomery,Grimes**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **17,764** # of structures **7,487** Critical facilities **15**

Farm/Ranch land impacted (acres) **132** Roadway(s) impacted (length) **121**

Number of low water crossings **7** Historical road closures **7**

100-Year Flood Risk Reduction

Population removed from 100-yr **18240** # of structures removed from 100-yr **5479**

Critical facilities removed from 100-yr **8** Farm/Ranch land removed from 100-yr (acres) **12.82583237**

Road removed from 100-yr (miles) **69** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

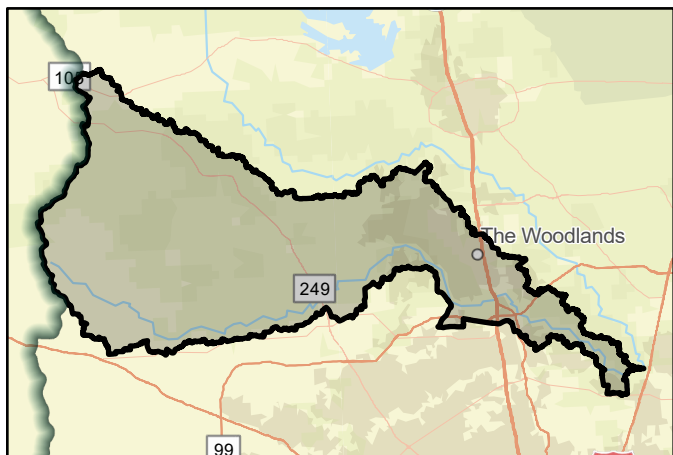
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$393,000,000** % Nature-Based **0** BCR **0.73000002**

Recurring costs **\$23,310,180** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts, Transportation Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Warren Lake and Dam Retrofit**

ID# **063000320** Sponsor **Coastal Prairie Conservancy**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Retrofit dam to improve detention of flood & storm water runoff, new 137.3 ac wetlands complex added of storage capacity & conversion of fields to tallgrass prairies to add approximately 856 ac-ft of total storage during rainfall events.

Watershed HUC# (if known) **120401020103,120401020101,12040102010** Emergency Need? **No**

Drainage area (mi² est.) **2**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **94** # of structures **47** Critical facilities **0**

Farm/Ranch land impacted (acres) **183** Roadway(s) impacted (length) **-**

Number of low water crossings **0** Historical road closures **-**

100-Year Flood Risk Reduction

Population removed from 100-yr **94** # of structures removed from 100-yr **47**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **0** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

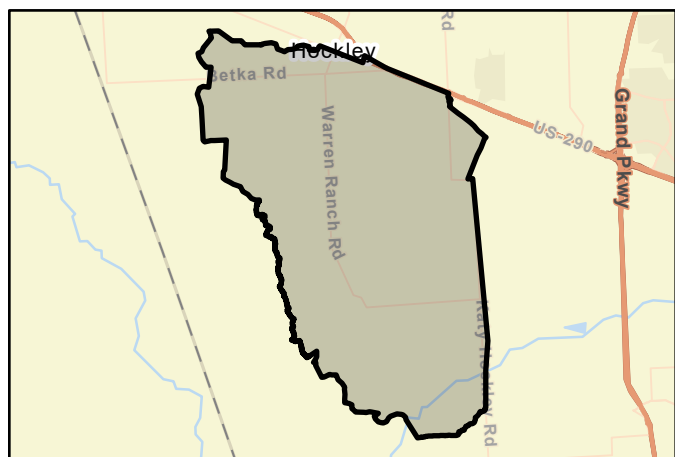
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$6,438,252** % Nature-Based **100** BCR **4.45**

Recurring costs **\$325,711** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization**

ID# **063000064** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Channel improvement to reduce flooding in West Fork watershed by benching/widening to increase conveyance capacity of West Fork to lower the water surface elevation. Conduct after or in conjunction with detention on Lake Creek or Spring Creek.

Watershed HUC# (if known) **120401010502,120401010501,12040101040** Emergency Need? **No**

Drainage area (mi² est.) **141**

Associated FME's **999999** County **Harris, Montgomery**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Population at risk **13,053** # of structures **4,364** Critical facilities **50**

Farm/Ranch land impacted (acres) **381** Roadway(s) impacted (length) **107**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **7636** # of structures removed from 100-yr **1638**

Critical facilities removed from 100-yr **10** Farm/Ranch land removed from 100-yr (acres) **19.39033127**

Road removed from 100-yr (miles) **28** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

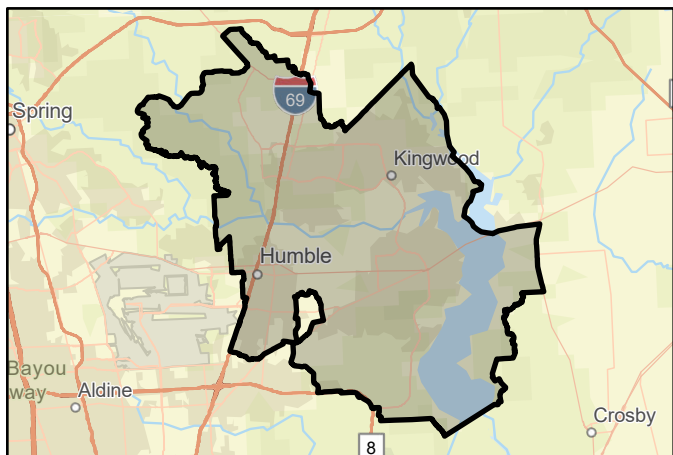
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$994,000,000** % Nature-Based **0** BCR **0.1**

Recurring costs **\$50,814,968** Issues **Right-of-Way, Permitting, Acquisitions, Utility Conflicts, Transportation Conflicts**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin**

ID# **063000344** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

This project includes a stormwater detention basin that compliments the federal project on White Oak Bayou.

Watershed HUC# (if known) **120401020104, 120401020106, 120401040301, 120401040302, 120401040304, 120401040305,** Emergency Need? **No**
 Drainage area (mi² est.) **79**
 Associated FME's **999999** County **Harris**
 Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**
 Population at risk **29,631** # of structures **5,661** Critical facilities **30**
 Farm/Ranch land impacted (acres) **22** Roadway(s) impacted (length) **121**
 Number of low water crossings **2** Historical road closures **2**

100-Year Flood Risk Reduction

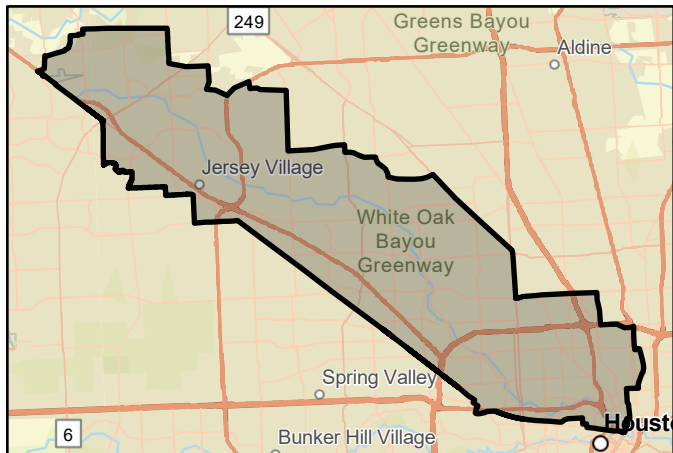
Population removed from 100-yr **3011** # of structures removed from 100-yr **702**
 Critical facilities removed from 100-yr **2** Farm/Ranch land removed from 100-yr (acres) **0**
 Road removed from 100-yr (miles) **19** Low water crossings removed from 100-yr **0**
 Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$42,600,000** % Nature-Based **0** BCR **1.89**
 Recurring costs **\$2,594,340** Issues **-**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak**

ID# **063000046** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

Projects submitted as part of the CDBG MIT grant in the White Oak Bayou Watershed which include five (5) regional channel and detention projects including Kolbe Road, Barwood, E132-00-00, Tower Oaks, & Little White Oak Bayous.

Watershed HUC# (if known) **120401020104,120401020106,12040104060** Emergency Need? **Yes**

Drainage area (mi² est.) **111**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **10,513** # of structures **2,937** Critical facilities **41**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (length) **47**

Number of low water crossings **4** Historical road closures **4**

100-Year Flood Risk Reduction

Population removed from 100-yr **3899** # of structures removed from 100-yr **670**

Critical facilities removed from 100-yr **3** Farm/Ranch land removed from 100-yr (acres) **0.004458**

Road removed from 100-yr (miles) **7** Low water crossings removed from 100-yr **0**

Other benefits **-** Reduction in # of road closures over 10 years **0**

Impacts

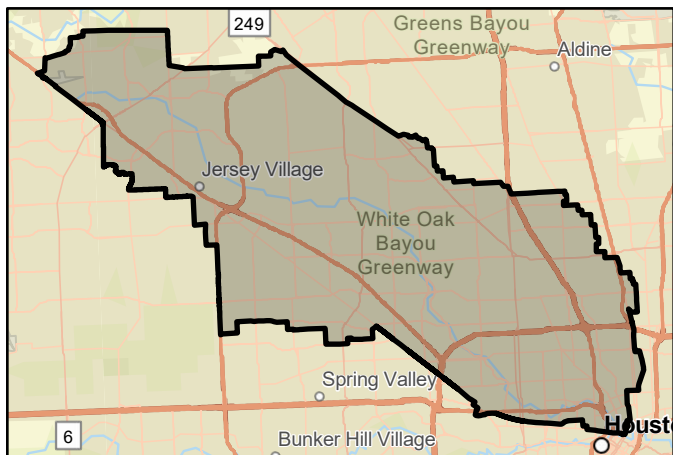
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$120,015,000** % Nature-Based **0** BCR **0.80000001**

Recurring costs **\$7,271,121** Issues **Right-of-Way, Permitting, Acquisitions, Transportation Conflicts, Environmental**



FMP area



Regional view of FMP area

Flood Mitigation Project (FMP)



Title **Willow Creek Watershed Plan - M120 Detention/Preservation Site**

ID# **063000339** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Project Description

The project includes a 1,640 acre-feet regional detention basin, 85 acres of floodplain preservation, & habitat preservation in Willow Creek.

Watershed HUC# (if known) **120401020105, 120401020106, 120401020205, 120401020209, 120401020210, 120401020212** Emergency Need? **No**

Drainage area (mi² est.) **56**

Associated FME's **999999** County **Harris**

Associated FMS's **999999** Associated FMP's **999999**

Existing 100-Year Flood Risk

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Population at risk **2,230** # of structures **916** Critical facilities **5**

Farm/Ranch land impacted (acres) **60** Roadway(s) impacted (length) **27**

Number of low water crossings **5** Historical road closures **5**

100-Year Flood Risk Reduction

Population removed from 100-yr **548** # of structures removed from 100-yr **127**

Critical facilities removed from 100-yr **0** Farm/Ranch land removed from 100-yr (acres) **0**

Road removed from 100-yr (miles) **2** Low water crossings removed from 100-yr **0**

Other benefits **Environmental** Reduction in # of road closures over 10 years **0**

Impacts

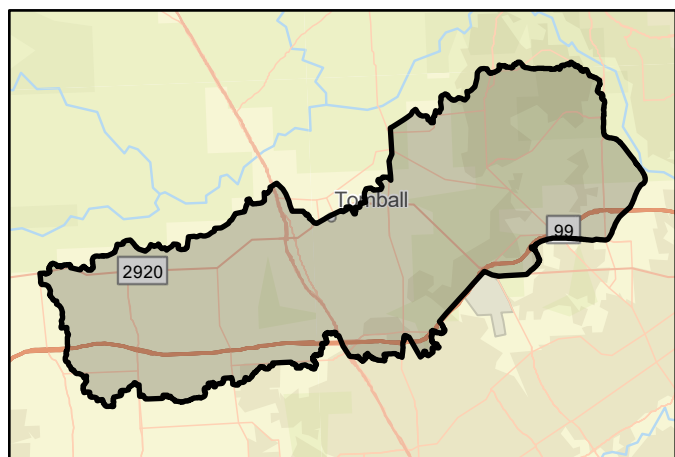
Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Project Cost **\$64,900,000** % Nature-Based **0** BCR **0.68**

Recurring costs **\$3,952,410** Issues **-**



FMP area



Regional view of FMP area

**Appendix 5-5B:
One-Page Summaries of Recommended FMSs**

Flood Management Strategy (FMS)



Title **Amending Grimes County Floodplain Ordinance**

ID# **062000035** Sponsor **Grimes (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Prohibit the building of any new structures located down-stream of high hazard dams by amending the floodplain ordinance.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	799
Watershed HUC# (if known)	120401010101,120401010301,120401010302,120401010303,1204010101		County Grimes

Existing 100-Year Flood Risk

Population at risk	95	# of structures	145	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	151	Roadway(s) impacted (miles)	11		
Number of low water crossings	1	Historical road closures	1		

100-Year Flood Risk Reduction

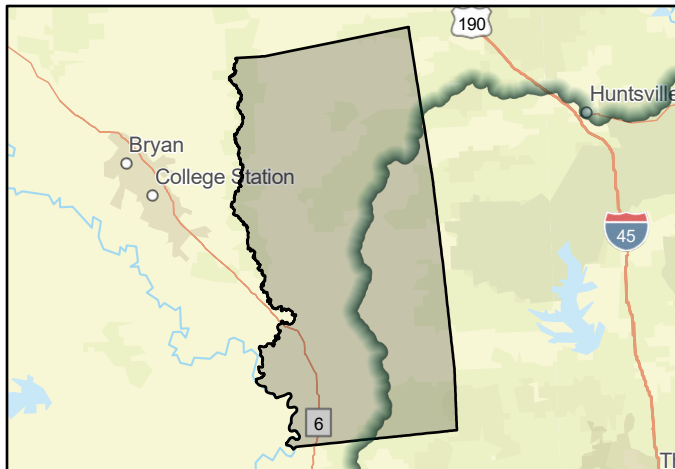
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

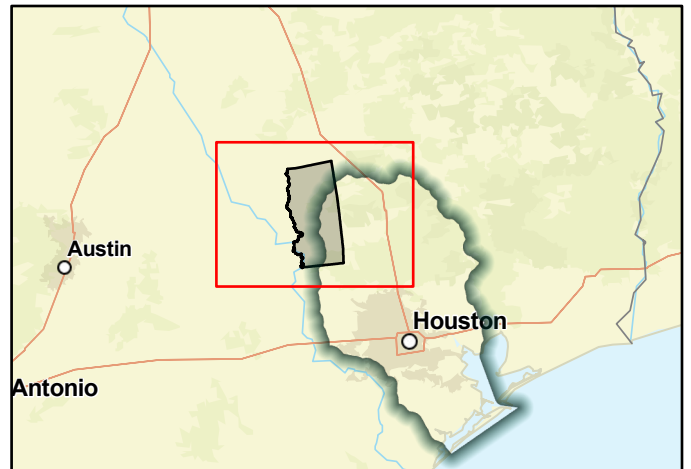
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$20,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Brazoria County Dam and Levee Failure Outreach and Education campaign**

ID# **062000034** Sponsor **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Implement an outreach and education campaign to educate the public on mitigation techniques for dam and levee failure to reduce loss of life and property.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,482
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Brazoria

Existing 100-Year Flood Risk

Population at risk	38,626	# of structures	18,848	Critical facilities	248
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	8,584	Roadway(s) impacted (miles)	328		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

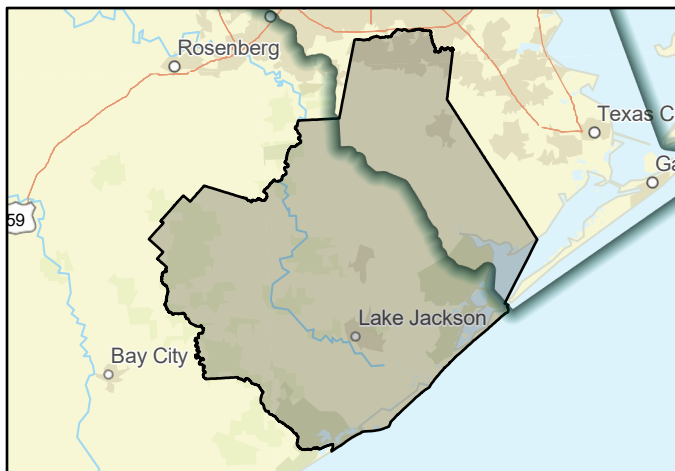
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

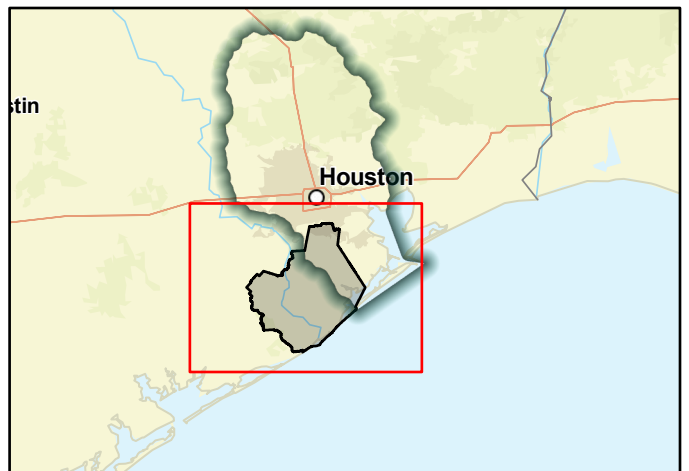
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$20,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Brazoria County Increased Cost of Compliance Education**

ID# **062000013** Sponsor **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Implement campaign on public education of ICC (Increased Cost of Compliance) coverage.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,482
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Brazoria

Existing 100-Year Flood Risk

Population at risk	38,623	# of structures	18,845	Critical facilities	248
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	8,577	Roadway(s) impacted (miles)	328		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

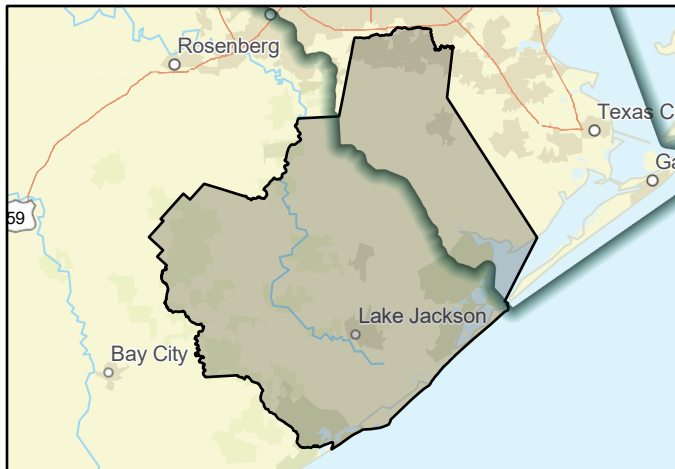
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

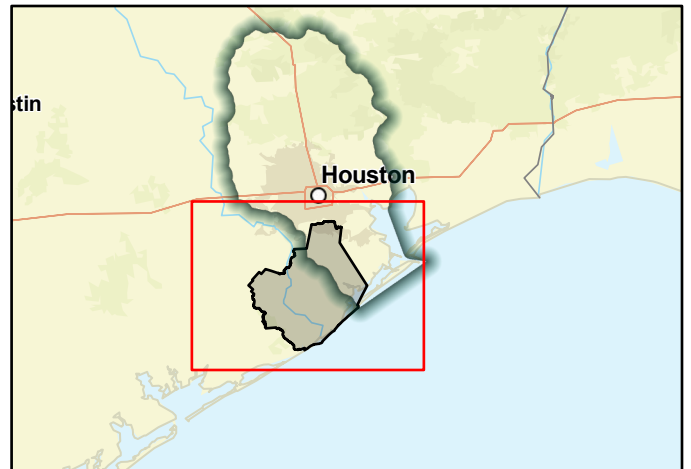
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$20,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Brazoria County Non-structural Mitigation / Land Preservation**

ID# **062000032** Sponsor **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Up to 35,0000 acres of land could be purchased to help reduce the impacts of natrual hazards by converting the space to floodwater storage, groundwater recharge, erosion, drought mitigation, in the form of public green space.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,482
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Brazoria

Existing 100-Year Flood Risk

Population at risk	38,626	# of structures	18,848	Critical facilities	248
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	8,584	Roadway(s) impacted (miles)	328		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

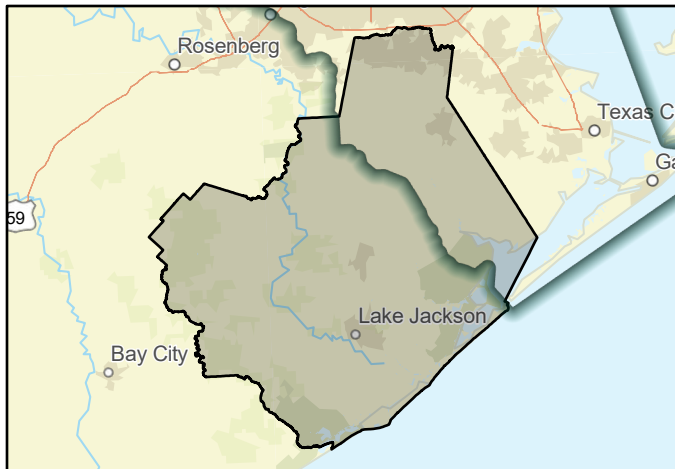
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Environmental, Low Impact Development Features	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$65,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Brazoria County Structure Elevation**

ID# **062000031** Sponsor **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Elevate structures in flood zone. Over 70% of these structures are pre-firm and do not meet current FEMA elevation standards. FEMA estimates that over 400 structures may be substantially damaged and must be elevated to meet current standards.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,482
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Brazoria

Existing 100-Year Flood Risk

Population at risk	38,626	# of structures	18,848	Critical facilities	248
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	8,584	Roadway(s) impacted (miles)	328		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

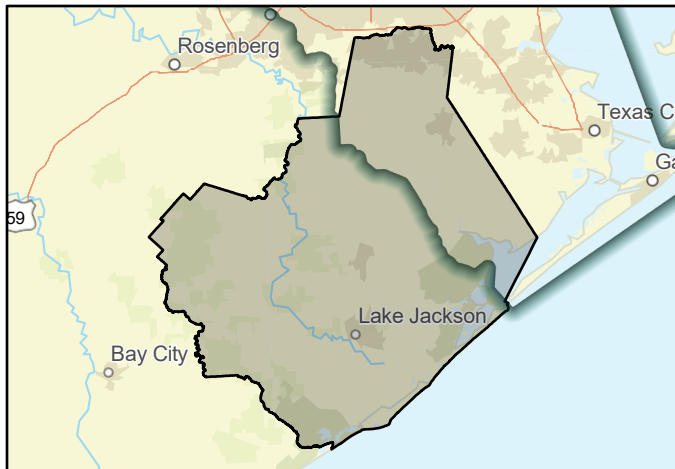
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

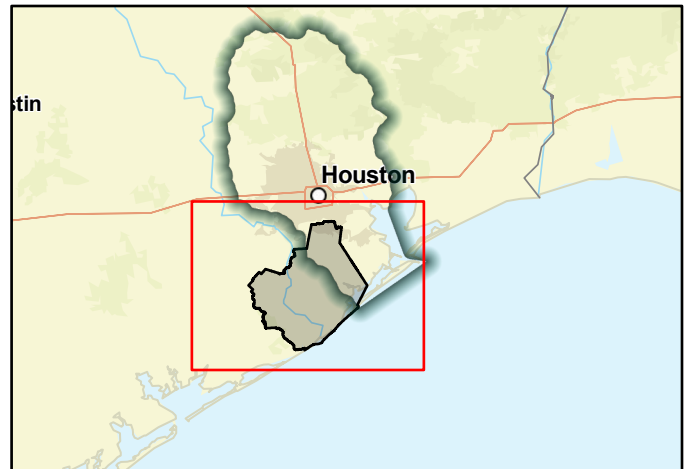
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$60,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Other"/>		
Strategy description	<input type="text" value="Apply and once accepted maintain and/or improve CRS status. Cost is time, data and preparation of a CRS application. Benefit, if approved homeowner with flood insurance could receive a discount based on the City's CRS score."/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="16"/>
Watershed HUC# (if known)	<input type="text" value="120402040200,120402040400,120402040100"/>		County <input type="text" value="Brazoria"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="15,209"/>	# of structures	<input type="text" value="3,428"/>	Critical facilities	<input type="text" value="18"/>
Flood risk type:	Riverine? <input type="text" value="Yes"/>	Coastal? <input type="text" value="No"/>	Local? <input type="text" value="Yes"/>	Playa? <input type="text" value="No"/>	Other? <input type="text" value="No"/>
Farm/Ranch land impacted (acres)	<input type="text" value="176"/>	Roadway(s) impacted (miles)	<input type="text" value="52"/>		
Number of low water crossings	<input type="text" value="0"/>	Historical road closures	<input type="text" value="0"/>		

100-Year Flood Risk Reduction

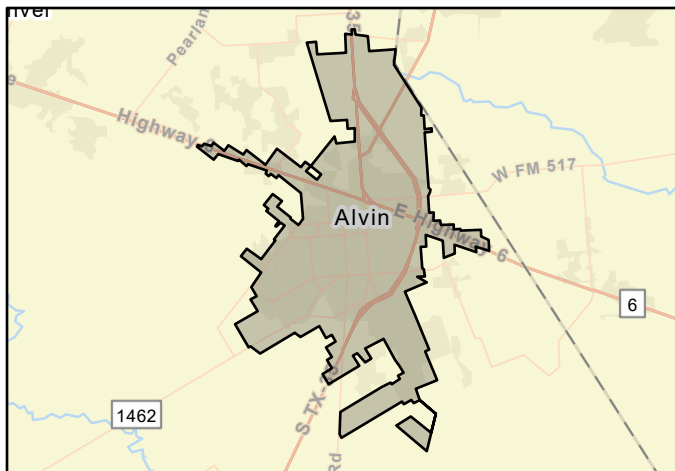
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="-"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

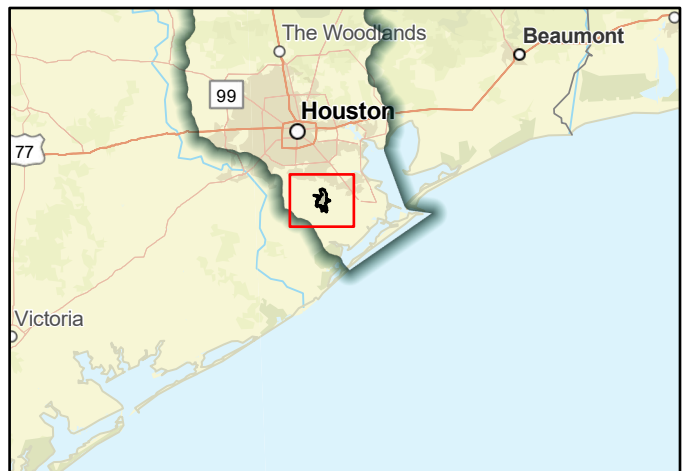
Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$25,000"/>	Amount of available funding	<input type="text" value="25000"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Hire a full-time floodplain administrator who can support CRS application, NFIP, mapping and community floodplain support. A dedicated employee could help the community obtain CRS status and full time flood plain support.		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="25"/>
Watershed HUC# (if known)	<input type="text" value="120402040300,120402040200,120402040400,120402040100"/>		County <input type="text" value="Brazoria,Galveston,Fort Bend"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="15,192"/>	# of structures	<input type="text" value="3,445"/>	Critical facilities	<input type="text" value="18"/>
Flood risk type:	Riverine? <input type="text" value="Yes"/>	Coastal? <input type="text" value="No"/>	Local? <input type="text" value="Yes"/>	Playa? <input type="text" value="No"/>	Other? <input type="text" value="No"/>
Farm/Ranch land impacted (acres)	<input type="text" value="262"/>		Roadway(s) impacted (miles)	<input type="text" value="57"/>	
Number of low water crossings	<input type="text" value="0"/>		Historical road closures	<input type="text" value="0"/>	

100-Year Flood Risk Reduction

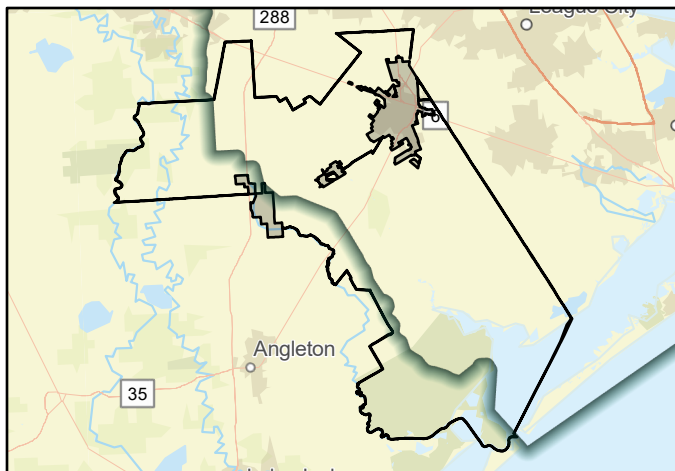
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="-"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$100,000"/>	Amount of available funding	<input type="text" value="100000"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bayou Vista Management Practices for Securing Windblown Debris in Canals**

ID# **062000050** Sponsor **Bayou Vista (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Infrastructure Projects		
Strategy description	Debris generated by many hazards if the level of intensity allows. Implement plan to remove debris throughout the canal system especially since Bayou Vista is a residential canal community.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	0
Watershed HUC# (if known)	120402040200	County	Galveston

Existing 100-Year Flood Risk

Population at risk	1,476	# of structures	1,122	Critical facilities	3
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	8		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

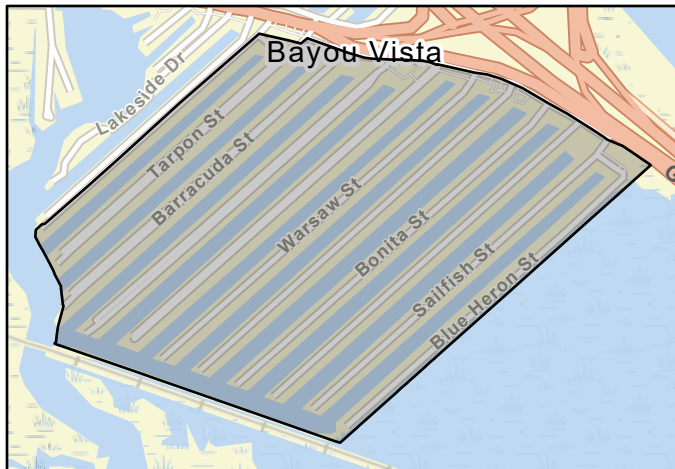
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Environmental	Reduction in # of road closures over 10 years	-

Impacts

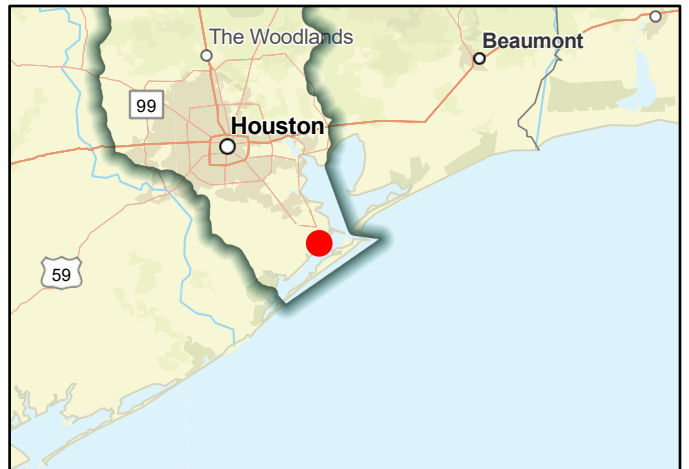
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bayou Vista Severe Weather Warning Systems**

ID# **062000028** Sponsor **Bayou Vista (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Flood Measurement and Warning**

Strategy description **Purchase and install severe weather warning systems**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999**

Watershed HUC# (if known) **120402040200** Drainage area (mi², est.) **0**

County **Galveston**

Existing 100-Year Flood Risk

Population at risk **1,476** # of structures **1,121** Critical facilities **3**

Flood risk type: Riverine? **Yes** Coastal? **Yes** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **8**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

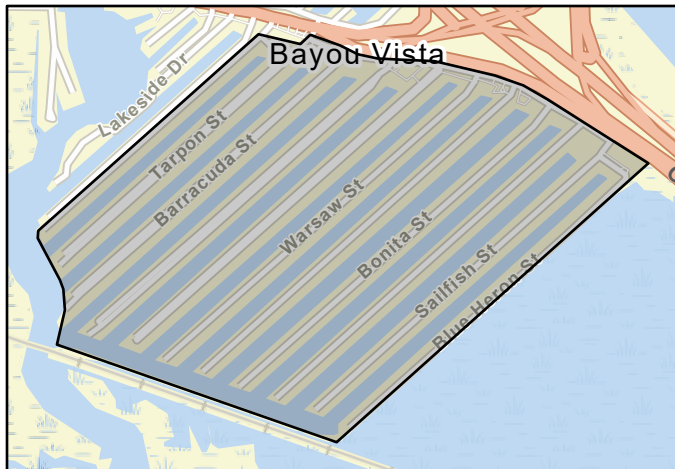
Impacts

Negative impacts? **No** Negative impacts description **-**

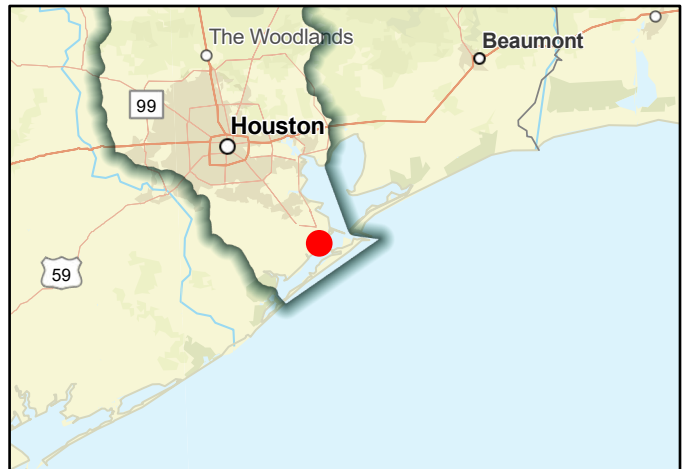
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$35,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Drainage Requirements and Flood Damage Prevention Ordinance**

ID# **062000003** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Develop updates to Bellaire's residential and non-residential drainage requirements and the City's flood damage prevention ordinance, in alignment with Bellaire's broader flood risk management goals and objectives.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	4
Watershed HUC# (if known)	120401040402,120401040401,120401040402,120401040401		County Harris

Existing 100-Year Flood Risk

Population at risk	25,741	# of structures	5,879	Critical facilities	71
Flood risk type:	Riverine? No	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	71		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

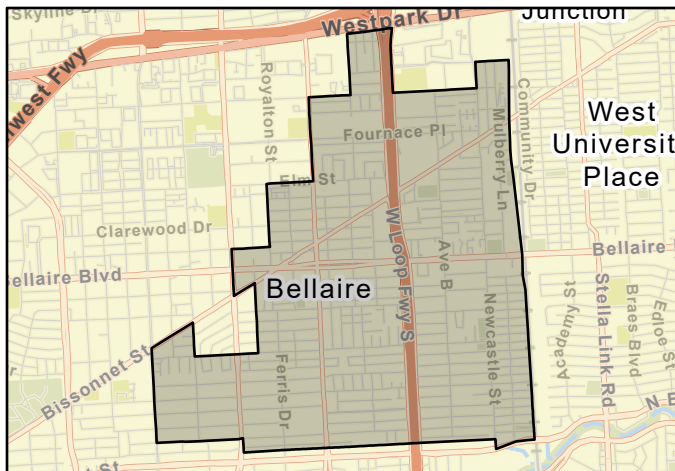
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

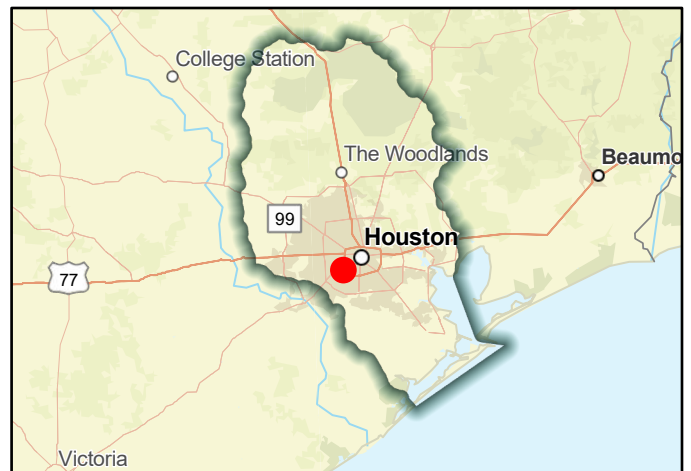
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$50,000	Amount of available funding	12500	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Flood Early Warning System**

ID# **062000049** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Flood Measurement and Warning**

Strategy description **Develop Flood Early Warning System for the City of Bellaire to inform emergency responders and to assist residents in making safe decisions during major storm events.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **4**

Watershed HUC# (if known) **120401040402,120401040401** County **Harris**

Existing 100-Year Flood Risk

Population at risk **25,741** # of structures **5,879** Critical facilities **71**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **71**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

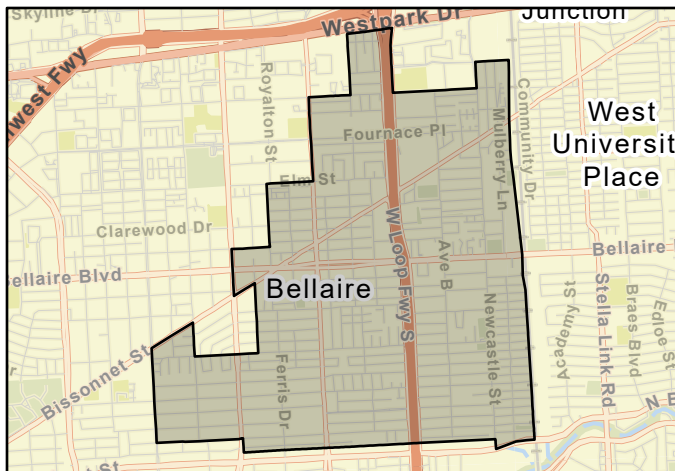
Impacts

Negative impacts? **No** Negative impacts description **-**

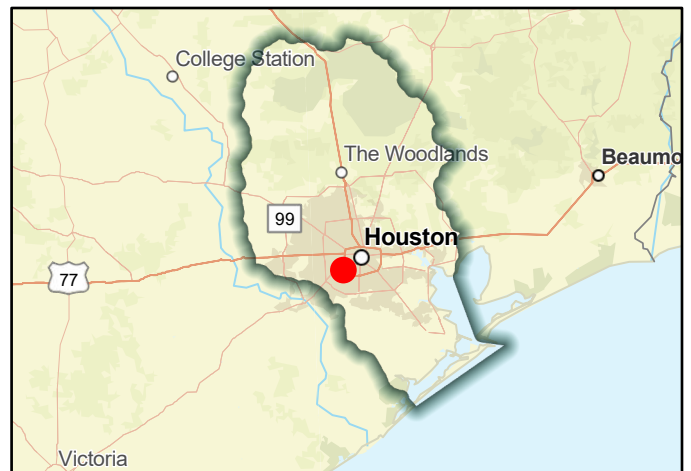
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$150,000** Amount of available funding **37500** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Flood Rescue Plan**

ID# **062000033** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Regulatory and Guidance**

Strategy description **Develop a plan to address rescues from both one-story and two-story homes. This includes evacuating disabled/physically impaired/elderly individuals from homes in advance of anticipated extreme rainfall events.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **4**

Watershed HUC# (if known) **120401040402,120401040401** County **Harris**

Existing 100-Year Flood Risk

Population at risk **25,741** # of structures **5,879** Critical facilities **71**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **71**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

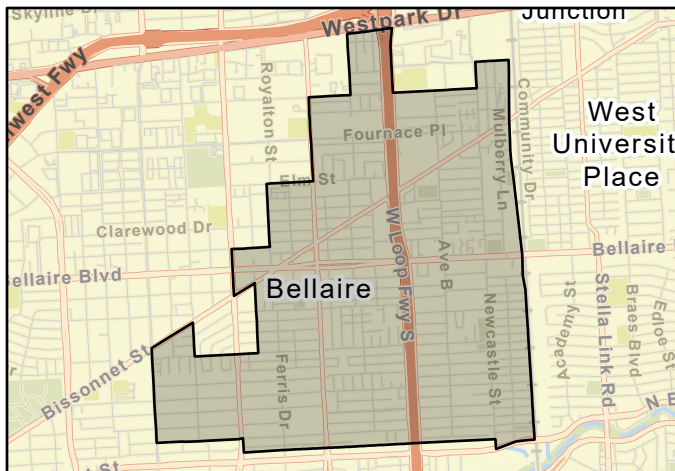
Impacts

Negative impacts? **No** Negative impacts description **-**

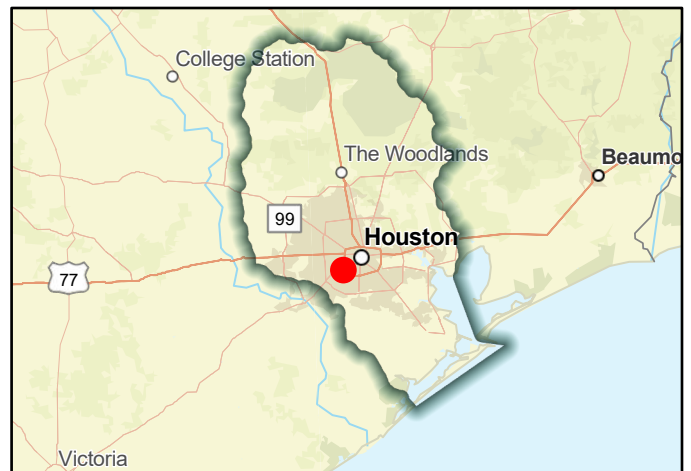
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$200,000** Amount of available funding **50000** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Floodwater Public Awareness Initiatives**

ID# **062000005** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Education and Outreach**

Strategy description **Periodically distribute messages to residents warning of dangers of walking or playing in floodwaters. Develop a plan with local schools to educate children to avoid walking, playing, or riding bicycles in floodwaters.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **4**

Watershed HUC# (if known) **120401040402,120401040401,120401040402,120401040401** County **Harris**

Existing 100-Year Flood Risk

Population at risk **25,741** # of structures **5,879** Critical facilities **71**

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **71**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

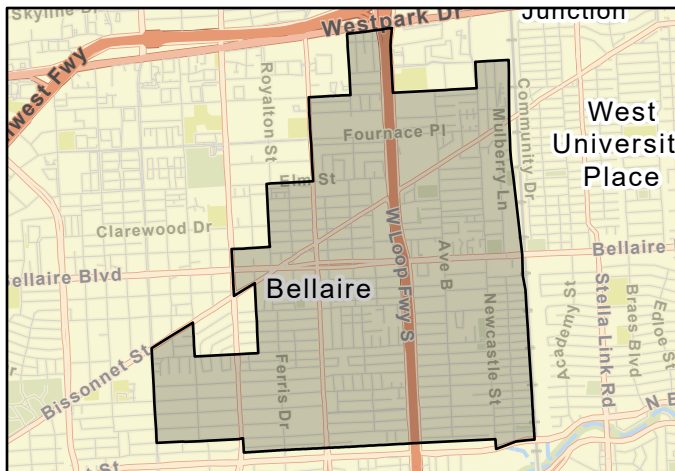
Impacts

Negative impacts? **No** Negative impacts description **-**

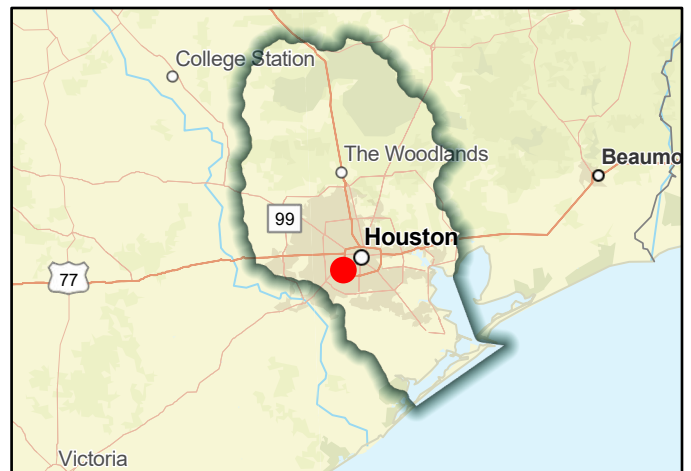
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$50,000** Amount of available funding **12500** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Non-Structural Flood Risk Reduction Strategies**

ID# **062000002** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Conduct planning and outreach efforts to identify residents interested in buy-out, home elevation, or flood proofing programs, and develop plans or grant applications to support interested parties.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	4
Watershed HUC# (if known)	120401040402,120401040401,120401040402,120401040401		County Harris

Existing 100-Year Flood Risk

Population at risk	25,741	# of structures	5,879	Critical facilities	71
Flood risk type:	Riverine? No	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	71		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

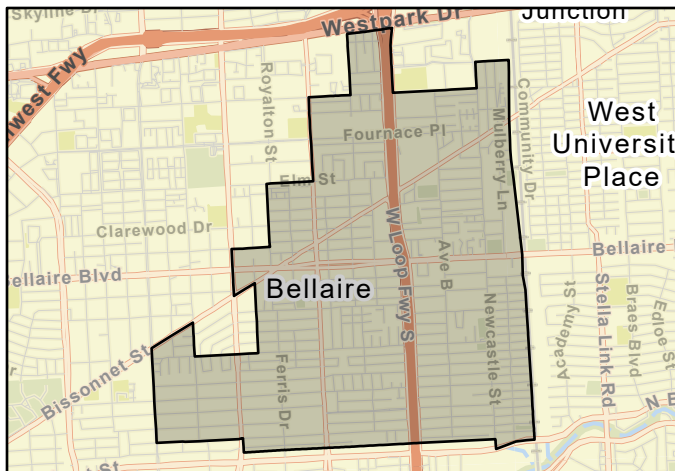
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

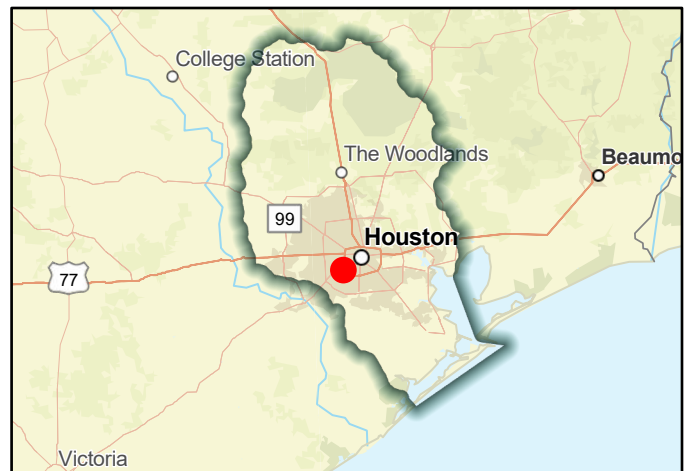
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$50,000	Amount of available funding	12500	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Roadway and Drainage Improvements**

ID# **062000001** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Other**

Strategy description **Perform engineering services in support of the local drainage asset management planning, to repair or reconstruct antiquated local drainage and associated road infrastructure. Including design of storm sewers, roadways, and overland storage/conveyance.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **4**

Watershed HUC# (if known) **120401040402,120401040401,120401040402,120401040401** County **Harris**

Existing 100-Year Flood Risk

Population at risk **25,741** # of structures **5,879** Critical facilities **71**

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **71**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Uplift** Reduction in # of road closures over 10 years **-**

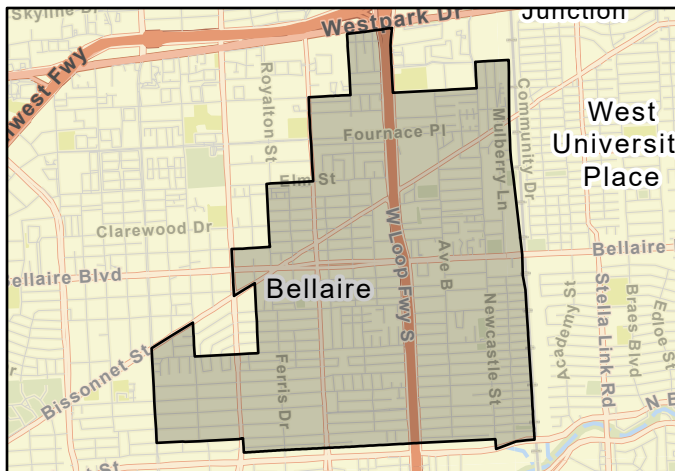
Impacts

Negative impacts? **No** Negative impacts description **-**

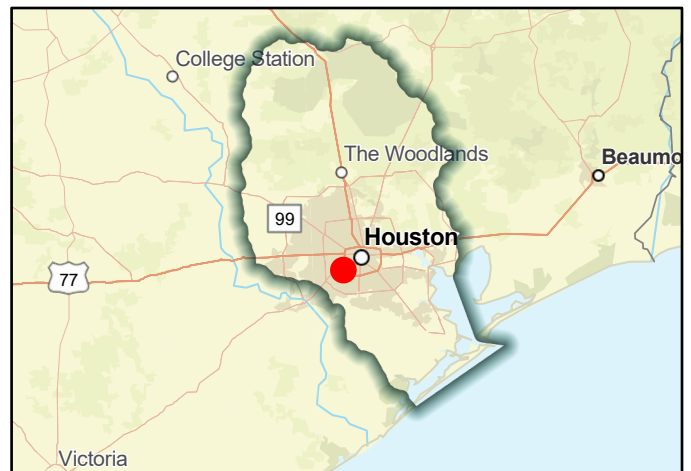
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$3,000,000** Amount of available funding **750000** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bellaire Surrounding Area Drainage Improvements**

ID# **062000004** Sponsor **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Partner with surrounding municipalities/governmental agencies to identify drainage improvements (conveyance or detention) which could minimize extreme event sheet flow entering into Bellaire.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	4
Watershed HUC# (if known)	120401040402,120401040401,120401040402,120401040401		County Harris

Existing 100-Year Flood Risk

Population at risk	25,741	# of structures	5,879	Critical facilities	71
Flood risk type:	Riverine? No	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	71		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

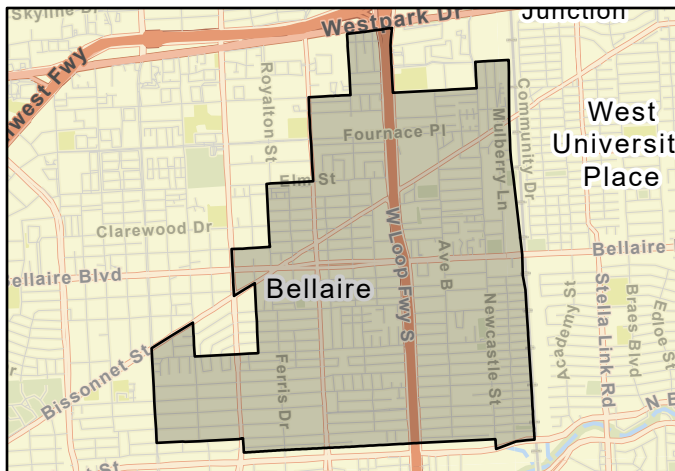
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

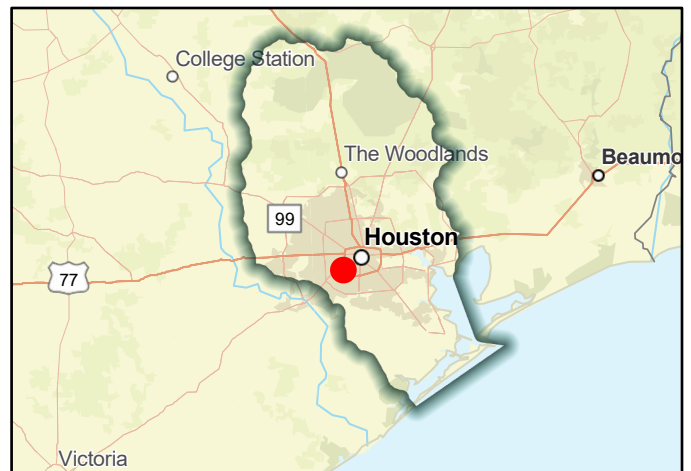
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	25000	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bunker Hill Community Outreach**

ID# **062000006** Sponsor **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Education and Outreach**

Strategy description **Community Outreach (flooded street identification, marking and signage)**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999**

Watershed HUC# (if known) **120401040303,120401040303** Drainage area (mi², est.) **1**

County **Harris**

Existing 100-Year Flood Risk

Population at risk **0** # of structures **0** Critical facilities **0**

Flood risk type: Riverine? **No** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **0**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

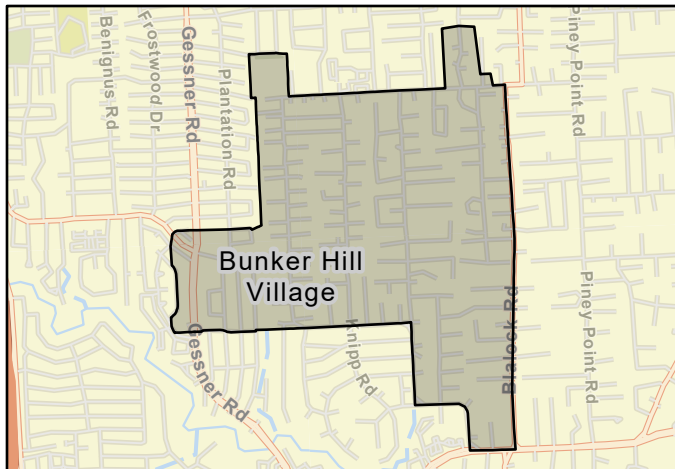
Impacts

Negative impacts? **No** Negative impacts description **-**

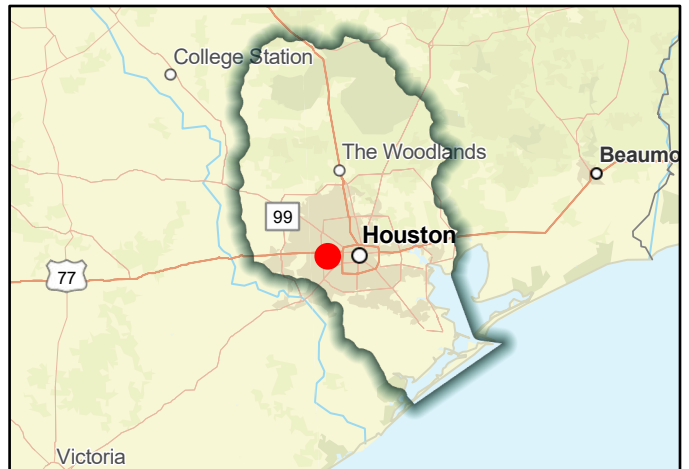
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$100,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bunker Hill Dam/Levee Maintenance and Monitoring Plan**

ID# **062000007** Sponsor **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Minimize the risk of dam/levee failure and related damage to existing and proposed structures by monitoring the maintenance and inspection schedules.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1
Watershed HUC# (if known)	120401040303,120401040303		County Harris

Existing 100-Year Flood Risk

Population at risk	0	# of structures	0	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

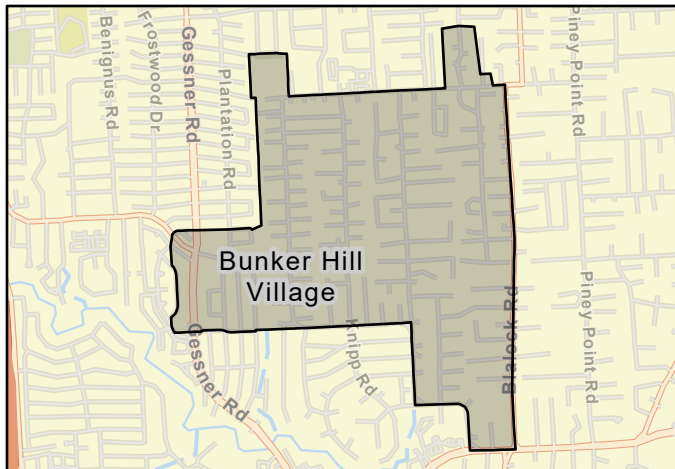
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

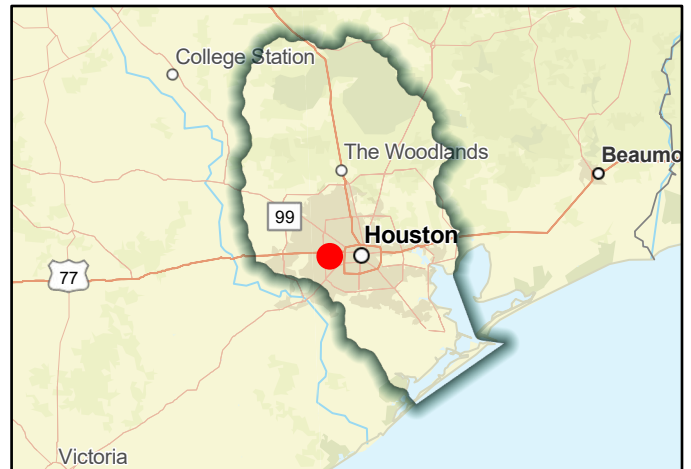
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$500,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Bunker Hill Village Non-Structural Mitigation Projects**

ID# **062000058** Sponsor **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Non-structural mitigation measure - buried powerlines, tree management and generators		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1
Watershed HUC# (if known)	120401040303	County	Harris

Existing 100-Year Flood Risk

Population at risk	0	# of structures	0	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

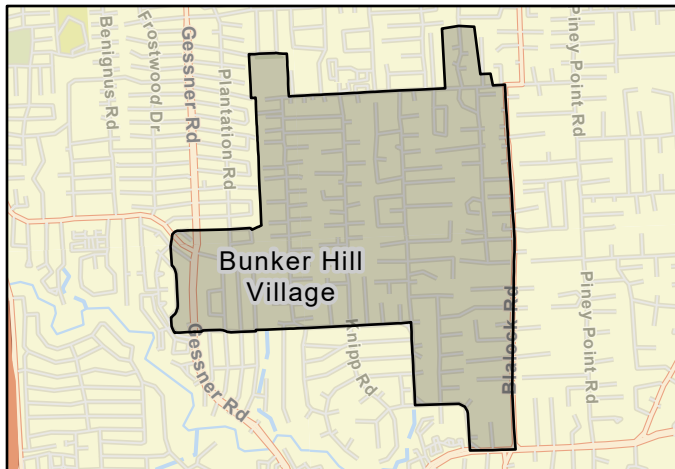
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Low Impact Development Features	Reduction in # of road closures over 10 years	-

Impacts

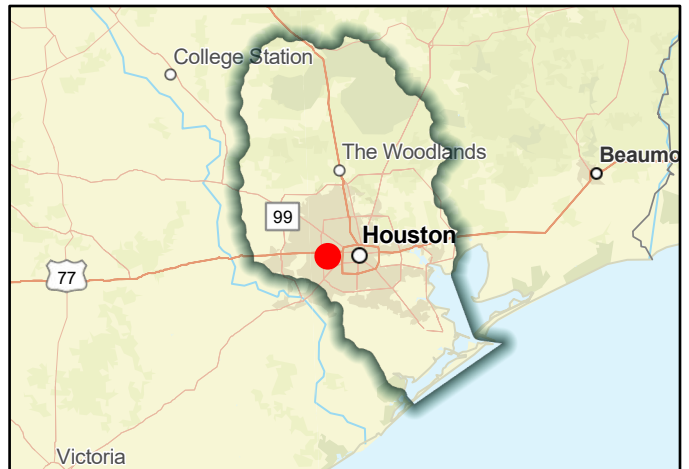
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Infrastructure Projects"/>		
Strategy description	<input type="text" value="Removal of debris, silt and vegetation obstacles in drainageways. Project will clear obstacles, mow and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding."/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="19"/>
Watershed HUC# (if known)	<input type="text" value="120401030201,120401030108,120401030109,120401030203,1204010302"/>		County <input type="text" value="Liberty, Montgomery, San Jacinto"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="1,037"/>	# of structures	<input type="text" value="261"/>	Critical facilities	<input type="text" value="0"/>
Flood risk type:	Riverine? <input type="text" value="Yes"/>	Coastal? <input type="text" value="No"/>	Local? <input type="text" value="Yes"/>	Playa? <input type="text" value="No"/>	Other? <input type="text" value="No"/>
Farm/Ranch land impacted (acres)	<input type="text" value="29"/>		Roadway(s) impacted (miles)	<input type="text" value="27"/>	
Number of low water crossings	<input type="text" value="1"/>		Historical road closures	<input type="text" value="1"/>	

100-Year Flood Risk Reduction

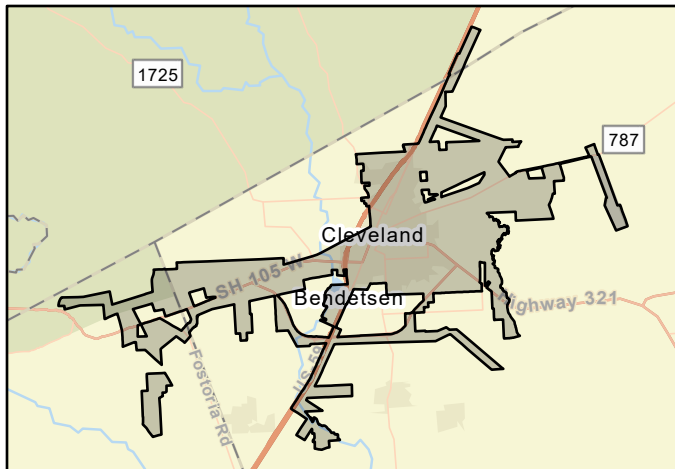
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="Environmental"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

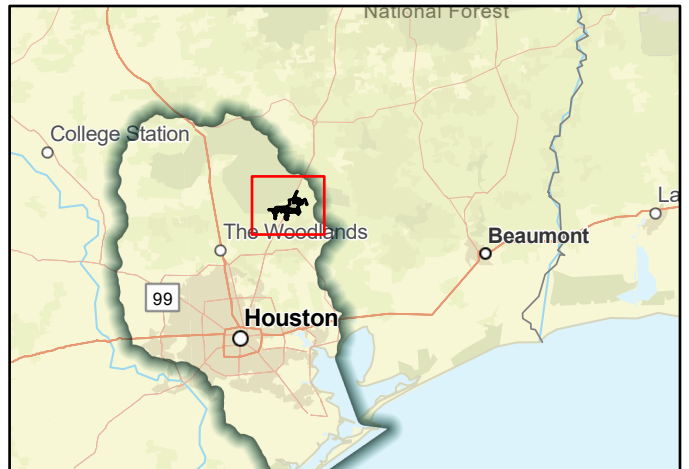
Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$5,000,000"/>	Amount of available funding	<input type="text" value="-"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Galveston Floodplain Manager Increase**

ID# **062000056** Sponsor **Galveston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Increase and maintain number of floodplain managers in the building division through training and certification.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	211
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040500		County Galveston

Existing 100-Year Flood Risk

Population at risk	64,300	# of structures	21,858	Critical facilities	509
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	261	Roadway(s) impacted (miles)	409		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

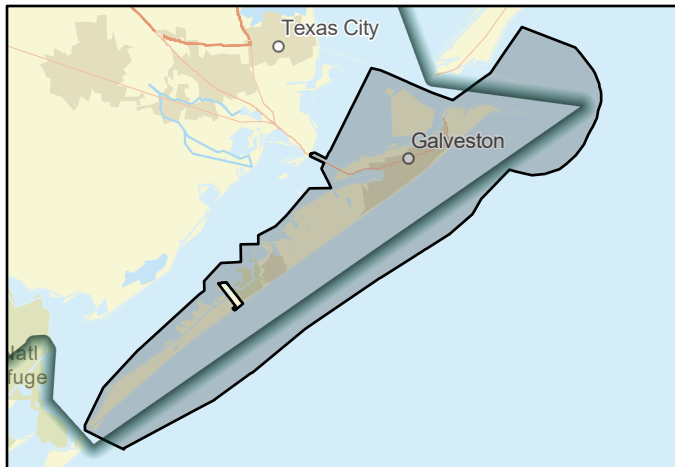
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$10,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Yes Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Other"/>		
Strategy description	<input type="text" value="Maintain membership of the NFIP's CRS"/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="53"/>
Watershed HUC# (if known)	<input type="text" value="120402040300,120402040200,120402040400,120402040500"/>		County <input type="text" value="Galveston"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="64,429"/>	# of structures	<input type="text" value="23,123"/>	Critical facilities	<input type="text" value="513"/>
Flood risk type:	Riverine? <input checked="" type="checkbox"/> Yes	Coastal? <input checked="" type="checkbox"/> Yes	Local? <input checked="" type="checkbox"/> Yes	Playa? <input type="checkbox"/> No	Other? <input type="checkbox"/> No
Farm/Ranch land impacted (acres)	<input type="text" value="263"/>		Roadway(s) impacted (miles)	<input type="text" value="408"/>	
Number of low water crossings	<input type="text" value="0"/>		Historical road closures	<input type="text" value="0"/>	

100-Year Flood Risk Reduction

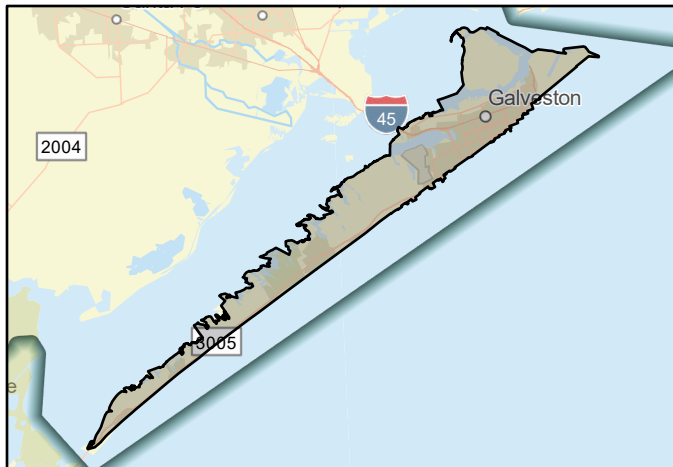
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="-"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

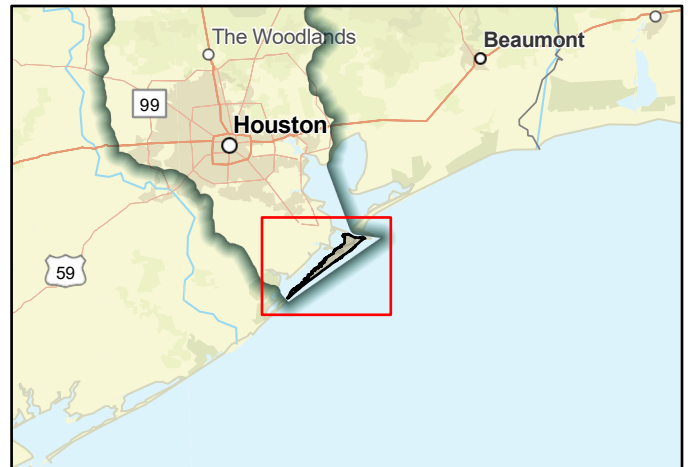
Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$10,000"/>	Amount of available funding	<input type="text" value="-"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Galveston SRL and RL Property Mitigation**

ID# **062000057** Sponsor **Galveston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Elevation, acquisition or other mitigation of identified Repetitive Loss and Severe Repetitive Loss properties and structures damaged by flooding.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **211**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040500** County **Galveston**

Existing 100-Year Flood Risk

Population at risk **64,300** # of structures **21,858** Critical facilities **509**

Flood risk type: Riverine? **Yes** Coastal? **Yes** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **261** Roadway(s) impacted (miles) **409**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

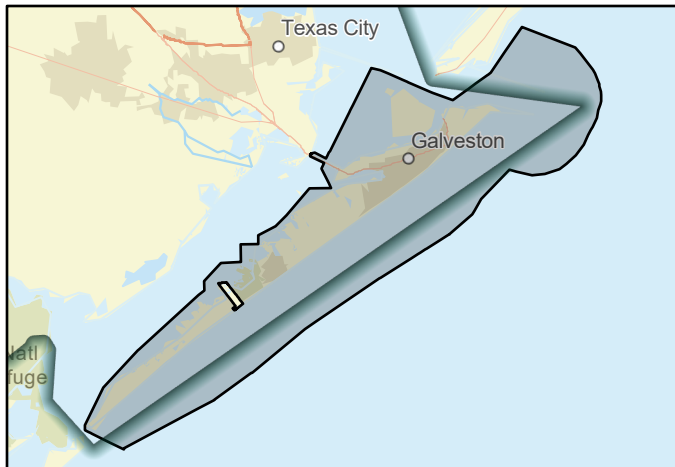
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$80,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Hilcrest Village Land Acquisition**

ID# **062000047** Sponsor **Hilcrest Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Purchase additional land for retention pond construction to mitigate flooding in flood zones.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	0
Watershed HUC# (if known)	120402040400	County	Brazoria

Existing 100-Year Flood Risk

Population at risk	333	# of structures	128	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	2		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

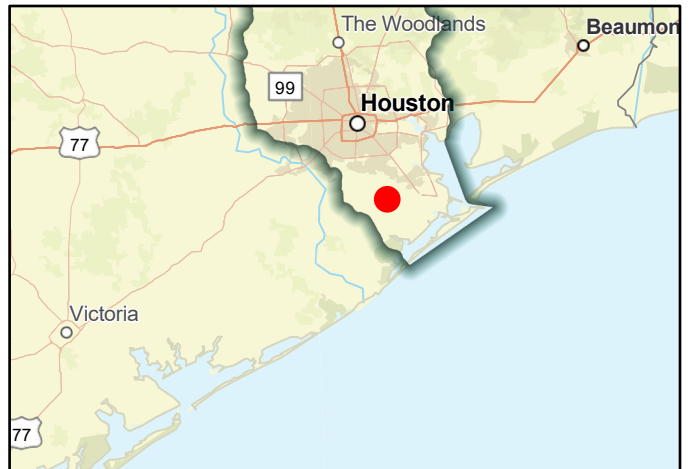
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$250,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of League City Property Acquisition and Relocation**

ID# **062000052** Sponsor **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Buying and removing property from the floodplain will reduce long-term, repetitive flood loss. The open space created by the removal of insured property will facilitate drainage and allow for the creation of recreation areas.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **53**

Watershed HUC# (if known) **120402040200,120402040100** County **Galveston,Harris**

Existing 100-Year Flood Risk

Population at risk **13,675** # of structures **5,251** Critical facilities **25**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **1,308** Roadway(s) impacted (miles) **105**

Number of low water crossings **2** Historical road closures **2**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Environmental** Reduction in # of road closures over 10 years **-**

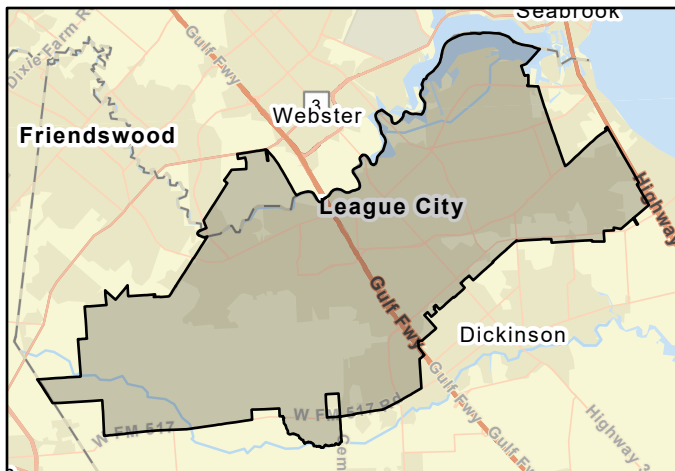
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$300,000,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Manvel Property Acquisition**

ID# **062000048** Sponsor **Manvel (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Acquire Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties in the 100-year flood plain, as identified by FEMA and NFIP.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **27**

Watershed HUC# (if known) **120402040200,120402040400,120402040100** County **Brazoria**

Existing 100-Year Flood Risk

Population at risk **6,741** # of structures **1,250** Critical facilities **8**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **179** Roadway(s) impacted (miles) **43**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

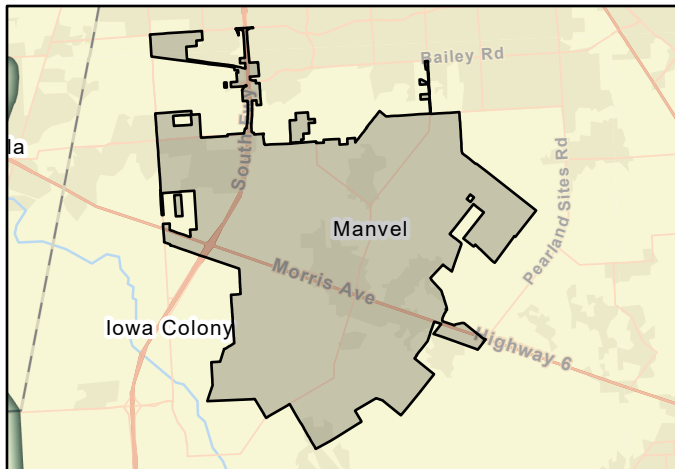
Impacts

Negative impacts? **No** Negative impacts description **-**

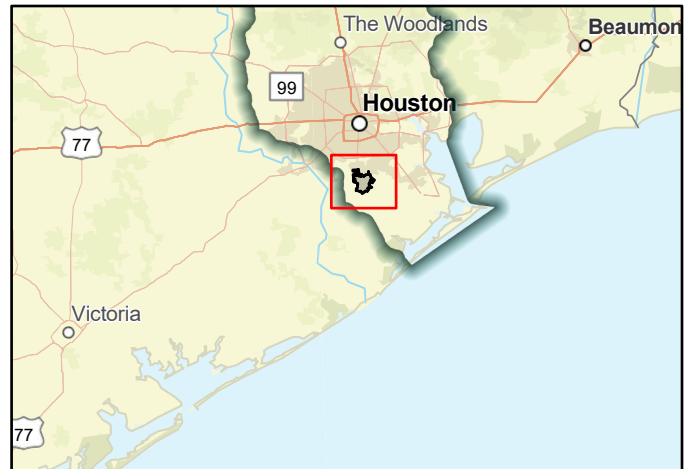
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$1,700,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Yes Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Property Acquisition and Structural Elevation"/>		
Strategy description	<input type="text" value="Continue working with County and State officials to identify repetitive loss and severe repetitive loss properties, and pursue mitigation projects to reduce risk."/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="49"/>
Watershed HUC# (if known)	<input type="text" value="120401040501,120402040200,120402040400,120402040100"/>		County <input type="text" value="Brazoria,Fort Bend,Harris"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="11,939"/>	# of structures	<input type="text" value="4,791"/>	Critical facilities	<input type="text" value="22"/>
Flood risk type:	Riverine? <input checked="" type="checkbox"/> Yes	Coastal? <input type="checkbox"/> No	Local? <input checked="" type="checkbox"/> Yes	Playa? <input type="checkbox"/> No	Other? <input type="checkbox"/> No
Farm/Ranch land impacted (acres)	<input type="text" value="137"/>	Roadway(s) impacted (miles)	<input type="text" value="76"/>		
Number of low water crossings	<input type="text" value="0"/>	Historical road closures	<input type="text" value="0"/>		

100-Year Flood Risk Reduction

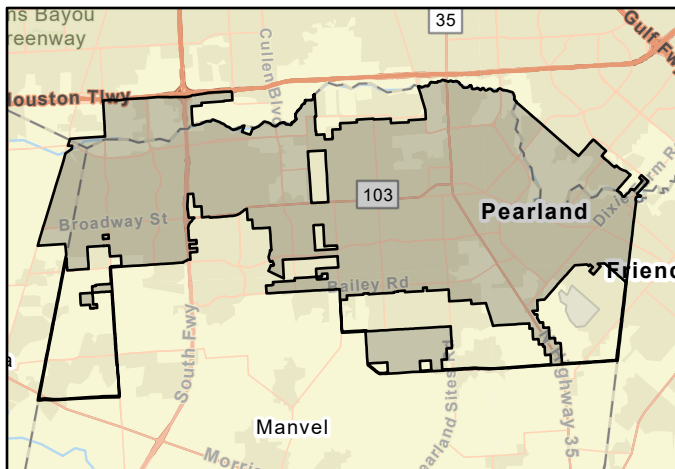
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="-"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$100,000"/>	Amount of available funding	<input type="text" value="0"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Infrastructure Projects"/>		
Strategy description	<input type="text" value="Keep areas of concern free of unnecessary debris as needed. Implement and maintain tree, vegetation trimming/removal near, infrastructure, drainage systems and roadside areas."/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="17"/>
Watershed HUC# (if known)	<input type="text" value="120402040300,120402040200"/>		County <input type="text" value="Galveston"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="748"/>	# of structures	<input type="text" value="400"/>	Critical facilities	<input type="text" value="1"/>
Flood risk type:	Riverine? <input type="text" value="No"/>	Coastal? <input type="text" value="No"/>	Local? <input type="text" value="Yes"/>	Playa? <input type="text" value="No"/>	Other? <input type="text" value="No"/>
Farm/Ranch land impacted (acres)	<input type="text" value="12"/>		Roadway(s) impacted (miles)	<input type="text" value="4"/>	
Number of low water crossings	<input type="text" value="9"/>		Historical road closures	<input type="text" value="9"/>	

100-Year Flood Risk Reduction

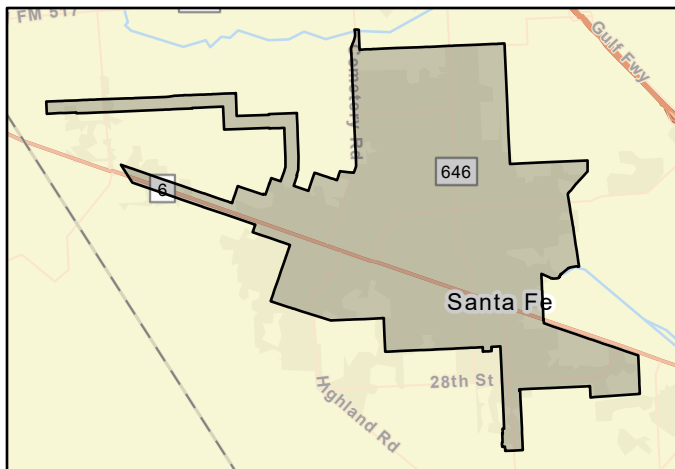
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="Environmental"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

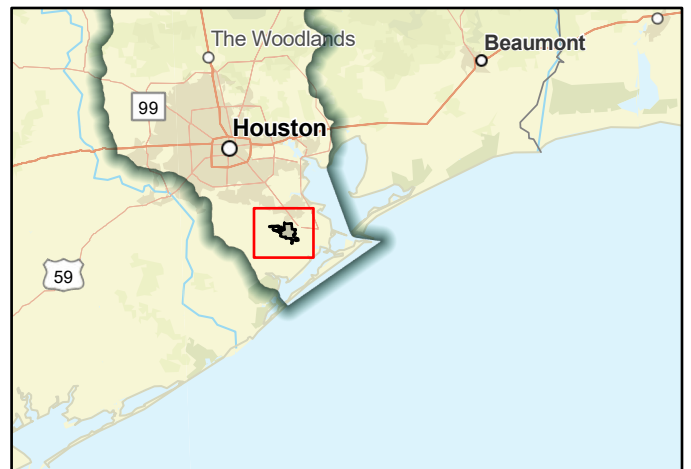
Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$5,000"/>	Amount of available funding	<input type="text" value="-"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Santa Fe - Harden Existing Critical Facilities and Infrastructure**

ID# **062000053** Sponsor **Santa Fe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Infrastructure Projects		
Strategy description	Harden existing critical facilities and infrastructure. Specifically City Hall, Maintenance Building, Library, and Community Center.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	17
Watershed HUC# (if known)	120402040300,120402040200	County	Galveston

Existing 100-Year Flood Risk

Population at risk	748	# of structures	400	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	12	Roadway(s) impacted (miles)	4		
Number of low water crossings	9	Historical road closures	9		

100-Year Flood Risk Reduction

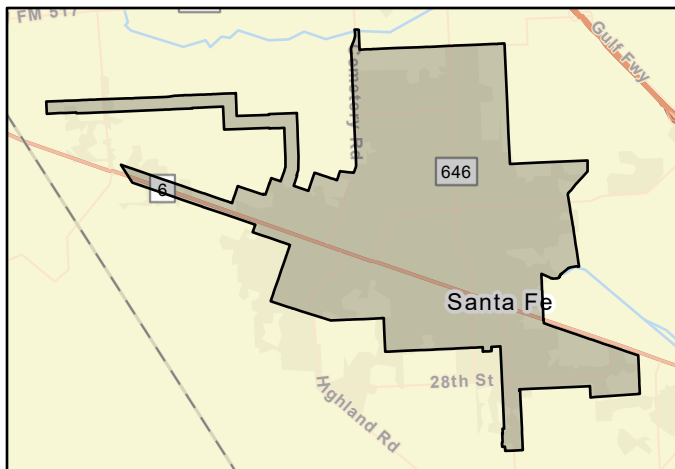
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Uplift	Reduction in # of road closures over 10 years	-

Impacts

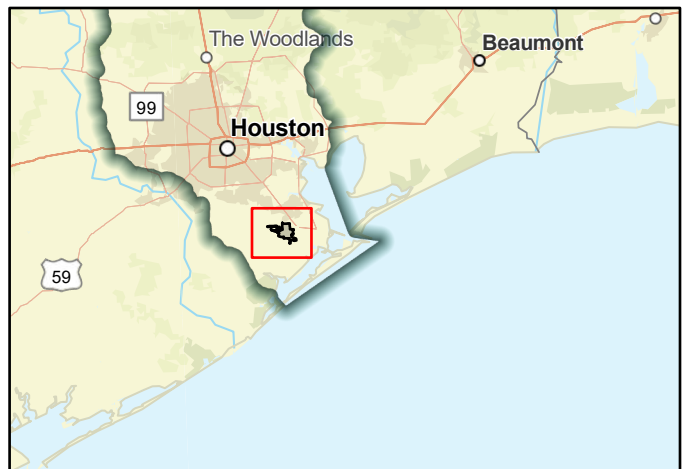
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$2,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Santa Fe Stormproof/retrofit New Critical Infrastructure**

ID# **062000039** Sponsor **Santa Fe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Regulatory and Guidance**

Strategy description **New construction and existing critical facilities and infrastructure should include advanced mitigation techniques.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **17**

Watershed HUC# (if known) **120402040300,120402040200** County **Galveston**

Existing 100-Year Flood Risk

Population at risk **748** # of structures **400** Critical facilities **1**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **12** Roadway(s) impacted (miles) **4**

Number of low water crossings **9** Historical road closures **9**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

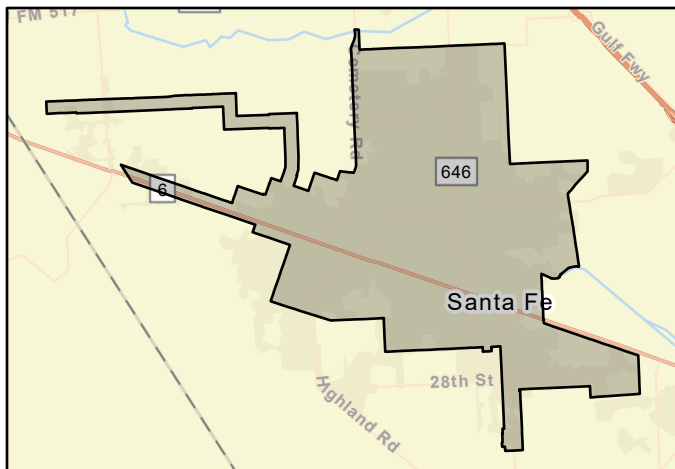
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$5,000,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **City of Todd Mission Public Outreach & Education**

ID# **062000021** Sponsor **Todd Mission (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Education and Outreach**

Strategy description **Provide educational information related to preparedness, mitigation, response, and recovery to the public.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999**

Watershed HUC# (if known) **120401020203,120401020206** Drainage area (mi², est.) **2**

County **Grimes**

Existing 100-Year Flood Risk

Population at risk **16** # of structures **20** Critical facilities **0**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **1** Roadway(s) impacted (miles) **0**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

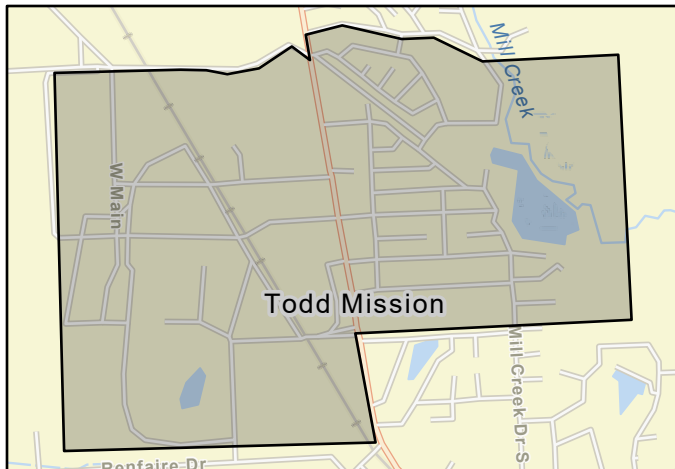
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$20,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Cypress Creek Headwater Acquisition and PReservation**

ID# **062000067** Sponsor **Coastal Prairie Conservancy**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Acquisition and restoration of 1,074-acres of ag and natural lands at the headwaters of Cypress Creek.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **2**

Watershed HUC# (if known) **120401020102,120401020103** County **Waller**

Existing 100-Year Flood Risk

Population at risk **0** # of structures **0** Critical facilities **0**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **9** Roadway(s) impacted (miles) **-**

Number of low water crossings **-** Historical road closures **-**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public access and recreation, agriculture, habitat** Reduction in # of road closures over 10 years **-**

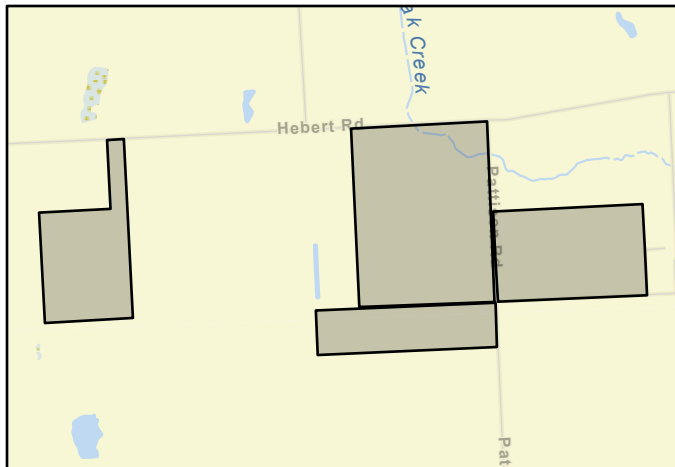
Impacts

Negative impacts? **No** Negative impacts description **-**

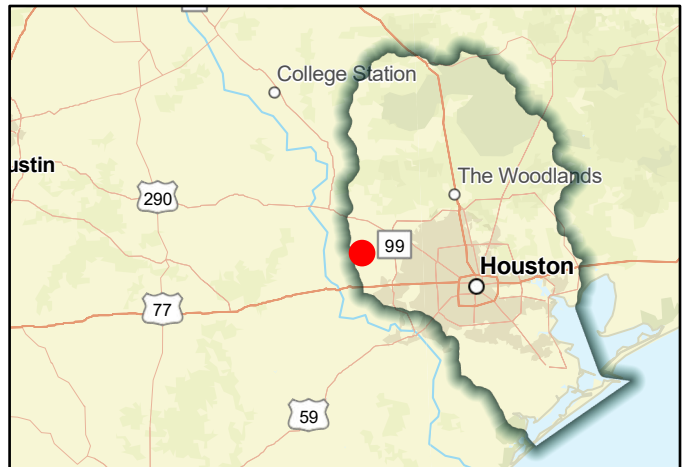
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$18,000,000** Amount of available funding **-** % Nature-Based **100**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Develop Applicable Plans and Studies to Address Hazard Mitigation in Galveston County**

ID# **062000015** Sponsor **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Review planning needs annually to include, but not be limited to, CEMP, debris management, stormwater management, master plan, drainage, drought, GIS mapping, complete study to locate areas prone to expansive soils and land subsidence, etc.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	665
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Galveston

Existing 100-Year Flood Risk

Population at risk	102,742	# of structures	48,566	Critical facilities	680
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	3,412	Roadway(s) impacted (miles)	910		
Number of low water crossings	30	Historical road closures	30		

100-Year Flood Risk Reduction

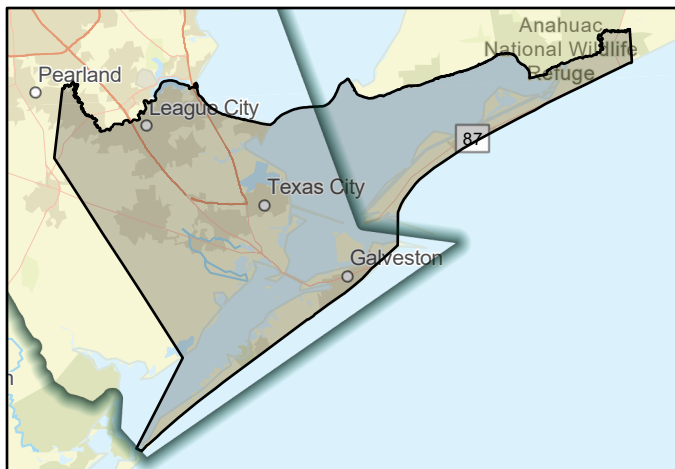
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Develop Program to Optimize Operation of the Flood Gates at Second Cut Outlet in City of Kemah**

ID# **062000017** Sponsor **Kemah (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Develop program to integrate with the Harris County Flood Control District for the purpose of optimizing the operation of the flood gates at second cut outlet.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	2
Watershed HUC# (if known)	120402040200,120402040100	County	Galveston

Existing 100-Year Flood Risk

Population at risk	2,792	# of structures	560	Critical facilities	7
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1	Roadway(s) impacted (miles)	13		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

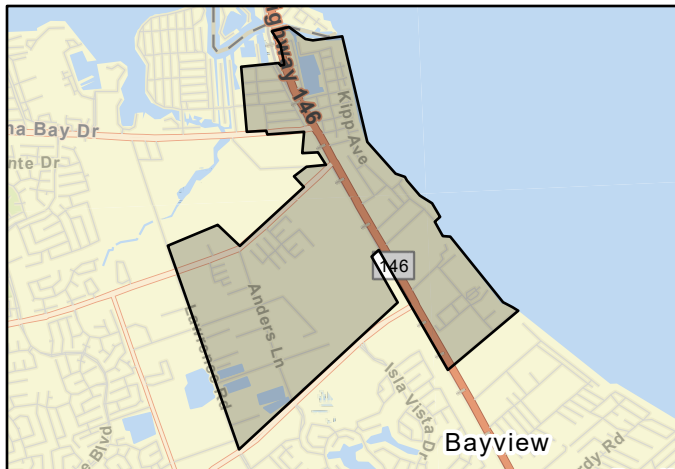
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

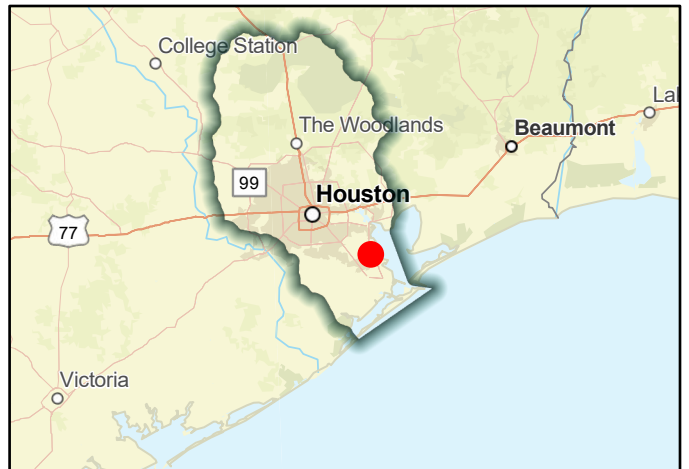
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Expand Development of Emergency Notification System in Liberty County**

ID# **062000023** Sponsor **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Expand development of emergency notification system/work to establish public awareness of emergency notification process.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,170
Watershed HUC# (if known)	120401030201,120401030108,120401030109,120401030205,1204010304		County Liberty

Existing 100-Year Flood Risk

Population at risk	3,575	# of structures	3,617	Critical facilities	8
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1,379	Roadway(s) impacted (miles)	144		
Number of low water crossings	7	Historical road closures	7		

100-Year Flood Risk Reduction

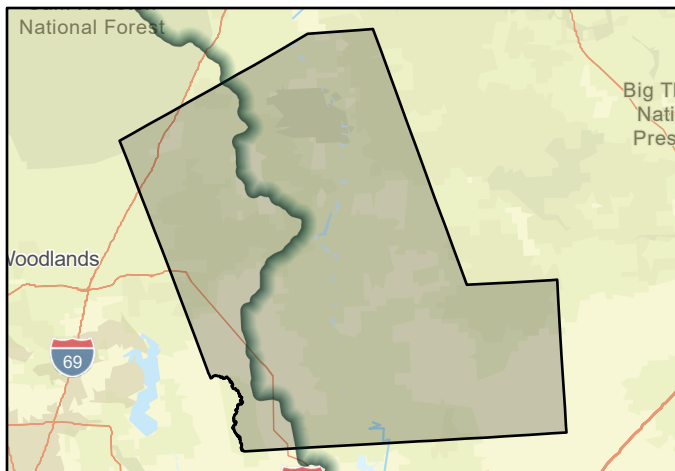
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

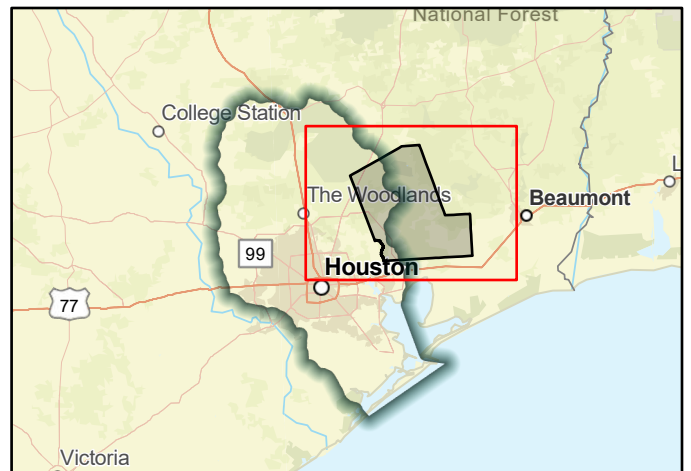
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$10,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Galveston County Stormproof/Retrofit Infrastructure**

ID# **062000025** Sponsor **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Infrastructure Projects**

Strategy description **Stormproof/retrofit critical facilities and infrastructure for county-owned properties and unincorporated areas.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **665**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040100** County **Galveston**

Existing 100-Year Flood Risk

Population at risk **102,739** # of structures **48,564** Critical facilities **680**

Flood risk type: Riverine? **Yes** Coastal? **Yes** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **3,416** Roadway(s) impacted (miles) **909**

Number of low water crossings **30** Historical road closures **30**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Uplift** Reduction in # of road closures over 10 years **-**

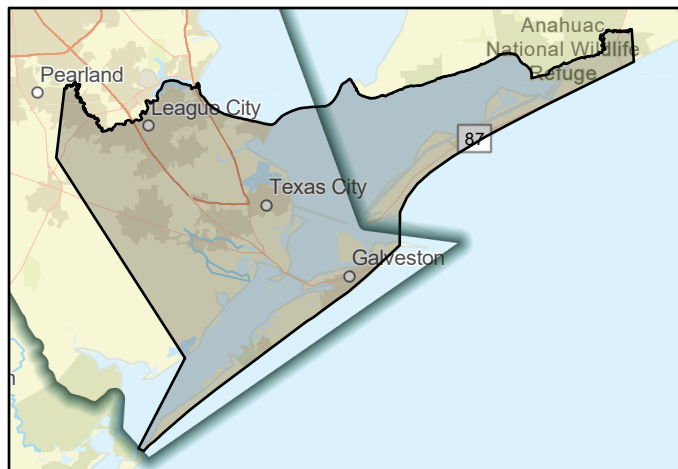
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$5,000,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Galveston County-wide Education and Outreach**

ID# **062000018** Sponsor **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Provide educational information related to preparedness, mitigation, response, and recovery to the public.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	665
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Galveston,Harris

Existing 100-Year Flood Risk

Population at risk	102,735	# of structures	48,564	Critical facilities	680
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	3,415	Roadway(s) impacted (miles)	910		
Number of low water crossings	30	Historical road closures	30		

100-Year Flood Risk Reduction

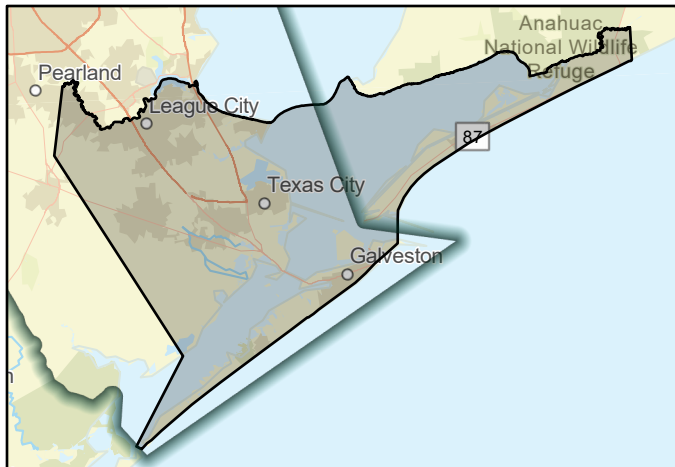
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$50,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Grimes County Property Acquisition**

ID# **062000036** Sponsor **Grimes (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Per NFIP participation, the acquisition of structures located in the 100-year flood plain and in dam inundation areas.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	799
Watershed HUC# (if known)	120401010101,120401010301,120401010302,120401010303,1204010101		County Grimes

Existing 100-Year Flood Risk

Population at risk	95	# of structures	145	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	151	Roadway(s) impacted (miles)	11		
Number of low water crossings	1	Historical road closures	1		

100-Year Flood Risk Reduction

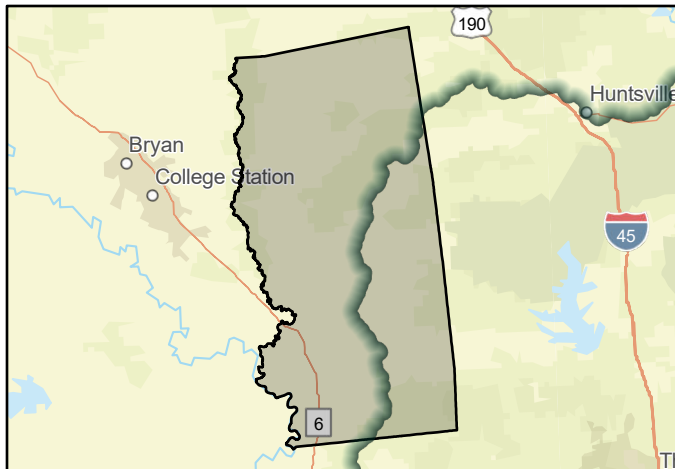
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

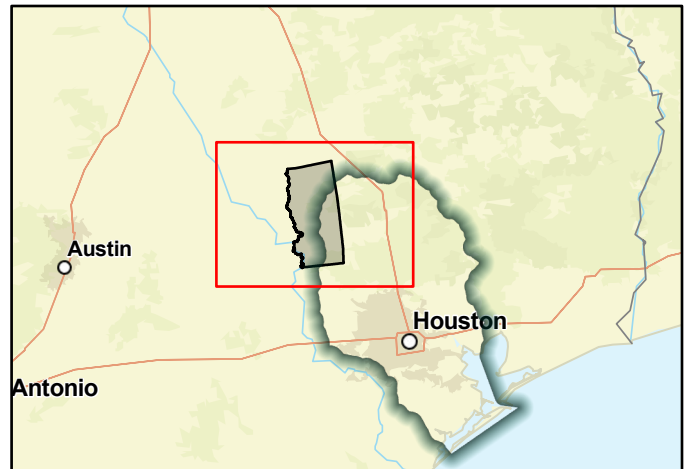
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$95,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Hardening of Critical Facilities in City of Mission Todd**

ID# **062000059** Sponsor **Todd Mission (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Infrastructure Projects		
Strategy description	Protecting critical facilities such as hospitals, fire stations, police stations and water treatment plants can help keep them operational during severe storms.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	2
Watershed HUC# (if known)	120401020203,120401020206		County Grimes

Existing 100-Year Flood Risk

Population at risk	16	# of structures	17	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

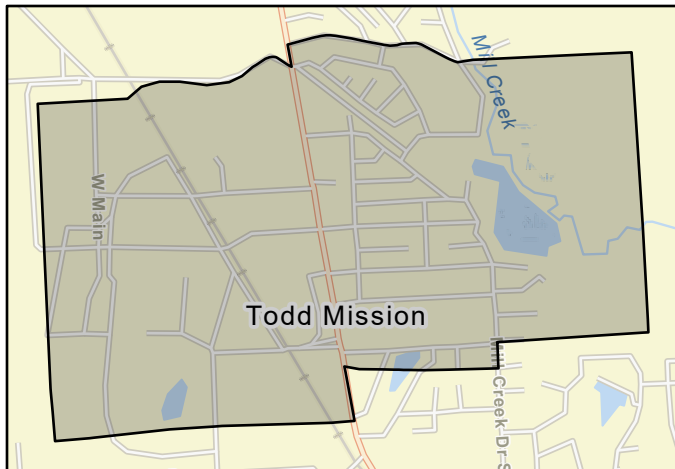
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$25,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Hazard Mitigation Action AW-3**

ID# **062000008** Sponsor **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Utilizing the existing public outreach capability to develop, deploy, and disseminate targeted outreach projects promoting risk communication, mitigation and resilience to all the hazards of concern.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,771
Watershed HUC# (if known)	-	County	Harris

Existing 100-Year Flood Risk

Population at risk	590,954	# of structures	143,642	Critical facilities	2,332
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	5,993	Roadway(s) impacted (miles)	2,408		
Number of low water crossings	89	Historical road closures	89		

100-Year Flood Risk Reduction

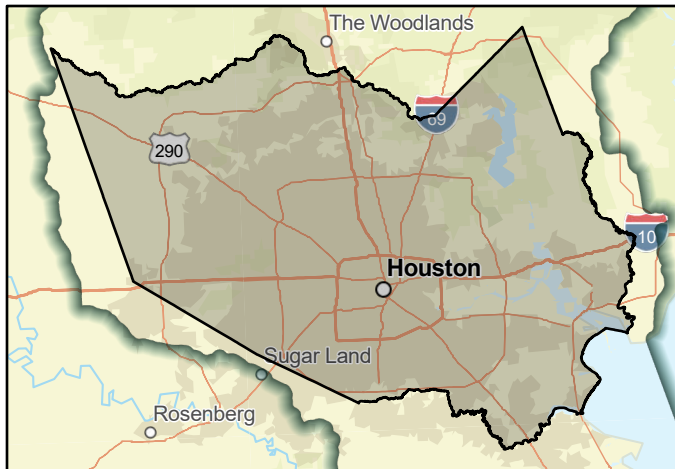
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$100,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Hazard Mitigation Action AW-4**

ID# **062000009** Sponsor **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Flood Measurement and Warning**

Strategy description **Strive to capture time-sensitive data such as high-water marks, extent and location of hazard, and loss information to support future updates to risk assessments as well as other plans and programs that utilize hazard extent data.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999**

Watershed HUC# (if known) **-** Drainage area (mi², est.) **1,771**

County **Harris**

Existing 100-Year Flood Risk

Population at risk **590,954** # of structures **143,642** Critical facilities **2,332**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **5,993** Roadway(s) impacted (miles) **2,408**

Number of low water crossings **89** Historical road closures **89**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$300,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Hazard Mitigation Action AW-5**

ID# **062000010** Sponsor **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Flood Measurement and Warning**

Strategy description **Continue to develop, improve, and implement an enhanced mass public warning and alert system within the Harris County Joint Information Center to provide warning capability throughout Harris County to support the emergency management of all hazards.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **1,771**

Watershed HUC# (if known) **-** County **Harris**

Existing 100-Year Flood Risk

Population at risk **590,954** # of structures **143,642** Critical facilities **2,332**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **5,993** Roadway(s) impacted (miles) **2,408**

Number of low water crossings **89** Historical road closures **89**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$100,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Hazard Mitigation Action AW-6**

ID# **062000011** Sponsor **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Flood Measurement and Warning**

Strategy description **Utilize viable and relevant information, data and tools (Hazus models) developed as part of the update to the risk assessment of this plan update to support training and exercise of the County's preparedness, response and recovery programs.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **1,771**

Watershed HUC# (if known) **-** County **Harris**

Existing 100-Year Flood Risk

Population at risk **590,954** # of structures **143,642** Critical facilities **2,332**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **5,993** Roadway(s) impacted (miles) **2,408**

Number of low water crossings **89** Historical road closures **89**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$500,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Mitigation Buyout and Relocation Program**

ID# **062000060** Sponsor **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **This program is designed to assist owners whose properties were damaged by a natural disaster and or in an area that is designated hopelessly deep in the floodplain and repetitively flooded, to relocate outside the threat of flooding.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **1,771**

Watershed HUC# (if known) **-** County **Harris**

Existing 100-Year Flood Risk

Population at risk **590,954** # of structures **143,642** Critical facilities **2,332**

Flood risk type: Riverine? **Yes** Coastal? **Yes** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **5,993** Roadway(s) impacted (miles) **2,408**

Number of low water crossings **89** Historical road closures **89**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Uplift** Reduction in # of road closures over 10 years **-**

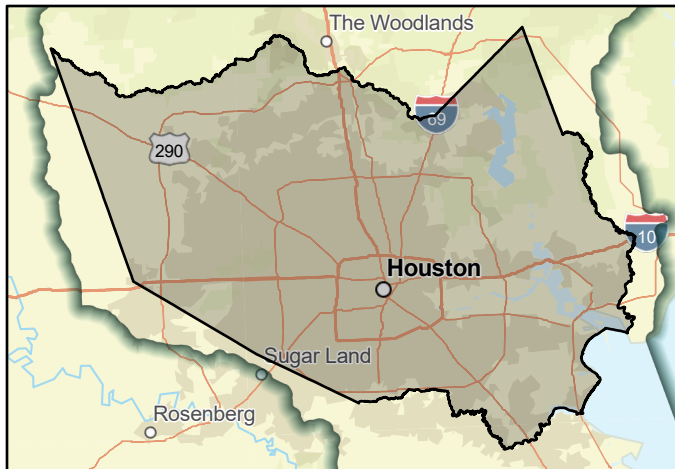
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$75,000,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Harris County Wide Voluntary Buyout Program**

ID# **062000063** Sponsor **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Targeted home buyouts to reduce flood damages in areas several feet deep in the floodplain where structural projects to reduce flooding are not cost-effective and/or beneficial.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,771
Watershed HUC# (if known)	-	County	Harris

Existing 100-Year Flood Risk

Population at risk	590,954	# of structures	143,642	Critical facilities	2,332
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	5,993	Roadway(s) impacted (miles)	2,408		
Number of low water crossings	89	Historical road closures	89		

100-Year Flood Risk Reduction

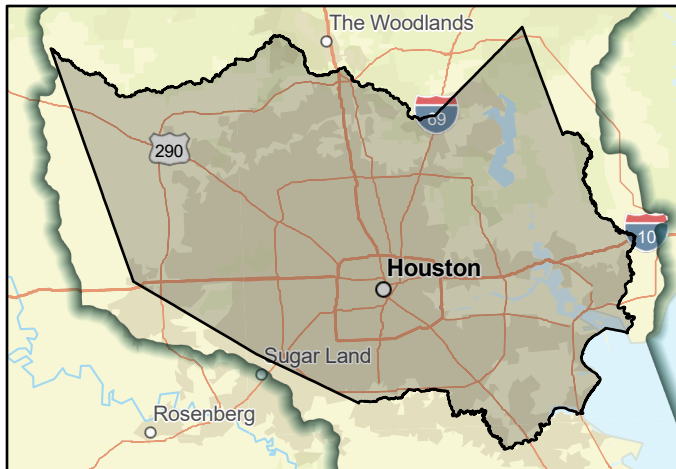
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$500,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Implement Stormwater Management Plan in City of Bayou Vista**

ID# **062000026** Sponsor **Bayou Vista (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Implement stormwater management plan to improve drainage during flood and other weather events.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	0
Watershed HUC# (if known)	120402040200	County	Galveston

Existing 100-Year Flood Risk

Population at risk	1,476	# of structures	1,121	Critical facilities	3
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	8		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

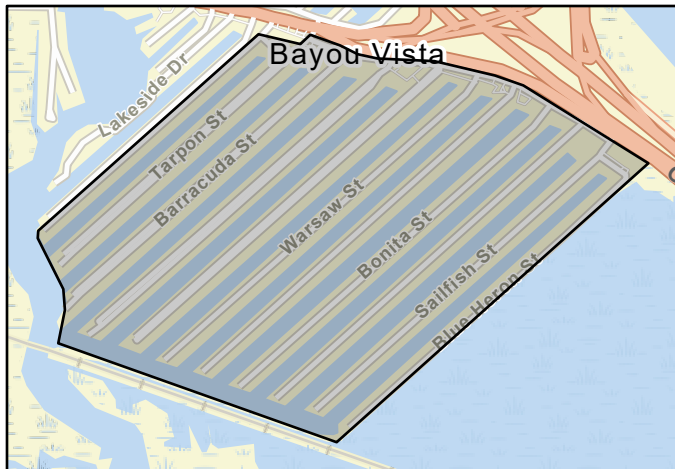
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

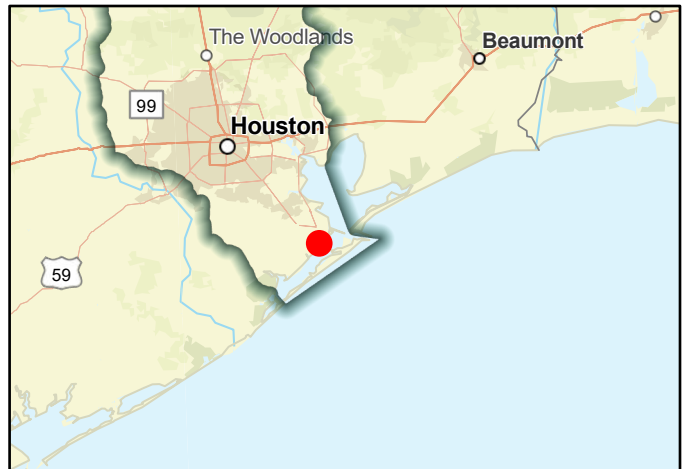
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$25,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Increase Public Awareness of Hazards in City of Arcola**

ID# **062000022** Sponsor **Arcola (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Education and Outreach**

Strategy description **Increase public awareness of hazards and hazardous areas. Distribute public awareness information regarding flood hazards.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **3**

Watershed HUC# (if known) **120402040400** County **Fort Bend**

Existing 100-Year Flood Risk

Population at risk **39** # of structures **41** Critical facilities **0**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **1** Roadway(s) impacted (miles) **0**

Number of low water crossings **0** Historical road closures **0**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

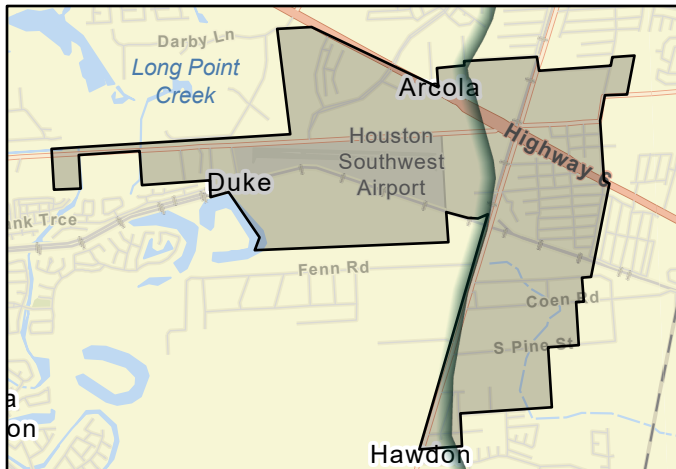
Impacts

Negative impacts? **No** Negative impacts description **-**

Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$50,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Install Outdoor Early warning System in Walker County**

ID# **062000043** Sponsor **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Install Outdoor Early warning System to provide citizens early warning of an impending disaster, or an event that would affect the life and/or property of the citizens.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	798
Watershed HUC# (if known)	120401010104,120401010101,120401010102,120401010103,1204010102		County Walker

Existing 100-Year Flood Risk

Population at risk	545	# of structures	505	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	180	Roadway(s) impacted (miles)	25		
Number of low water crossings	2	Historical road closures	2		

100-Year Flood Risk Reduction

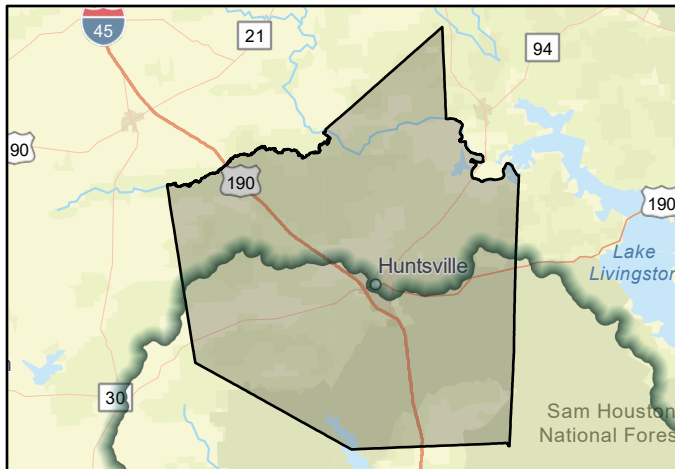
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

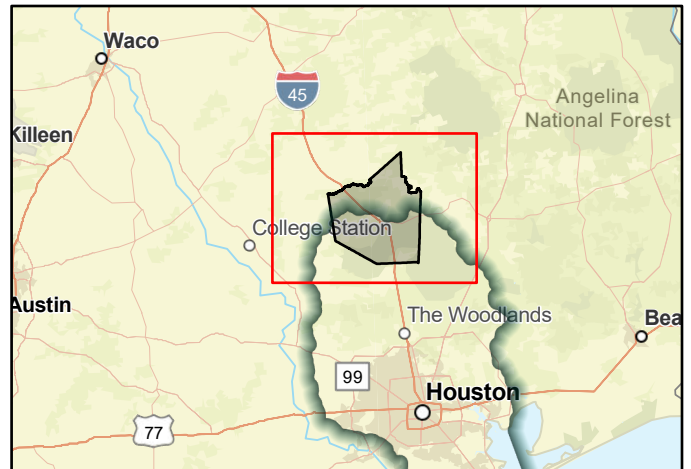
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$850,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Liberty County Floodplain Acquisition**

ID# **062000055** Sponsor **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Acquisition of property in the floodplain.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	665
Watershed HUC# (if known)	120402040300,120402040200,120402040400,120402040100		County Liberty

Existing 100-Year Flood Risk

Population at risk	102,755	# of structures	48,570	Critical facilities	681
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	3,412	Roadway(s) impacted (miles)	910		
Number of low water crossings	30	Historical road closures	30		

100-Year Flood Risk Reduction

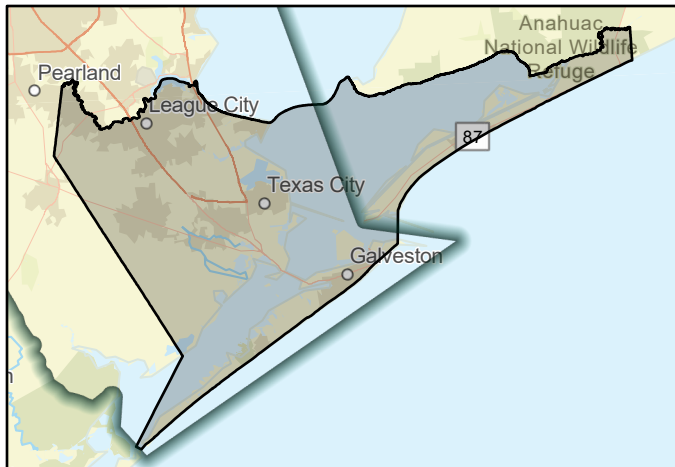
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$750,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Liberty County Regional Coordination**

ID# **062000065** Sponsor **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Other		
Strategy description	Work with adjoining counties regarding flooding and drainage issues.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	1,170
Watershed HUC# (if known)	120401030201,120401030108,120401030109,120401030205,1204010304		County Liberty

Existing 100-Year Flood Risk

Population at risk	3,576	# of structures	3,619	Critical facilities	8
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1,379	Roadway(s) impacted (miles)	144		
Number of low water crossings	7	Historical road closures	7		

100-Year Flood Risk Reduction

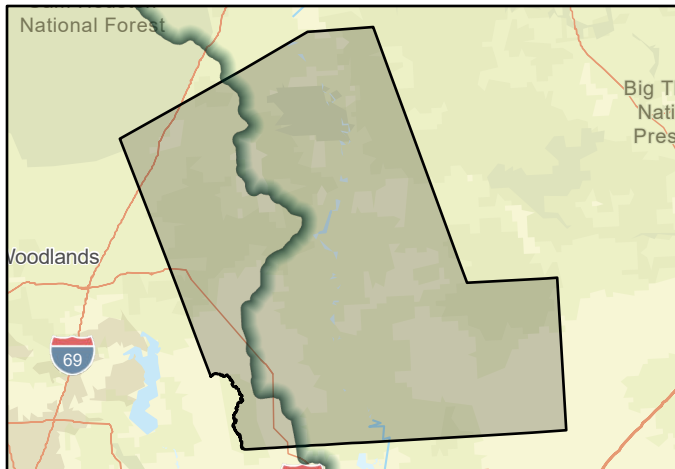
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

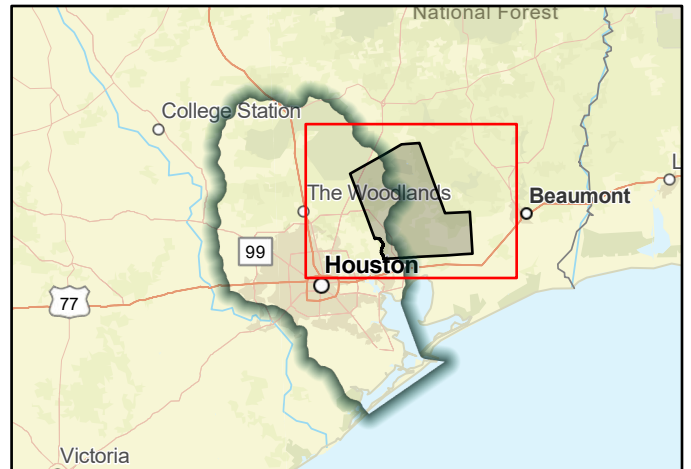
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$500,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Maintain Drainage Systems and Culverts in City of Friendswood**

ID# **062000051** Sponsor **Friendswood (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Infrastructure Projects		
Strategy description	Clean & recut drainage ditches, complete work orders related to conveyance systems. Pursue sub-regional drainage improvements.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	21
Watershed HUC# (if known)	120402040200,120402040100	County	Galveston,Harris

Existing 100-Year Flood Risk

Population at risk	4,640	# of structures	1,680	Critical facilities	2
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	18	Roadway(s) impacted (miles)	38		
Number of low water crossings	5	Historical road closures	5		

100-Year Flood Risk Reduction

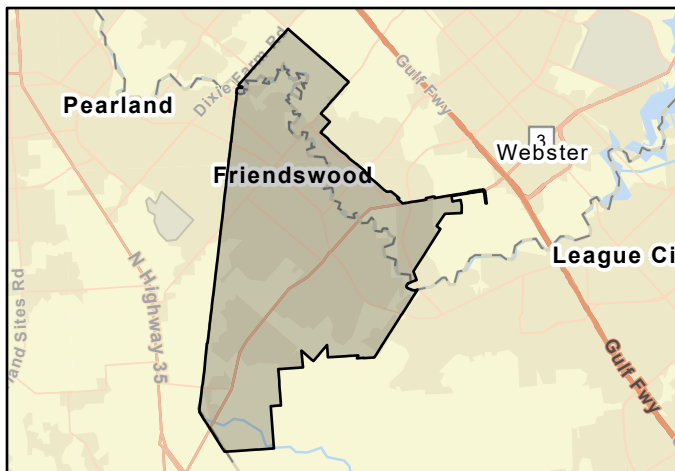
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$1,400,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Mitigate Repetitive Flood Claim & Severe Repetitive Loss Properties in Galveston County**

ID# **062000064** Sponsor **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Grant funding through HMGP may be used to mitigate RFC and SRL properties. Mitigation option will be implemented with property owners as funding and opportunities arise.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	14
Watershed HUC# (if known)	120402040200	County	Galveston

Existing 100-Year Flood Risk

Population at risk	1,455	# of structures	829	Critical facilities	8
Flood risk type:	Riverine? Yes	Coastal? Yes	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	38	Roadway(s) impacted (miles)	31		
Number of low water crossings	1	Historical road closures	1		

100-Year Flood Risk Reduction

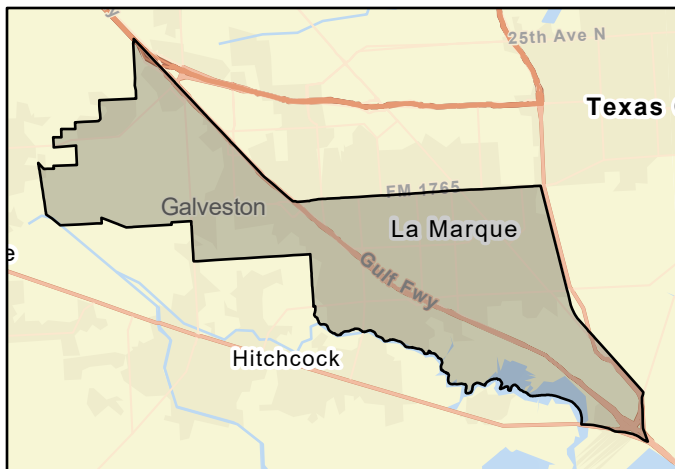
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

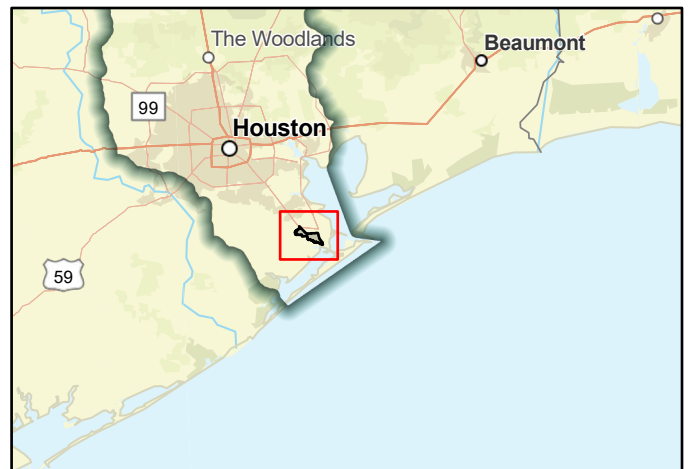
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$30,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Natural Infrastructure Project Barker Reservoir Headwater Acquisition and Restoration**

ID# **062000029** Sponsor **Coastal Prairie Conservancy**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Purchase and restore agricultural & natural lands at the headwater of Barker Reservoir. Manage land for agricultural use, restore native landscape like grasslands and wetlands, and enhance management practices. Provides natural flood mitigation benefits.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	2
Watershed HUC# (if known)	120401020103,120401040101		County Waller

Existing 100-Year Flood Risk

Population at risk	0	# of structures	0	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	0	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

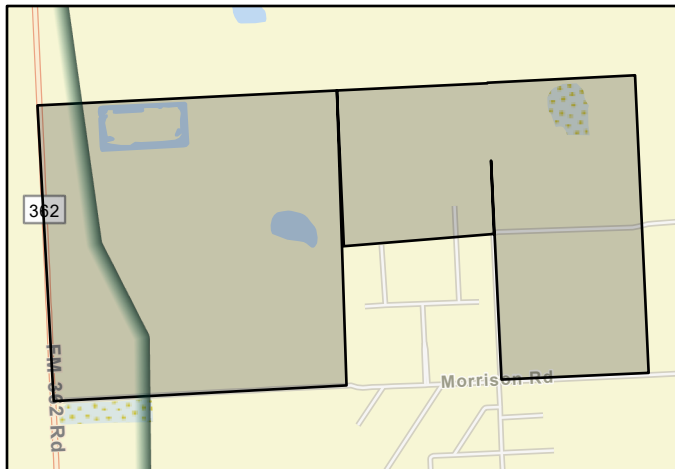
Population removed from 100-yr	-	# of structures removed from 100-yr	-	
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-	
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-	
Other benefits	Environmental, Low Impact Development Features		Reduction in # of road closures over 10 years	-

Impacts

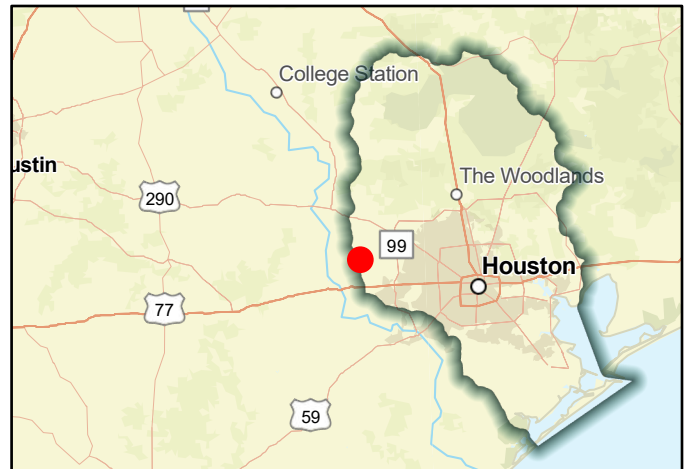
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$33,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Natural Infrastructure Project Mound Creek Conservation**

ID# **062000030** Sponsor **Coastal Prairie Conservancy**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Property Acquisition and Structural Elevation		
Strategy description	Purchase conservation easement from landowner to permanently conserve as agricultural/natural areas. KPC to ensure land remains undeveloped agricultural land and maintain conservation. Would provide multiple benefits such as flood mitigation, and more.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	3
Watershed HUC# (if known)	120401020103,120401020101		County Harris,Waller

Existing 100-Year Flood Risk

Population at risk	0	# of structures	0	Critical facilities	0
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	41	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

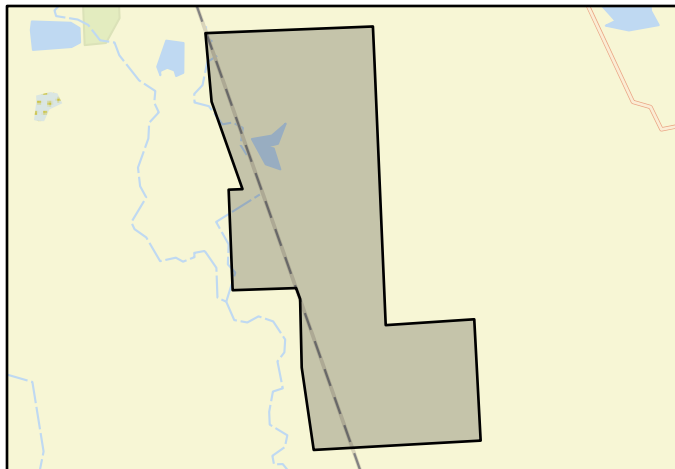
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Environmental	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$32,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title

ID# Sponsor

RFPG recommend? Reason for Recommendation

Strategy Details

Strategy type	<input type="text" value="Education and Outreach"/>		
Strategy description	<input type="text" value="Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the NFIP."/>		
Associated FME's	<input type="text" value="999999"/>	Associated FMP's	<input type="text" value="999999"/>
Associated FMS's	<input type="text" value="999999"/>	Drainage area (mi ² , est.)	<input type="text" value="3"/>
Watershed HUC# (if known)	<input type="text" value="120402040400"/>	County	<input type="text" value="Fort Bend"/>

Existing 100-Year Flood Risk

Population at risk	<input type="text" value="39"/>	# of structures	<input type="text" value="41"/>	Critical facilities	<input type="text" value="0"/>
Flood risk type:	Riverine? <input type="text" value="Yes"/>	Coastal? <input type="text" value="No"/>	Local? <input type="text" value="Yes"/>	Playa? <input type="text" value="No"/>	Other? <input type="text" value="No"/>
Farm/Ranch land impacted (acres)	<input type="text" value="1"/>	Roadway(s) impacted (miles)	<input type="text" value="0"/>		
Number of low water crossings	<input type="text" value="0"/>	Historical road closures	<input type="text" value="0"/>		

100-Year Flood Risk Reduction

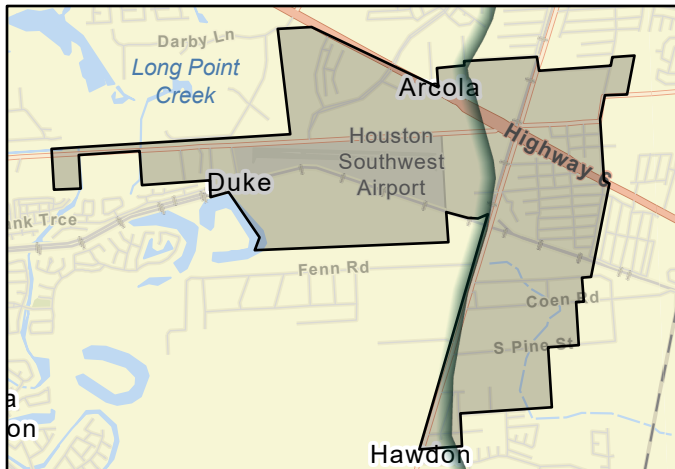
Population removed from 100-yr	<input type="text" value="-"/>	# of structures removed from 100-yr	<input type="text" value="-"/>
Critical facilities removed from 100-yr	<input type="text" value="-"/>	Farm/Ranch land removed from 100-yr (acres)	<input type="text" value="-"/>
Road removed from 100-yr (miles)	<input type="text" value="-"/>	Low water crossings removed from 100-yr	<input type="text" value="-"/>
Other benefits	<input type="text" value="Public Education"/>	Reduction in # of road closures over 10 years	<input type="text" value="-"/>

Impacts

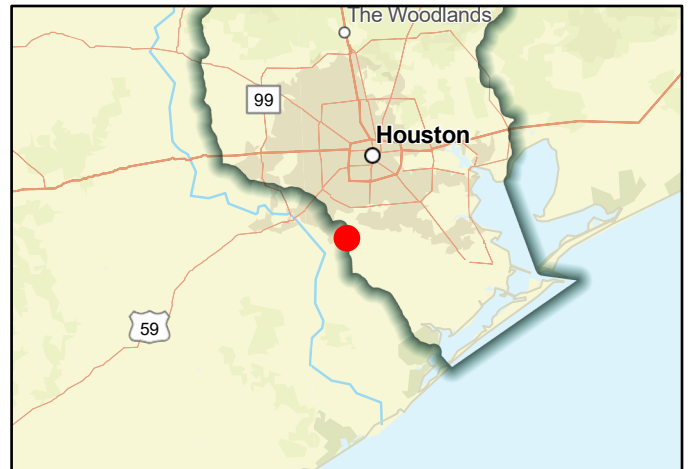
Negative impacts?	<input type="text" value="No"/>	Negative impacts description	<input type="text" value="-"/>
Water supply contributions?	<input type="text" value="No"/>	Water supply contribution description	<input type="text" value="-"/>

Estimated Cost

Strategy Cost	<input type="text" value="\$50,000"/>	Amount of available funding	<input type="text" value="-"/>	% Nature-Based	<input type="text" value="0"/>
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Property Acquisition Down-Stream of High Hazard Dams in Grimes County**

ID# **062000037** Sponsor **Grimes (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Acquire homes located down-stream of high hazard dams.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **799**

Watershed HUC# (if known) **120401010101,120401010301,120401010302,120401010303,1204010101** County **Grimes**

Existing 100-Year Flood Risk

Population at risk **95** # of structures **145** Critical facilities **0**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **151** Roadway(s) impacted (miles) **11**

Number of low water crossings **1** Historical road closures **1**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

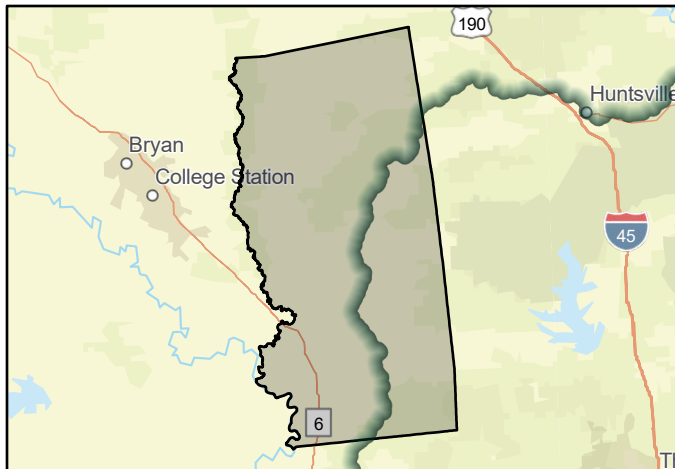
Impacts

Negative impacts? **No** Negative impacts description **-**

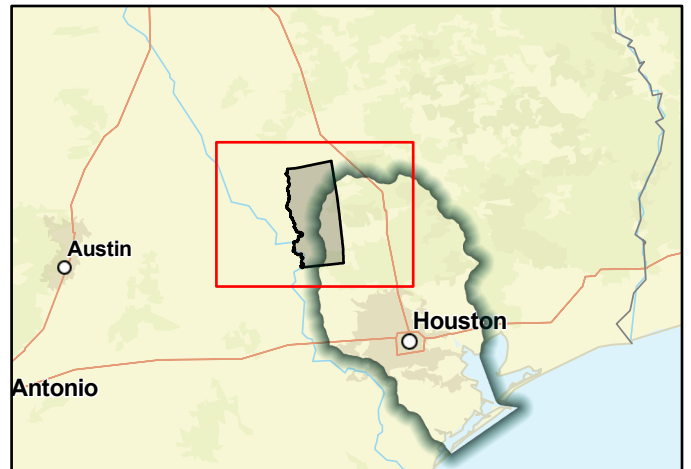
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$1,000,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Public Information and Awareness in City of New Waverly**

ID# **062000019** Sponsor **New Waverly (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Rewrite, improve, and implement new local floodplain regulations, to include a public information campaign on regulatory awareness.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	2
Watershed HUC# (if known)	120401030101	County	Walker

Existing 100-Year Flood Risk

Population at risk	19	# of structures	23	Critical facilities	0
Flood risk type:	Riverine? No	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1	Roadway(s) impacted (miles)	0		
Number of low water crossings	0	Historical road closures	0		

100-Year Flood Risk Reduction

Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

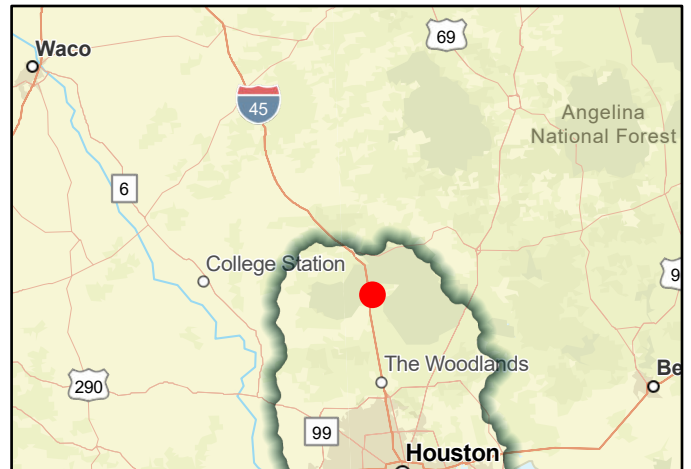
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$10,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Retrofit and Harden the Emergency Operations Center Serving Walker County**

ID# **062000045** Sponsor **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	Retrofit and harden the Emergency Operations Center serving Walker county including city of Huntsville, New Waverly, and Riverside.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	798
Watershed HUC# (if known)	120401010104,120401010101,120401010102,120401010103,1204010102		County Walker

Existing 100-Year Flood Risk

Population at risk	545	# of structures	505	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	180	Roadway(s) impacted (miles)	25		
Number of low water crossings	2	Historical road closures	2		

100-Year Flood Risk Reduction

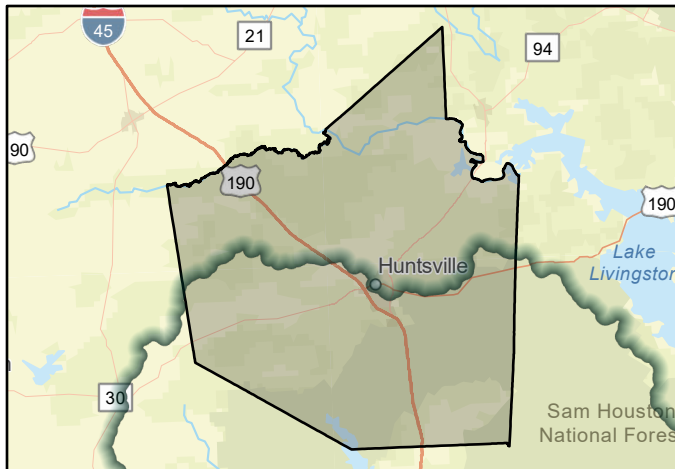
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Uplift	Reduction in # of road closures over 10 years	-

Impacts

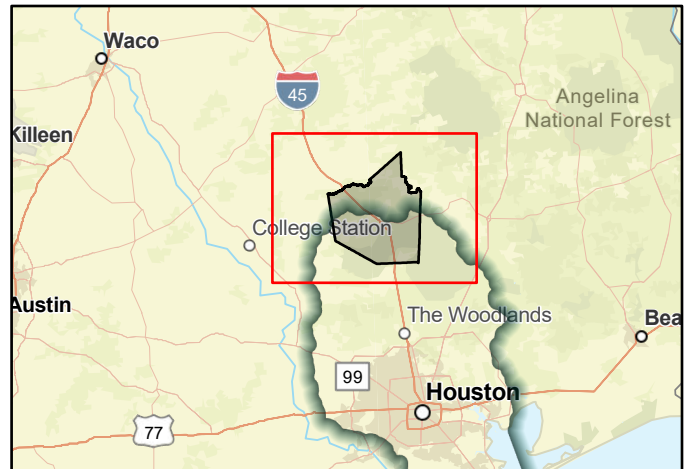
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$4,000,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Walker County Property Acquisition in Deep River Plantation Subdivision**

ID# **062000038** Sponsor **Walker (County)**

RFPG recommend? **No** Reason for Recommendation **Outside of San Jacinto region.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**

Strategy description **Acquire flood loss properties and properties prone to flooding in the Deep River Plantation Subdivision.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **798**

Watershed HUC# (if known) **120401010104,120401010101,120401010102,120401010103,1204010102** County **Walker**

Existing 100-Year Flood Risk

Population at risk **545** # of structures **505** Critical facilities **1**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **180** Roadway(s) impacted (miles) **25**

Number of low water crossings **2** Historical road closures **2**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

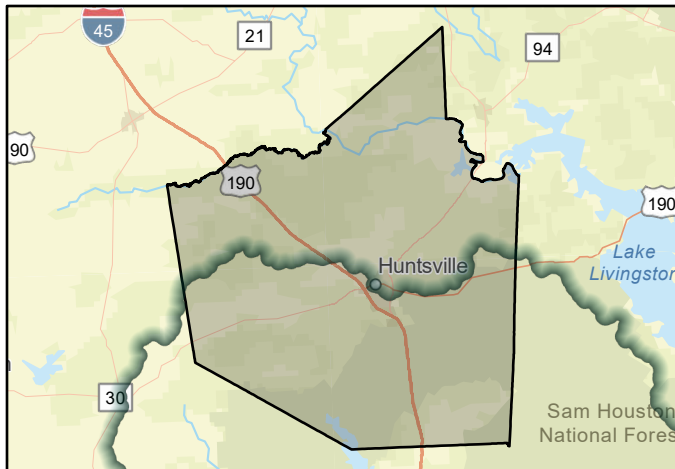
Impacts

Negative impacts? **No** Negative impacts description **-**

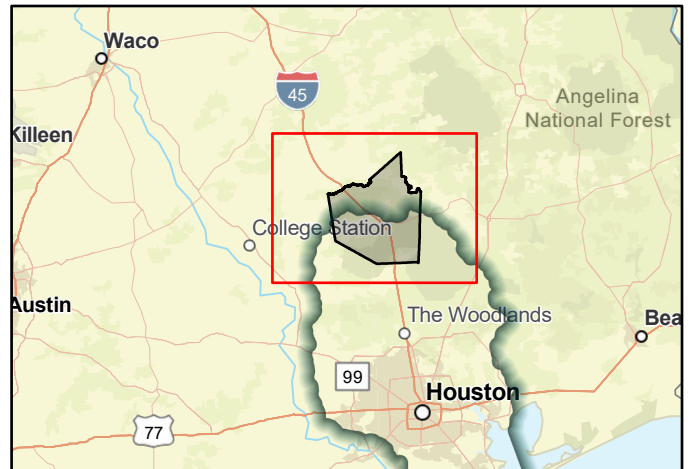
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$2,475,000** Amount of available funding **-** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Walker County Public Hazard Information and Awareness Campaign**

ID# **062000044** Sponsor **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Education and Outreach		
Strategy description	The county and participating jurisdiction will create and implement an education campaign to educate the public on mitigation techniques for all hazards.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	798
Watershed HUC# (if known)	120401010104,120401010101,120401010102,120401010103,1204010102		County Walker

Existing 100-Year Flood Risk

Population at risk	545	# of structures	505	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	180	Roadway(s) impacted (miles)	25		
Number of low water crossings	2	Historical road closures	2		

100-Year Flood Risk Reduction

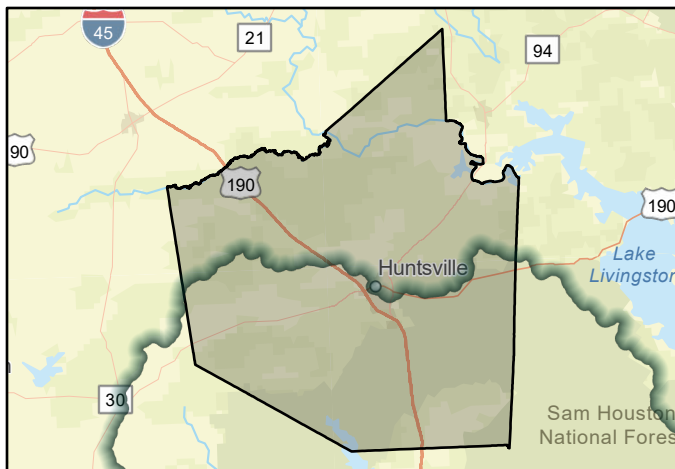
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	Public Education	Reduction in # of road closures over 10 years	-

Impacts

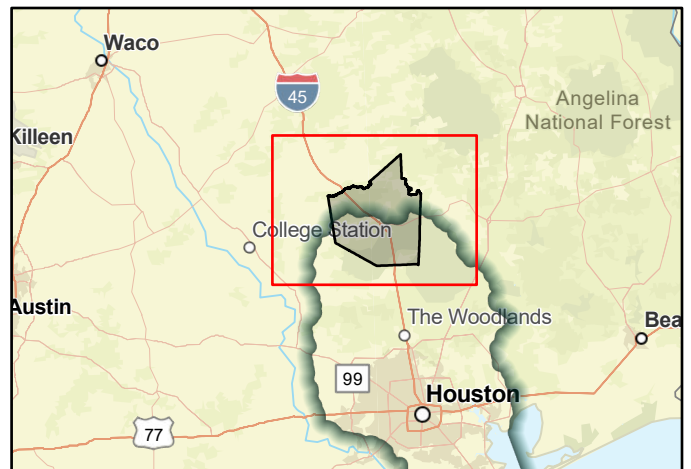
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$20,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Walker County Public Information and Awareness**

ID# **062000027** Sponsor **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Flood Measurement and Warning		
Strategy description	Purchase high water (flood) indicators for low water river crossing for county roads.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	798
Watershed HUC# (if known)	120401010104,120401010101,120401010102,120401010103,1204010102		County Walker

Existing 100-Year Flood Risk

Population at risk	545	# of structures	505	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	180	Roadway(s) impacted (miles)	25		
Number of low water crossings	2	Historical road closures	2		

100-Year Flood Risk Reduction

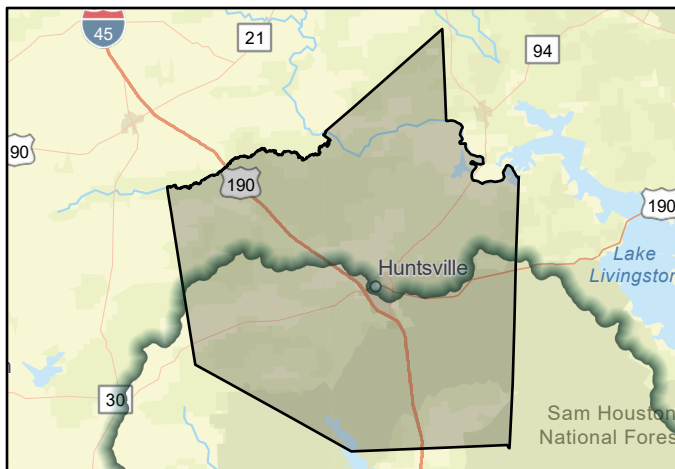
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

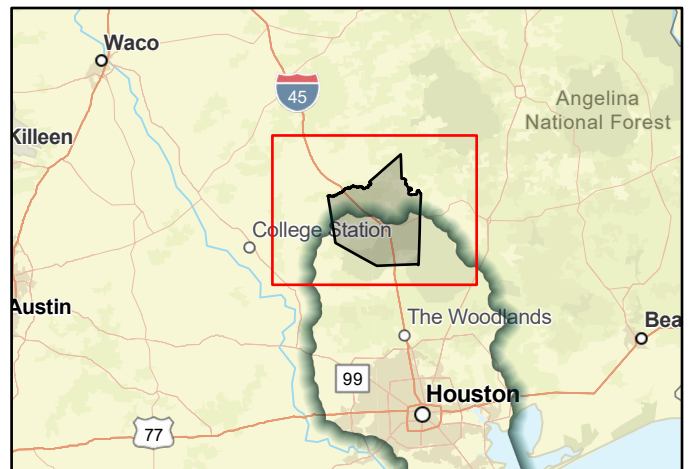
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$248,000	Amount of available funding	-	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Waller County Drainage System Maintenance**

ID# **062000040** Sponsor **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Infrastructure Projects		
Strategy description	Project will clear obstacles, widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding in all participating jurisdictions.		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	516
Watershed HUC# (if known)	120401020102,120401020103,120401020204,120401020101,1204010202		County Waller

Existing 100-Year Flood Risk

Population at risk	1,859	# of structures	1,067	Critical facilities	6
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	1,357	Roadway(s) impacted (miles)	41		
Number of low water crossings	19	Historical road closures	19		

100-Year Flood Risk Reduction

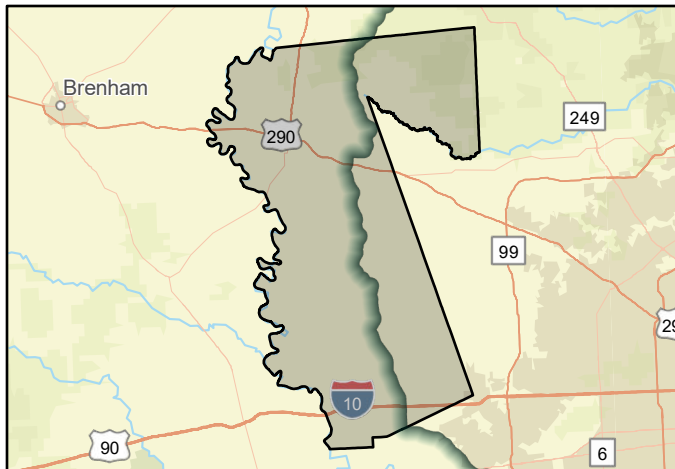
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$2,500,000	Amount of available funding	1250000	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Waller County Elevation Certificate Requirement**

ID# **062000016** Sponsor **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type	Regulatory and Guidance		
Strategy description	Require and maintain FEMA elevation certificates for all new/improved building in the special flood hazard area (SFHA).		
Associated FME's	999999	Associated FMP's	999999
Associated FMS's	999999	Drainage area (mi ² , est.)	798
Watershed HUC# (if known)	120401010104,120401010101,120401010102,120401010103,1204010102		County Waller

Existing 100-Year Flood Risk

Population at risk	545	# of structures	505	Critical facilities	1
Flood risk type:	Riverine? Yes	Coastal? No	Local? Yes	Playa? No	Other? No
Farm/Ranch land impacted (acres)	180	Roadway(s) impacted (miles)	25		
Number of low water crossings	2	Historical road closures	2		

100-Year Flood Risk Reduction

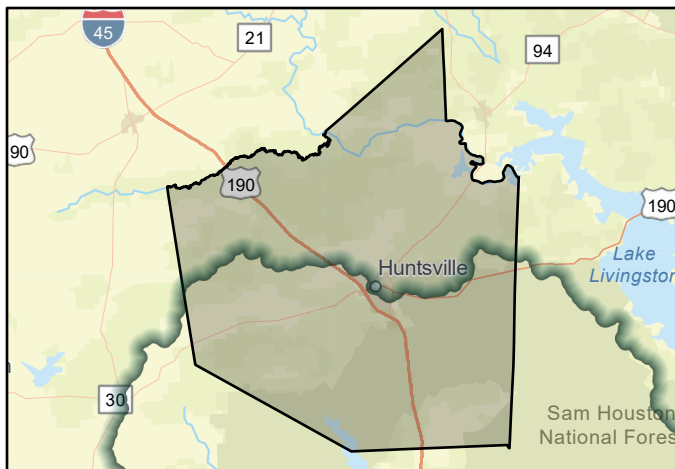
Population removed from 100-yr	-	# of structures removed from 100-yr	-
Critical facilities removed from 100-yr	-	Farm/Ranch land removed from 100-yr (acres)	-
Road removed from 100-yr (miles)	-	Low water crossings removed from 100-yr	-
Other benefits	-	Reduction in # of road closures over 10 years	-

Impacts

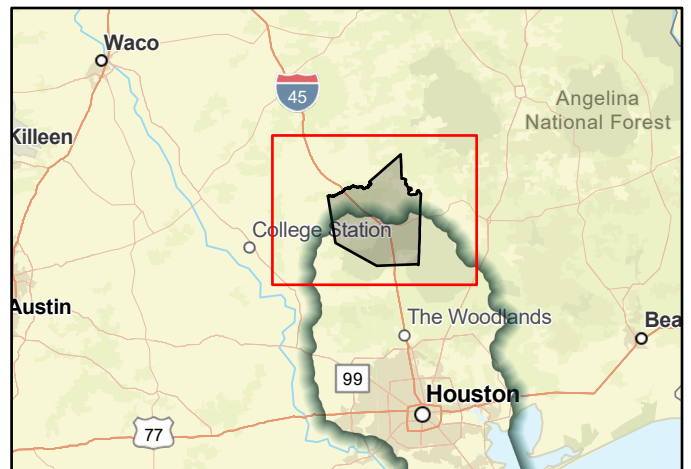
Negative impacts?	No	Negative impacts description	-
Water supply contributions?	No	Water supply contribution description	-

Estimated Cost

Strategy Cost	\$50,000	Amount of available funding	25000	% Nature-Based	0
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FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Waller County Flood Hazard Public Information Campaign**

ID# **062000041** Sponsor **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Education and Outreach**

Strategy description **Posting of signage at high profile locations and use of social media to communicate threats/concerns. Flood gauges for common flooded road crossings. Burn ban signs.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999**

Watershed HUC# (if known) **120401020102,120401020103,120401020204,120401020101,1204010202** Drainage area (mi², est.) **516**

County **Waller**

Existing 100-Year Flood Risk

Population at risk **1,859** # of structures **1,067** Critical facilities **6**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **1,357** Roadway(s) impacted (miles) **41**

Number of low water crossings **19** Historical road closures **19**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **Public Education** Reduction in # of road closures over 10 years **-**

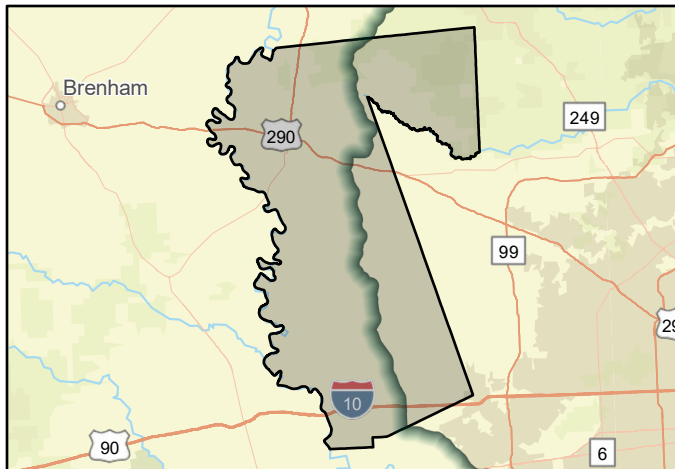
Impacts

Negative impacts? **No** Negative impacts description **-**

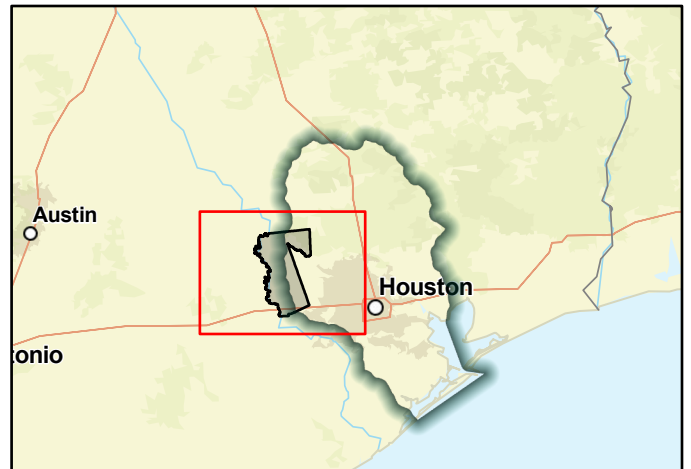
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$20,000** Amount of available funding **10000** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Waller County Freeboard Requirement Update**

ID# **062000042** Sponsor **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Regulatory and Guidance**

Strategy description **The county may increase its freeboard requirement to 24-in from 18-in above the base flood elevation. County may require that all new lots within a platted subdivision be located fully outside of the floodplain. Applicable to all floodplain development.**

Associated FME's **999999** Associated FMP's **999999**

Associated FMS's **999999** Drainage area (mi², est.) **516**

Watershed HUC# (if known) **120401020102,120401020103,120401020204,120401020101,1204010202** County **Waller**

Existing 100-Year Flood Risk

Population at risk **1,859** # of structures **1,067** Critical facilities **6**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

Farm/Ranch land impacted (acres) **1,357** Roadway(s) impacted (miles) **41**

Number of low water crossings **19** Historical road closures **19**

100-Year Flood Risk Reduction

Population removed from 100-yr **-** # of structures removed from 100-yr **-**

Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**

Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**

Other benefits **-** Reduction in # of road closures over 10 years **-**

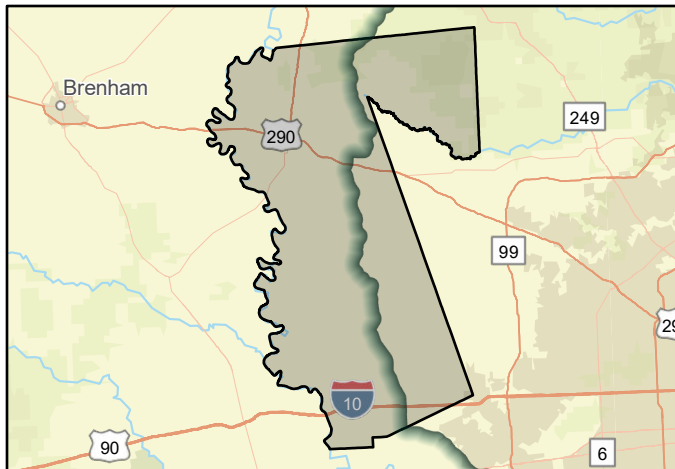
Impacts

Negative impacts? **No** Negative impacts description **-**

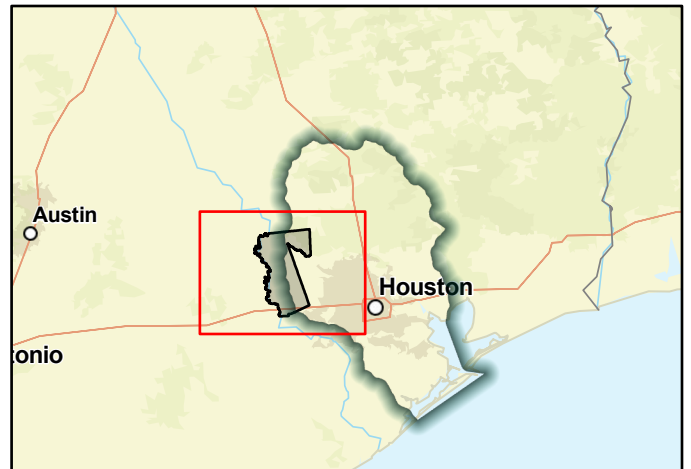
Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$100,000** Amount of available funding **100000** % Nature-Based **0**



FMS area



Regional view of FMS area

Flood Management Strategy (FMS)



Title **Warren Ranch Preservation**
 ID# **062000066** Sponsor **Coastal Prairie Conservancy**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Strategy Details

Strategy type **Property Acquisition and Structural Elevation**
 Strategy description **Acquisition of remaining private interest stake in the 6,004-acre Warren Ranch for floodplain preservation and conservation. Place a conservation easement on the Ranch to conserve ag and natural habitat.**
 Associated FME's **999999** Associated FMP's **999999**
 Associated FMS's **999999** Drainage area (mi², est.) **9**
 Watershed HUC# (if known) **120401020103** County **Harris**

Existing 100-Year Flood Risk

Population at risk **0** # of structures **0** Critical facilities **0**
 Flood risk type: Riverine? **Yes** Coastal? **No** Local? **No** Playa? **No** Other? **No**
 Farm/Ranch land impacted (acres) **240** Roadway(s) impacted (miles) **0**
 Number of low water crossings **2** Historical road closures **2**

100-Year Flood Risk Reduction

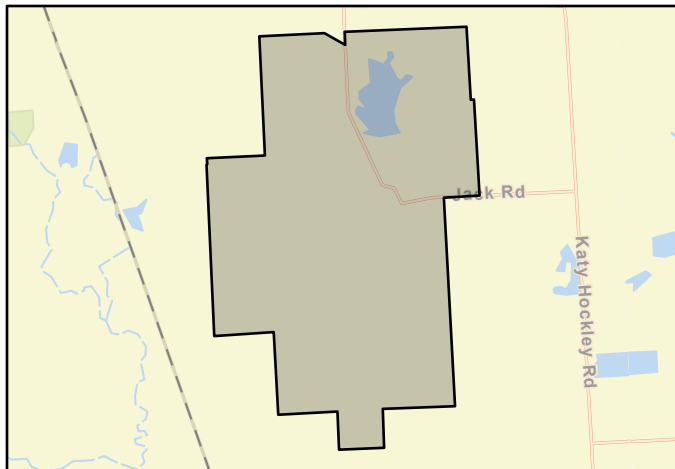
Population removed from 100-yr **-** # of structures removed from 100-yr **-**
 Critical facilities removed from 100-yr **-** Farm/Ranch land removed from 100-yr (acres) **-**
 Road removed from 100-yr (miles) **-** Low water crossings removed from 100-yr **-**
 Other benefits **Public access and recreation, agriculture, habitat** Reduction in # of road closures over 10 years **-**

Impacts

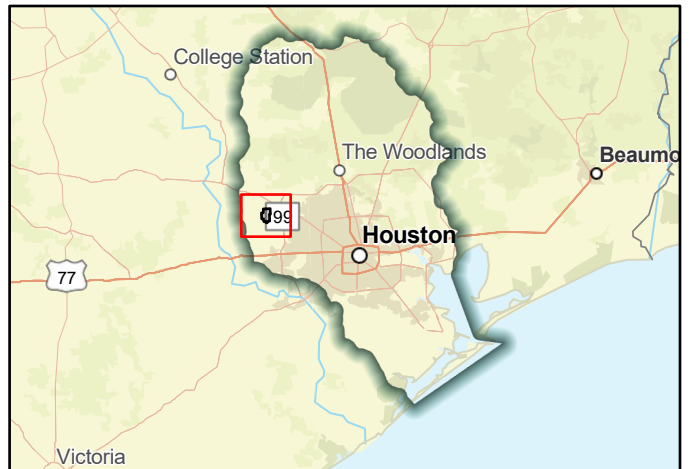
Negative impacts? **No** Negative impacts description **-**
 Water supply contributions? **No** Water supply contribution description **-**

Estimated Cost

Strategy Cost **\$50,000,000** Amount of available funding **-** % Nature-Based **100**



FMS area



Regional view of FMS area

**Appendix 5-5C:
One-Page Summaries of Recommended FMEs**

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title 37th Street, Galveston, Drainage Project

ID# 061000311

Sponsor (name of entity, not person) Galveston (Municipality)

RFPG recommend? No

Reason for Recommendation

FME has been elevated to an FMP.

Study Details

Study type Project Planning

Study description Further study and FMP development of existing storm sewer system replacement and upgrades using the city's updated drainage criteria that now require a 25-year storm drainage capacity.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria, Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 253

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 89,177

of structures 40,129

Critical facilities 636

Flood risk type: Riverine? No

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2,683

Roadway(s) impacted (length) 723

Number of low water crossings 26

Historical road closures

26

Estimated Cost and Funding Availability

Total Cost \$30,000

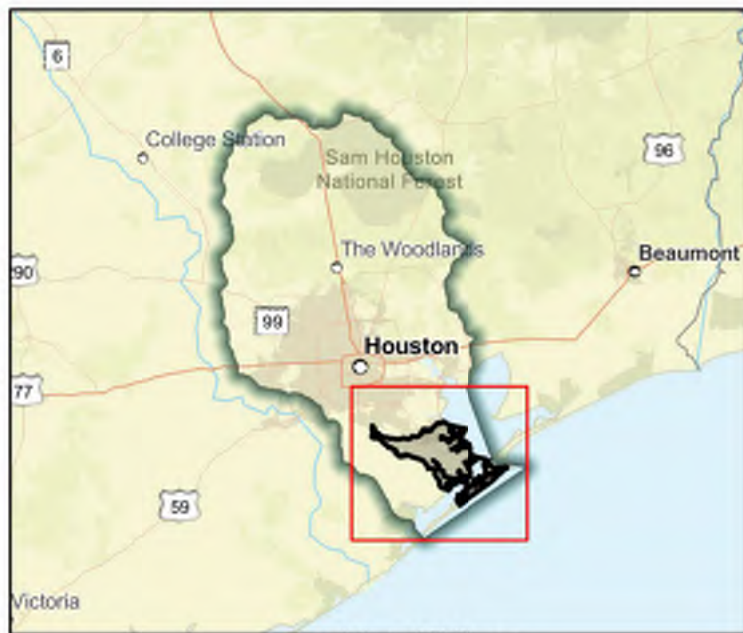
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title 51st Street Drainage Basin Pump Station Project

ID# 061000541

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description The project includes evaluation of storm drainage improvements including a pump station at 51st Street and Harborside that will help reduce flooding in the project area and the surrounding areas.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,139

of structures 1,912

Critical facilities 23

Flood risk type: Riverine? No

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 26

Number of low water crossings 0

Historical road closures 0

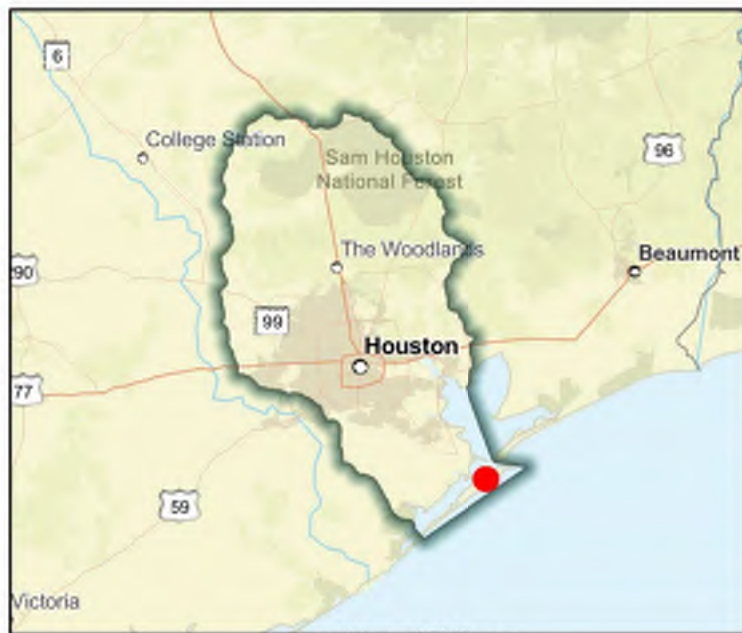
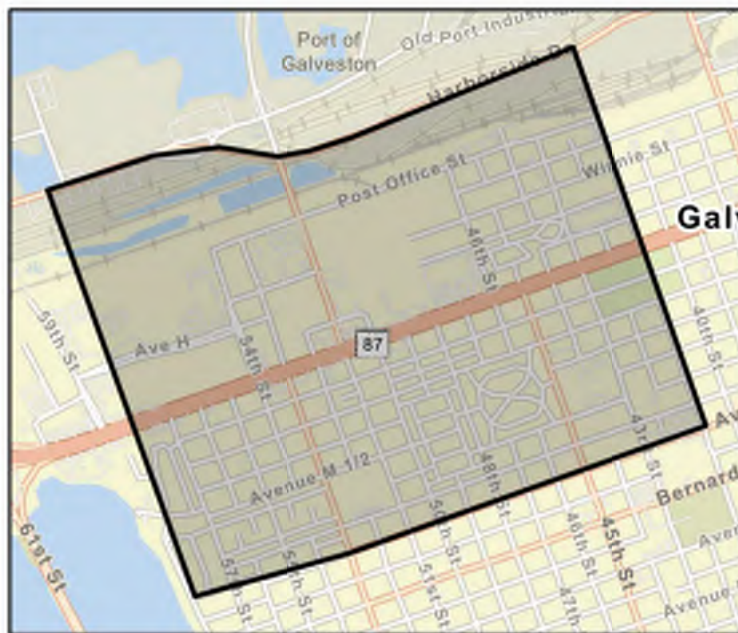
Estimated Cost and Funding Availability

Total Cost \$9,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Addicks Reservoir - Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek

ID# 061000441

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become a FMP. This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the rainfall event by more than 340 acres in a pre-Atlas 1% rainfall event.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040102,120401040202,120401040104,120401040203,120401040

Drainage area (Square miles, est.) 16

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,455

of structures 692

Critical facilities 12

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 27

Roadway(s) impacted (length) 12

Number of low water crossings 0

Historical road closures 0

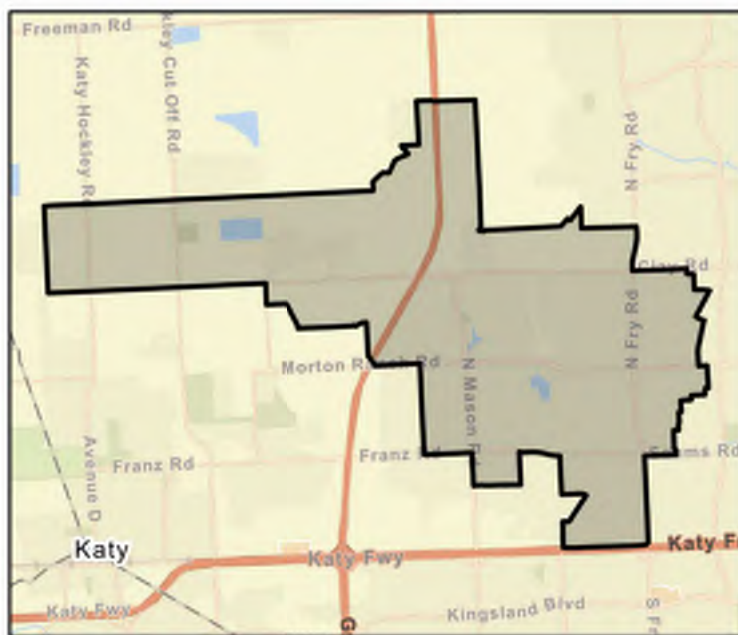
Estimated Cost and Funding Availability

Total Cost \$30,000

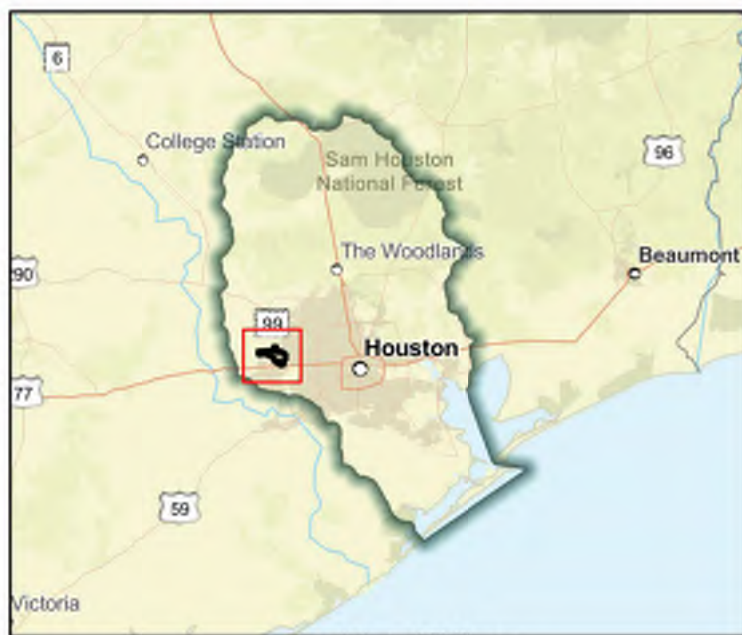
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Addicks Reservoir - Design and Construction of Dinner Creek Stormwater Detention Basin

ID# 061000313

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? No

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type Project Planning

Study description Develop BCA to become a FMP. Project would provide additional stormwater detention in support of flood damage reduction and could reduce the risk of flooding for approximately 30 multi-family structures in Addicks Reservoir Watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040201,120401040202

Drainage area (Square miles, est.) 13

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,094

of structures 381

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 13

Roadway(s) impacted (length) 5

Number of low water crossings 0

Historical road closures 0

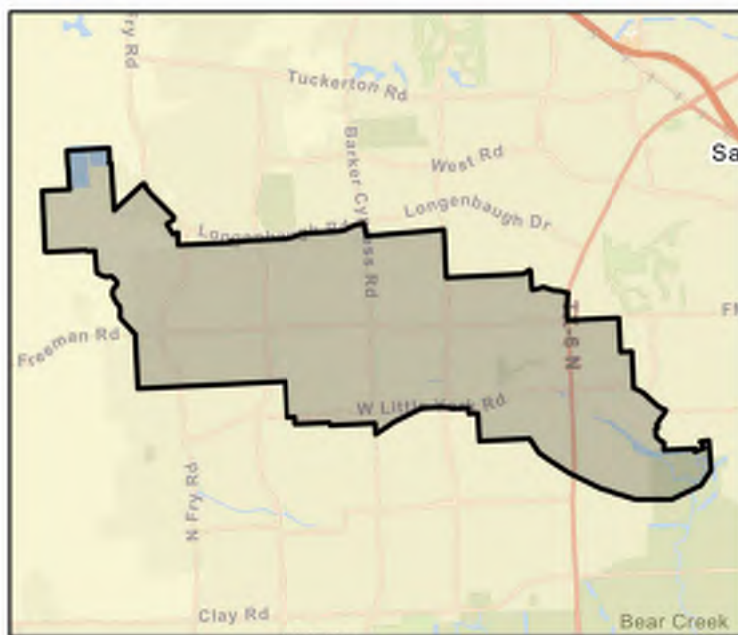
Estimated Cost and Funding Availability

Total Cost \$30,000

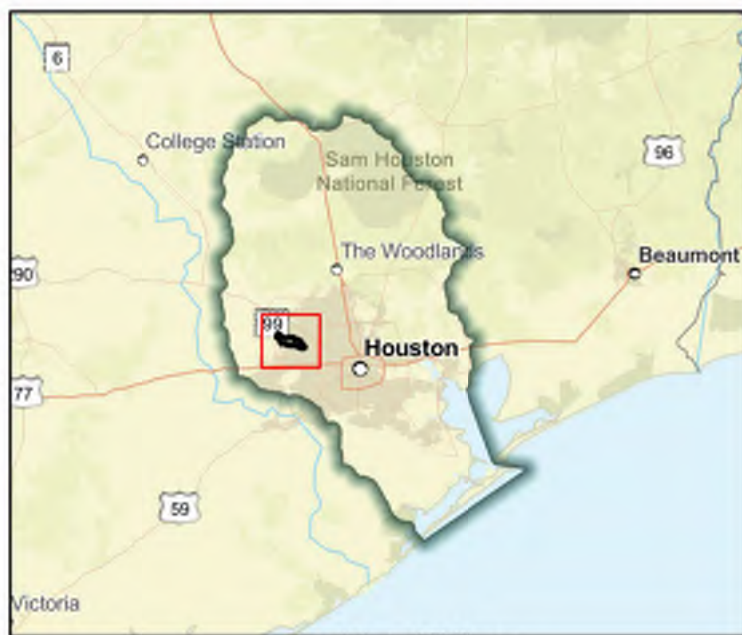
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Addicks Reservoir - Neighborhood Future Floodplain Analysis**

ID# **061000501**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Addicks Reservoir watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Waller**

Watershed HUC# (if known) **120401020103, 120401020104, 120401040101, 120401040102,**

Drainage area (Square miles, est.) **138**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **8,182**

of structures **3,746**

Critical facilities **52**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,607**

Roadway(s) impacted (length) **114**

Number of low water crossings **0**

Historical road closures **0**

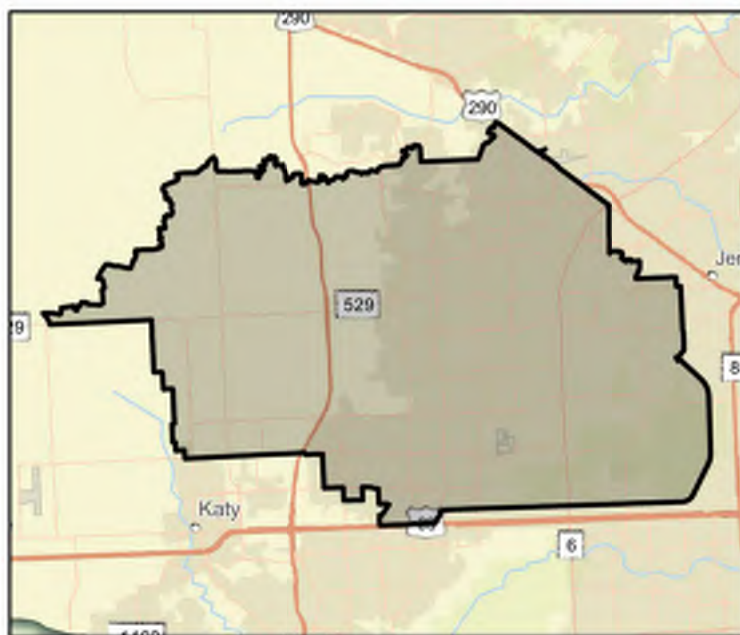
Estimated Cost and Funding Availability

Total Cost **\$31,021,072**

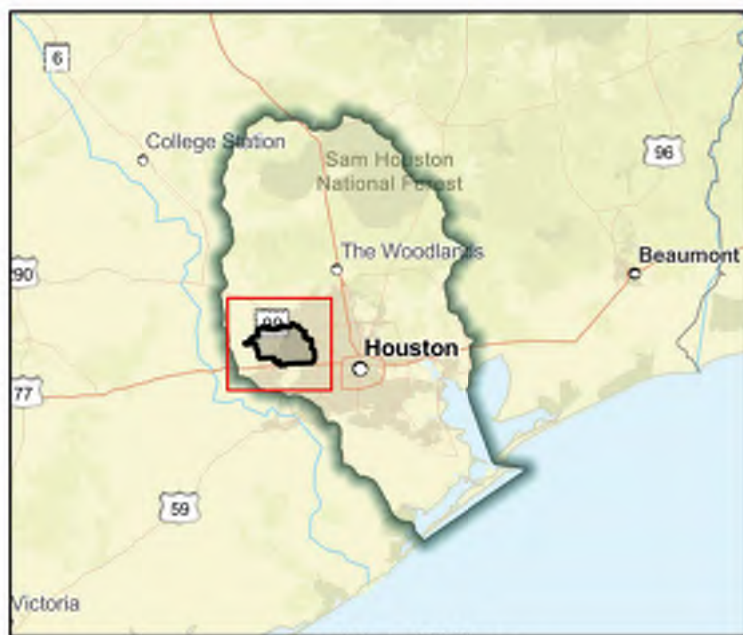
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Addicks Reservoir Local Drainage Study**

ID# **061000527**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Addicks Reservoir watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Waller**

Watershed HUC# (if known) **120401020103,120401020104,120401040101,120401040102,120401040**

Drainage area (Square miles, est.) **138**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **8,182**

of structures **3,746**

Critical facilities **52**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,607**

Roadway(s) impacted (length) **114**

Number of low water crossings **0**

Historical road closures **0**

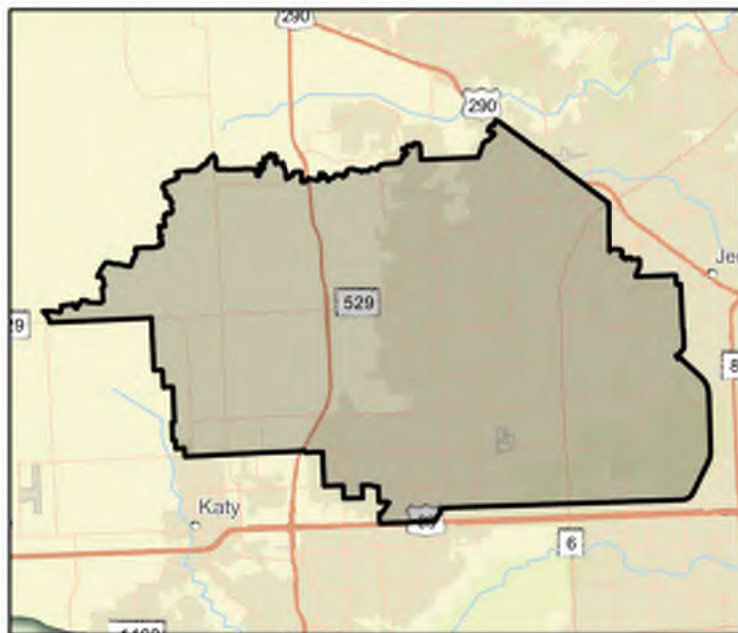
Estimated Cost and Funding Availability

Total Cost **\$7,150,369**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Addicks Reservoir Watershed Study

ID# 061000177

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.

New Hydrologic or Hydraulic model? No

Emergency Need? Yes

Existing/Anticipated models in near term? Yes

County Harris,Waller

Watershed HUC# (if known) 120401020103,120401040102,120401040202,120401040104,120401040

Drainage area (Square miles, est.) 138

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 8,182

of structures 3,746

Critical facilities 52

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,607

Roadway(s) impacted (length) 114

Number of low water crossings 0

Historical road closures

0

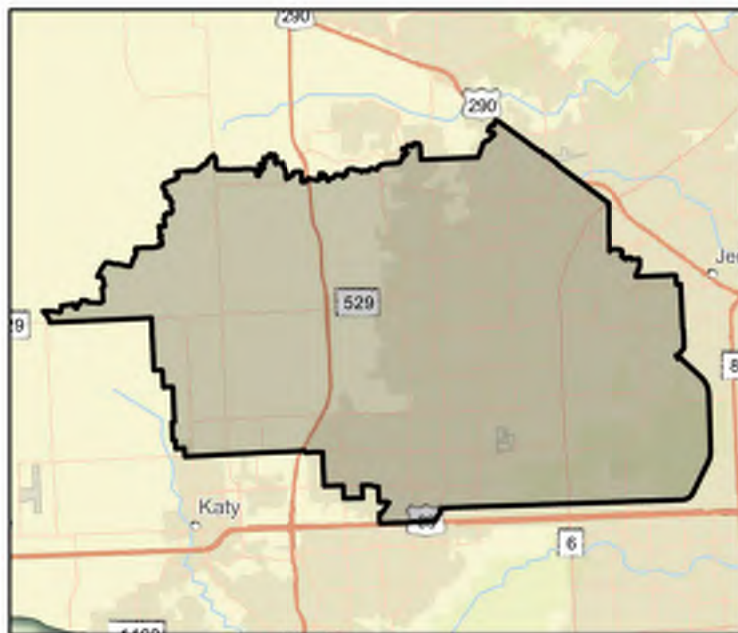
Estimated Cost and Funding Availability

Total Cost \$670,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2

ID# 061000146

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Further study of proposed drainage improvements to stafford oaks.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures 5

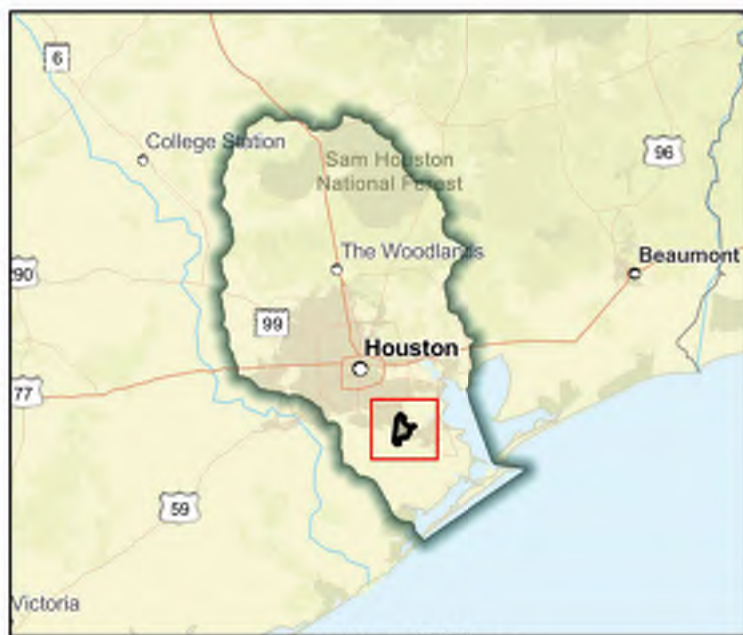
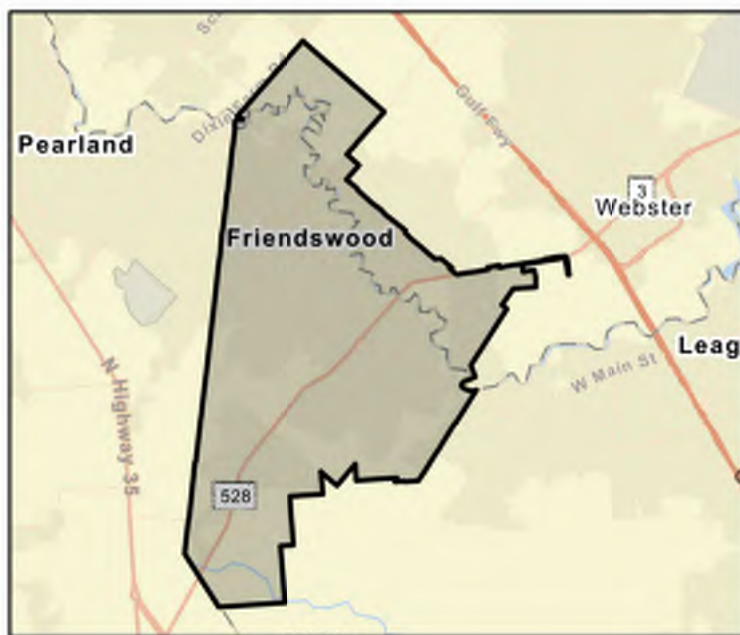
Estimated Cost and Funding Availability

Total Cost \$50,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **April Sound Subdivision Evaluation**

ID# **061000214**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Detailed analysis to be completed for the entire development using detailed storm sewer modeling.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401,120401010402**

Drainage area (Square miles, est.) **100**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **9,102**

of structures **3,460**

Critical facilities **40**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **98**

Roadway(s) impacted (length) **84**

Number of low water crossings **18**

Historical road closures **18**

Estimated Cost and Funding Availability

Total Cost **\$1,700,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Arcadian Gardens Subdivision Drainage Improvements

ID# 061000317

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Cost Benefit Analysis and elevate the project to a FMP. To achieve this goal, the key features of improvements are to rehabilitate roadside swales, build new storm sewers and improve the outfall drainage conditions.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040704

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5

of structures 5

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 0

Number of low water crossings -

Historical road closures -

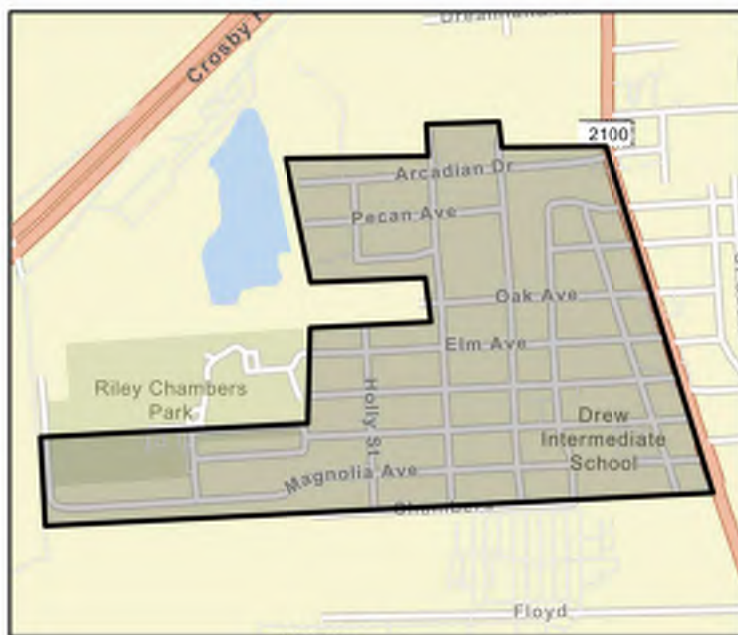
Estimated Cost and Funding Availability

Total Cost \$30,000

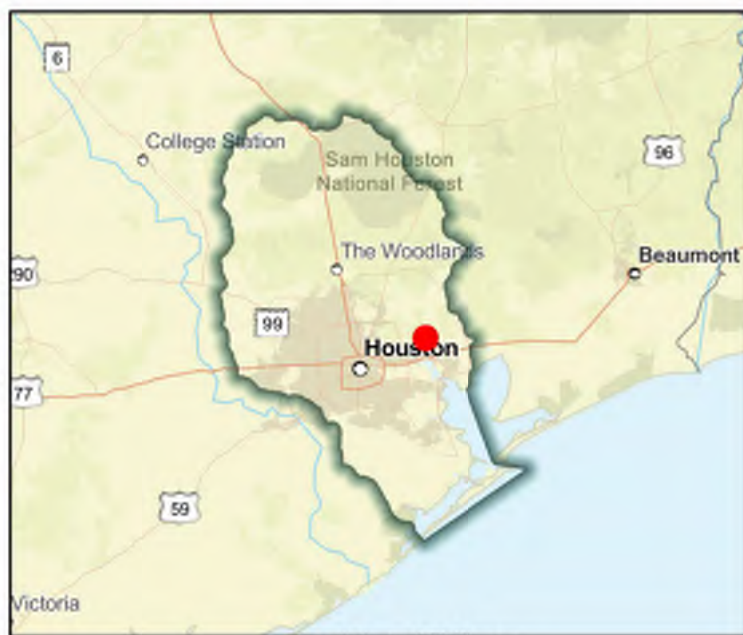
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Armand Bayou - Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins**

ID# **061000319**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **Elevated to FMP apart of Task 13.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Design and Construction of this stormwater detention basin could reduce the risk of flooding for over 400 structures in an Atlas 14 1% rainfall event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **390**

of structures **63**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **6**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

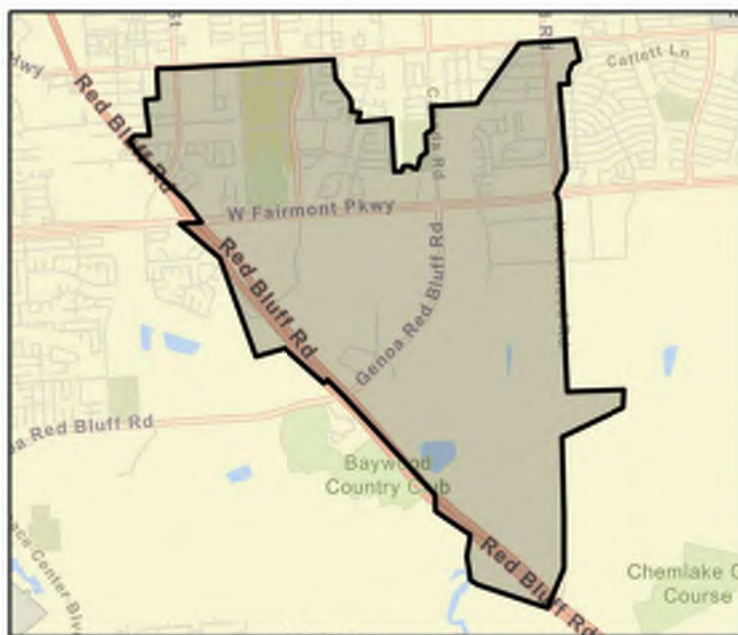
Estimated Cost and Funding Availability

Total Cost **\$30,000**

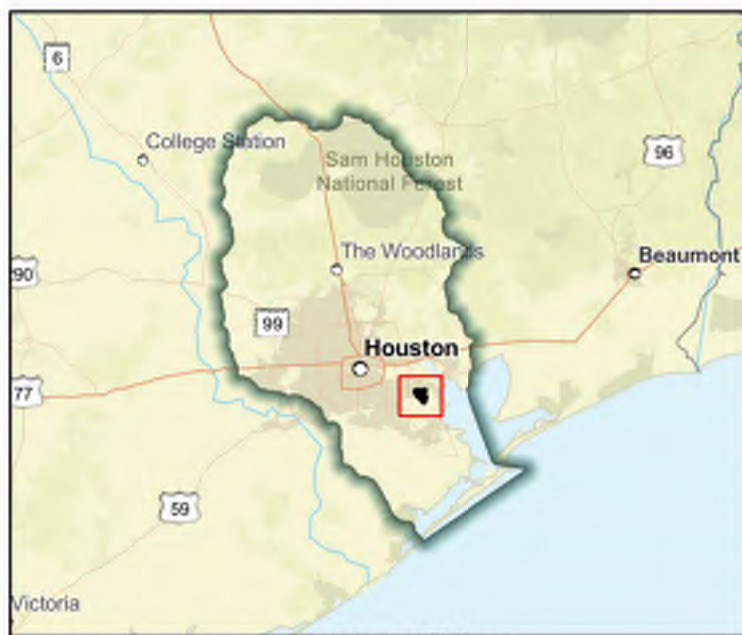
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Armand Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000502**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Armand Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040703, 120401040706, 120402040100**

Drainage area (Square miles, est.) **59**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **12,810**

of structures **2,946**

Critical facilities **52**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **44**

Roadway(s) impacted (length) **62**

Number of low water crossings **4**

Historical road closures **4**

Estimated Cost and Funding Availability

Total Cost **\$44,077,376**

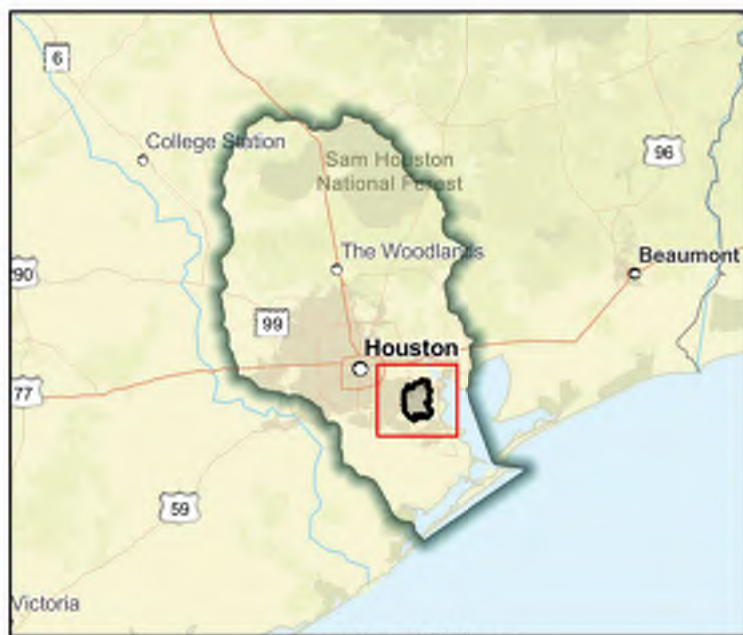
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Armand Bayou Watershed- Basin Expansion and Extension and H&H Study (Phases 1 + 2)**

ID# **061000321**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **Elevated to FMP apart of Task 13.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Channel modifications along B115-00-00 requires expansion of B500-04-00 and new detention property.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,624**

of structures **371**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

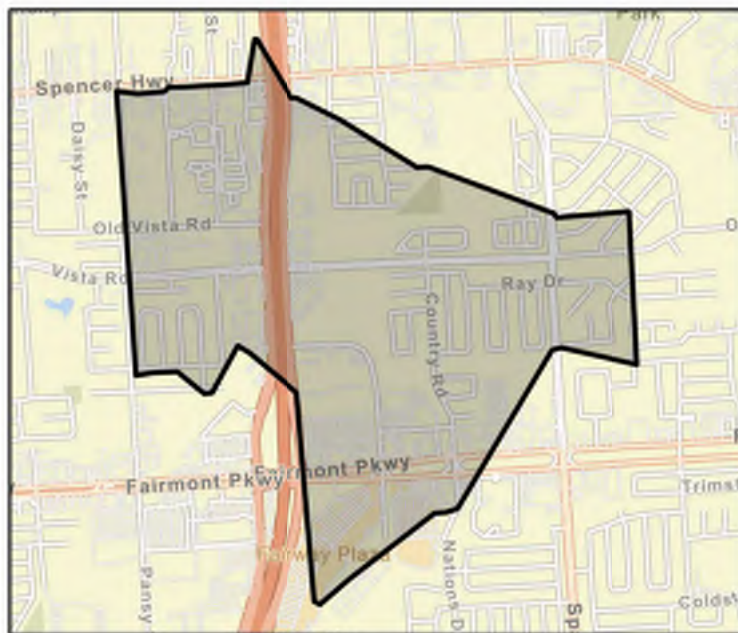
Estimated Cost and Funding Availability

Total Cost **\$30,000**

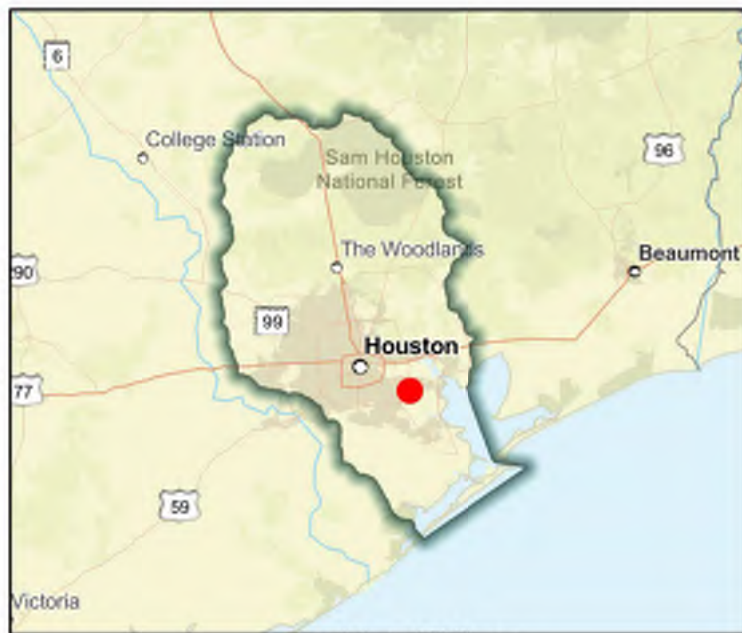
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Artesian Forest 1 - Artesian Creek Watershed

ID# 061000443

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 68

of structures 40

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

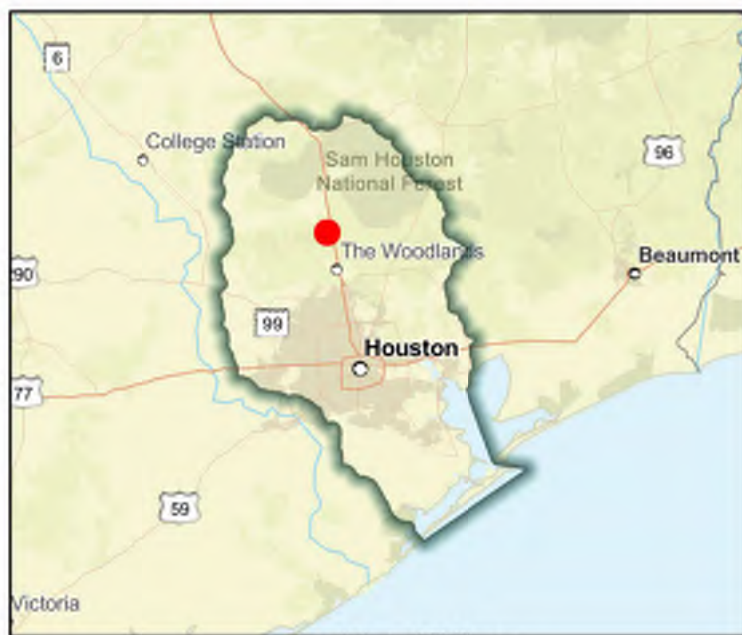
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Artesian Forest East - Artesian Creek Watershed

ID# 061000444

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 68

of structures 40

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

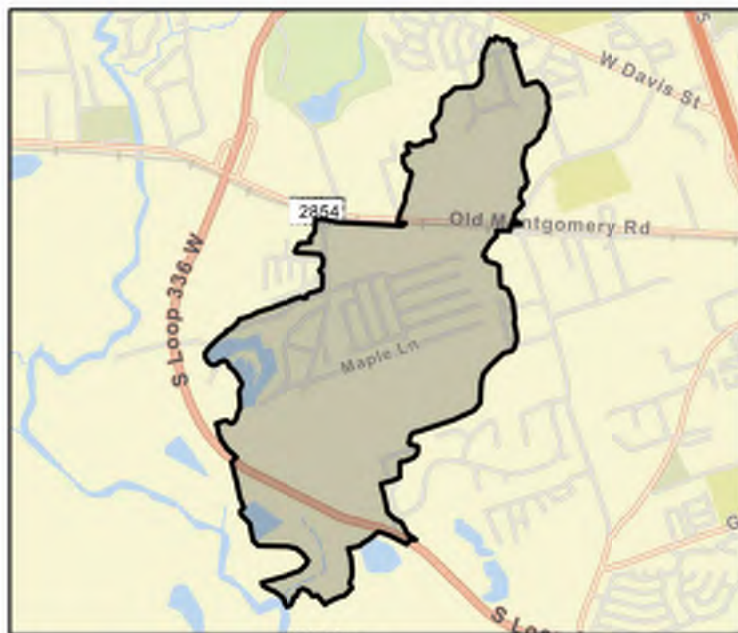
Estimated Cost and Funding Availability

Total Cost \$30,000

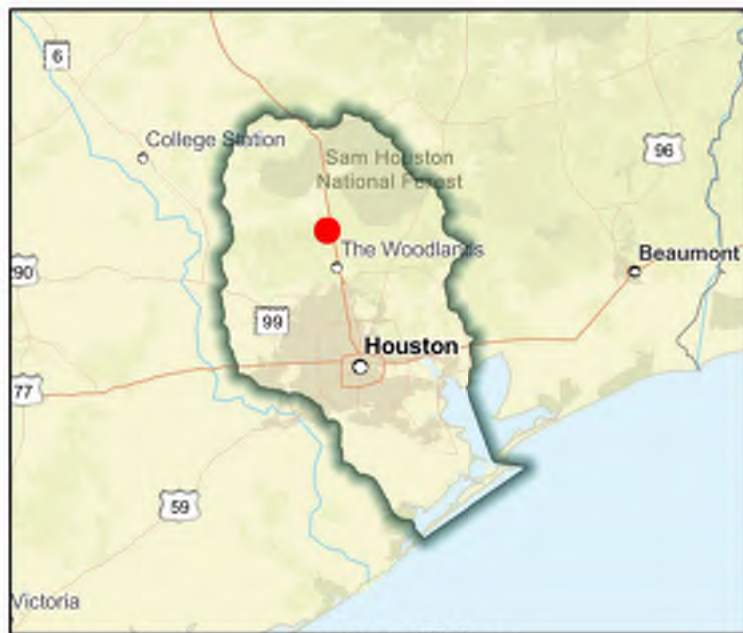
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Avenue M - Stewarts Creek Watershed

ID# 061000457

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010403,120401010401,120401010402,120401010

Drainage area (Square miles, est.) 20

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,606

of structures 374

Critical facilities 6

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 10

Number of low water crossings 7

Historical road closures 7

Estimated Cost and Funding Availability

Total Cost \$30,000

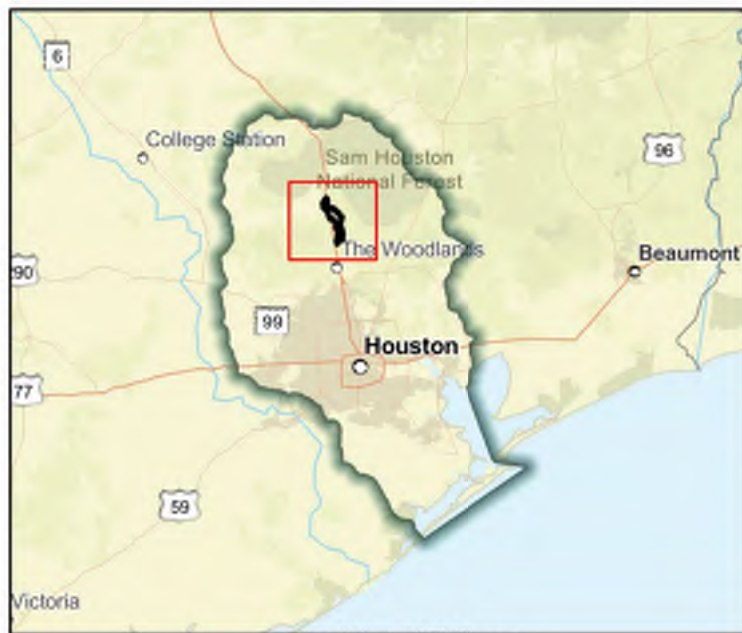
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **B106-WP01 & WP02 for Armand Bayou Watershed**

ID# **061000323**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Conveyance improvements for B106-00-00 channel, including detention/mitigation storage.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040706,120402040100**

Drainage area (Square miles, est.) **10**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,478**

of structures **473**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **21**

Roadway(s) impacted (length) **7**

Number of low water crossings **0**

Historical road closures **0**

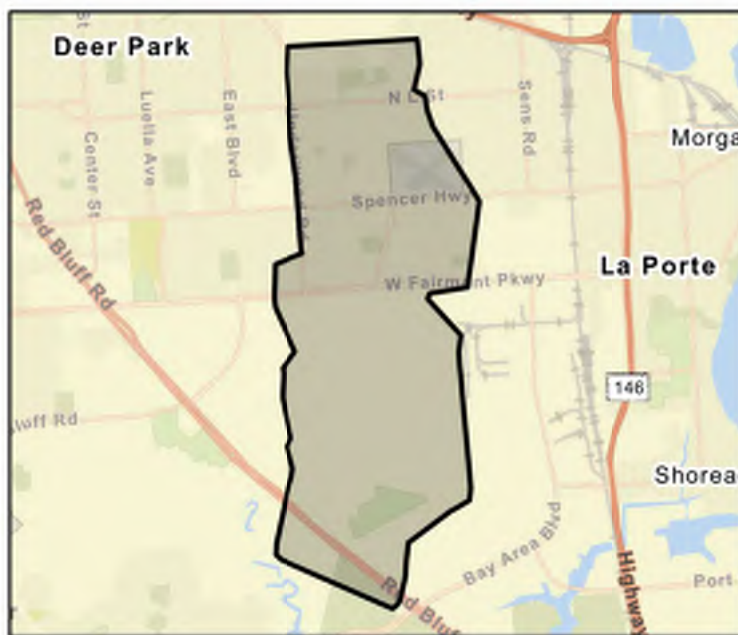
Estimated Cost and Funding Availability

Total Cost **\$30,000**

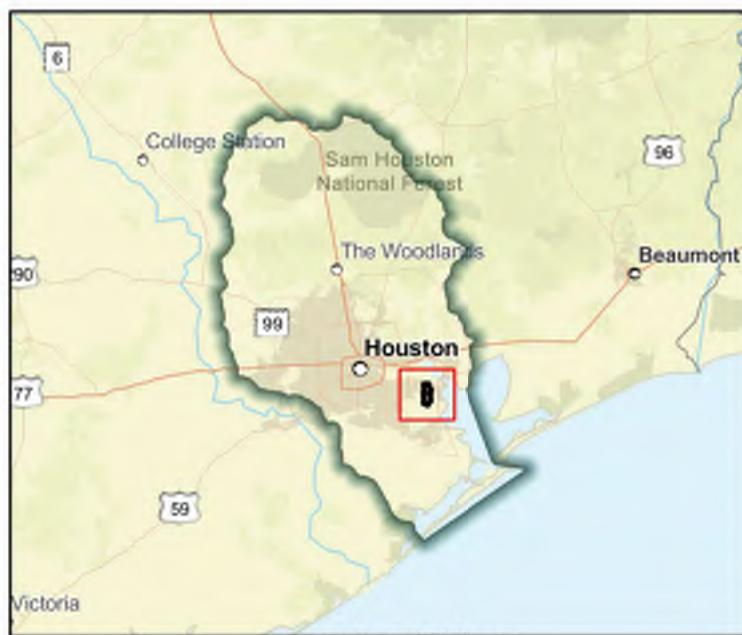
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Baretta - Grand Lake Creek Watershed**

ID# **061000454**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010401**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **171**

of structures **102**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **6**

Number of low water crossings **1**

Historical road closures **1**

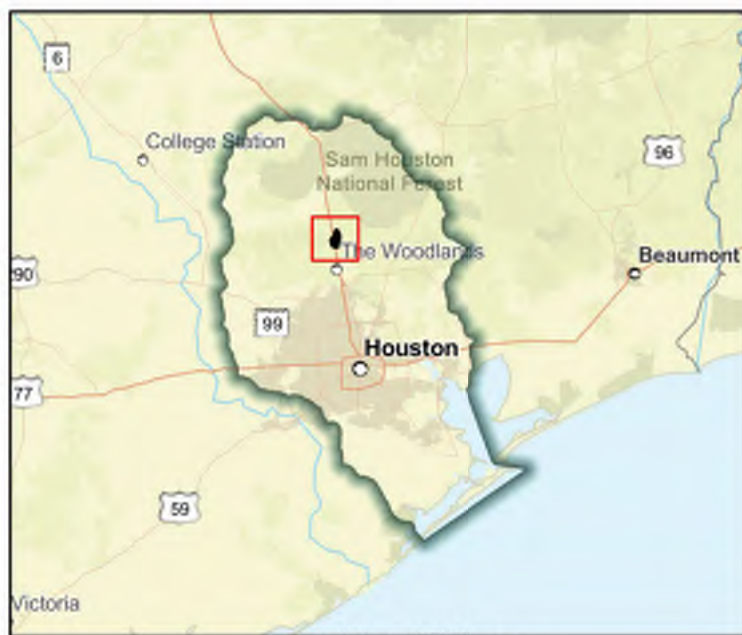
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Barker - T101-00-00

ID# 061000217

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for T101-00-00 through the HCFCF "Watershed Planning Tool" to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040102,120401040104,120401040203,120401040303

Drainage area (Square miles, est.) 17

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 412

of structures 41

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 9

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

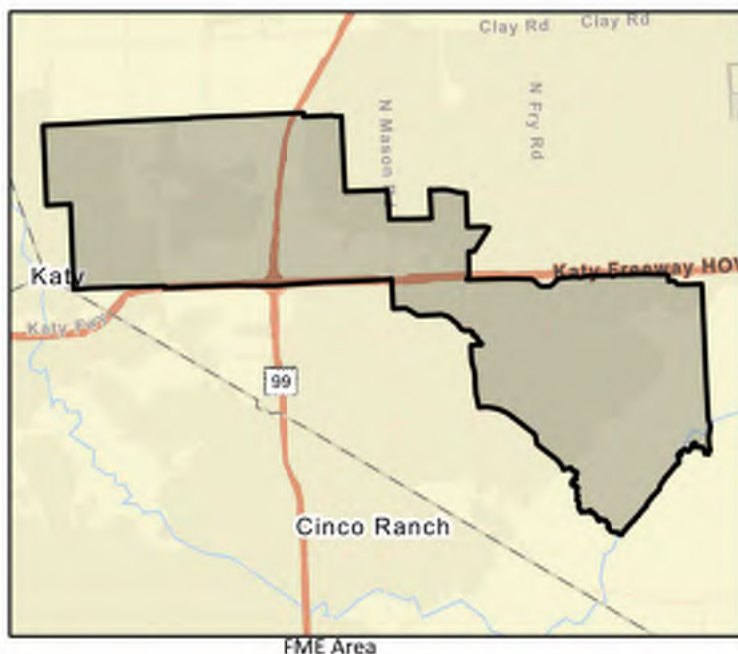
Estimated Cost and Funding Availability

Total Cost \$500,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Barker - T103-00-00**

ID# **061000218**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Flood Risk Reduction need identified for T103-00-00 through the HCFCFD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040104**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **25**

of structures **7**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

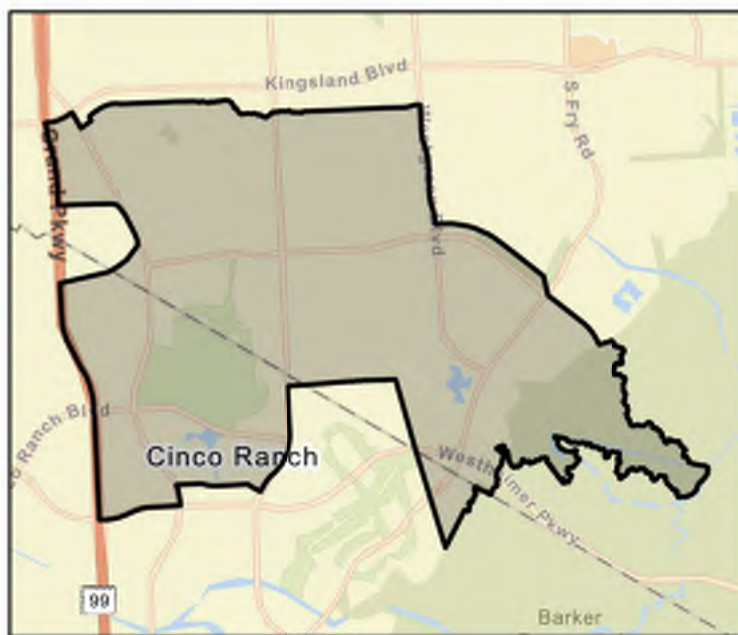
Estimated Cost and Funding Availability

Total Cost **\$300,000**

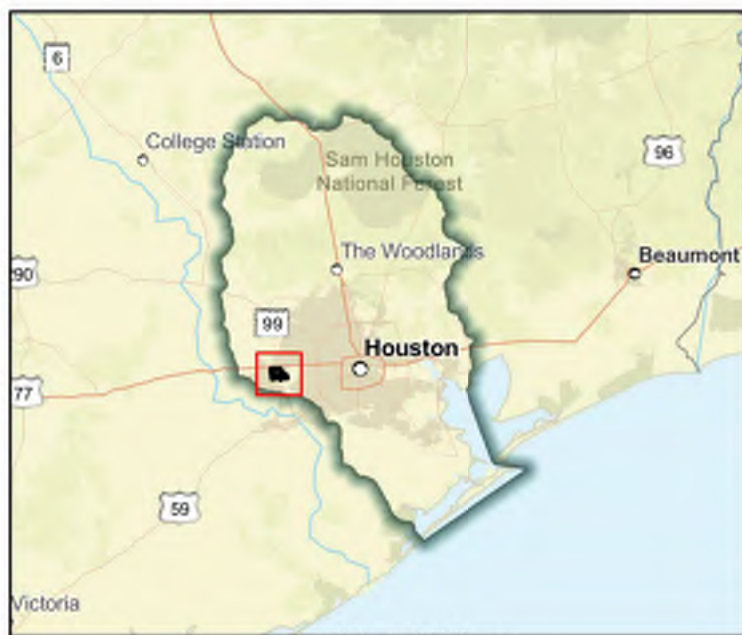
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Barker Reservoir - Neighborhood Future Floodplain Analysis**

ID# **061000503**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Barkers Reservoir watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Waller, Fort Bend**

Watershed HUC# (if known) **120401020103, 120401040101, 120401040102, 120401040103,**

Drainage area (Square miles, est.) **129**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **2,598**

of structures **1,051**

Critical facilities **11**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **753**

Roadway(s) impacted (length) **34**

Number of low water crossings **5**

Historical road closures **5**

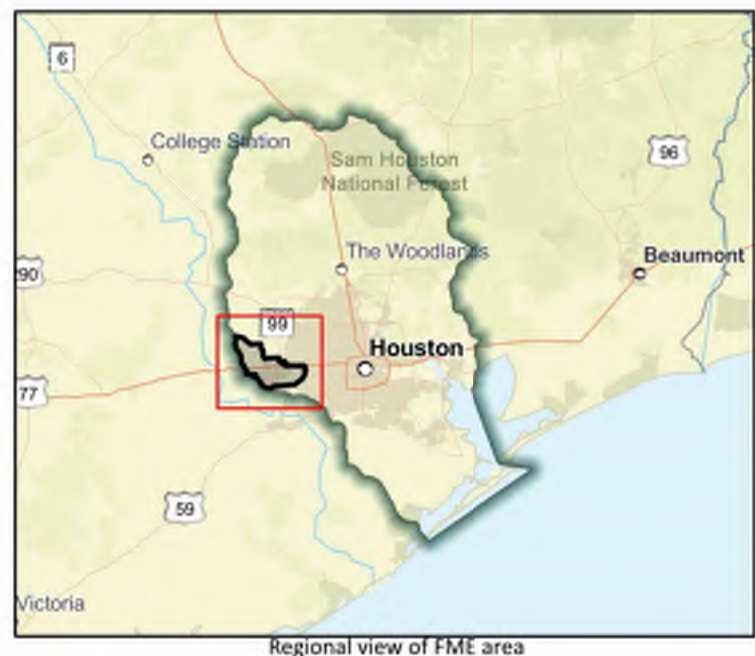
Estimated Cost and Funding Availability

Total Cost **\$25,955,808**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Barker Reservoir Flood Risk Reduction and Park Project**

ID# **061000324**

Sponsor (name of entity, not person) **Willow Fork Drainage District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to further the proposed project. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris,Waller**

Watershed HUC# (if known) **120401040103**

Drainage area (Square miles, est.) **27**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **252**

of structures **115**

Critical facilities **2**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **20**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

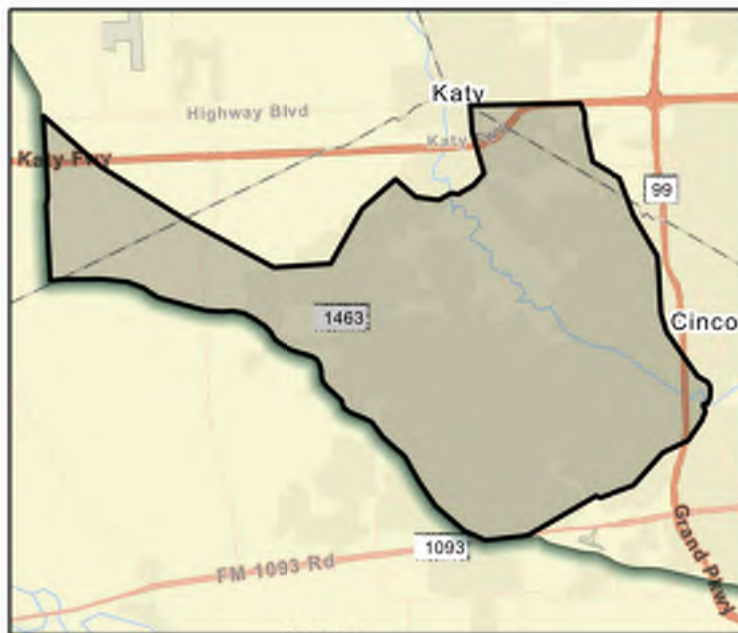
Estimated Cost and Funding Availability

Total Cost **\$30,000**

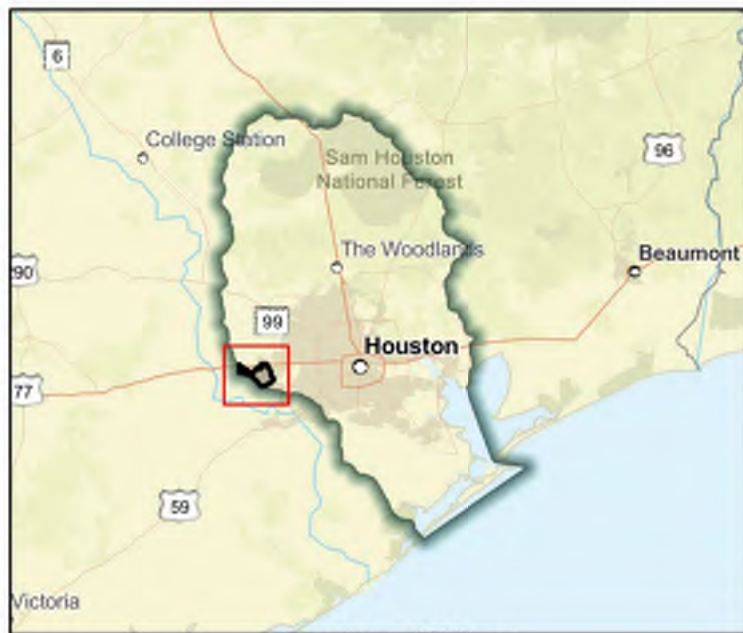
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Barker Reservoir Local Drainage Study**

ID# **061000533**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Barker Reservoir watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend, Waller**

Watershed HUC# (if known) **120401020103, 120401040101, 120401040102, 120401040103,**

Drainage area (Square miles, est.) **129**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **2,598**

of structures **1,051**

Critical facilities **11**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **753**

Roadway(s) impacted (length) **34**

Number of low water crossings **5**

Historical road closures **5**

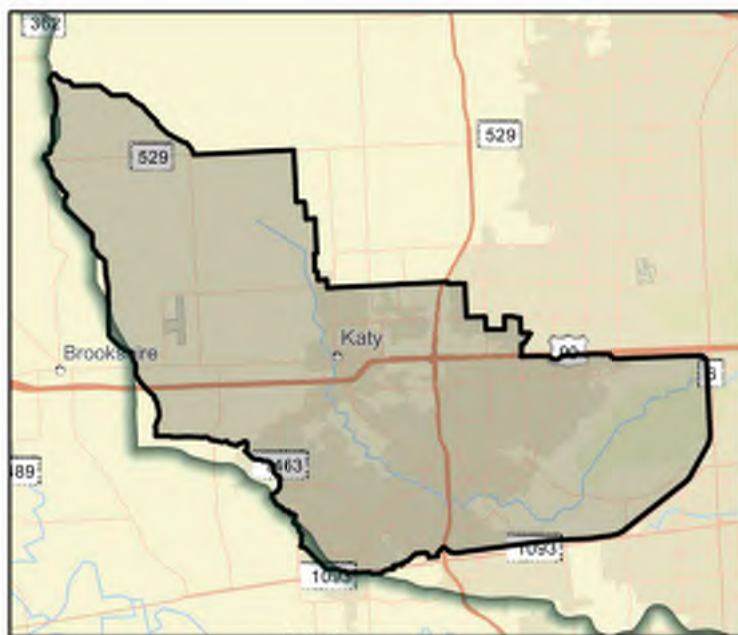
Estimated Cost and Funding Availability

Total Cost **\$2,368,383**

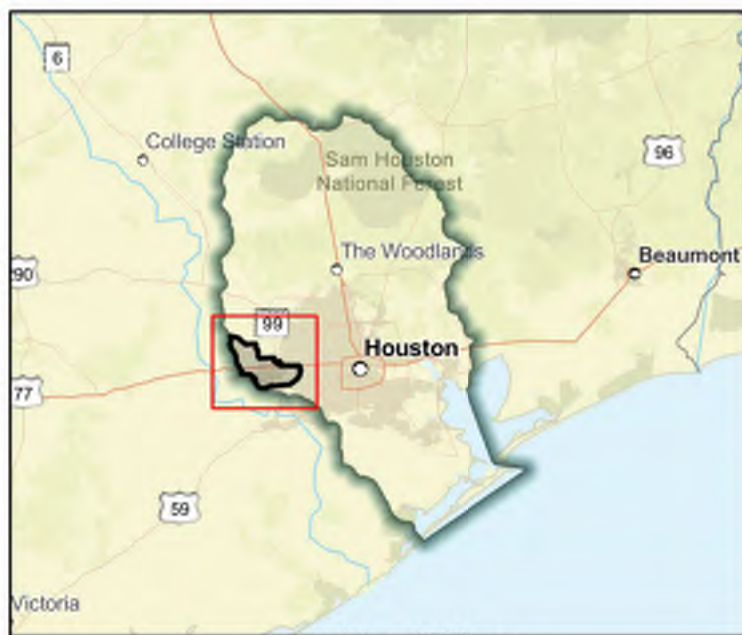
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Barker Reservoir Watershed Study**

ID# **061000178**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris,Waller**

Watershed HUC# (if known) **120401020103,120401040102,120401040103,120401040104,120401040**

Drainage area (Square miles, est.) **128**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **2,598**

of structures **1,051**

Critical facilities **11**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **753**

Roadway(s) impacted (length) **34**

Number of low water crossings **5**

Historical road closures **5**

Estimated Cost and Funding Availability

Total Cost **\$620,000**

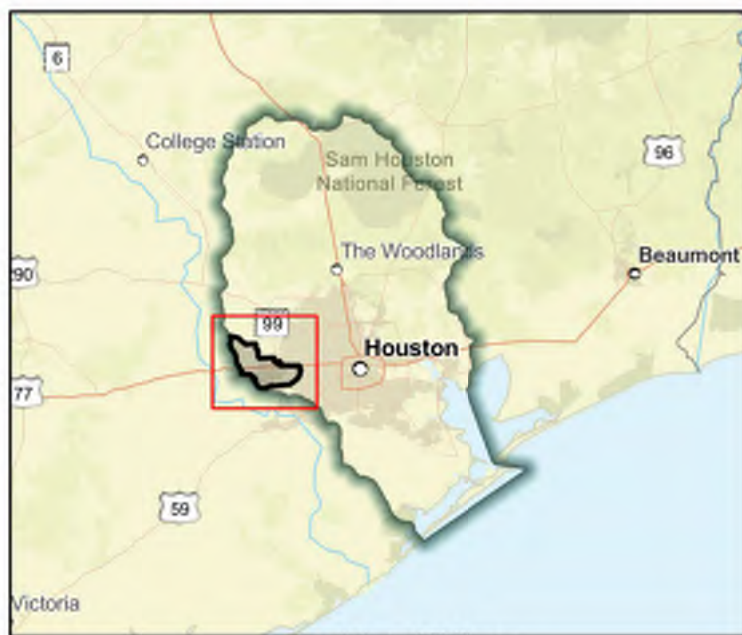
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Beaumont Place Subdivision Drainage Improvement Phase 2**

ID# **061000325**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No** Reason for Recommendation **Current RRD project. No additional funding is needed.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040606**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **679**

of structures **103**

Critical facilities **3**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

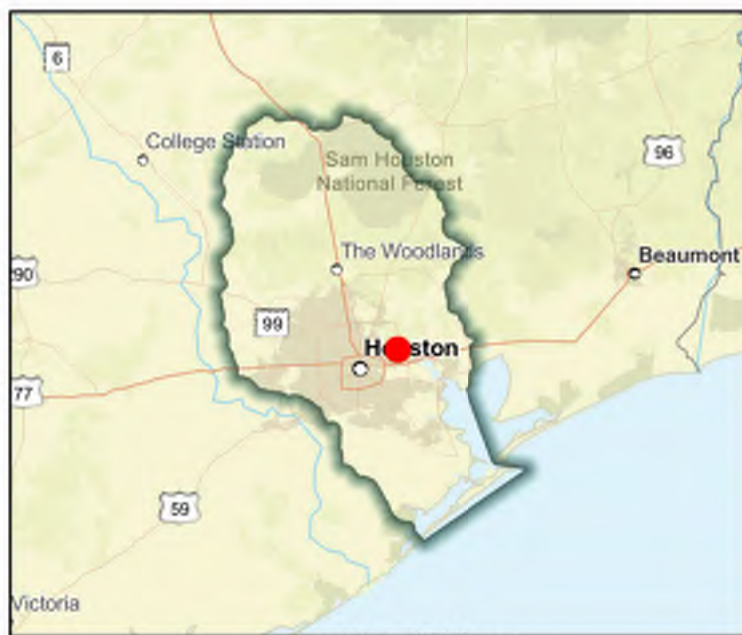
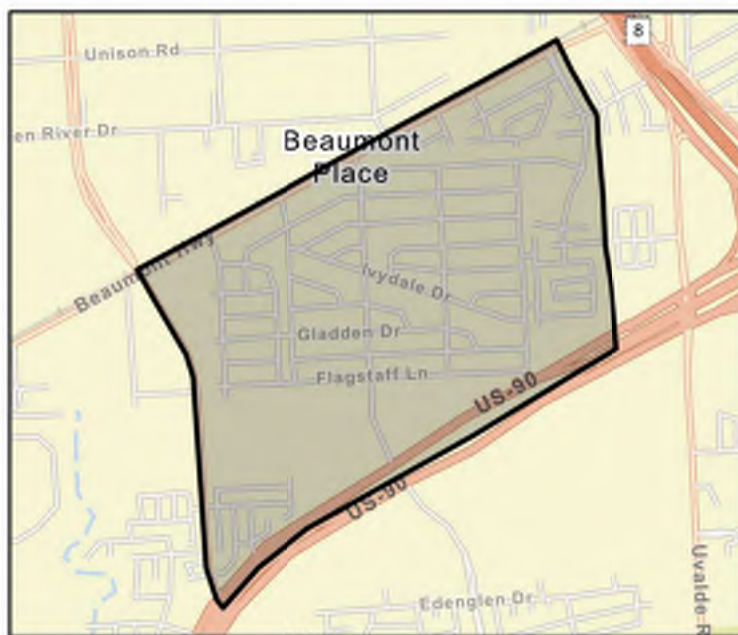
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Benson Bayou Regional Mitigation Conveyance & Detention Pond Project

ID# 061000546

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed regrading of Benson Bayou and tributaries along with a regional mitigation pond and reconstruction of road crossings and existing outfall structures.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040100, 120402040200

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 901

of structures 308

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures 0

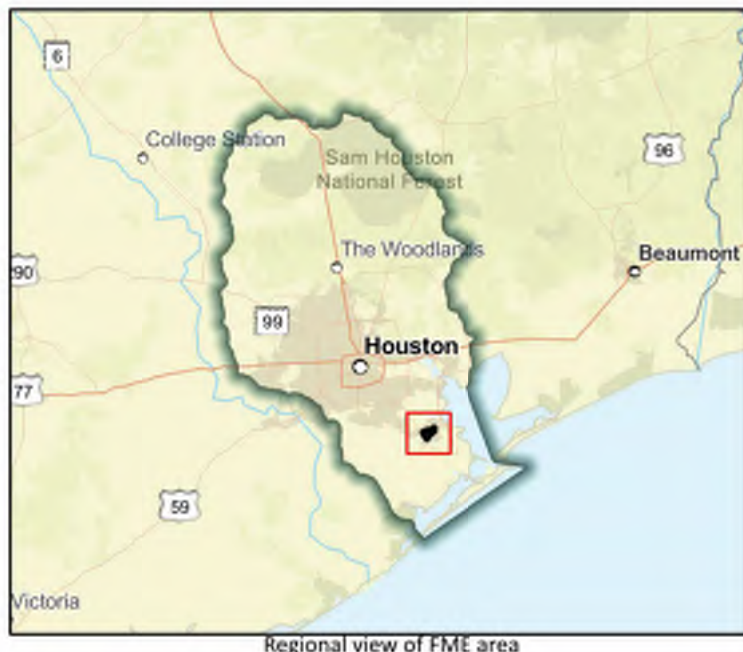
Estimated Cost and Funding Availability

Total Cost \$5,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Brays Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000504**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Brays Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend**

Watershed HUC# (if known) **120401040303, 120401040305, 120401040401, 120401040402,**

Drainage area (Square miles, est.) **129**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **216,118**

of structures **40,914**

Critical facilities **545**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **45**

Roadway(s) impacted (length) **537**

Number of low water crossings **2**

Historical road closures **2**

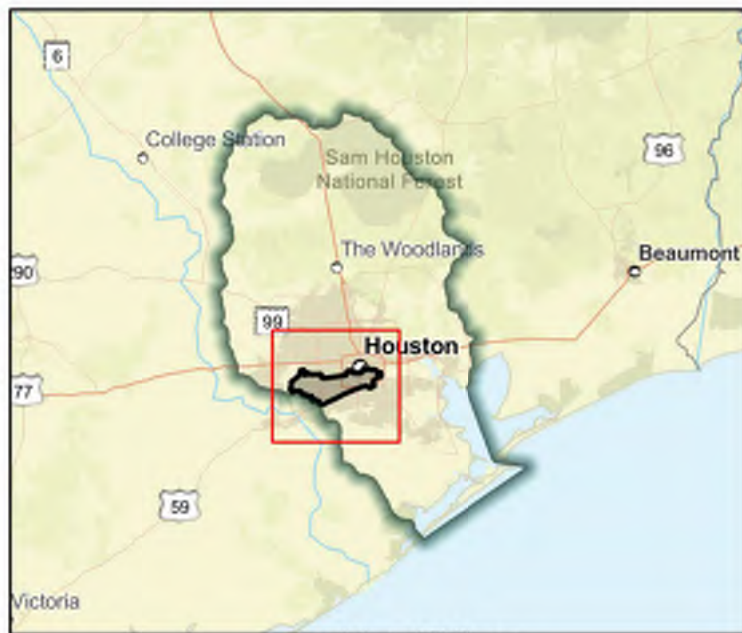
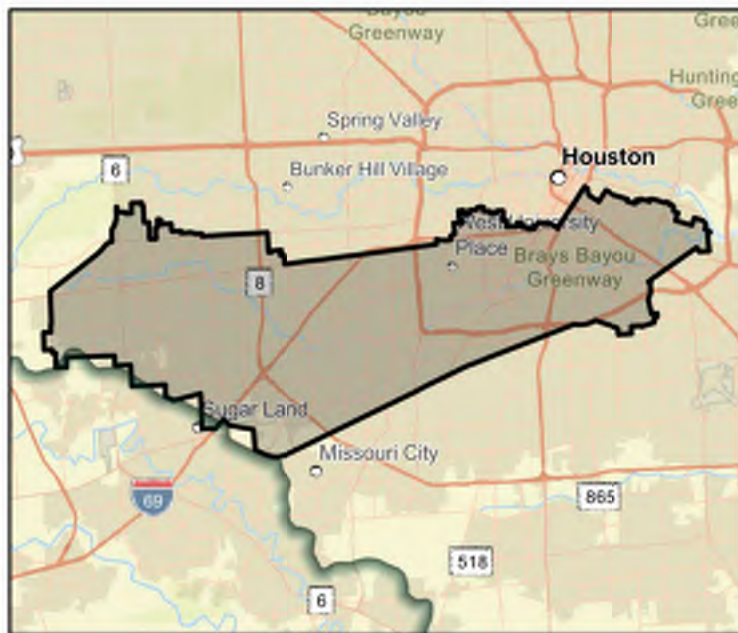
Estimated Cost and Funding Availability

Total Cost **\$66,090,632**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Brays Bayou - Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along**

ID# **061000188**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040103,120401040104,120401040303,120401040401**

Drainage area (Square miles, est.) **34**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,348**

of structures **326**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **218**

Roadway(s) impacted (length) **20**

Number of low water crossings **0**

Historical road closures **0**

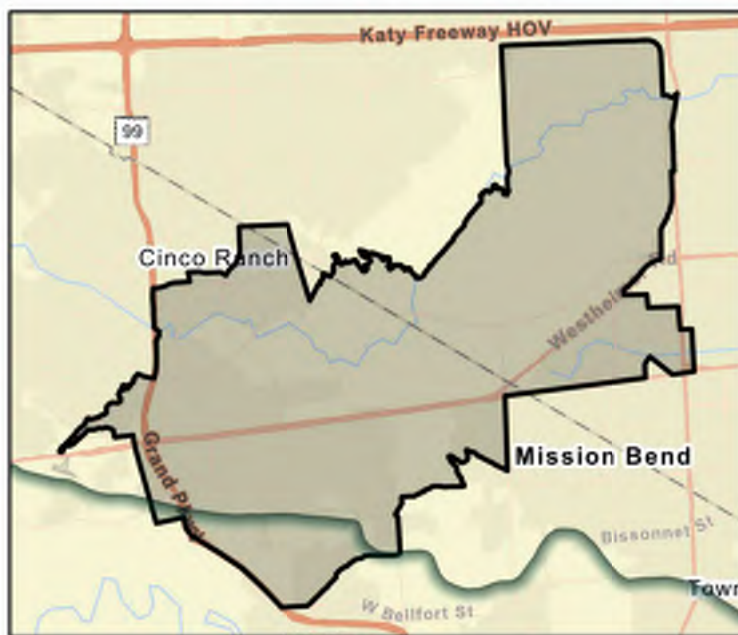
Estimated Cost and Funding Availability

Total Cost **\$1,020,000**

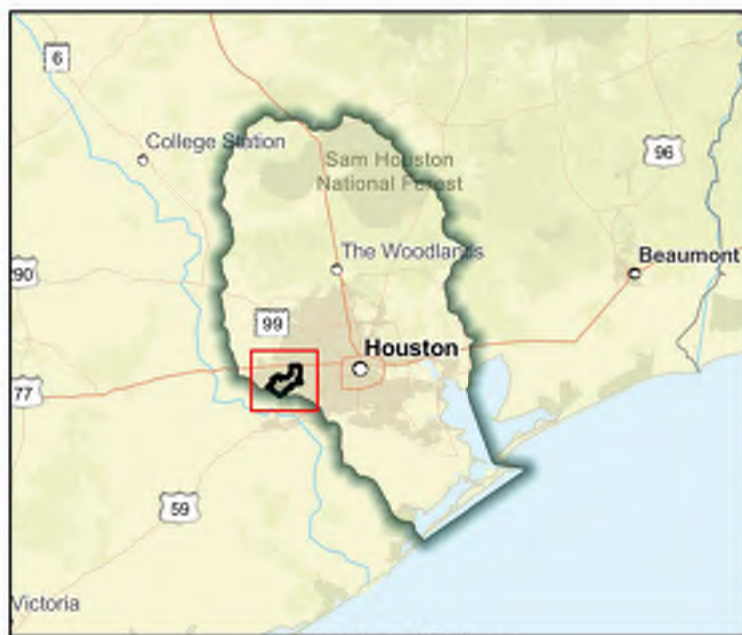
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Brays Bayou - Poor Farm Ditch

ID# 061000186

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a BCR and elevate project to a FMP. Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040402

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 15,766

of structures 3,291

Critical facilities 33

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 37

Number of low water crossings 0

Historical road closures

0

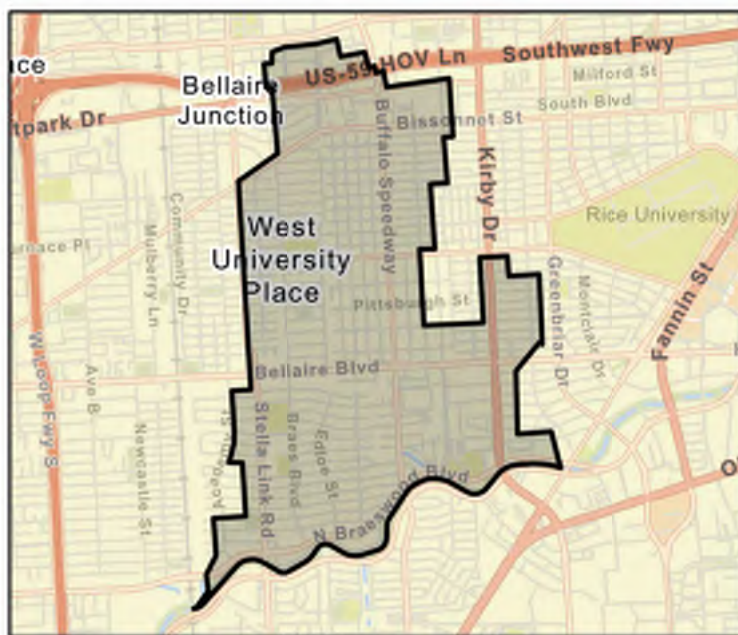
Estimated Cost and Funding Availability

Total Cost \$690,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brays Bayou Local Drainage Study

ID# 061000534

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Brays Bayou watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Fort Bend

Watershed HUC# (if known) 120401040303, 120401040305, 120101040401, 120401040402,

Drainage area (Square miles, est.) 129

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 216,118

of structures 40,914

Critical facilities 545

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 45

Roadway(s) impacted (length) 537

Number of low water crossings 2

Historical road closures

2

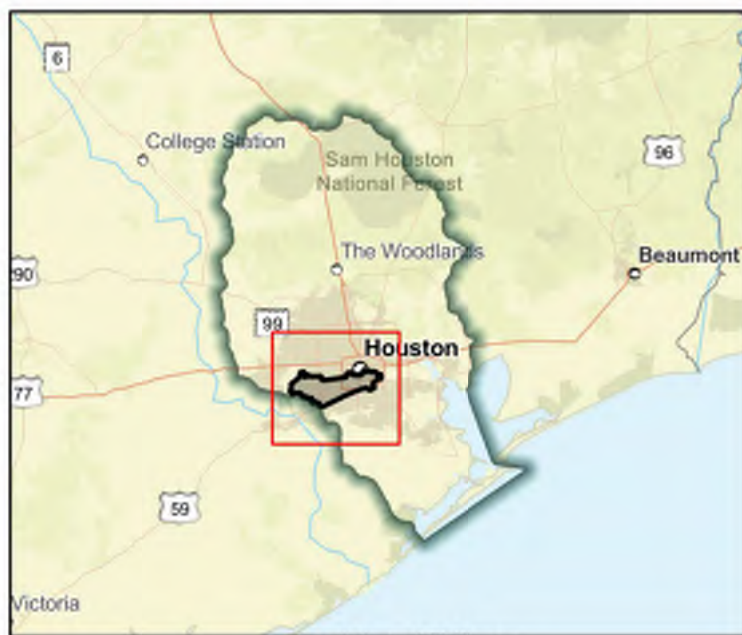
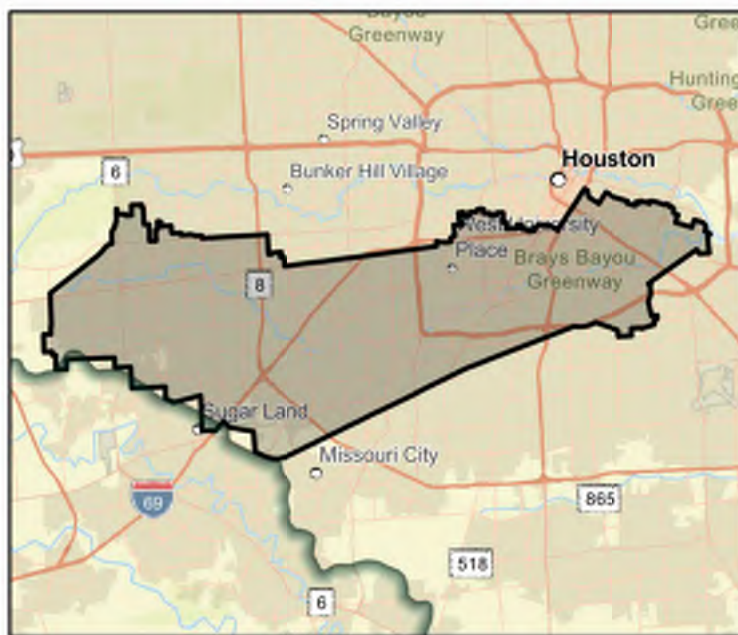
Estimated Cost and Funding Availability

Total Cost \$333,641

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Brays Bayou Restore Channel Conveyance Capacity Along D115-00-00**

ID# **061000187**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **22,839**

of structures **5,574**

Critical facilities **71**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **59**

Number of low water crossings **0**

Historical road closures **0**

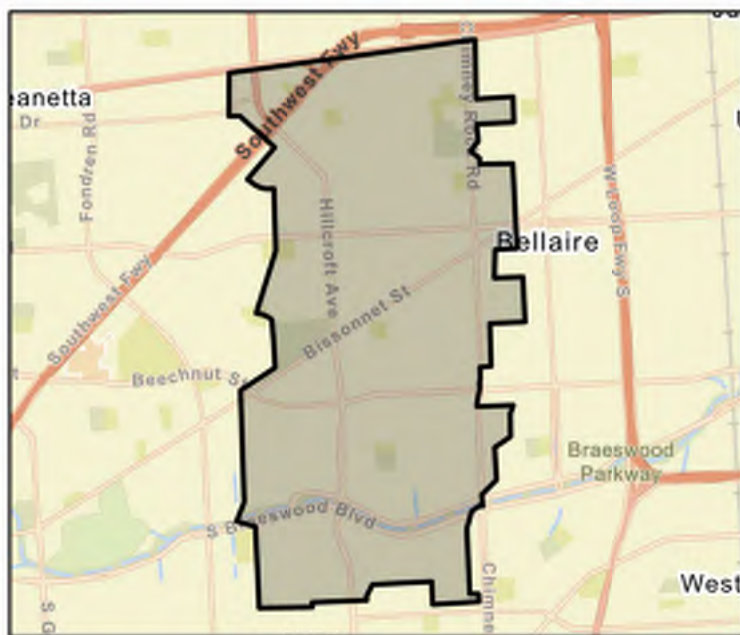
Estimated Cost and Funding Availability

Total Cost **\$1,020,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brays Bayou Watershed Study

ID# 061000180

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.

New Hydrologic or Hydraulic model? No

Emergency Need? Yes

Existing/Anticipated models in near term? Yes

County Fort Bend,Harris

Watershed HUC# (if known) 120401040703,120401040402,120401040305,120401040303,120401040

Drainage area (Square miles, est.) 128

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 216,118

of structures 40,914

Critical facilities 545

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 45

Roadway(s) impacted (length) 537

Number of low water crossings 2

Historical road closures

2

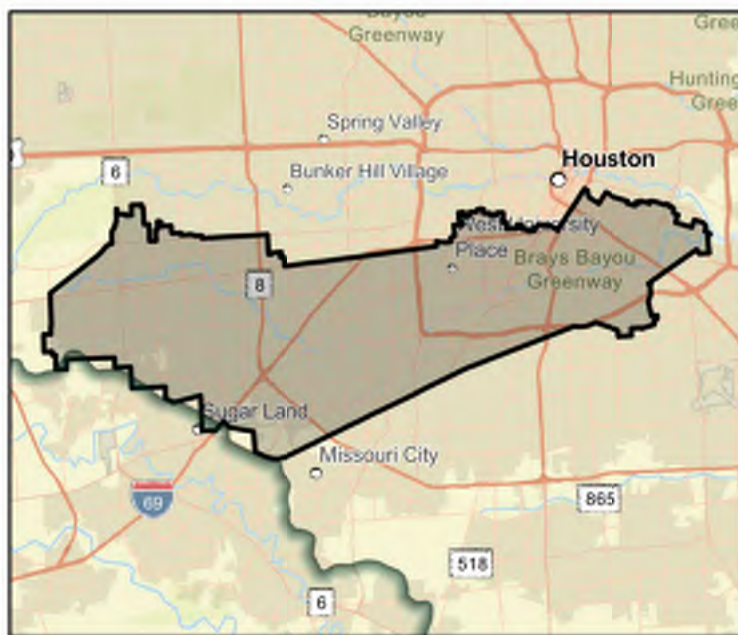
Estimated Cost and Funding Availability

Total Cost \$620,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brazoria County Camp Mohawk County Park Development

ID# 061000440

Sponsor (name of entity, not person) Brazoria (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop Benefit Cost Analysis in support of the purchase of approximately 160 acres of flood prone area adjacent to and surrounding Camp Mohawk County Park to be used as open space.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 1,482

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 12

of structures 10

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

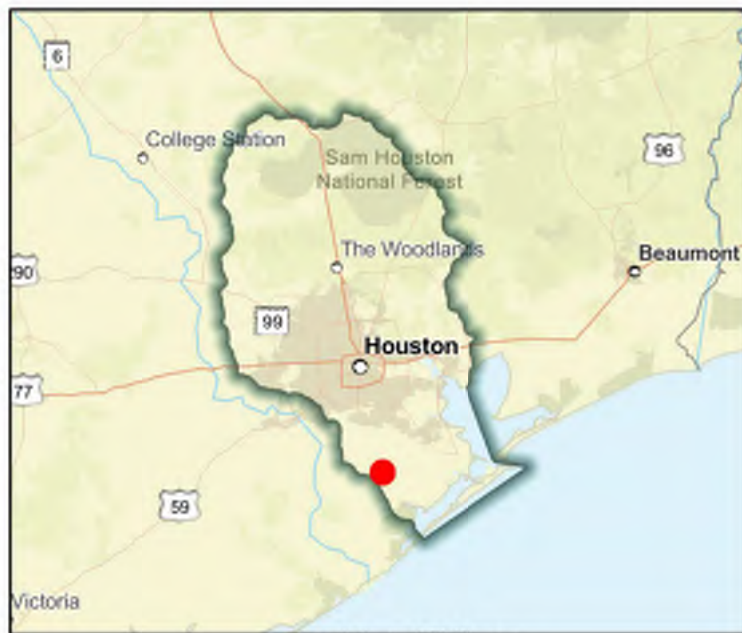
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Brazoria County Coastal River Flood Extent Analysis**

ID# **061000038**

Sponsor (name of entity, not person) **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to determine flood extents, in Brazoria County, of recent hurricane disasters, by analyzing the post event aerial imagery through a GIS image classification process, and compare the flood extent area to other sources, such as LIDAR.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **1,482**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **38,615**

of structures **18,836**

Critical facilities **246**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **8,584**

Roadway(s) impacted (length) **328**

Number of low water crossings **0**

Historical road closures **0**

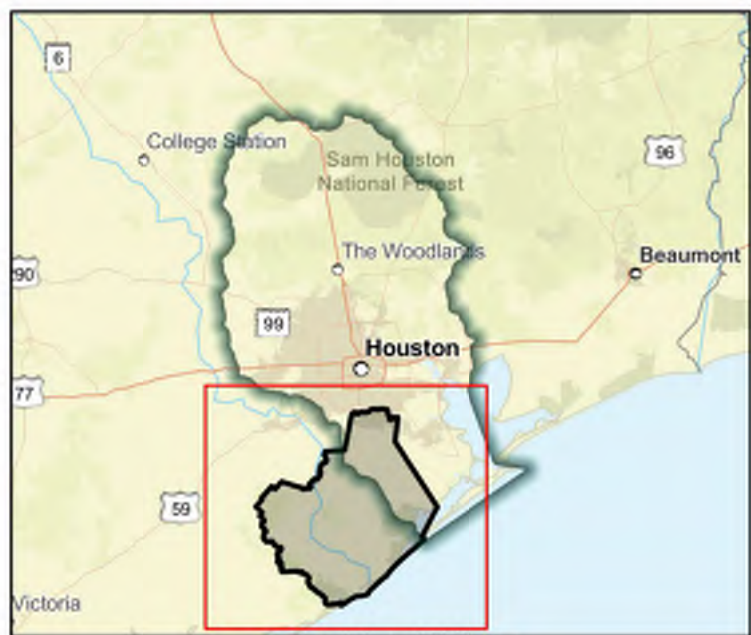
Estimated Cost and Funding Availability

Total Cost **\$50,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brazoria County Drainage Improvements

ID# 061000046

Sponsor (name of entity, not person) Brazoria (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Drainage study needed and evaluated of alternatives include: Widen and reshape drainage ditches, and upgrade culverts to restore adequate drainage to mitigate flooding.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 1,482

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 38,615

of structures 18,836

Critical facilities 246

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 8,584

Roadway(s) impacted (length) 328

Number of low water crossings 0

Historical road closures

0

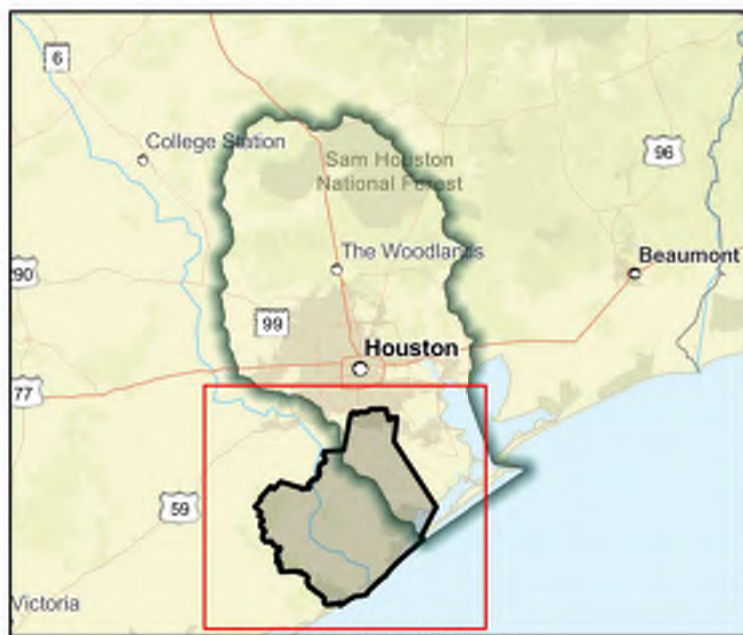
Estimated Cost and Funding Availability

Total Cost \$350,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brazoria County Property Protection

ID# 061000048

Sponsor (name of entity, not person) Brazoria (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study required to assess alternatives to restore drainage and mitigate flooding throughout the county.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 1,482

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 38,615

of structures 18,836

Critical facilities 246

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 8,584

Roadway(s) impacted (length) 328

Number of low water crossings 0

Historical road closures

0

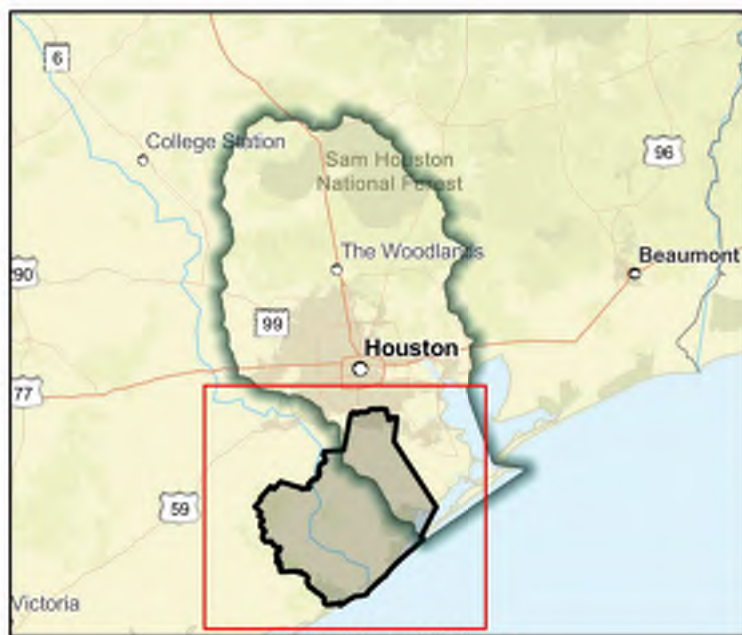
Estimated Cost and Funding Availability

Total Cost \$500,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brazoria Flood Mapping Updates

ID# 061000301

Sponsor (name of entity, not person) Brazoria (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description County wide study to produce flood mapping updates including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 1,482

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 38,615

of structures 18,836

Critical facilities 246

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 8,584

Roadway(s) impacted (length) 328

Number of low water crossings 0

Historical road closures

0

Estimated Cost and Funding Availability

Total Cost \$6,440,000

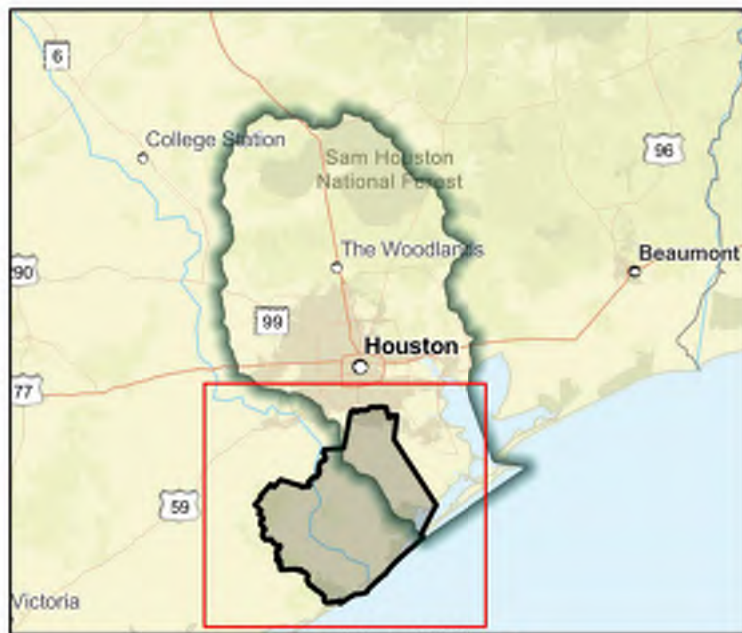
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Briarwood Area Drainage Improvements

ID# 061000535

Sponsor (name of entity, not person) Baytown (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040706, 120402030106

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000010

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

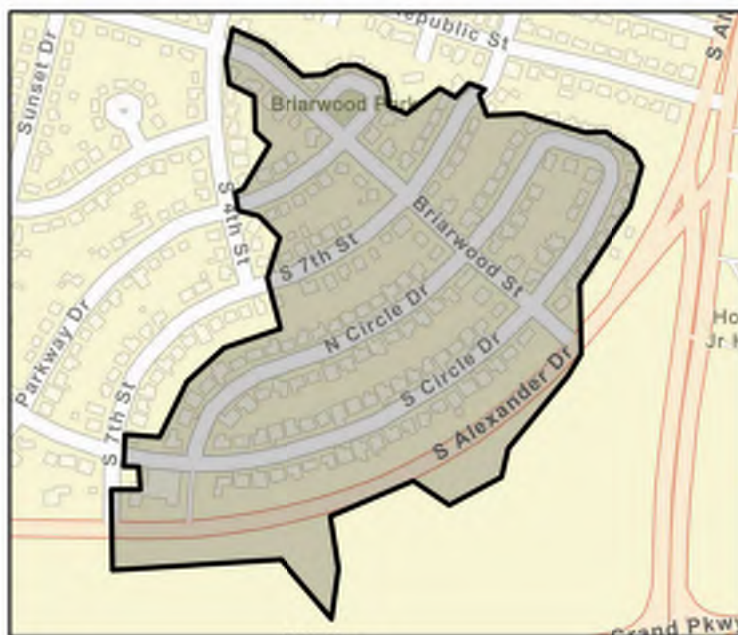
Estimated Cost and Funding Availability

Total Cost \$30,000

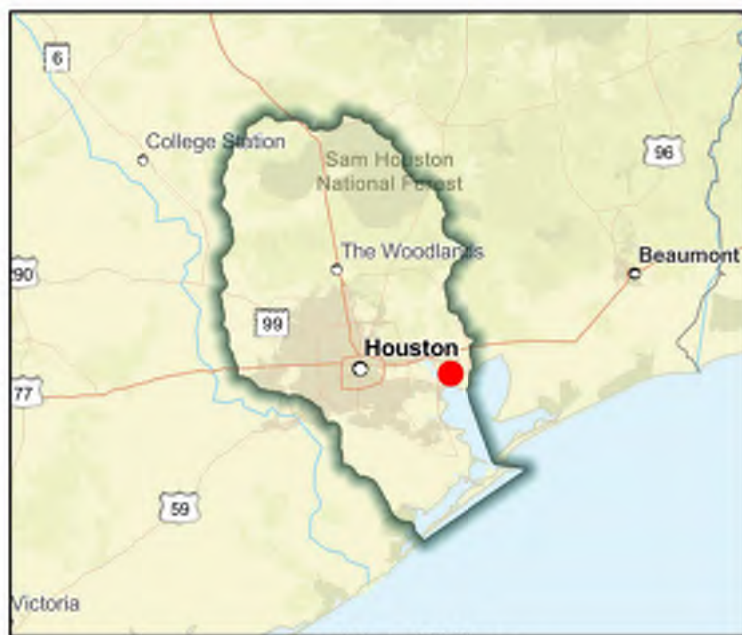
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Bridgewater Village & Enclave at Bridgewater Drainage Analysis**

ID# **061000026**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Alternative analysis and assessment of additional protection of basin needed during design to control flows for 100-yr event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040203**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$750,000**

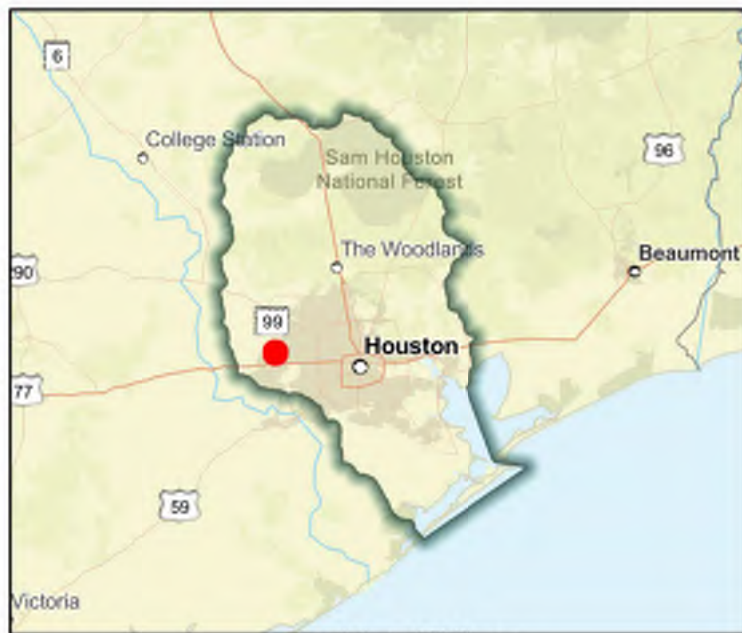
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Brookshire-Katy Drainage District Watershed Study

ID# 061000556

Sponsor (name of entity, not person) Brookshire Katy Drainage District

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to expand on the recently completed existing conditions model assessment. Conduct a needs assessment and identify mitigation solutions (FMPs) to be incorporated into the flood plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Waller

Watershed HUC# (if known) 120401020103, 120401040101, 120401040102, 120401040103,

Drainage area (Square miles, est.) 77

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 594

of structures 217

Critical facilities 2

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 522

Roadway(s) impacted (length) 7

Number of low water crossings 2

Historical road closures 2

Estimated Cost and Funding Availability

Total Cost \$500,000

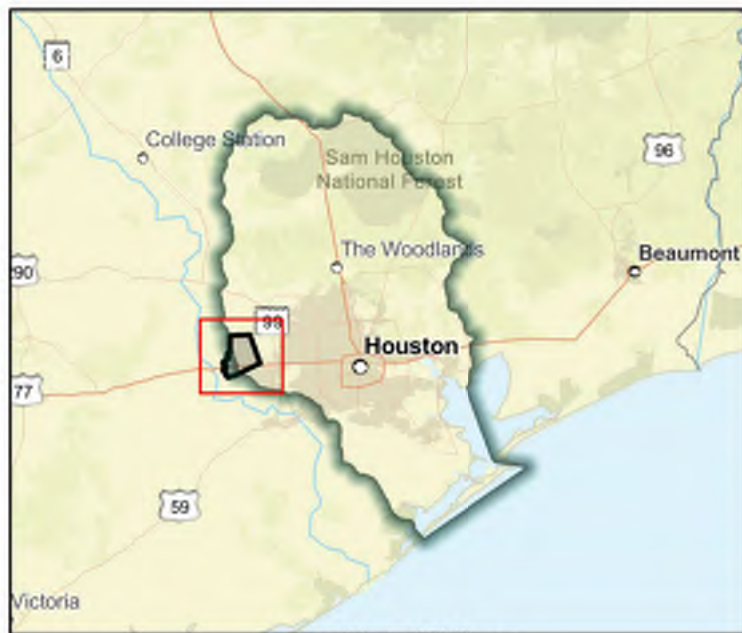
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Buffalo Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000505**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Buffalo Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend**

Watershed HUC# (if known) **120401040104, 120401040203, 120401040301, 120401040302,**

Drainage area (Square miles, est.) **102**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **36,738**

of structures **1,998**

Critical facilities **34**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **18**

Roadway(s) impacted (length) **39**

Number of low water crossings **0**

Historical road closures **0**

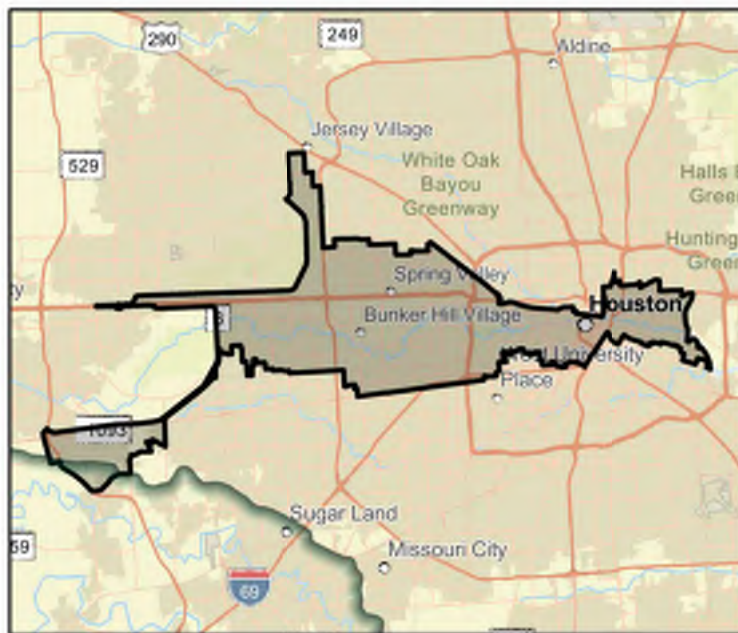
Estimated Cost and Funding Availability

Total Cost **\$5,643,892**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Buffalo Bayou - W130-00-00**

ID# **061000220**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Flood Risk Reduction need identified for W130-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040305,120401040303**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,954**

of structures **27**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

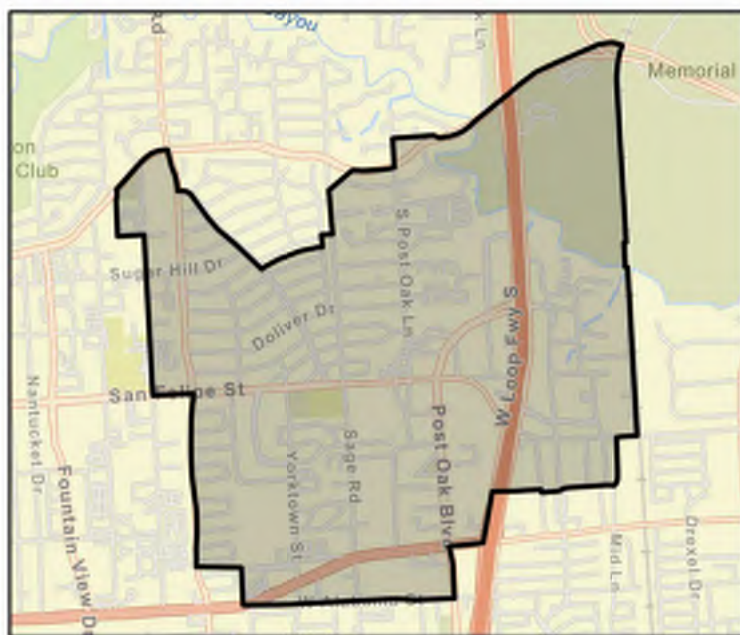
Estimated Cost and Funding Availability

Total Cost **\$100,000**

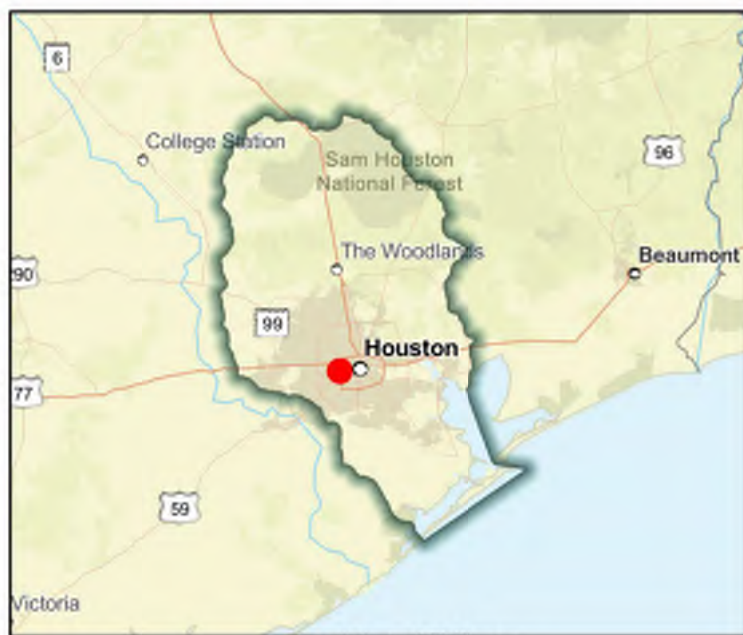
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Buffalo Bayou - W158-00-00**

ID# **061000219**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Flood Risk Reduction need identified for W158-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **225**

of structures **72**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

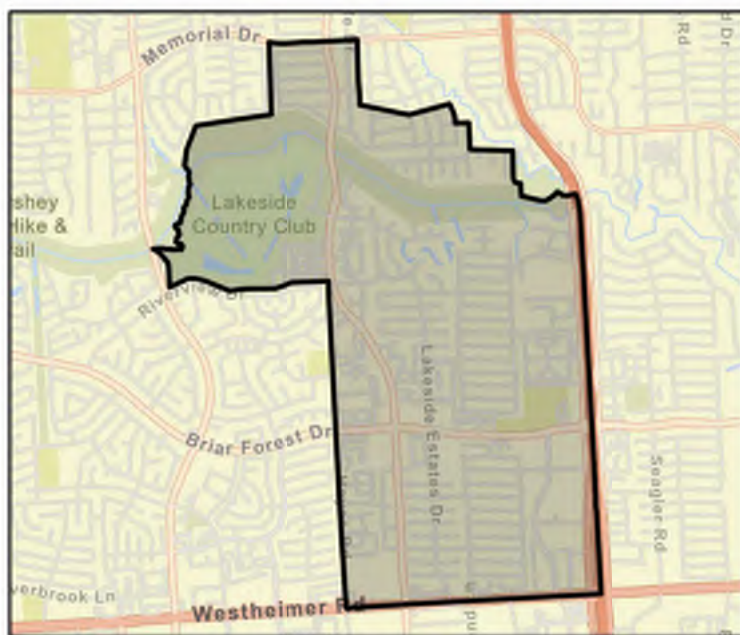
Estimated Cost and Funding Availability

Total Cost **\$200,000**

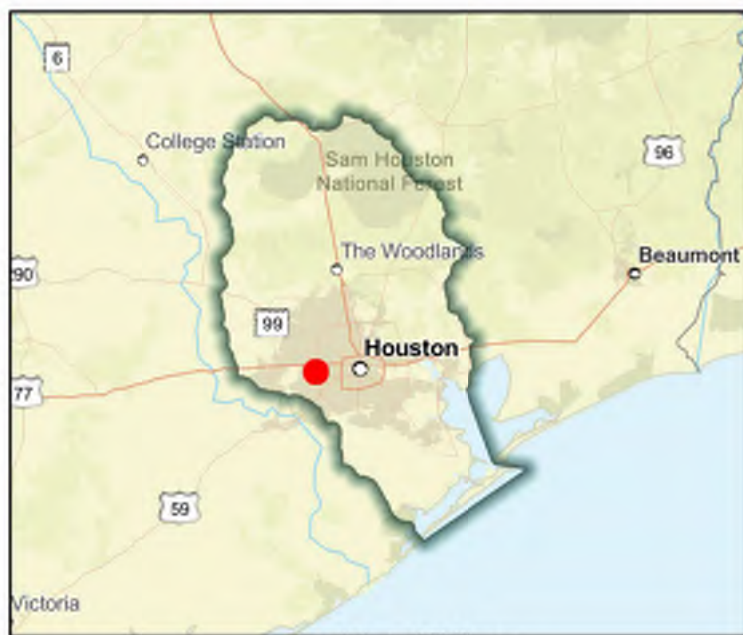
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Buffalo Bayou - W163-00-00**

ID# **061000221**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Flood Risk Reduction need identified for W163-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **226**

of structures **70**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **-**

Historical road closures **-**

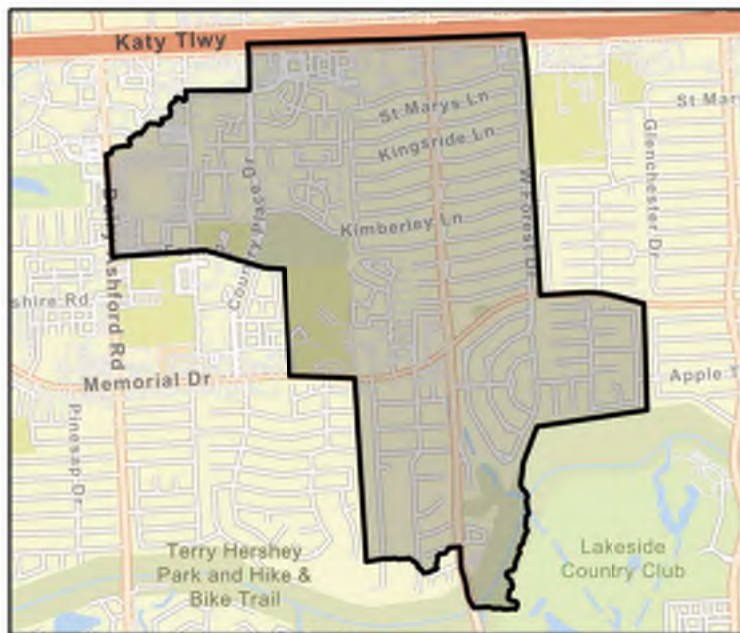
Estimated Cost and Funding Availability

Total Cost **\$200,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Buffalo Bayou Local Drainage Study**

ID# **061000529**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Buffalo Bayou watershed.**

New Hydrologic or Hydraulic model? **No** Emergency Need? **No** Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend** Watershed HUC# (if known) **120401040104,120401040203,120401040301,120401040302,120401040**

Drainage area (Square miles, est.) **102** Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **36,738** # of structures **1,998** Critical facilities **34**

Flood risk type: Riverine? **Yes** Coastal? **No** Local? **Yes** Playa? **No** Other? **No**

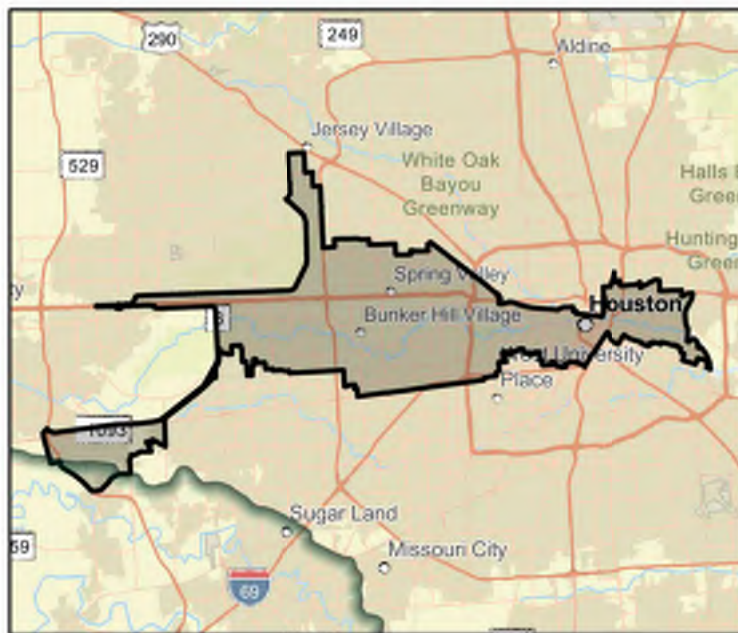
Farm/Ranch land impacted (acres) **18** Roadway(s) impacted (length) **39**

Number of low water crossings **0** Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$194,326** Amount of Available Funding **-** Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Buffalo Bayou Watershed Study**

ID# **061000179**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040703,120401040402,120401040104,120401040305,120401040**

Drainage area (Square miles, est.) **102**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **36,738**

of structures **1,998**

Critical facilities **34**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **18**

Roadway(s) impacted (length) **39**

Number of low water crossings **0**

Historical road closures **0**

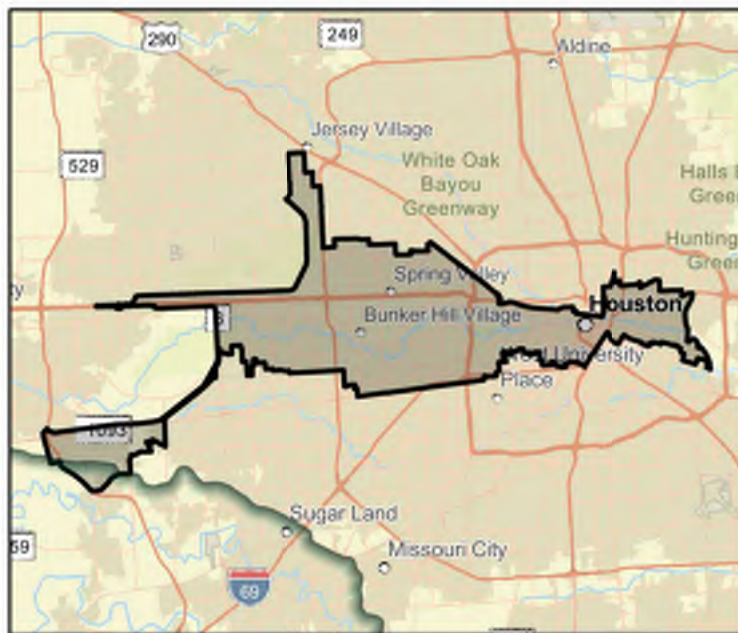
Estimated Cost and Funding Availability

Total Cost **\$500,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cable - Alligator Creek Watershed

ID# 061000450

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,300

of structures 516

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 10

Number of low water crossings 9

Historical road closures

9

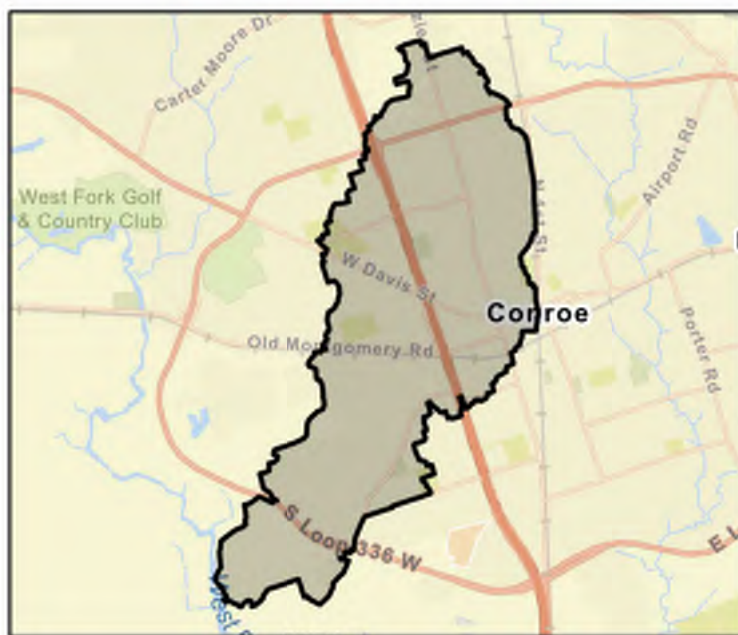
Estimated Cost and Funding Availability

Total Cost \$30,000

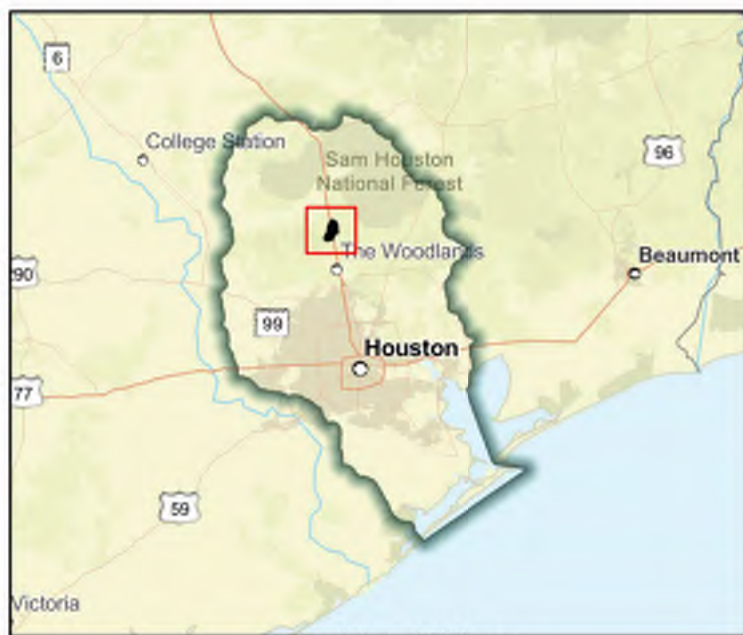
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cane Island Branch- Alt 1

ID# 061000152

Sponsor (name of entity, not person) Waller (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of 2,800 ac-ft detention upstream of Pitts road.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Fort Bend,Harris,Waller

Watershed HUC# (if known) 120401020103,120401040102,120401040103,120401040104,120401040

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,840

of structures 650

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 119

Roadway(s) impacted (length) 10

Number of low water crossings 5

Historical road closures 5

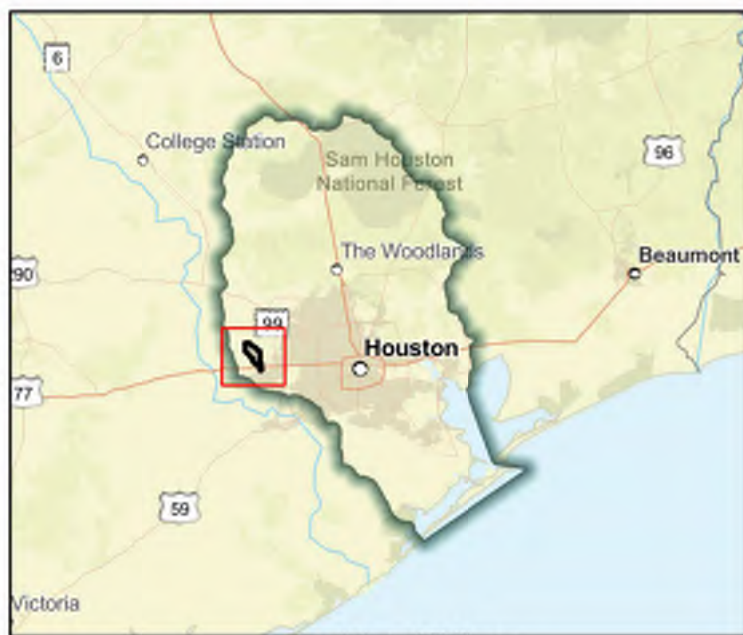
Estimated Cost and Funding Availability

Total Cost \$180,000

Amount of Available Funding 45000

Federal funding availability Yes

Funding source General Revenue



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Cane Island Branch- Alt 2**

ID# **061000085**

Sponsor (name of entity, not person) **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study and FMP development of proposed channel modifications to Cane Island Branch including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris,Waller**

Watershed HUC# (if known) **120401020103,120401040102,120401040103,120401040104,120401040**

Drainage area (Square miles, est.) **15**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,840**

of structures **650**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **119**

Roadway(s) impacted (length) **10**

Number of low water crossings **5**

Historical road closures **5**

Estimated Cost and Funding Availability

Total Cost **\$3,270,000**

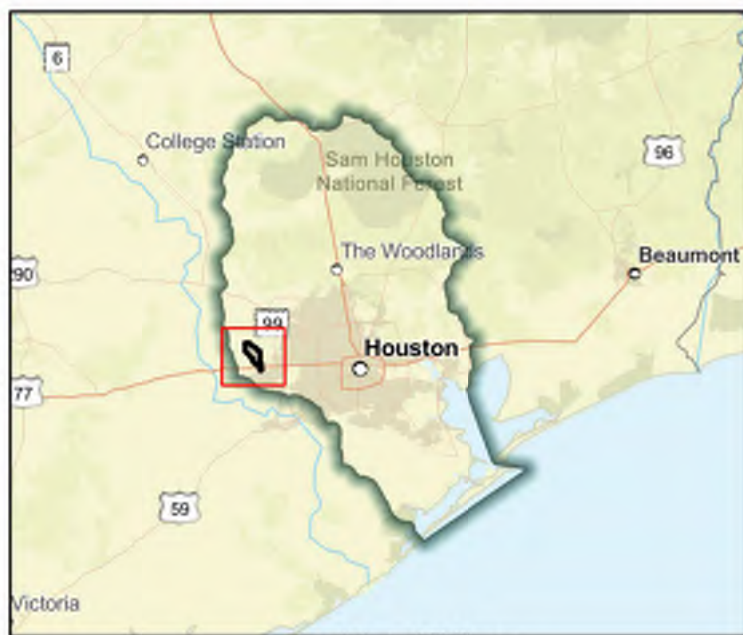
Amount of Available Funding **327000**

Federal funding availability **Yes**

Funding source **General Revenue**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cannon Ditch Segment 2

ID# 061000054

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 641

of structures 572

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 27

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

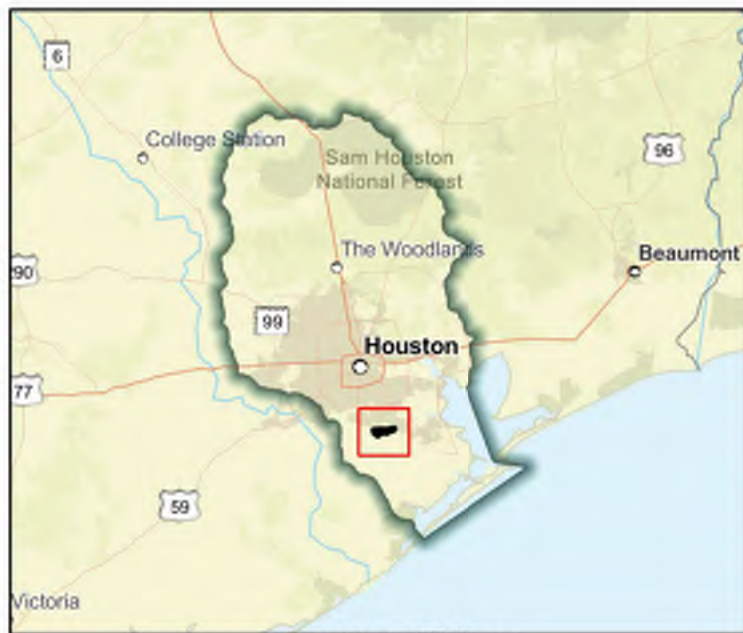
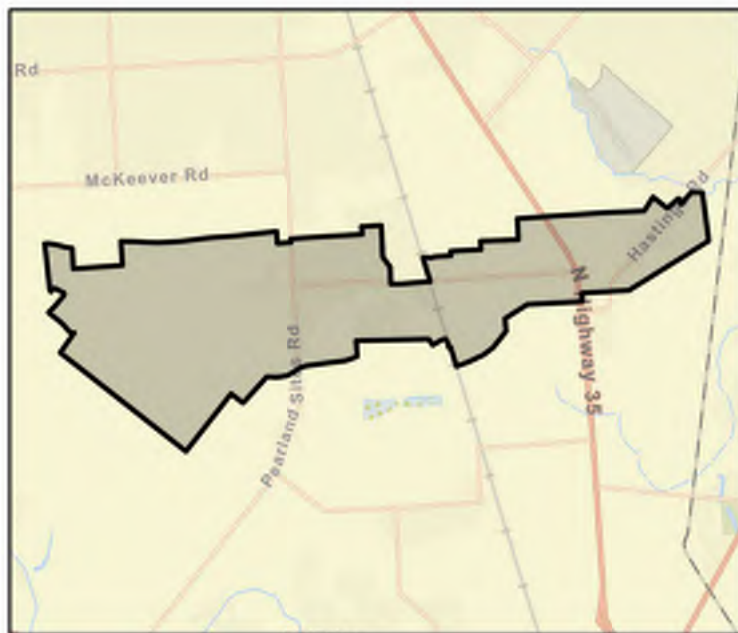
Estimated Cost and Funding Availability

Total Cost \$932,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Carpenters (N100-00-00) Channel Improvements**

ID# **061000402**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **Study to develop a Cost Benefit Analysis and elevate the project to a FMP. Carpenters Bayou (N100-00-00) channel conveyance improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040702**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,303**

of structures **1,158**

Critical facilities **25**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **102**

Roadway(s) impacted (length) **22**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

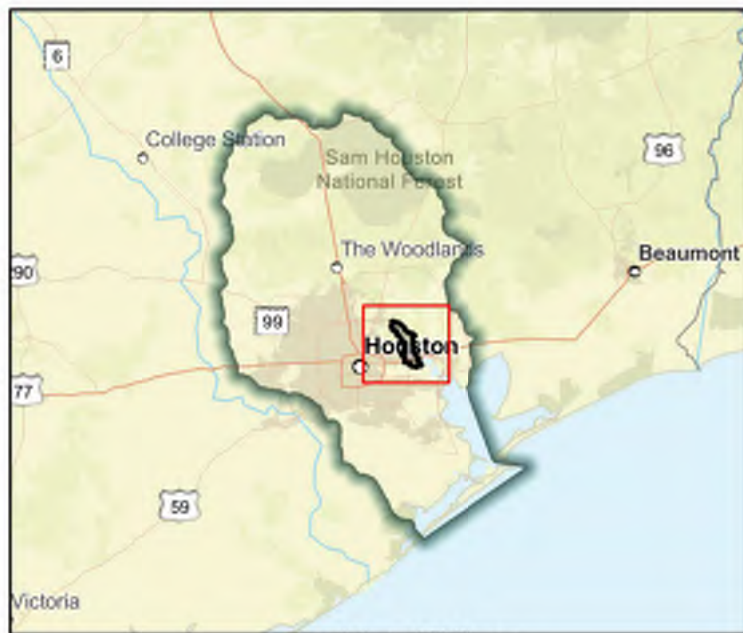
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Carpenters Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000506**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Carpenters Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502, 120401040605, 120401040606, 120401040702,**

Drainage area (Square miles, est.) **31**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **2,731**

of structures **812**

Critical facilities **24**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **96**

Roadway(s) impacted (length) **19**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$32,226,936**

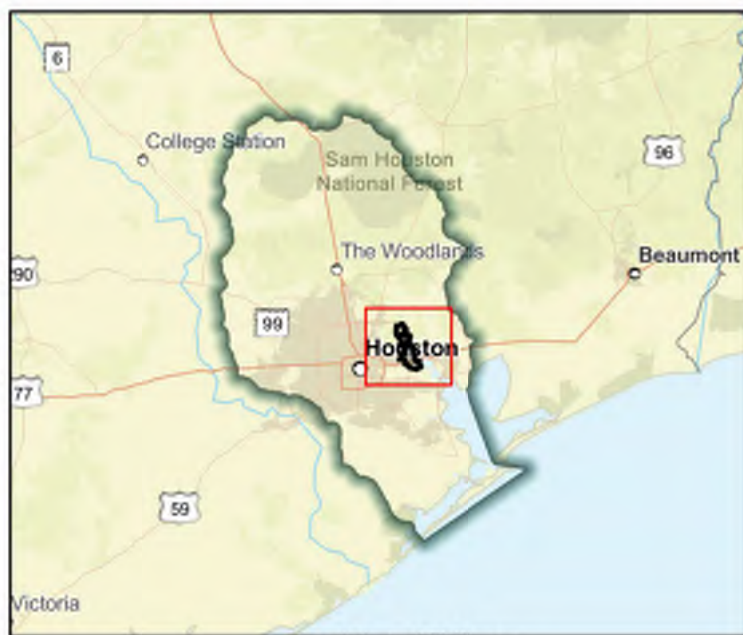
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Carpenters Bayou (West Acres, Shadowglen & Old River Terrace Neighborhood)**

ID# **061000464**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to develop a BCA required to elevate project to FMP. The project is to reduce flooding in the Problem Area #5 identified by the Carpenters Bayou Watershed Planning Project Report, 2021.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401040605,120401040703,120401040705,120401040**

Drainage area (Square miles, est.) **31**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,731**

of structures **812**

Critical facilities **24**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **96**

Roadway(s) impacted (length) **19**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

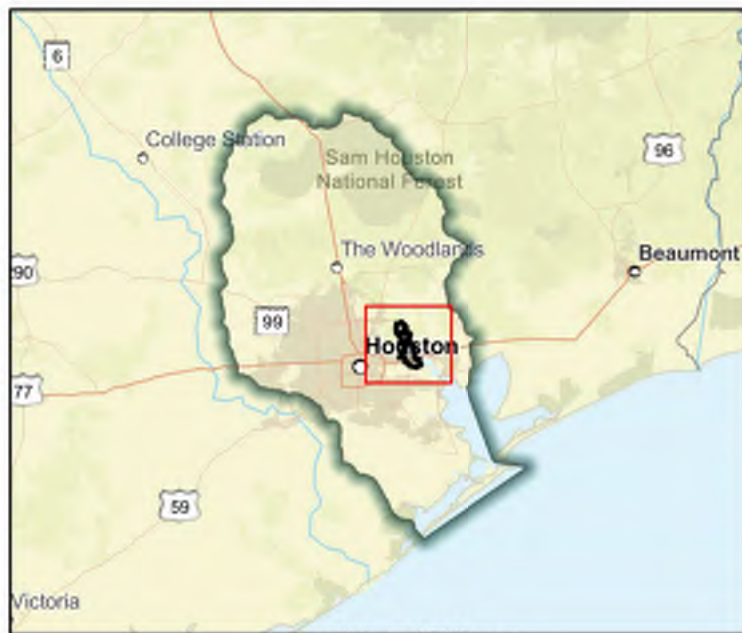
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Carpenters Bayou Local Drainage Study**

ID# **061000518**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Carpenters Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known)

120401010502,120401040605,120401040606,120401040702,120401040

Drainage area (Square miles, est.) **31**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **2,731**

of structures **812**

Critical facilities **24**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **96**

Roadway(s) impacted (length)

19

Number of low water crossings **2**

Historical road closures

2

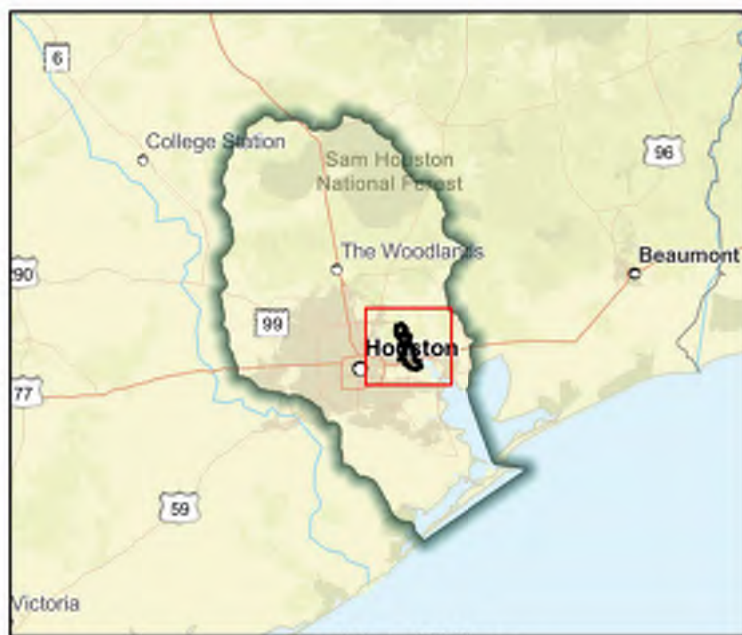
Estimated Cost and Funding Availability

Total Cost **\$1,087,959**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Carpenters Planing Study Cloverleaf Community Flood Risk Reduction Project (Phase 1 and 2)**

ID# **061000333**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this project to become a FMP. Drainage system upgrade using combination of 9'x7' RCB spanning 3,000' and a 109 acre-feet detention facility providing drainage relief for this portion of the Cloverleaf Community.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040702,120401040606**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

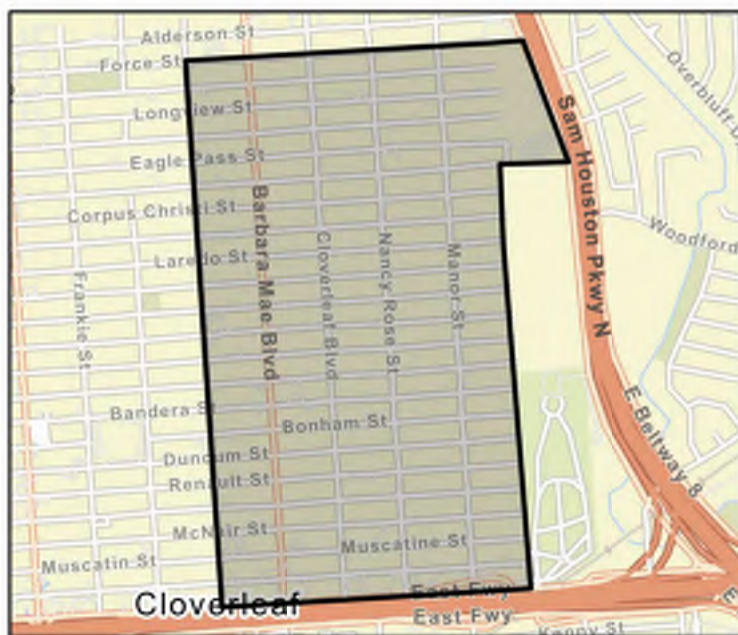
Estimated Cost and Funding Availability

Total Cost **\$30,000**

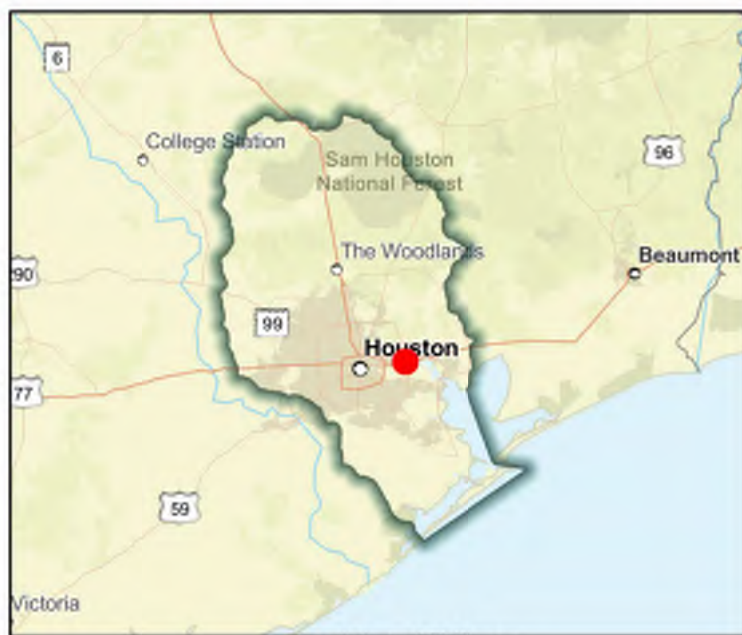
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Carpenters Planing Study N110-00-00 Diversion to P103-00/P103-03**

ID# **061000174**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Feasibility study needed to evaluate a designed interconnection to lower Greens Bayou.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401010502,120401040605,120401040703,120401040705,120401040**

Drainage area (Square miles, est.) **31**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,731**

of structures **812**

Critical facilities **24**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **96**

Roadway(s) impacted (length) **19**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$1,200,000**

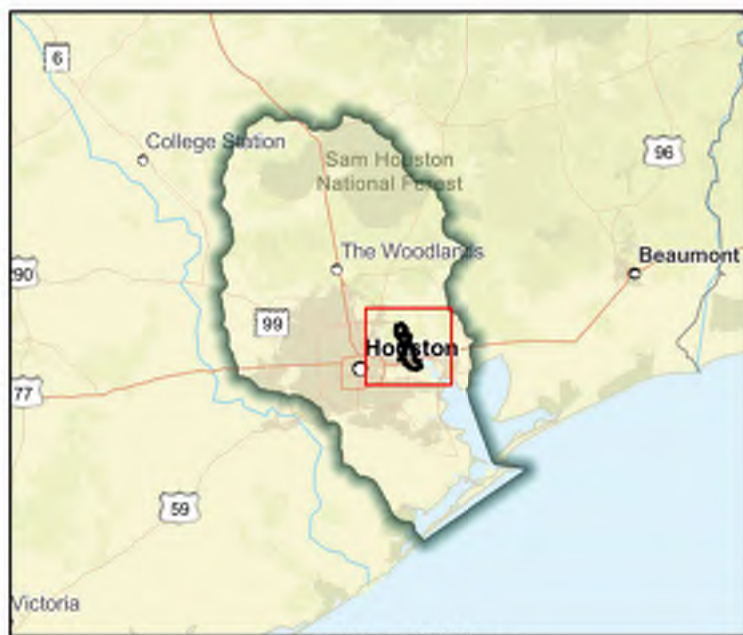
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Catalina**

ID# **061000465**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR and other data needed to elevate project to a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **262**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **92,712**

of structures **33,641**

Critical facilities **392**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **597**

Roadway(s) impacted (length) **578**

Number of low water crossings **16**

Historical road closures **16**

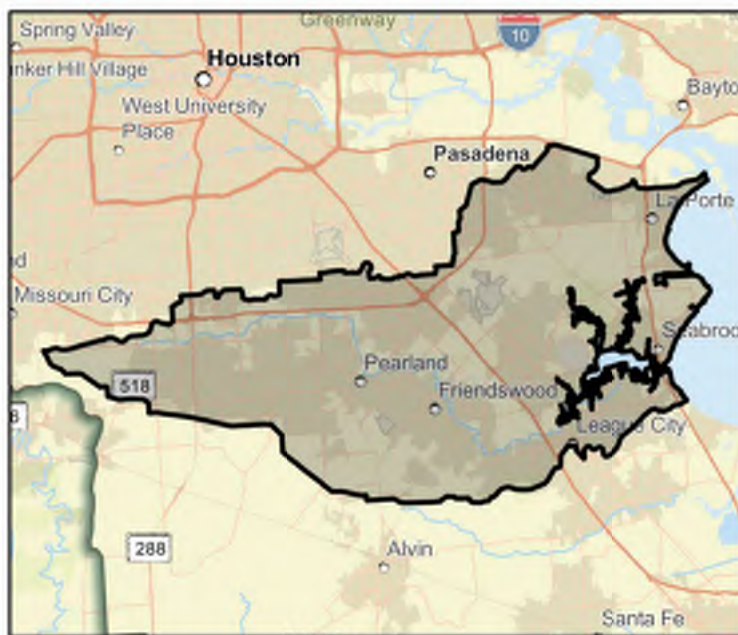
Estimated Cost and Funding Availability

Total Cost **\$30,000**

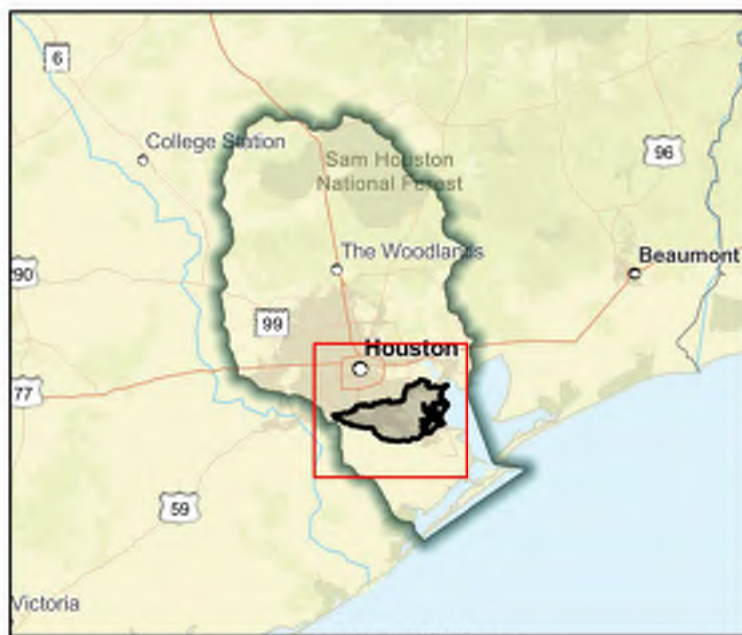
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou - Neighborhood Future Floodplain Analysis

ID# 061000507

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Cedar Bayou watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Liberty, Chambers

Watershed HUC# (if known) 120401010501, 120401010502, 120401030205, 120401040704,

Drainage area (Square miles, est.) 199

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 4,369

of structures 2,348

Critical facilities 36

Flood risk type: Riverine? Yes

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,104

Roadway(s) impacted (length) 64

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$5,339,579

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Channel improvements from US 90 to FM 1942

ID# 061000376

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements from US 90 to FM 1942.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers,Harris,Liberty

Watershed HUC# (if known) 120401030205,120401040705,120401040706,120401040704,120402030

Drainage area (Square miles, est.) 47

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 291

of structures 240

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 900

Roadway(s) impacted (length) 12

Number of low water crossings 0

Historical road closures 0

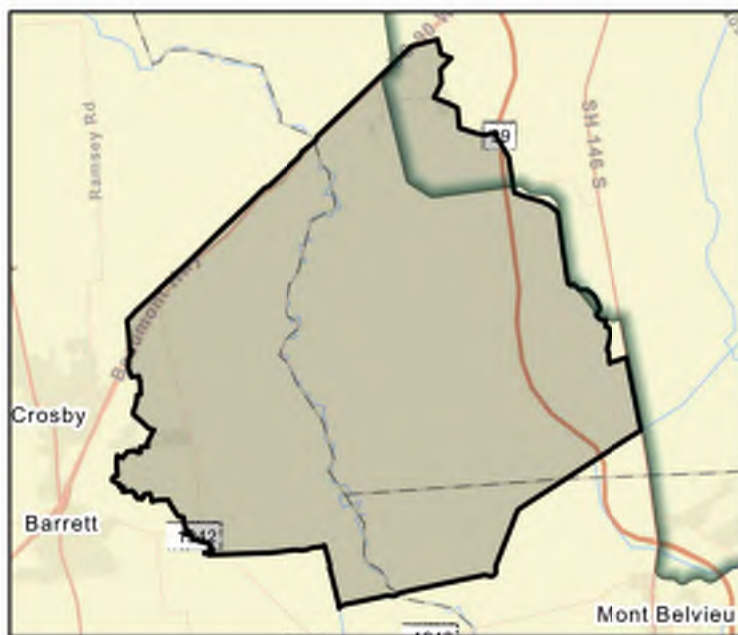
Estimated Cost and Funding Availability

Total Cost \$30,000

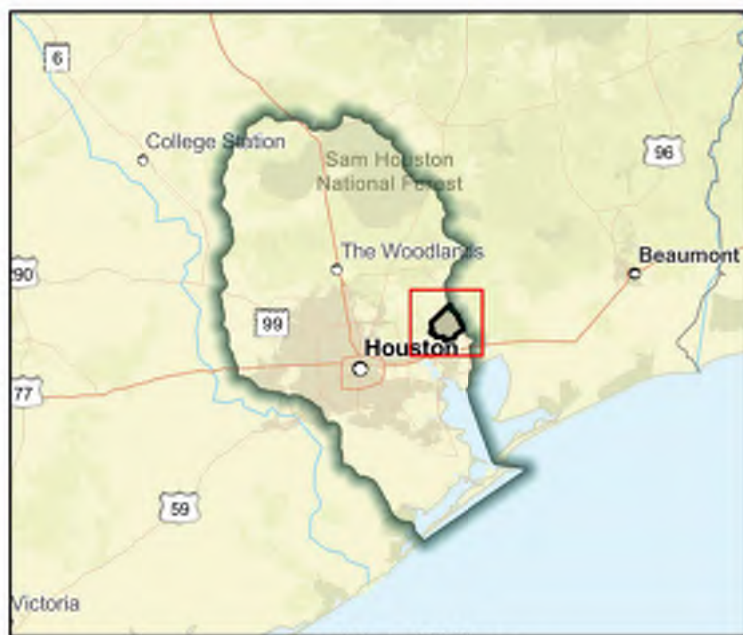
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Channel improvements upstream of FM 1960

ID# 061000379

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements upstream of FM 1960.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris,Liberty

Watershed HUC# (if known) 120401030205,120401040705,120401040706,120401040704,120402030

Drainage area (Square miles, est.) 23

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 147

of structures 75

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 463

Roadway(s) impacted (length) 5

Number of low water crossings 0

Historical road closures 0

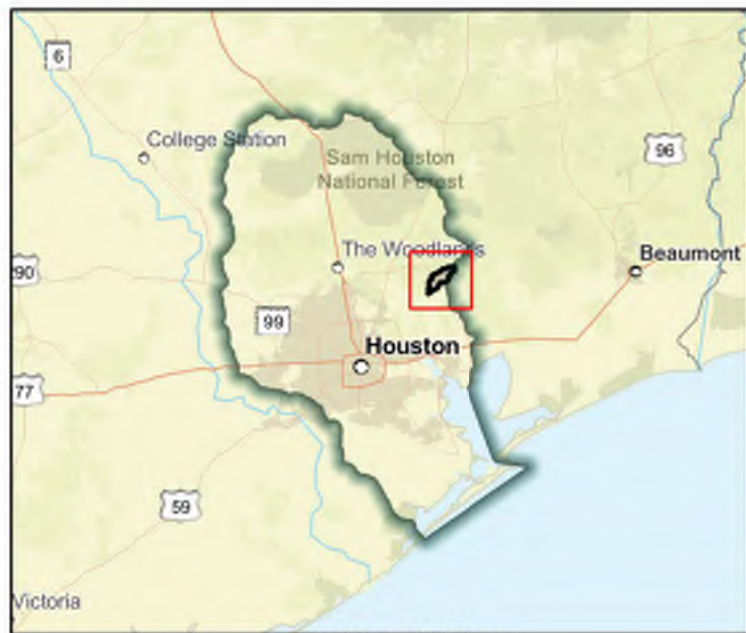
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou (Q100-00-00)

ID# 061000369

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers,Harris

Watershed HUC# (if known) 120401040706,120402030105,120402030106

Drainage area (Square miles, est.) 19

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 729

of structures 319

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 25

Roadway(s) impacted (length) 5

Number of low water crossings 0

Historical road closures 0

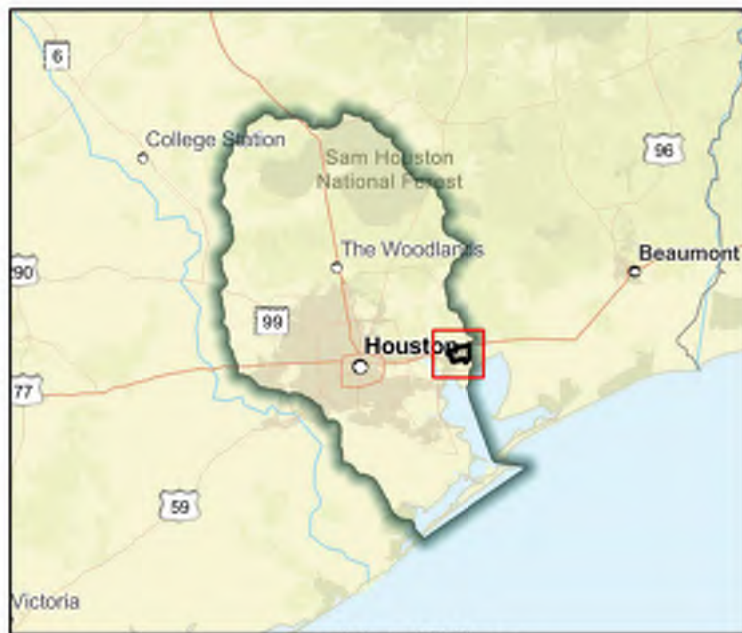
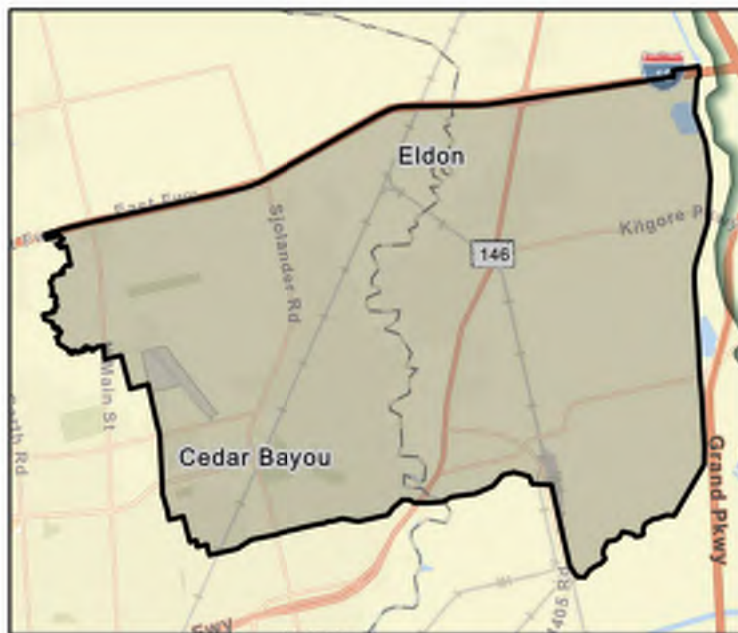
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou (Q100-00-00)

ID# 061000367

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers,Harris

Watershed HUC# (if known) 120401040706,120402030106,120402030200

Drainage area (Square miles, est.) 28

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 774

of structures 230

Critical facilities 7

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 47

Roadway(s) impacted (length) 8

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

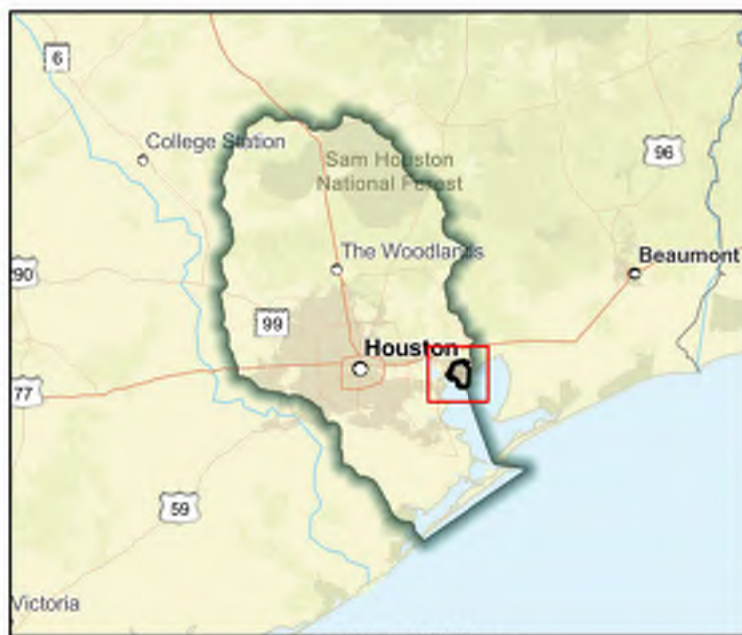
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Q128 Channel Improvements from US 90 to Q100 Confluence

ID# 061000374

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements from US 90 to Confluence with Q100.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401030205,120401040705,120401040706,120401040704,120402030

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 178

of structures 142

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 161

Roadway(s) impacted (length) 6

Number of low water crossings 0

Historical road closures 0

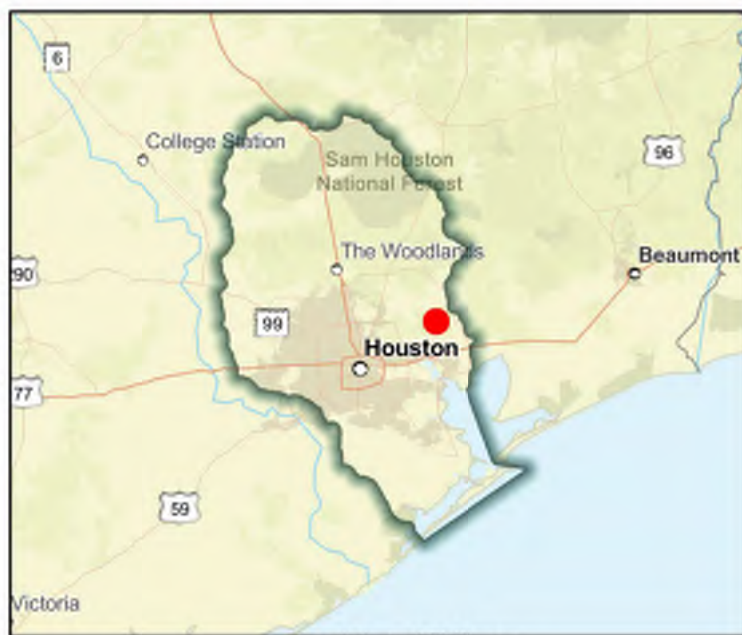
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence

ID# 061000368

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris,Liberty

Watershed HUC# (if known) 120401030205,120401040705,120401040706,120401040704,120402030

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 241

of structures 174

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 141

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

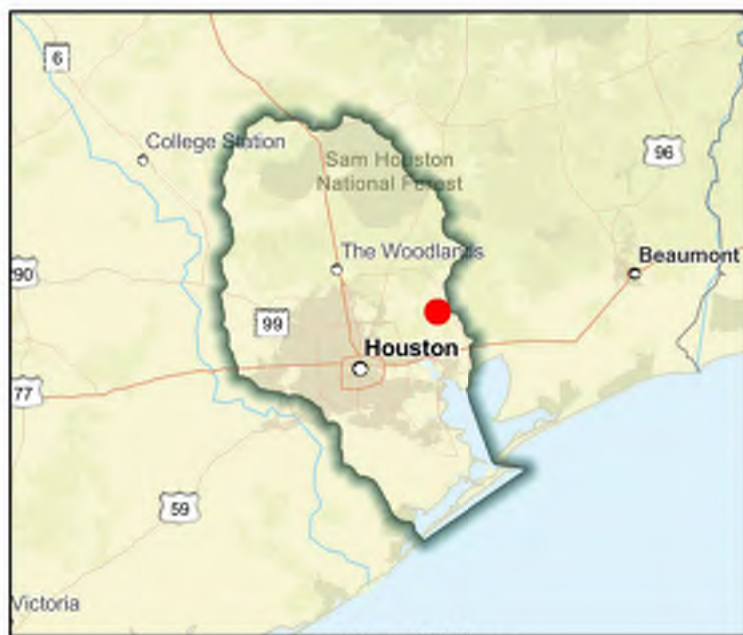
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cedar Bayou Local Drainage Study

ID# 061000526

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Cedar Bayou watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Liberty, Chambers

Watershed HUC# (if known) 120401010501,120401010502,120401030205,120401040704,120401040

Drainage area (Square miles, est.) 199

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 4,369

of structures 2,348

Critical facilities 36

Flood risk type: Riverine? Yes

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,104

Roadway(s) impacted (length) 64

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$904,703

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Chambers County Dam and Levee Failure Inundation Map Update**

ID# **061000042**

Sponsor (name of entity, not person) **Chambers (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Further study for all participating jurisdiction to update dam and levee failure inundation maps, and update floodplain and floodway maps throughout the county. The updated maps will also be made available to the public.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Chambers**

Watershed HUC# (if known) **120402030105,120402030104,120402030106,120402030200**

Drainage area (Square miles, est.) **866**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **715**

of structures **151**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **354**

Roadway(s) impacted (length) **7**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$25,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Chambers County Property Protection

ID# 061000044

Sponsor (name of entity, not person) Chambers (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to determine flood risk reduction potential of clearing obstacles, widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding throughout all participating jurisdictions.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers

Watershed HUC# (if known) 120402030105,120402030104,120402030106,120402030200

Drainage area (Square miles, est.) 866

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 715

of structures 151

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 354

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures

0

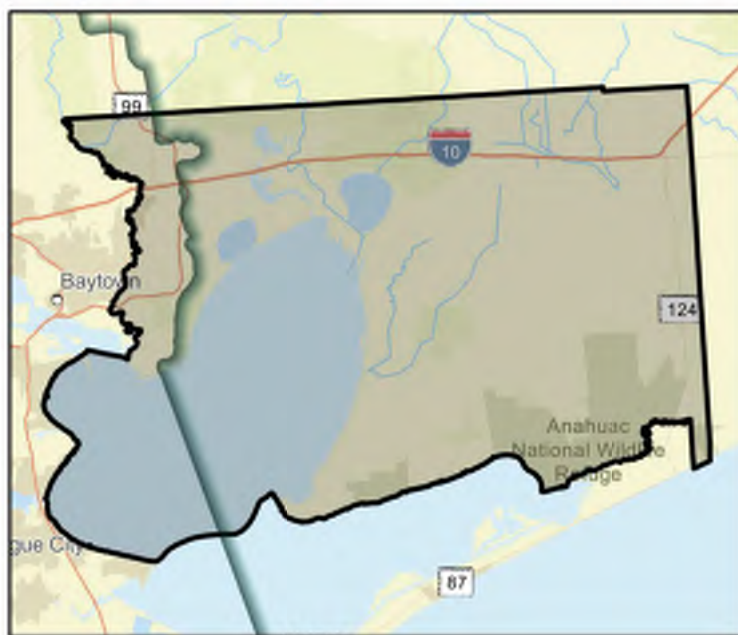
Estimated Cost and Funding Availability

Total Cost \$500,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Chambers Flood Mapping Updates

ID# 061000302

Sponsor (name of entity, not person) Chambers (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description County wide study to produce flood mapping updates including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Chambers

Watershed HUC# (if known) 120402030105,120402030104,120402030106,120402030200

Drainage area (Square miles, est.) 866

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 715

of structures 151

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 354

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$631,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Chateau Forest Area Drainage and Paving (30%) Goforth

ID# 061000476

Sponsor (name of entity, not person) Houston (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project for design and construction of storm drainage and paving improvements in the Chateau Forest Drive and West Little York Road Areas. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040302

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,937

of structures 672

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 6

Number of low water crossings -

Historical road closures -

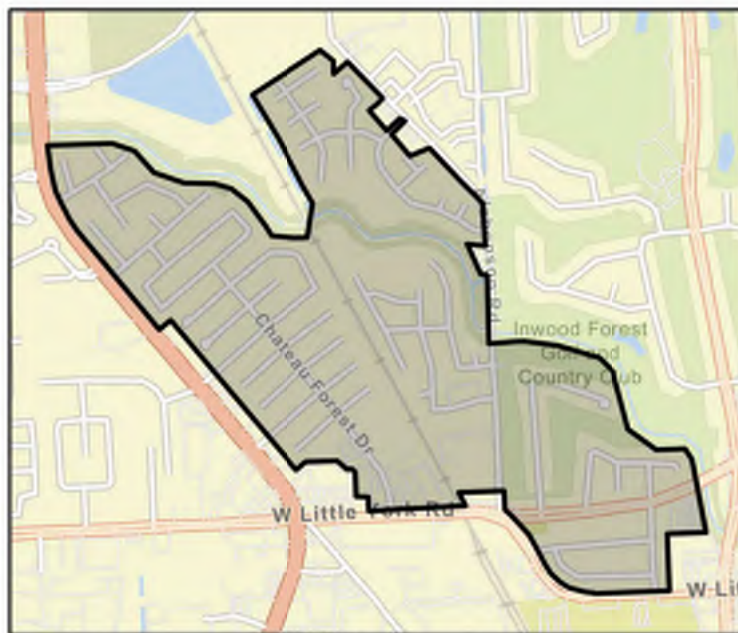
Estimated Cost and Funding Availability

Total Cost \$30,000

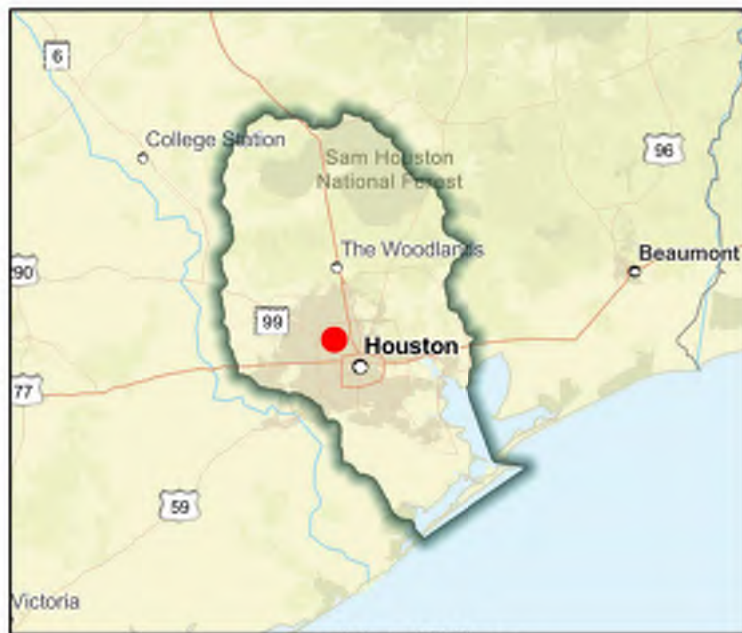
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou**

ID# **061000043**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further assessment and design of detention ponds needed along Mustang and Dickinson Bayous to reduce flood risk in the City of Alvin.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria, Galveston, Fort Bend**

Watershed HUC# (if known) **120402040300, 120402040200, 120402040400, 120402040100**

Drainage area (Square miles, est.) **25**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **15,192**

of structures **3,445**

Critical facilities **16**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **262**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$200,000**

Amount of Available Funding **50000**

Federal funding availability **Yes**

Funding source **Entity/ Budget Funds**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Alvin Dickinson Bayou Watershed Study

ID# 061000067

Sponsor (name of entity, not person) Alvin (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study of Dickinson Bayou Watershed to determine drainage improvement alternatives.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria, Galveston, Fort Bend

Watershed HUC# (if known) 120402040300, 120402040200, 120402040400, 120402040100

Drainage area (Square miles, est.) 25

Goal(s) 06000001, 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 15,192

of structures 3,445

Critical facilities 16

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 262

Roadway(s) impacted (length) 57

Number of low water crossings 0

Historical road closures 0

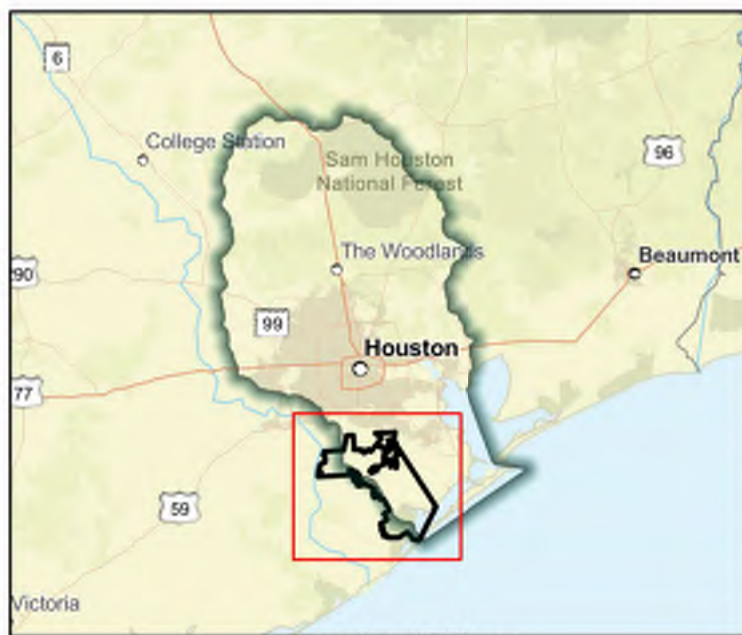
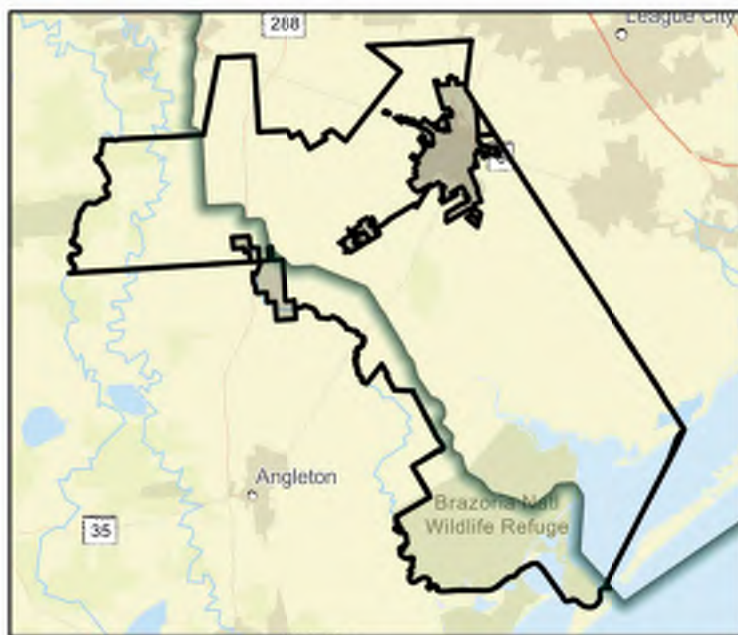
Estimated Cost and Funding Availability

Total Cost \$500,000

Amount of Available Funding 125,000

Federal funding availability Yes

Funding source Entity/ Budget Funds



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Alvin Flood Gauges**

ID# **061000037**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to identify areas where best to purchase additional flood gauges to be placed at bayous and key high water areas within City of Alvin.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria, Galveston, Fort Bend**

Watershed HUC# (if known) **120402040300, 120402040200, 120402040400, 120402040100**

Drainage area (Square miles, est.) **25**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **15,192**

of structures **3,445**

Critical facilities **16**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **262**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

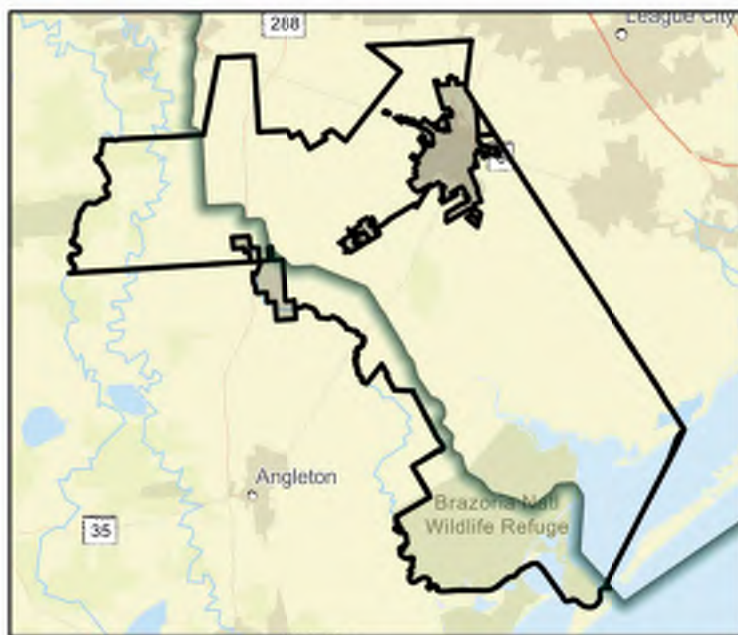
Estimated Cost and Funding Availability

Total Cost **\$50,000**

Amount of Available Funding **25000**

Federal funding availability **Yes**

Funding source **Other**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Alvin Master Drainage Plan**

ID# **061000039**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Comprehensive review of current drainage, studies and recommendations for future projects and studies to create a Master Drainage Plan for the City of Alvin.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria, Galveston, Fort Bend**

Watershed HUC# (if known) **120402040300, 120402040200, 120402040400, 120402040100**

Drainage area (Square miles, est.) **25**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **15,192**

of structures **3,445**

Critical facilities **16**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **262**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

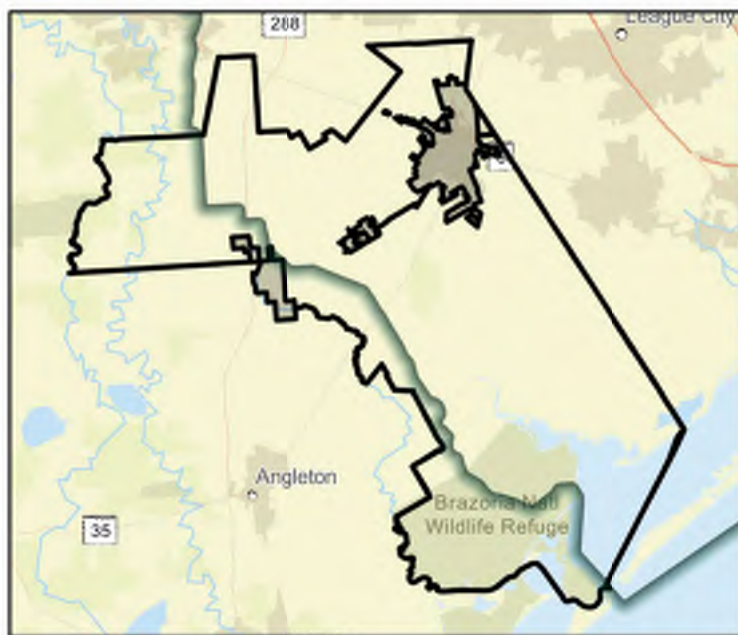
Estimated Cost and Funding Availability

Total Cost **\$100,000**

Amount of Available Funding **50000**

Federal funding availability **Yes**

Funding source **Entity/ Budget Funds**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Alvin Open Space Preservation**

ID# **061000040**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study for open space preservation within adjacent development, dedication of conservation easements or fee simple acquisition of land along Mustang Bayou.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria, Galveston, Fort Bend**

Watershed HUC# (if known) **120402040300, 120402040200, 120402040400, 120402040100**

Drainage area (Square miles, est.) **25**

Goal(s) **06000001, 06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **15,192**

of structures **3,445**

Critical facilities **16**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **262**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

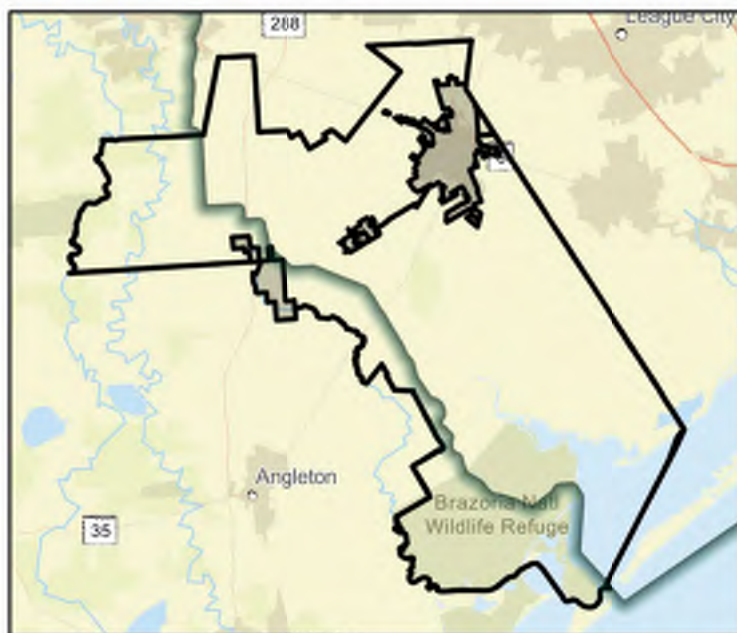
Estimated Cost and Funding Availability

Total Cost **\$500,000**

Amount of Available Funding **0**

Federal funding availability **Yes**

Funding source **Other**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Arcola Master Drainage Plan**

ID# **061000222**

Sponsor (name of entity, not person) **Arcola (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Fort Bend**

Watershed HUC# (if known) **120402040400**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **39**

of structures **41**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

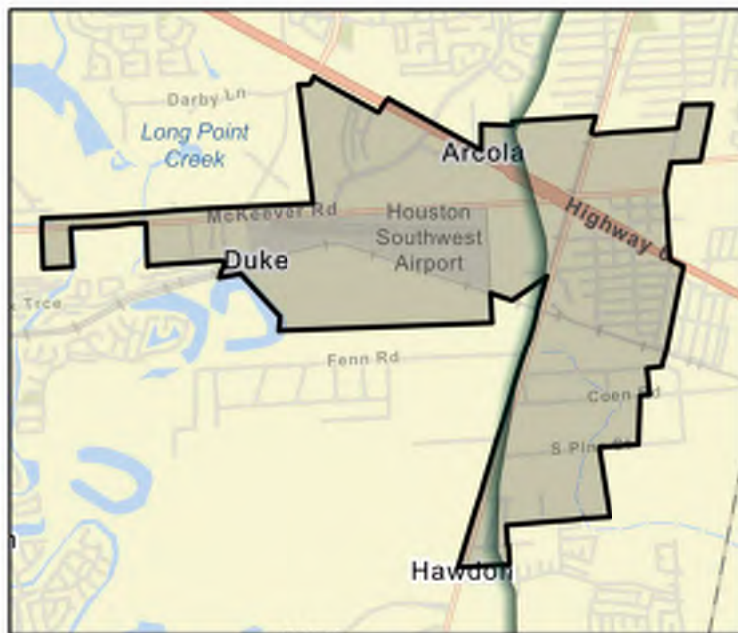
Estimated Cost and Funding Availability

Total Cost **\$200,000**

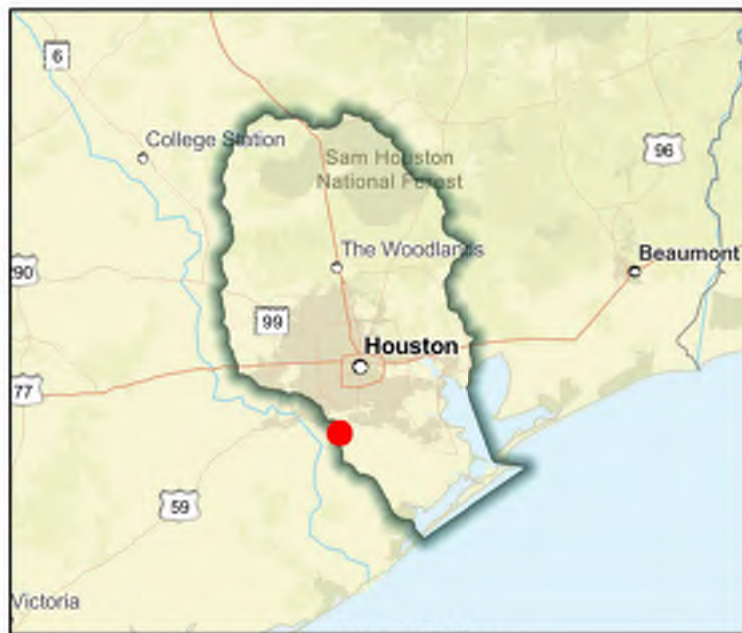
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Arcola Regional Drainage Improvements

ID# 061000003

Sponsor (name of entity, not person) Arcola (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed flood risk reduction project that includes various drainage improvement alternatives.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 39

of structures 41

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

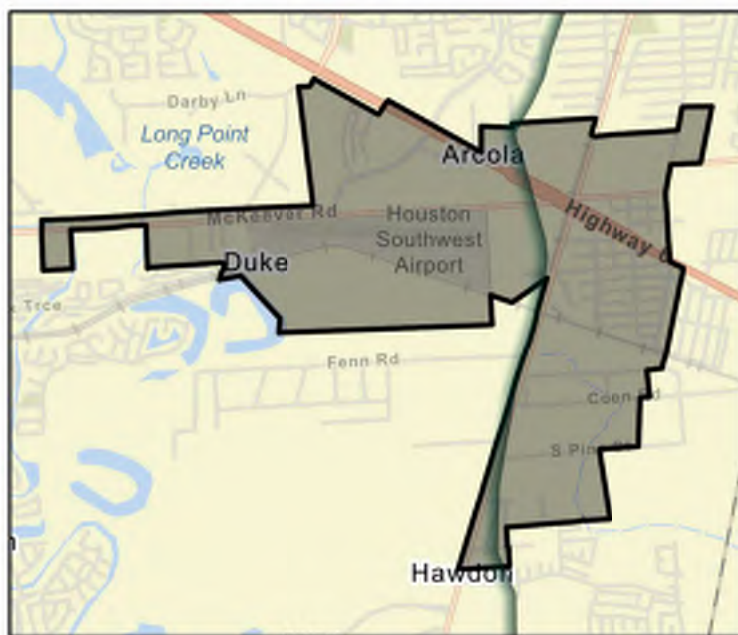
Estimated Cost and Funding Availability

Total Cost \$233,000

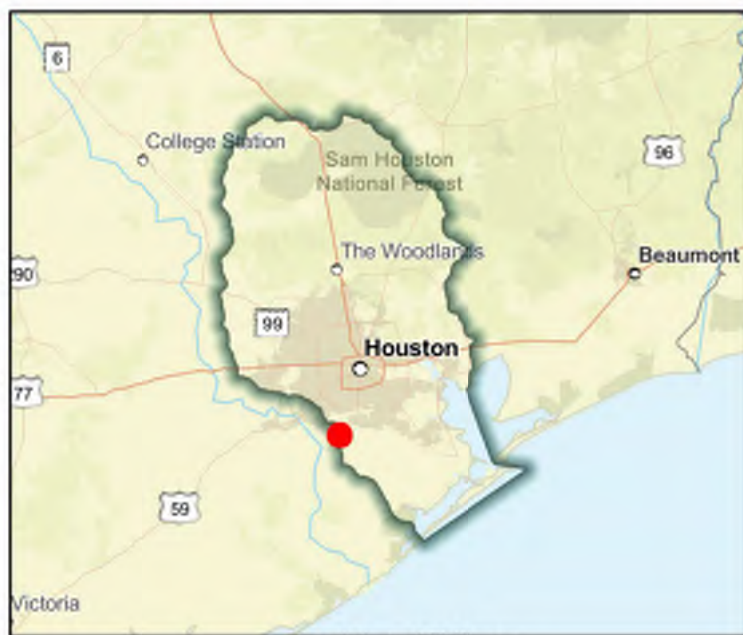
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Arcola Regional Drainage Improvements

ID# 061000139

Sponsor (name of entity, not person) Arcola (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Study of repetitive loss and possible drainage improvements.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 39

of structures 41

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

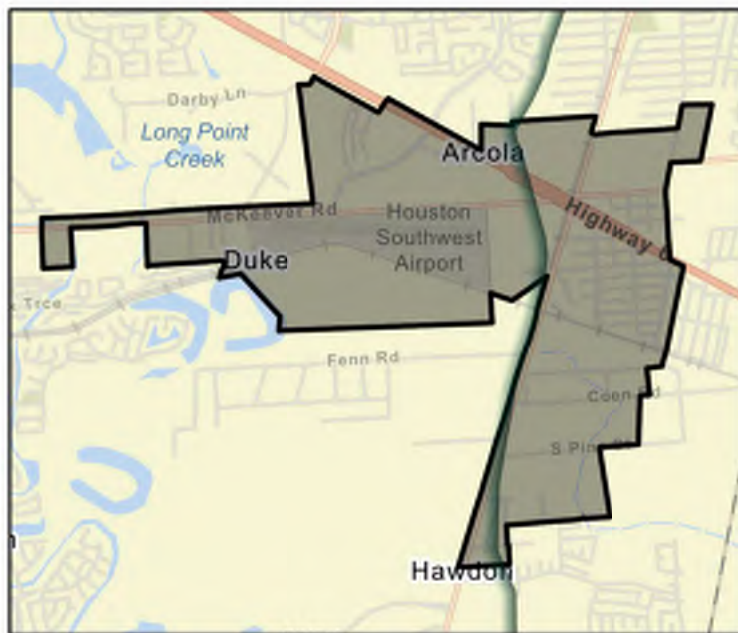
Estimated Cost and Funding Availability

Total Cost \$520,000

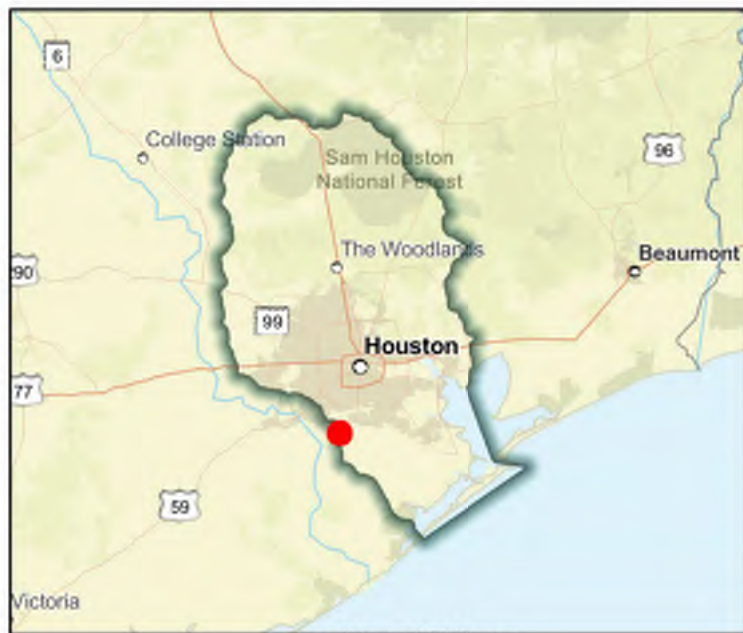
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bayou Vista - Drainage Improvement Program

ID# 061000117

Sponsor (name of entity, not person) Bayou Vista (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop drainage improvement program to reduce standing water and runoff, and reduce minor flooding for residents located in District No. 12.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,477

of structures 1,123

Critical facilities 3

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 7

Number of low water crossings -

Historical road closures -

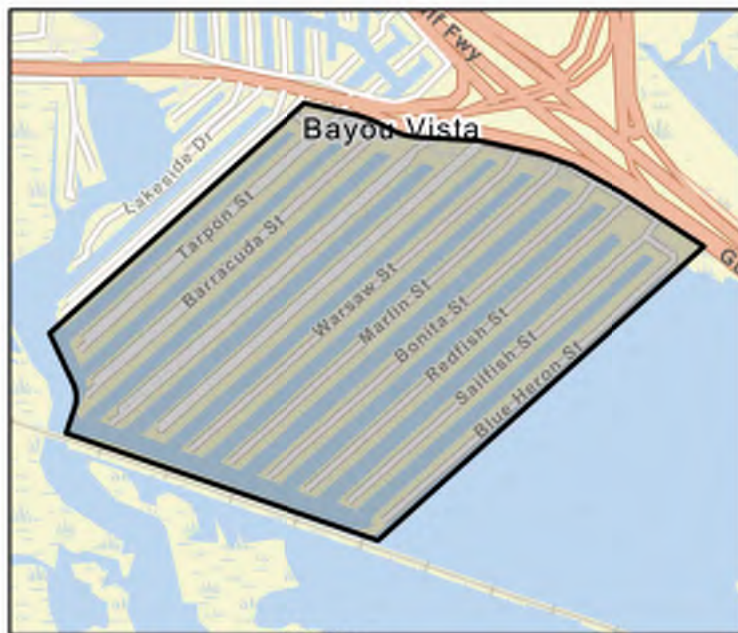
Estimated Cost and Funding Availability

Total Cost \$100,000

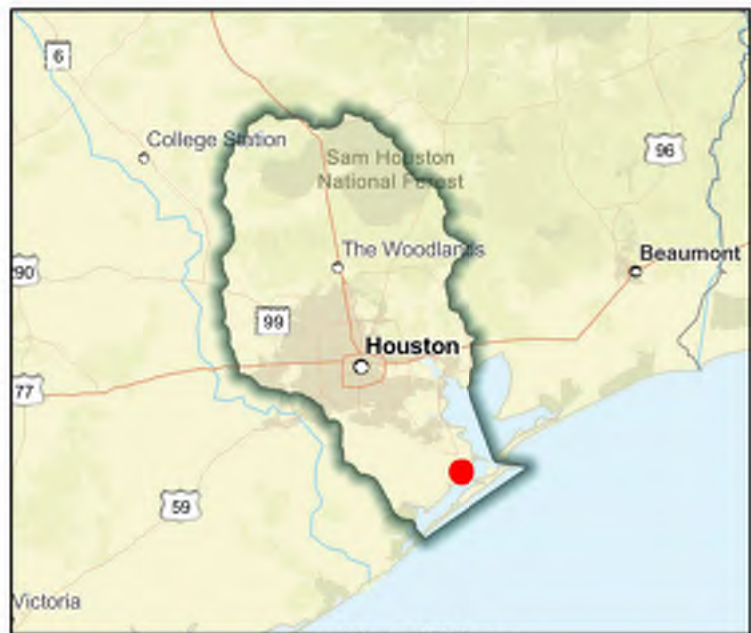
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bayou Vista - Storm Sewer System Evaluation

ID# 061000090

Sponsor (name of entity, not person) Bayou Vista (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Storm sewer system evaluation to determine reconstruction/upgrade needs to increase water flow.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,476

of structures 1,122

Critical facilities 3

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 8

Number of low water crossings -

Historical road closures -

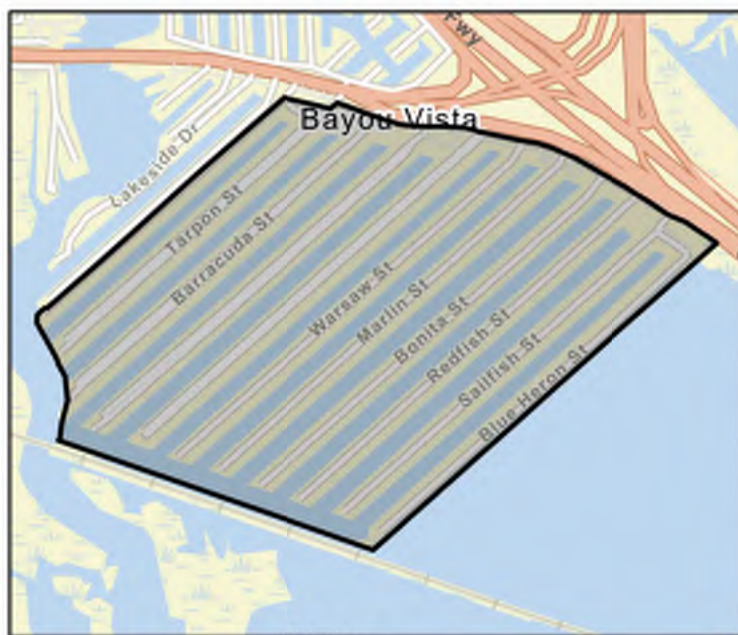
Estimated Cost and Funding Availability

Total Cost \$130,000

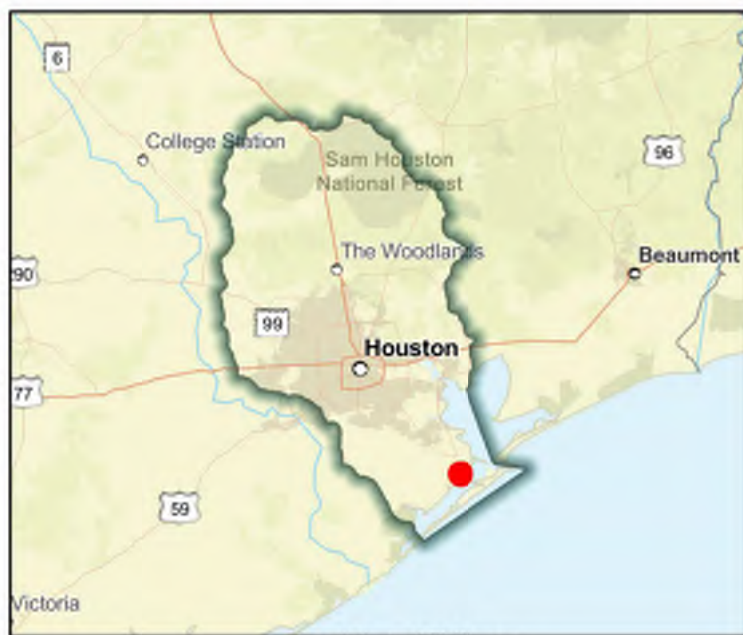
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bayou Vista Canal Dredging Study

ID# 061000158

Sponsor (name of entity, not person) Bayou Vista (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Plan for Canal Dredging to reduce sediment deposited during storm events. Study to develop and implement canal dredging program.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,476

of structures 1,122

Critical facilities 3

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 8

Number of low water crossings -

Historical road closures -

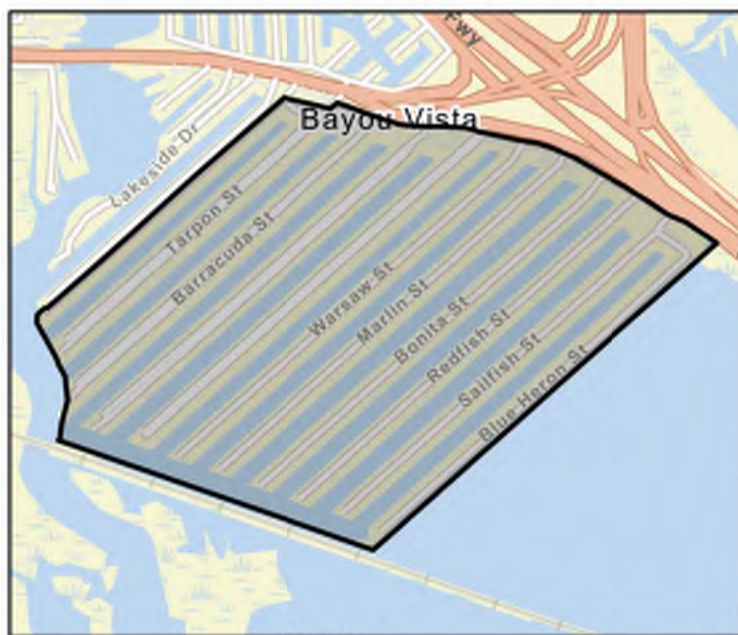
Estimated Cost and Funding Availability

Total Cost \$130,000

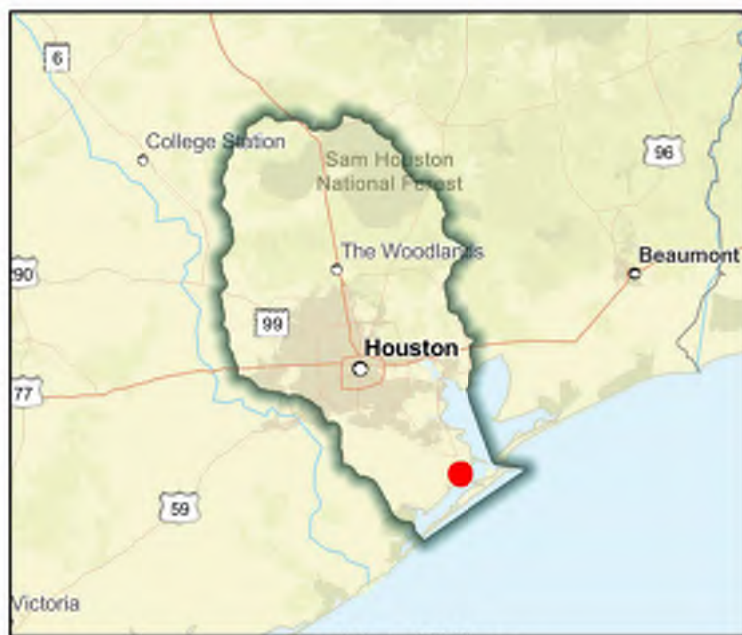
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bayou Vista Master Drainage Plan**

ID# **061000084**

Sponsor (name of entity, not person) **Bayou Vista (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **1,476**

of structures **1,122**

Critical facilities **3**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **8**

Number of low water crossings **-**

Historical road closures **-**

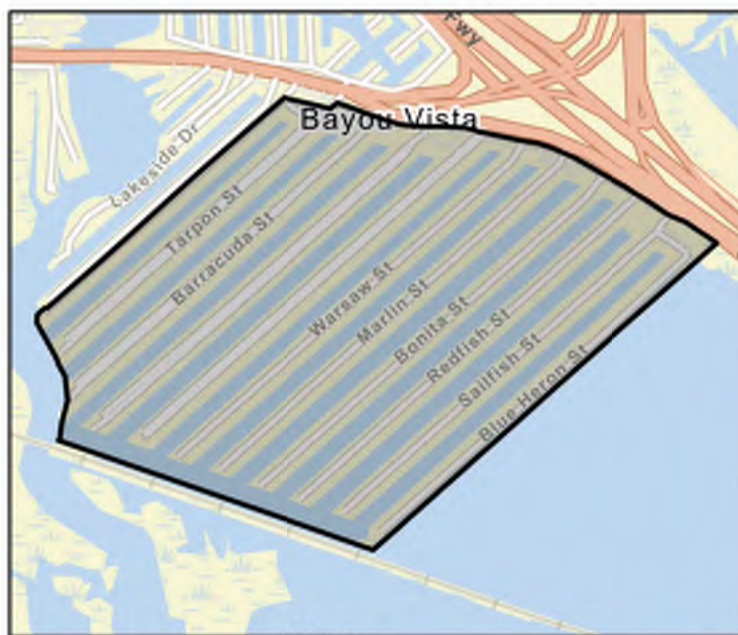
Estimated Cost and Funding Availability

Total Cost **\$130,000**

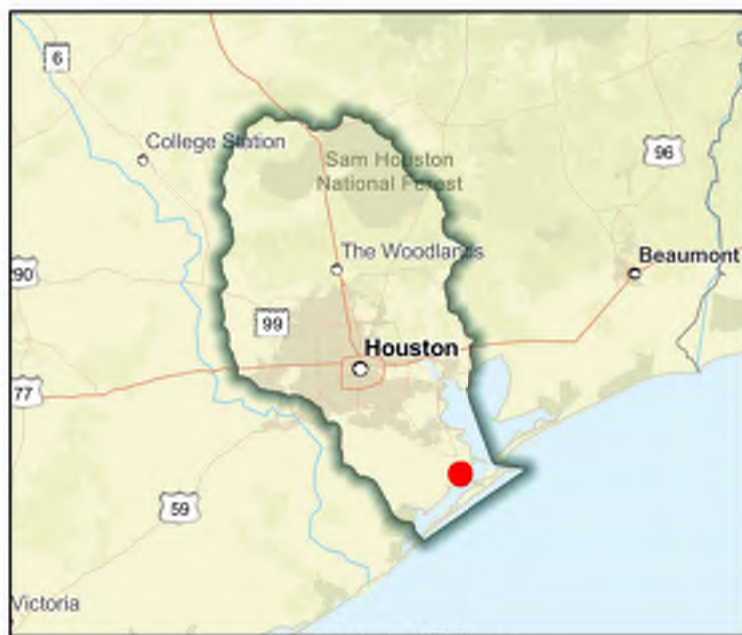
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Baytown Master Drainage Plan

ID# 061000223

Sponsor (name of entity, not person) Baytown (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Chambers,Harris

Watershed HUC# (if known) 120401040705,120401040706,120402030105,120402030106,120402030

Drainage area (Square miles, est.) 38

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5,397

of structures 1,184

Critical facilities 36

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 79

Roadway(s) impacted (length) 50

Number of low water crossings 1

Historical road closures

1

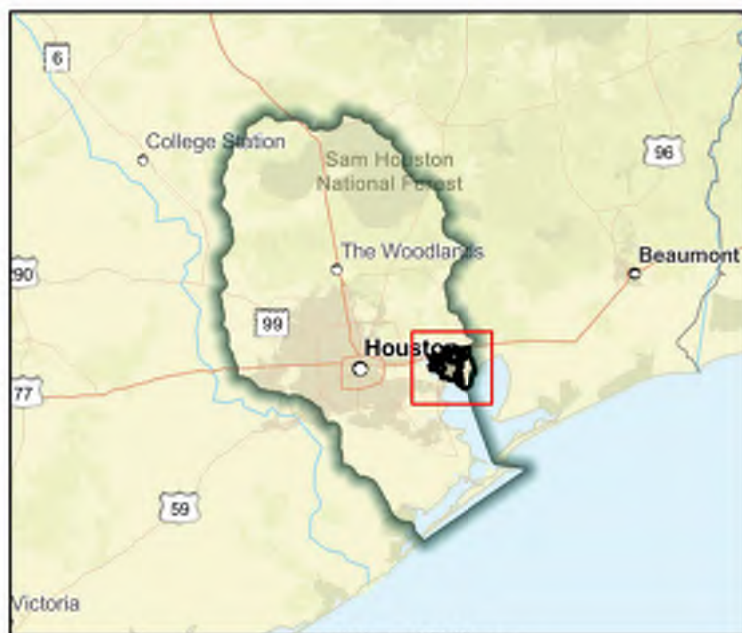
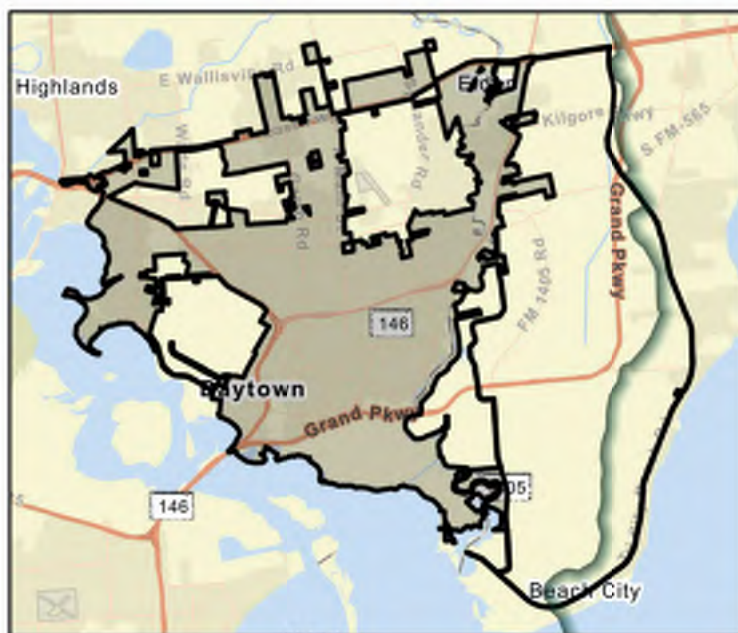
Estimated Cost and Funding Availability

Total Cost \$520,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Beach City Master Drainage Plan**

ID# **061000224**

Sponsor (name of entity, not person) **Beach City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Chambers**

Watershed HUC# (if known) **120402030200**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **6**

of structures **3**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$240,000**

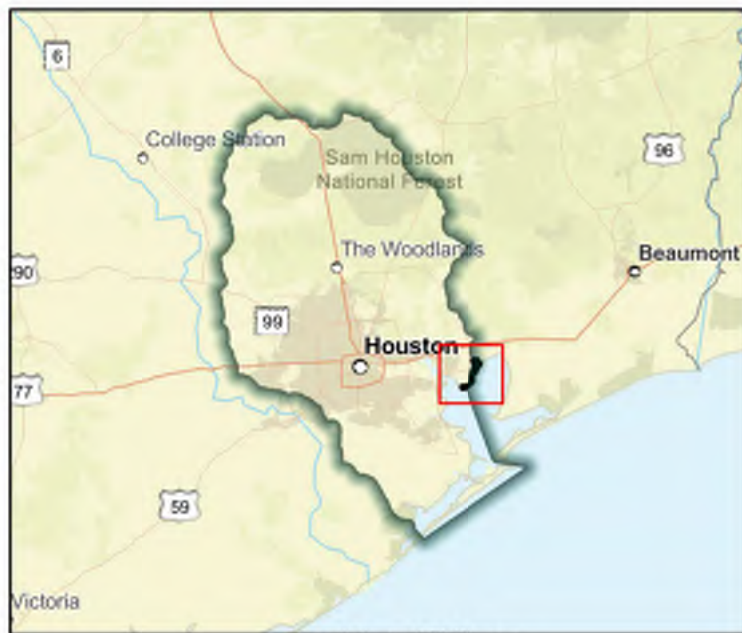
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bellaire Chimney Rock Area Drainage Improvements

ID# 061000488

Sponsor (name of entity, not person) Bellaire (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Perform preliminary engineering services to develop and advance a flood risk reduction project in the Chimney Rock area, servicing the western part of the City of Bellaire.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040401, 120401040402

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 25,741

of structures 5,877

Critical facilities 69

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

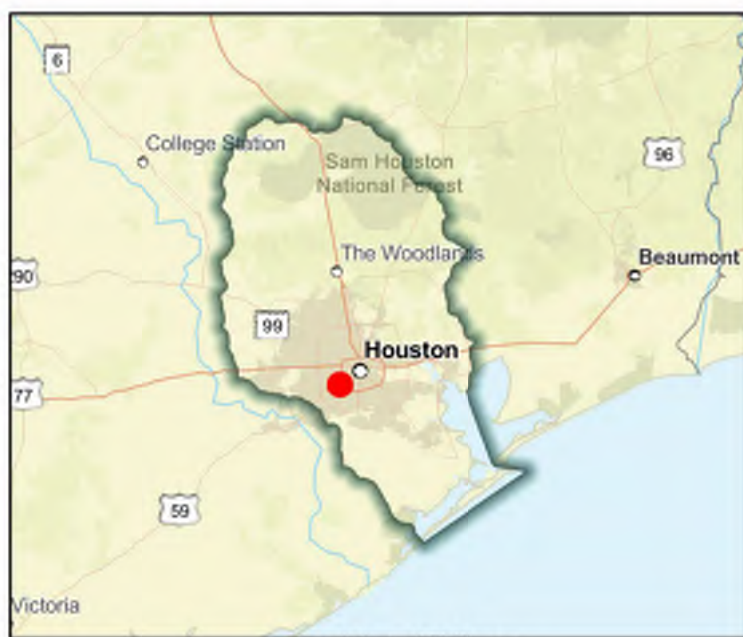
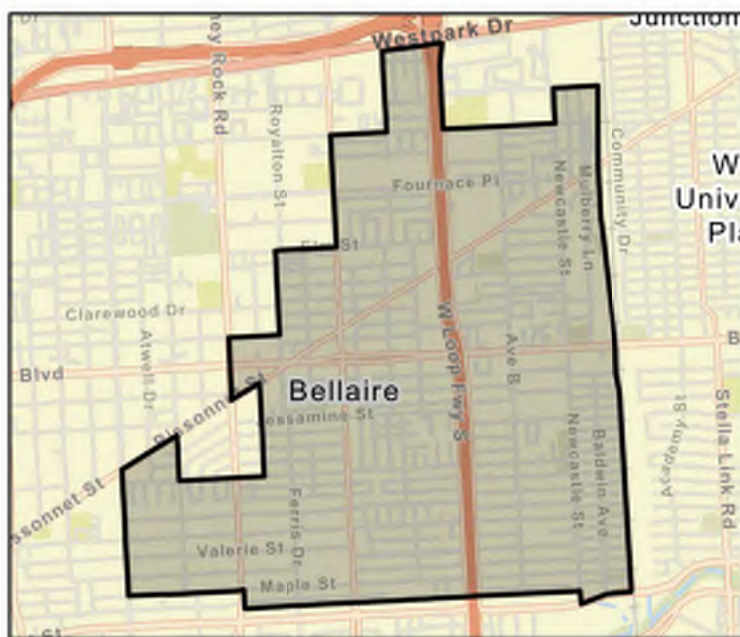
Estimated Cost and Funding Availability

Total Cost \$1,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bellaire Cypress Ditch Drainage Improvements**

ID# **061000015**

Sponsor (name of entity, not person) **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Perform engineering services to develop and advance a flood risk reduction project in the Cypress Ditch area, servicing the southern part of the City of Bellaire.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040402,120401040401**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **25,741**

of structures **5,877**

Critical facilities **69**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **71**

Number of low water crossings **0**

Historical road closures **0**

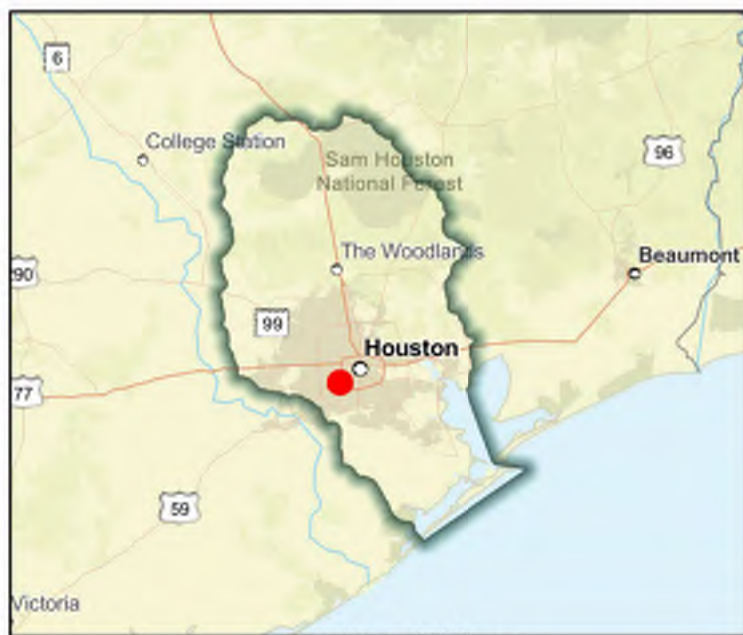
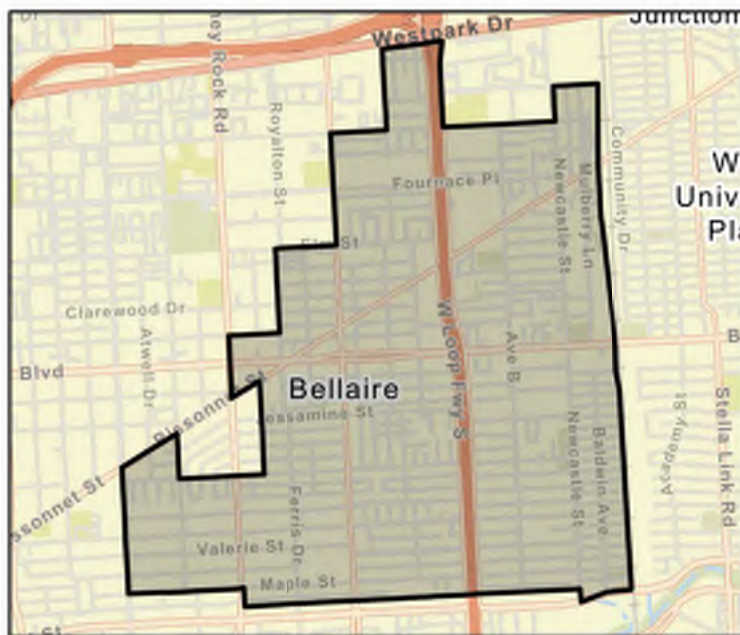
Estimated Cost and Funding Availability

Total Cost **\$1,000,000**

Amount of Available Funding **250000**

Federal funding availability **Yes**

Funding source **Bonds/Other Financing**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bellaire Local Drainage System Asset Management

ID# 061000013

Sponsor (name of entity, not person) Bellaire (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop asset management plan / capital improvement plan to repair/replace local drainage infrastructure over time to ensure it is in good working order and meeting the level of service desired by the City.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040402,120401040401

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 25,741

of structures 5,877

Critical facilities 69

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

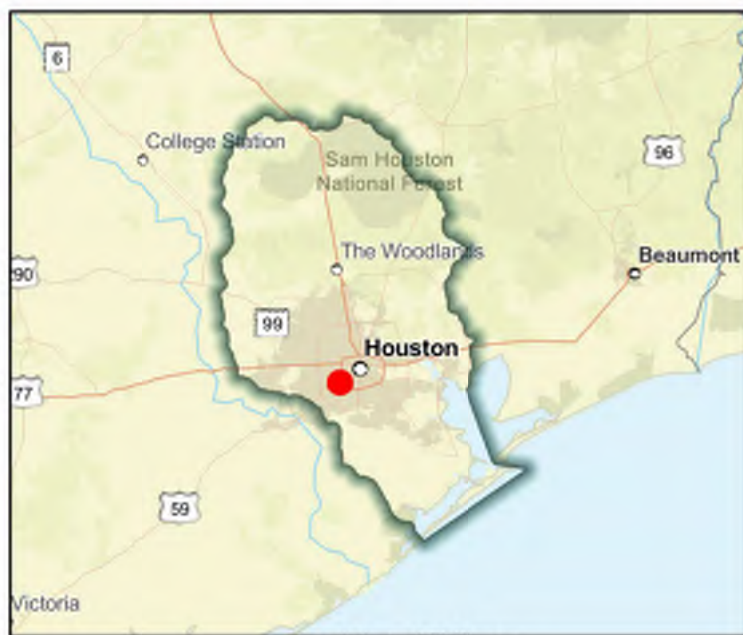
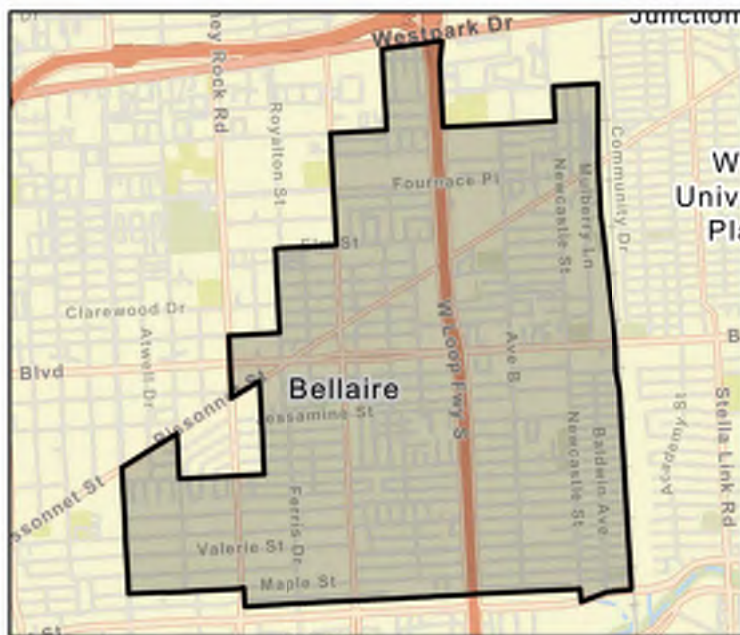
Estimated Cost and Funding Availability

Total Cost \$300,000

Amount of Available Funding 75000

Federal funding availability Yes

Funding source Bonds/Other Financing



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bellaire Loop 610 Area Drainage Improvements

ID# 061000486

Sponsor (name of entity, not person) Bellaire (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Perform engineering services to develop and advance a flood risk reduction project in the Newcastle area, servicing the east-central part of the City of Bellaire.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040401, 120401040402

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 25,741

of structures 5,877

Critical facilities 69

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

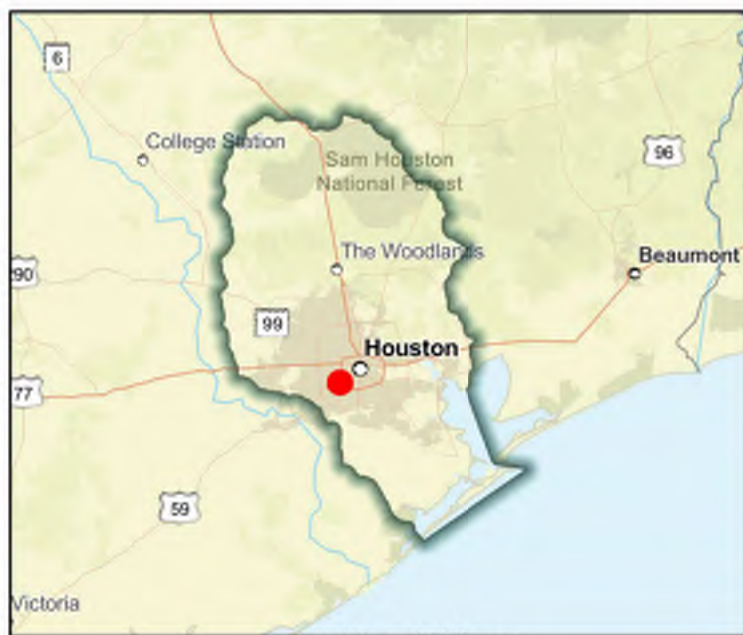
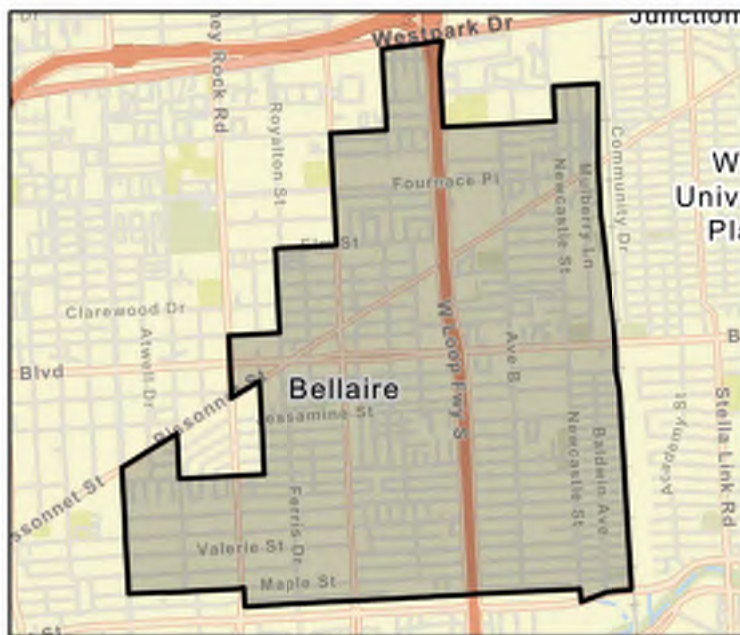
Estimated Cost and Funding Availability

Total Cost \$1,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bellaire Master Drainage Plan**

ID# **061000225**

Sponsor (name of entity, not person) **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Conduct planning study to produce a Master Drainage Plan for the City of Bellaire, identifying and developing specific flood-related capital improvements and implementation plans necessary to achieve a desired level of service / flood protection.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040402,120401040401**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **25,741**

of structures **5,877**

Critical facilities **69**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **71**

Number of low water crossings **0**

Historical road closures **0**

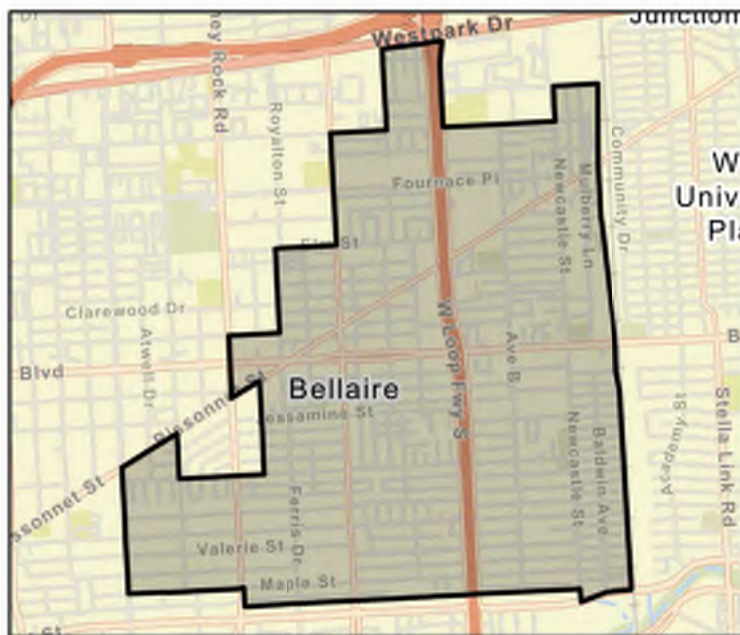
Estimated Cost and Funding Availability

Total Cost **\$1,500,000**

Amount of Available Funding **375000**

Federal funding availability **Yes**

Funding source **Bonds/Other Financing**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bellaire Newcastle/Kilmarnock Area Drainage Improvements

ID# 061000485

Sponsor (name of entity, not person) Bellaire (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Perform engineering services to develop and advance a flood risk reduction project in the Newcastle/Kilmarnock area, servicing the eastern part of the City of Bellaire.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040401, 120401040402

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 25,741

of structures 5,877

Critical facilities 69

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

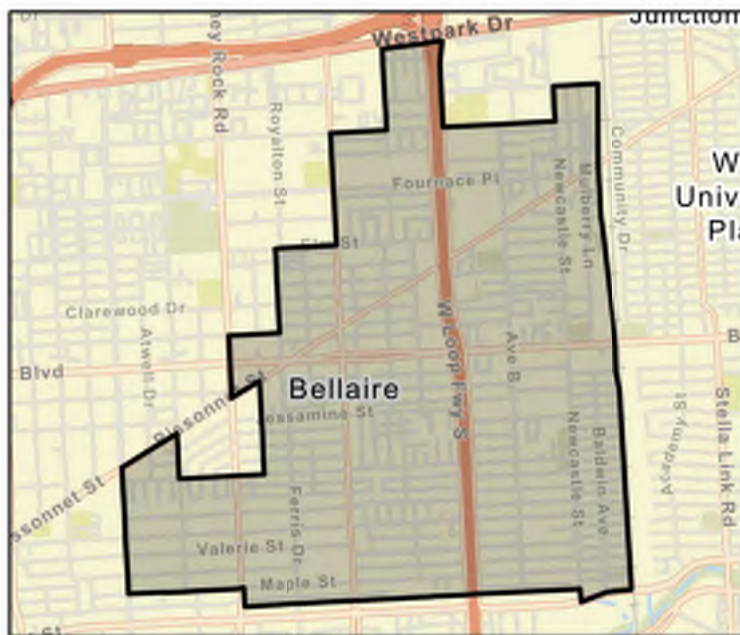
Estimated Cost and Funding Availability

Total Cost \$1,000,000

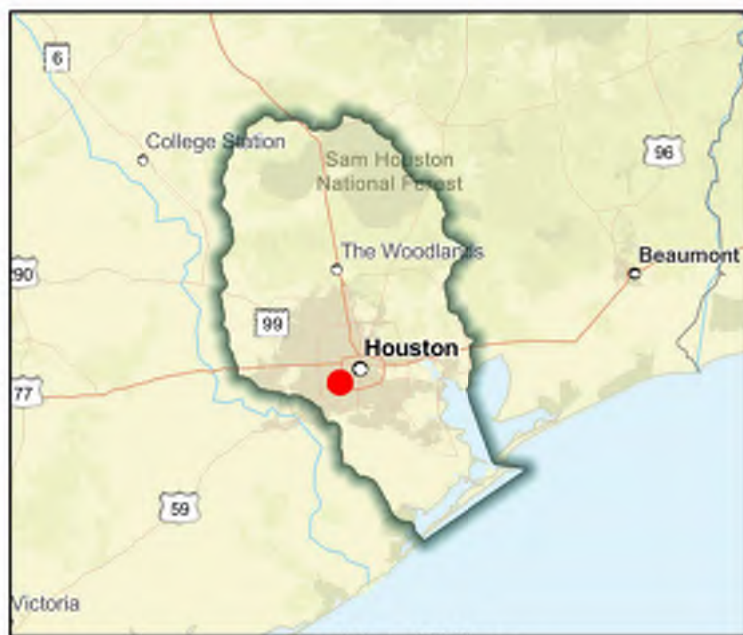
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Bellaire Regional Detention Facilities Development

ID# 061000014

Sponsor (name of entity, not person) Bellaire (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Effort to identify and develop/design regional detention facilities to either provide flood risk reduction or to facilitate the construction of local or regional drainage improvement projects.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040402,120401040401

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 25,741

of structures 5,877

Critical facilities 69

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

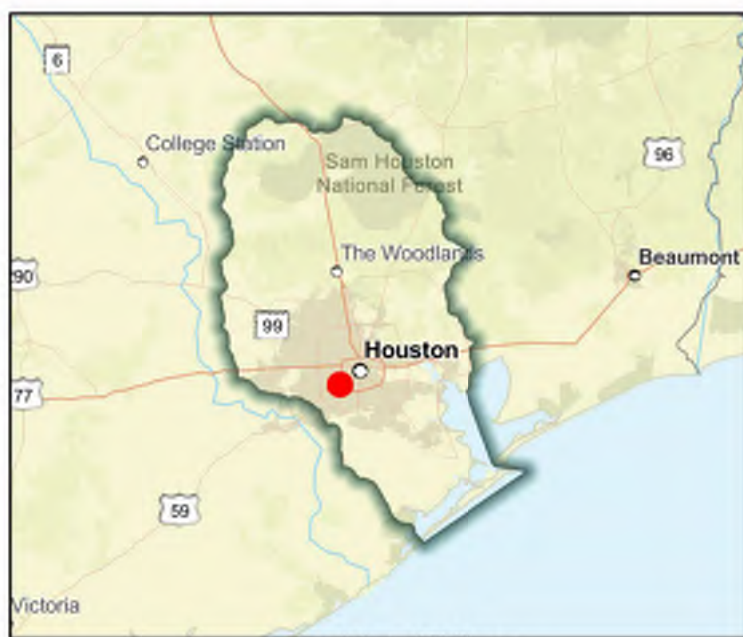
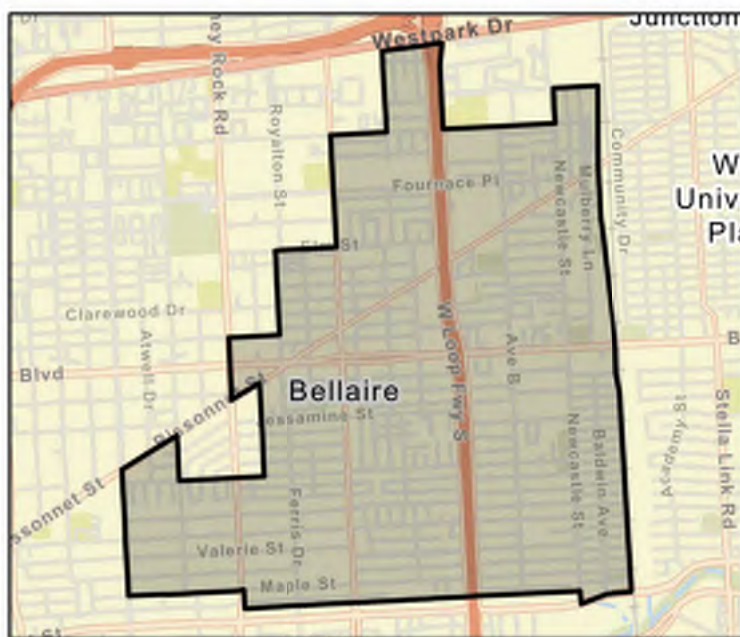
Estimated Cost and Funding Availability

Total Cost \$1,000,000

Amount of Available Funding 250000

Federal funding availability Yes

Funding source Bonds/Other Financing



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bellaire South Rice Area Drainage Improvements**

ID# **061000487**

Sponsor (name of entity, not person) **Bellaire (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Perform engineering services to develop and advance a flood risk reduction project in the South Rice area, servicing the west-central part of the City of Bellaire.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040401, 120401040402**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **25,741**

of structures **5,877**

Critical facilities **69**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **71**

Number of low water crossings **0**

Historical road closures **0**

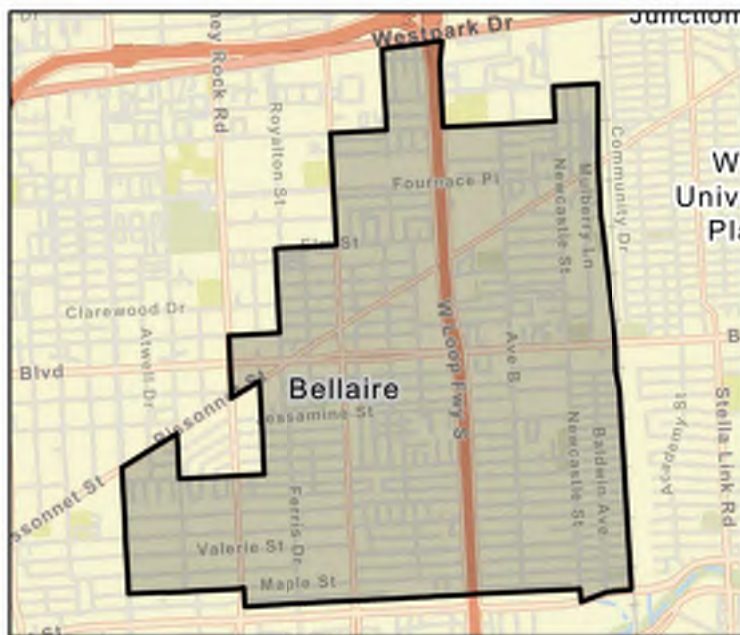
Estimated Cost and Funding Availability

Total Cost **\$1,000,000**

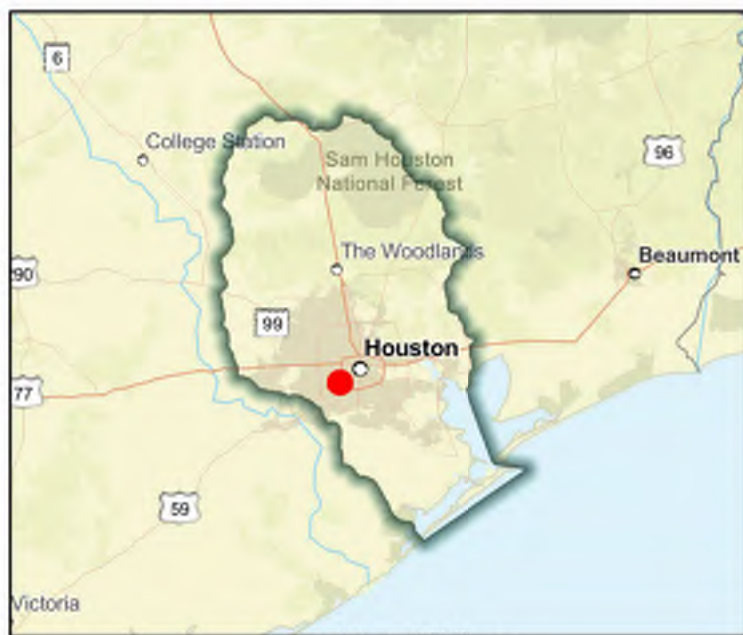
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Brookside Village Master Drainage Plan

ID# 061000226

Sponsor (name of entity, not person) Brookside Village (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,467

of structures 809

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 12

Number of low water crossings 0

Historical road closures 0

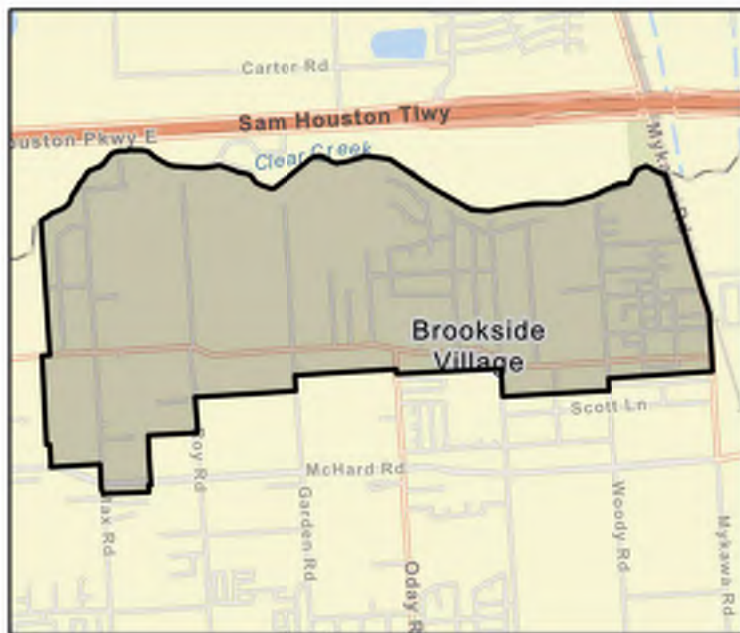
Estimated Cost and Funding Availability

Total Cost \$190,000

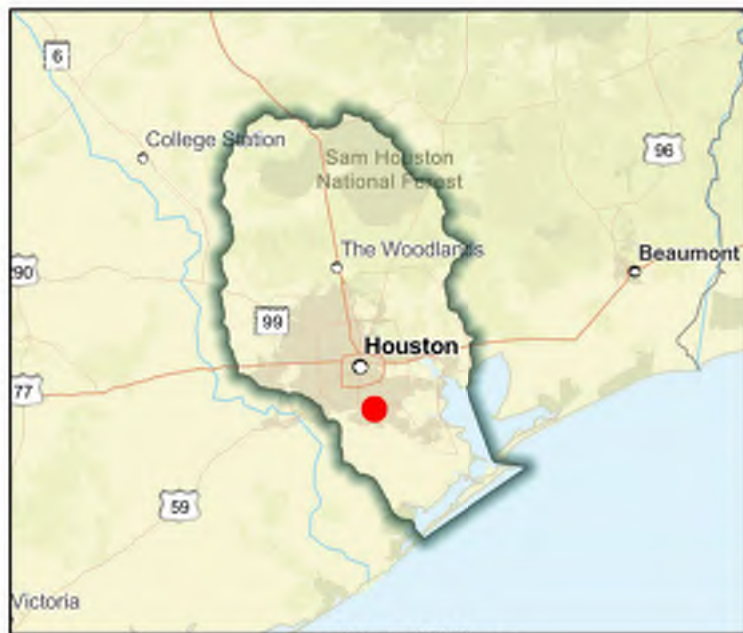
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bunker Hill Drainage Projects**

ID# **061000016**

Sponsor (name of entity, not person) **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed localized and regional flood risk reduction projects within the City of Bunker Hill.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

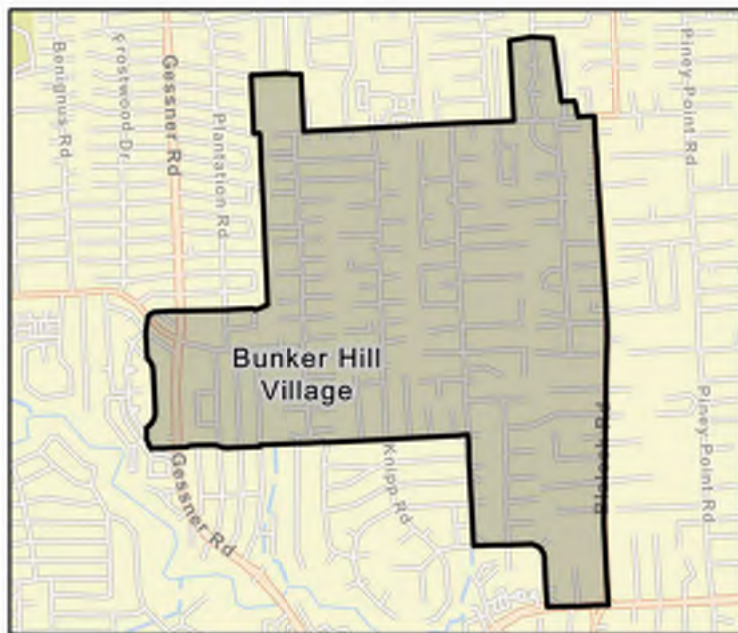
Estimated Cost and Funding Availability

Total Cost **\$100,000**

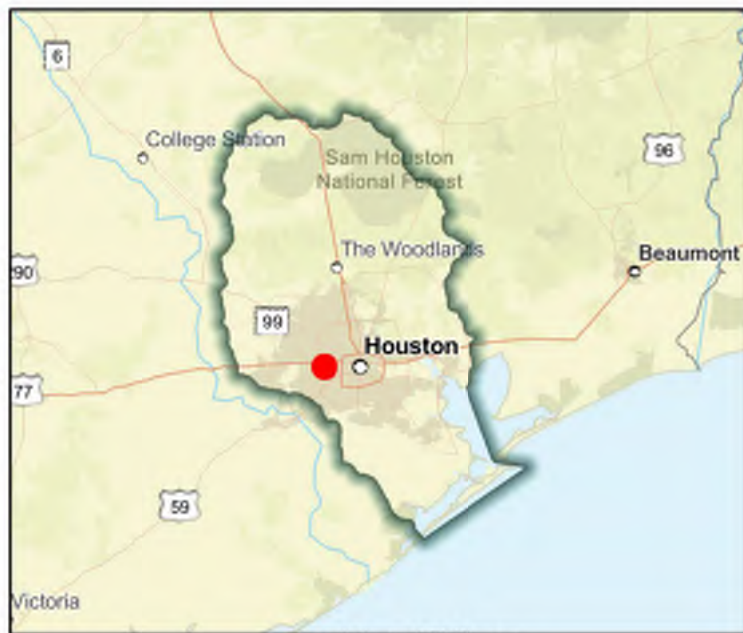
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bunker Hill Master Drainage and Stormwater Management Plan**

ID# **061000017**

Sponsor (name of entity, not person) **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Further study of Master Drainage and Stormwater Management Plan for the City of Bunker Hill to include Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

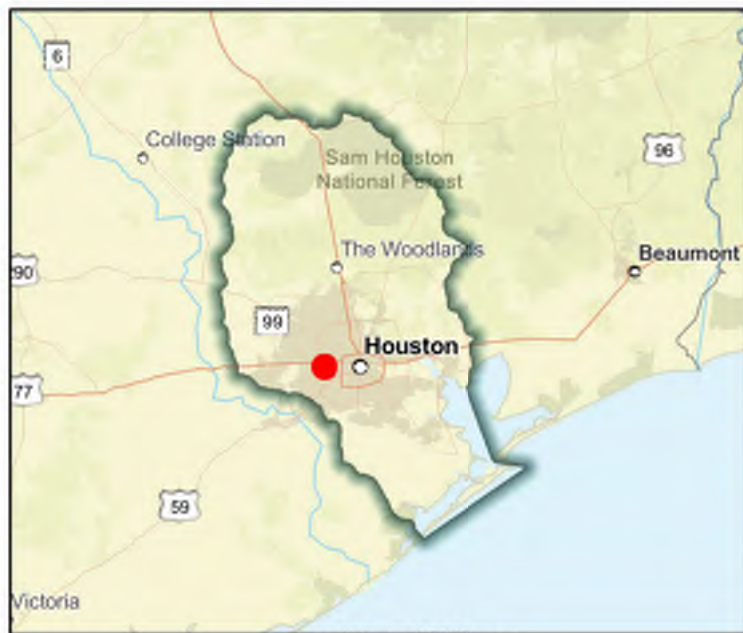
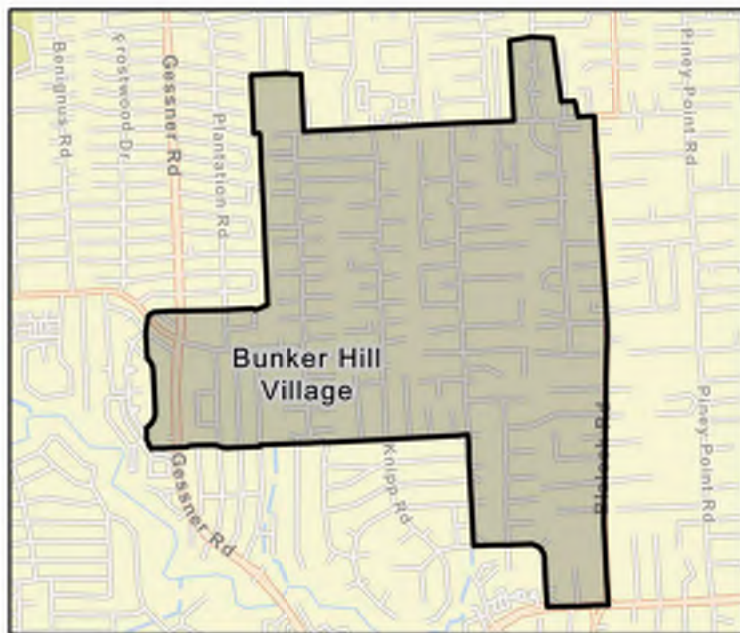
Estimated Cost and Funding Availability

Total Cost **\$170,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Bunker Hill Village Master Drainage Plan**

ID# **061000227**

Sponsor (name of entity, not person) **Bunker Hill Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

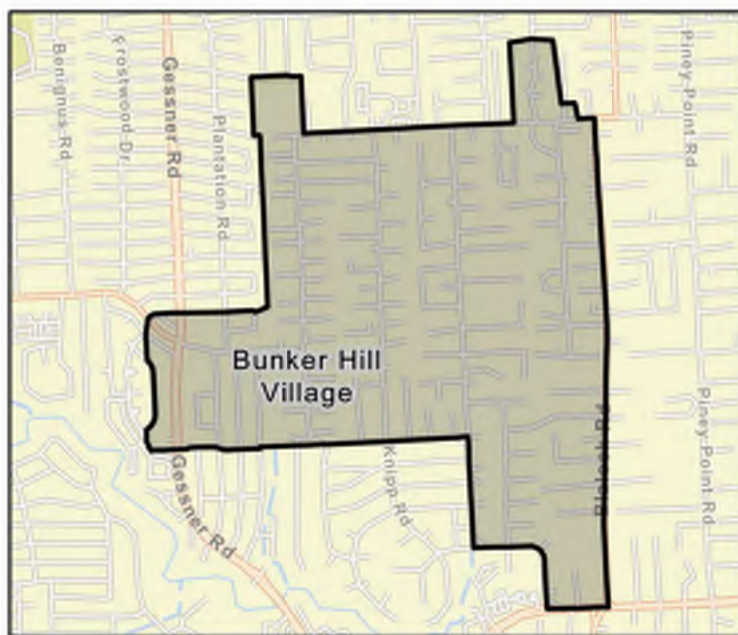
Estimated Cost and Funding Availability

Total Cost **\$170,000**

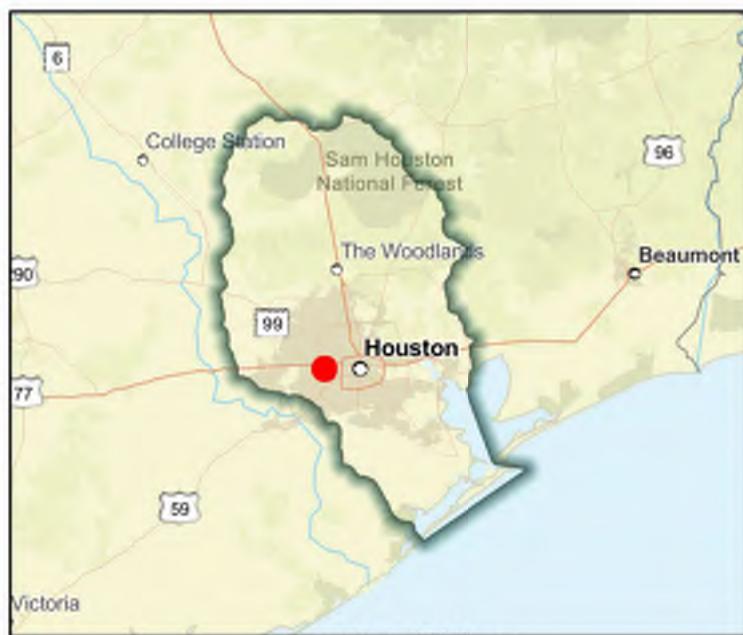
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Clear Lake Shores Master Drainage Plan**

ID# **061000228**

Sponsor (name of entity, not person) **Clear Lake Shores (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,597**

of structures **633**

Critical facilities **4**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **9**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$140,000**

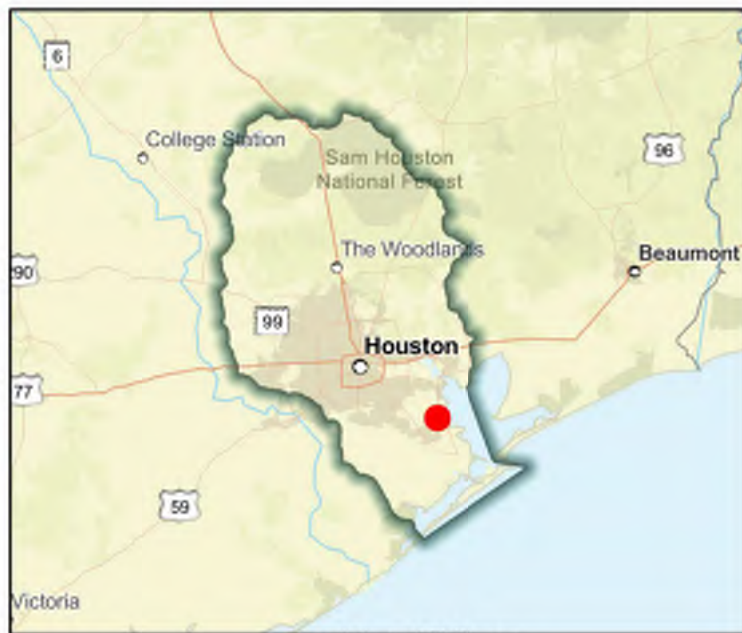
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Cleveland Drainage Improvements**

ID# **061000167**

Sponsor (name of entity, not person) **Cleveland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed city of cleveland drainage improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Montgomery, San Jacinto**

Watershed HUC# (if known) **120401030201, 120401030108, 120401030109, 120401030203, 120401030**

Drainage area (Square miles, est.) **19**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **1,037**

of structures **260**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **29**

Roadway(s) impacted (length) **27**

Number of low water crossings **1**

Historical road closures **1**

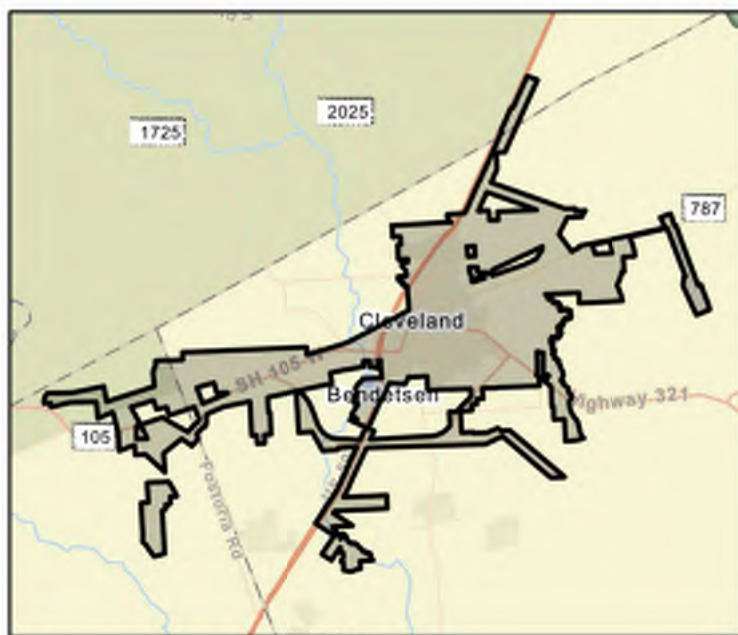
Estimated Cost and Funding Availability

Total Cost **\$410,000**

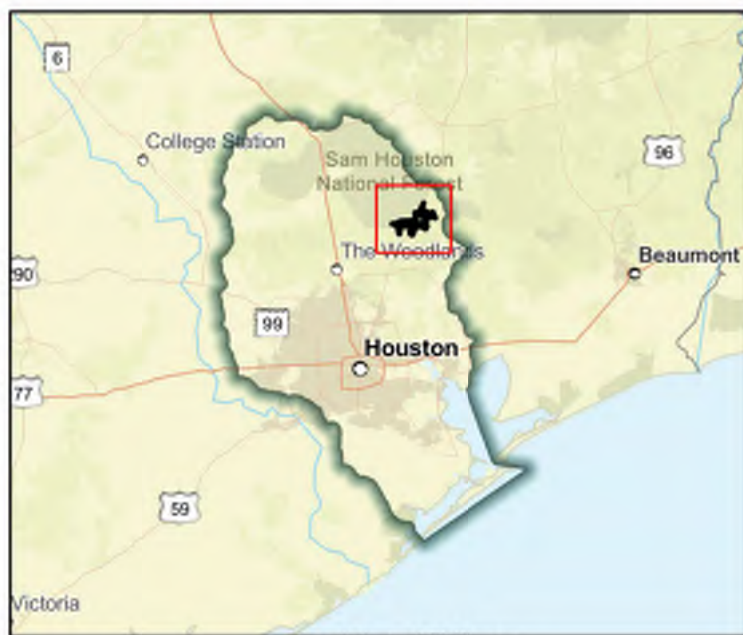
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Cleveland Master Drainage Plan**

ID# **061000229**

Sponsor (name of entity, not person) **Cleveland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Montgomery, San Jacinto**

Watershed HUC# (if known) **120401030201, 120401030108, 120401030109, 120401030203, 120401030**

Drainage area (Square miles, est.) **19**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **1,037**

of structures **260**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **29**

Roadway(s) impacted (length) **27**

Number of low water crossings **1**

Historical road closures **1**

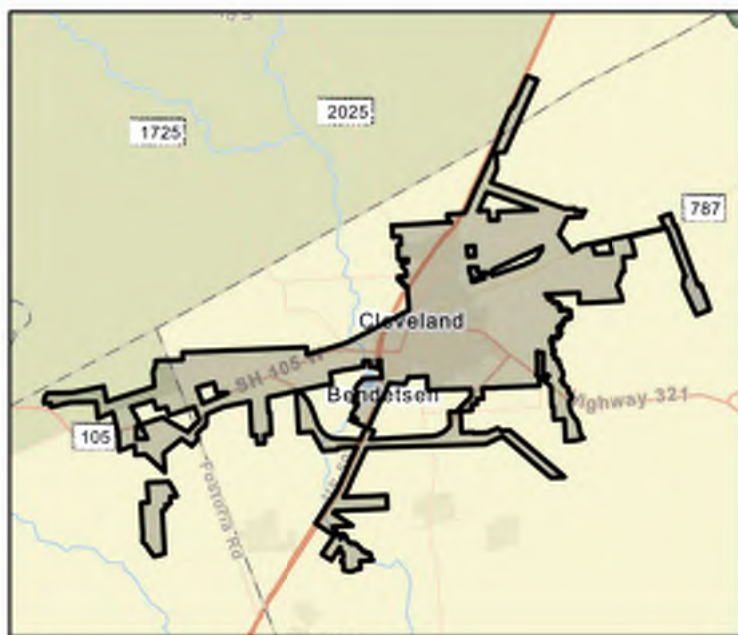
Estimated Cost and Funding Availability

Total Cost **\$400,000**

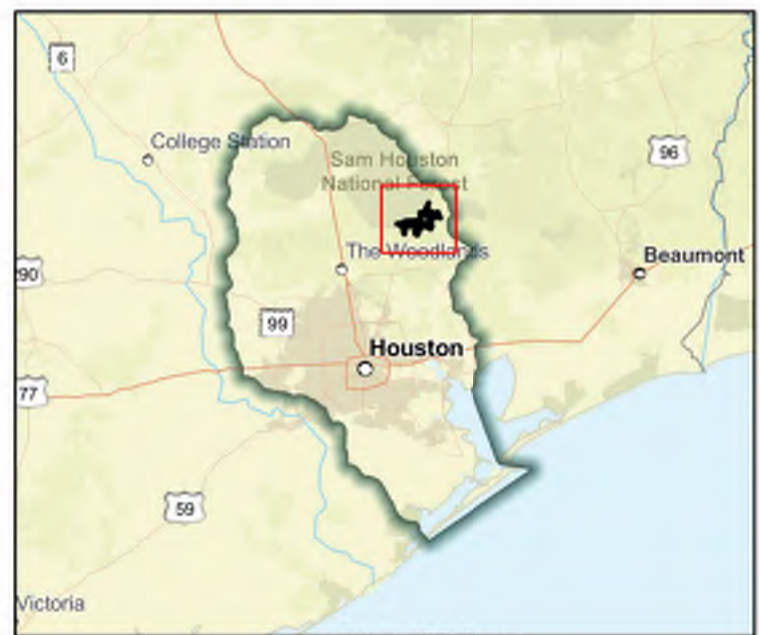
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Coldspring Master Drainage Plan**

ID# **061000230**

Sponsor (name of entity, not person) **Coldspring (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **San Jacinto**

Watershed HUC# (if known) **120401030307**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

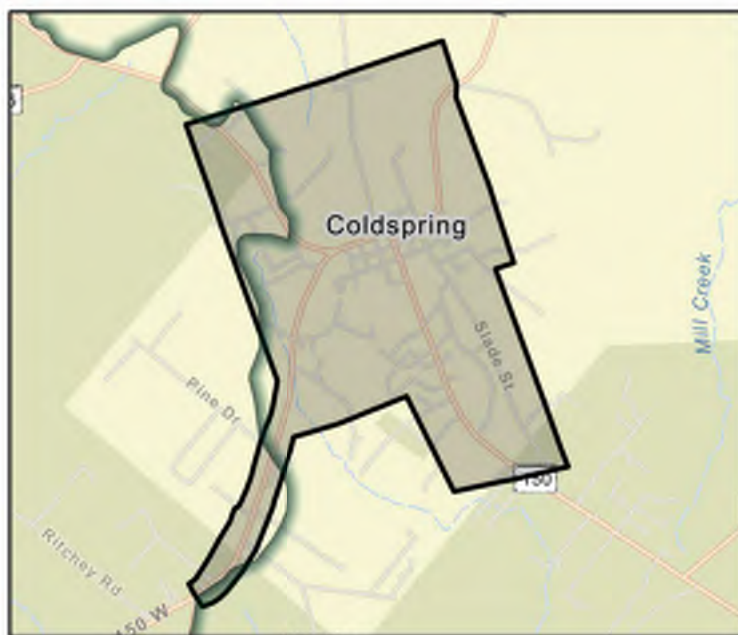
Estimated Cost and Funding Availability

Total Cost **\$180,000**

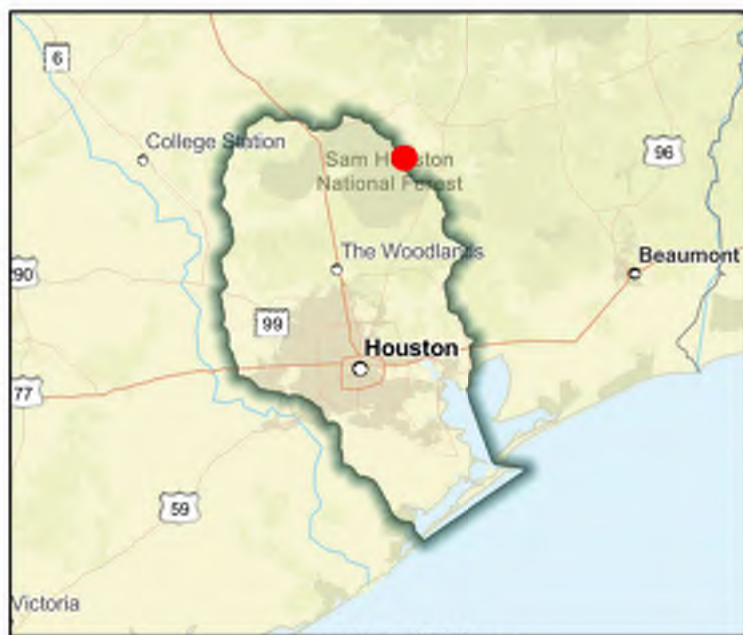
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Conroe Downtown Master Drainage Plan

ID# 061000215

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Full as-built storm sewer inventory survey and a full drainage study recommended.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401,120401010402

Drainage area (Square miles, est.) 100

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 9,102

of structures 3,460

Critical facilities 40

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 98

Roadway(s) impacted (length) 84

Number of low water crossings 18

Historical road closures 18

Estimated Cost and Funding Availability

Total Cost \$750,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Conroe Riverine Study and Mapping Improvements**

ID# **061000213**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study and new modeling for moderate to low quality areas and revise the flood maps using the results from the updated modeling.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401,120401010402**

Drainage area (Square miles, est.) **100**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **9,102**

of structures **3,460**

Critical facilities **40**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **98**

Roadway(s) impacted (length) **84**

Number of low water crossings **18**

Historical road closures **18**

Estimated Cost and Funding Availability

Total Cost **\$500,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Cut and Shoot Master Drainage Plan

ID# 061000232

Sponsor (name of entity, not person) Cut and Shoot (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401010403,120401030102,120401030104

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 166

of structures 90

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

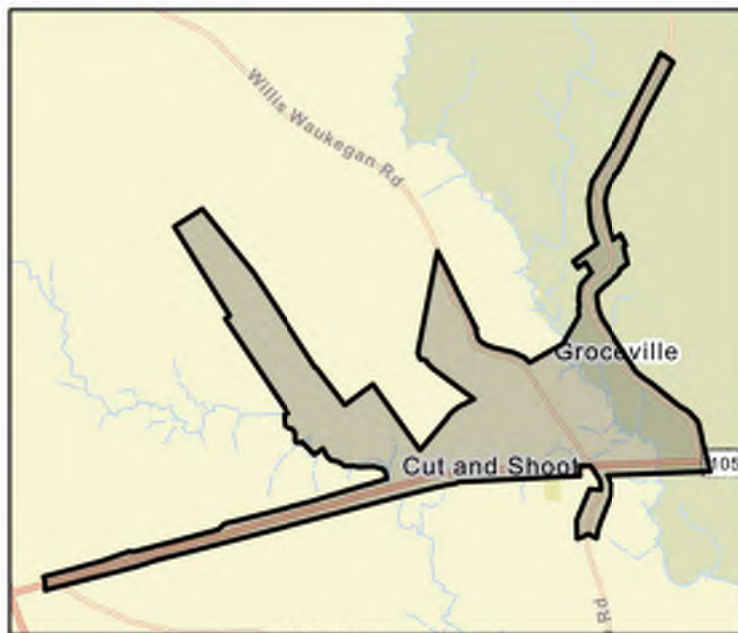
Estimated Cost and Funding Availability

Total Cost \$210,000

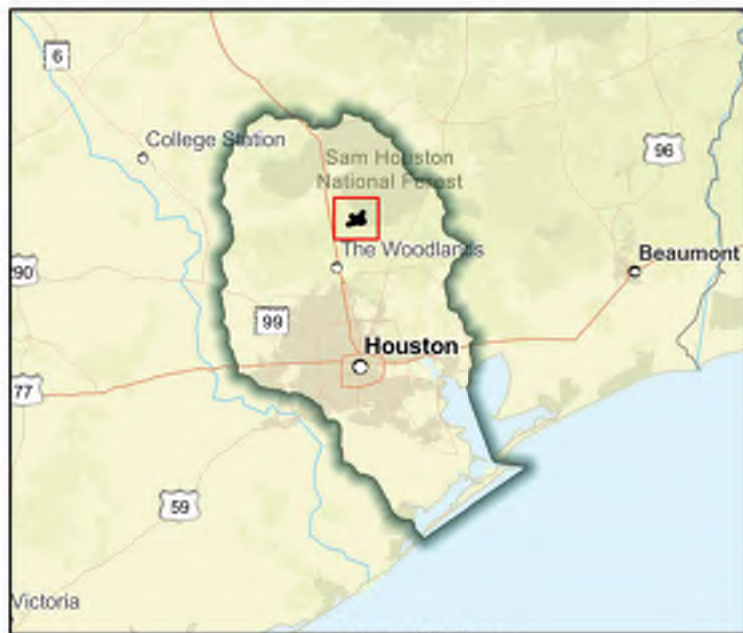
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Dayton Master Drainage Plan**

ID# **061000233**

Sponsor (name of entity, not person) **Dayton (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120402030104,120402030103,120402030102,120402030101**

Drainage area (Square miles, est.) **31**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **74**

of structures **32**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **66**

Roadway(s) impacted (length) **1**

Number of low water crossings **-**

Historical road closures **-**

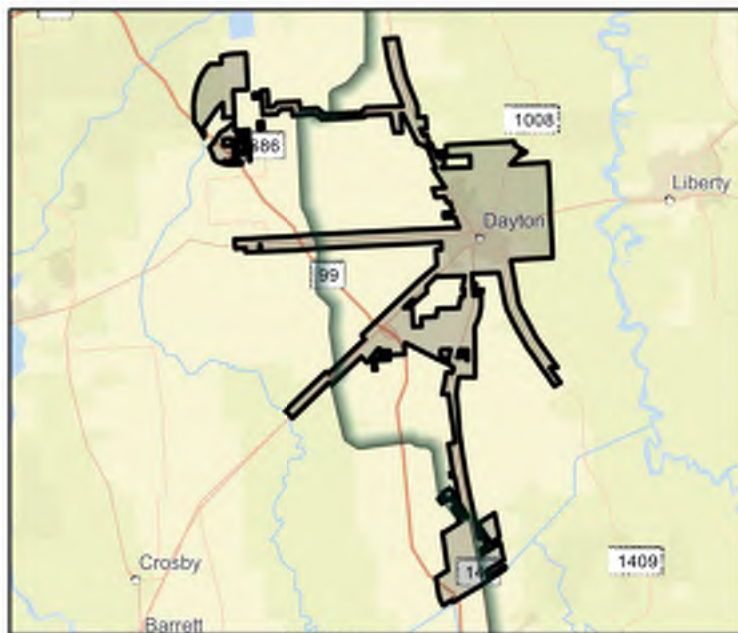
Estimated Cost and Funding Availability

Total Cost **\$480,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Deer Park Master Drainage Plan**

ID# **061000234**

Sponsor (name of entity, not person) **Deer Park (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040703,120401040706,120402040100**

Drainage area (Square miles, est.) **11**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,734**

of structures **469**

Critical facilities **6**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **9**

Number of low water crossings **1**

Historical road closures **1**

Estimated Cost and Funding Availability

Total Cost **\$320,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Dickinson Master Drainage Plan**

ID# **061000235**

Sponsor (name of entity, not person) **Dickinson (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **10**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **15,510**

of structures **5,622**

Critical facilities **76**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **38**

Roadway(s) impacted (length) **79**

Number of low water crossings **10**

Historical road closures **10**

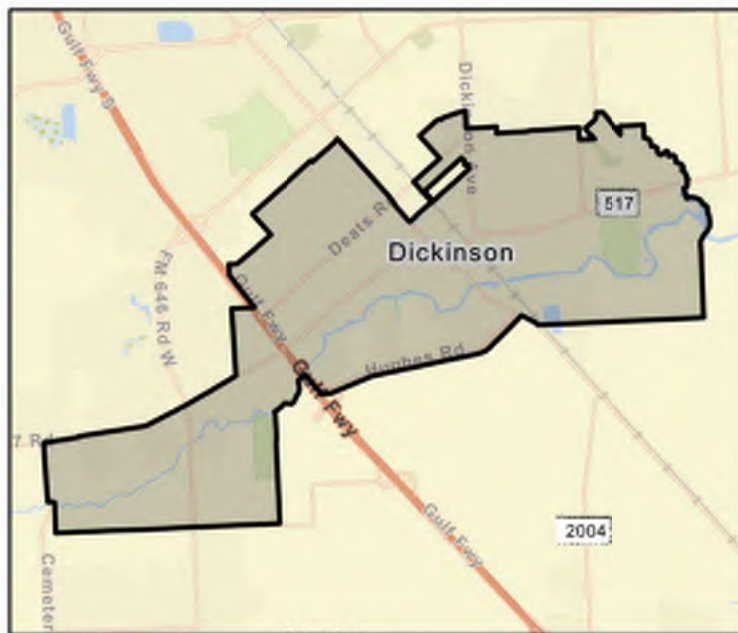
Estimated Cost and Funding Availability

Total Cost **\$320,000**

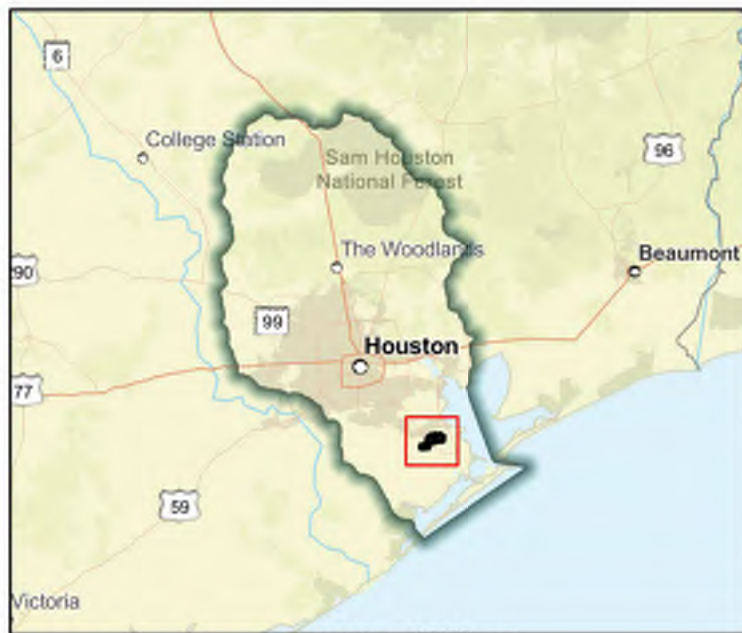
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of El Lago Master Drainage Plan**

ID# **061000236**

Sponsor (name of entity, not person) **El Lago (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,384**

of structures **742**

Critical facilities **9**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **9**

Number of low water crossings **-**

Historical road closures **-**

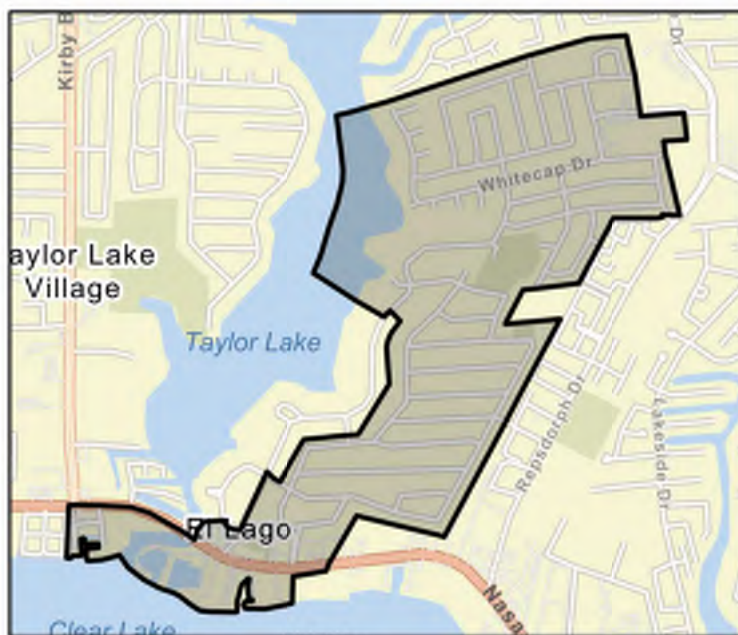
Estimated Cost and Funding Availability

Total Cost **\$140,000**

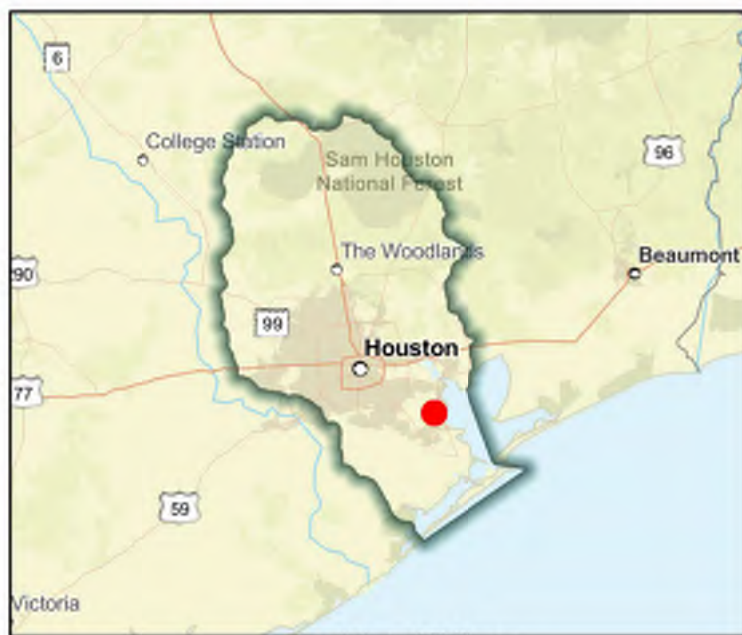
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I

ID# 061000424

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? No

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type Project Planning

Study description This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures

5

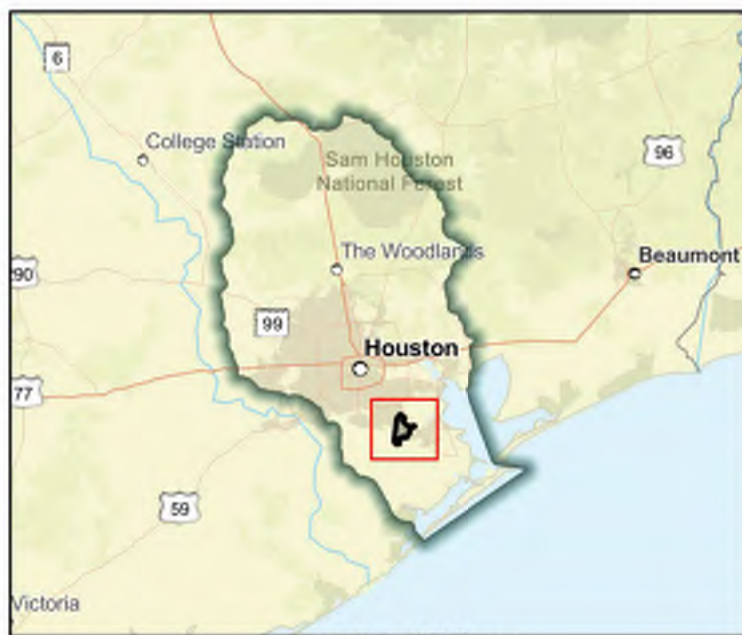
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Friendswood - Comprehensive Flood Mitigation Plan

ID# 061000091

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Watershed Planning

Study description Study to update city floodplain maps and develop flood mitigation plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures 5

Estimated Cost and Funding Availability

Total Cost \$140,000

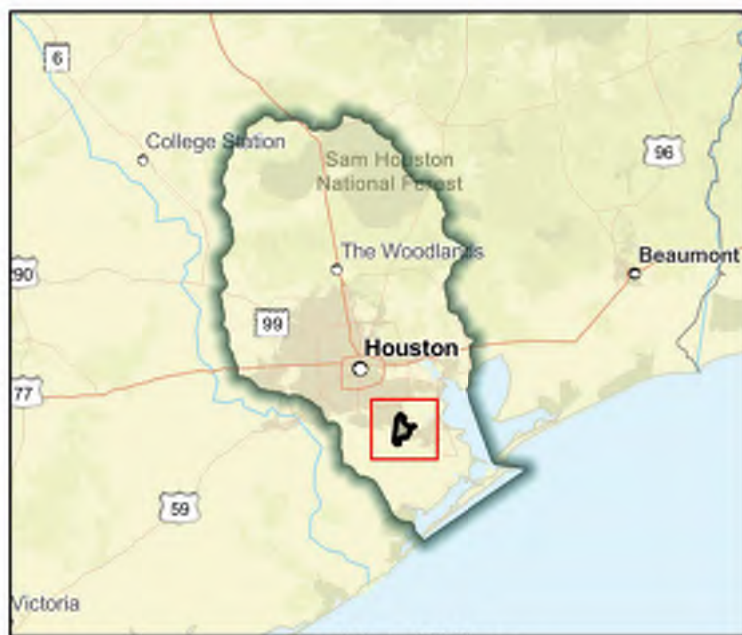
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Friendswood - Devils Dip

ID# 061000096

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? No Reason for Recommendation Sponsor secured funding for FME.

Study Details

Study type Project Planning

Study description Further study and design of modifications along Mary's creek bridge and channel.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures 5

Estimated Cost and Funding Availability

Total Cost \$410,000

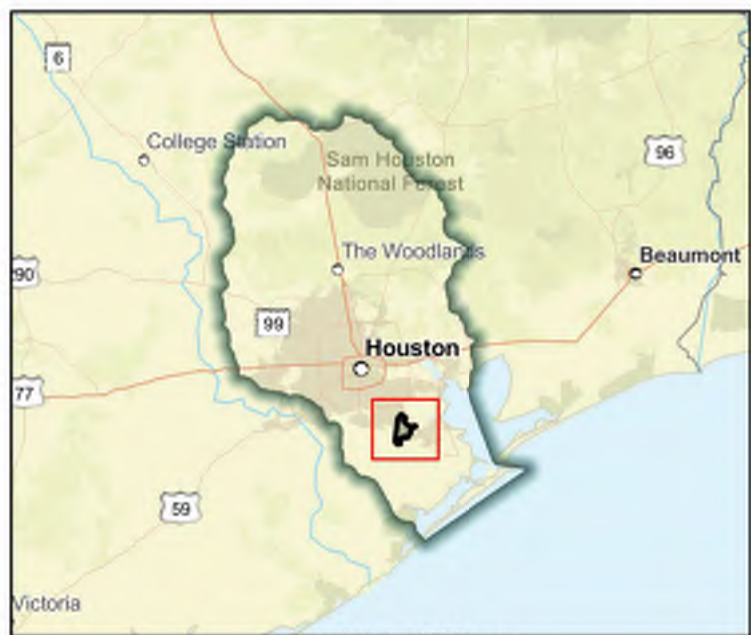
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Friendswood - Tributary 2 Drainage/Outfall Improvements

ID# 061000105

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? No

Reason for Recommendation

Sponsor secured funding for FME.

Study Details

Study type Project Planning

Study description Further study of component of 2004 TXDOT study to include Atlas 14 rainfalls.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures

5

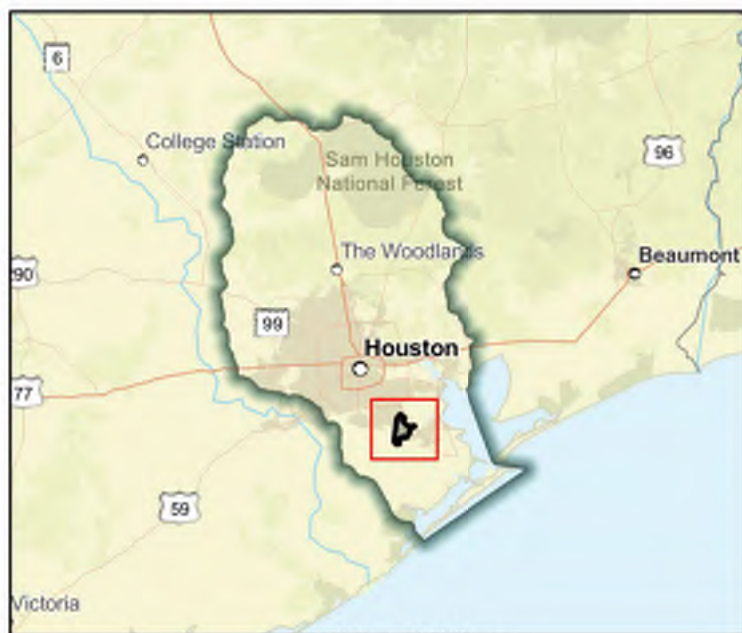
Estimated Cost and Funding Availability

Total Cost \$170,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Friendswood Master Drainage Plan**

ID# **061000237**

Sponsor (name of entity, not person) **Friendswood (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **21**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,640**

of structures **1,680**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **18**

Roadway(s) impacted (length) **38**

Number of low water crossings **5**

Historical road closures **5**

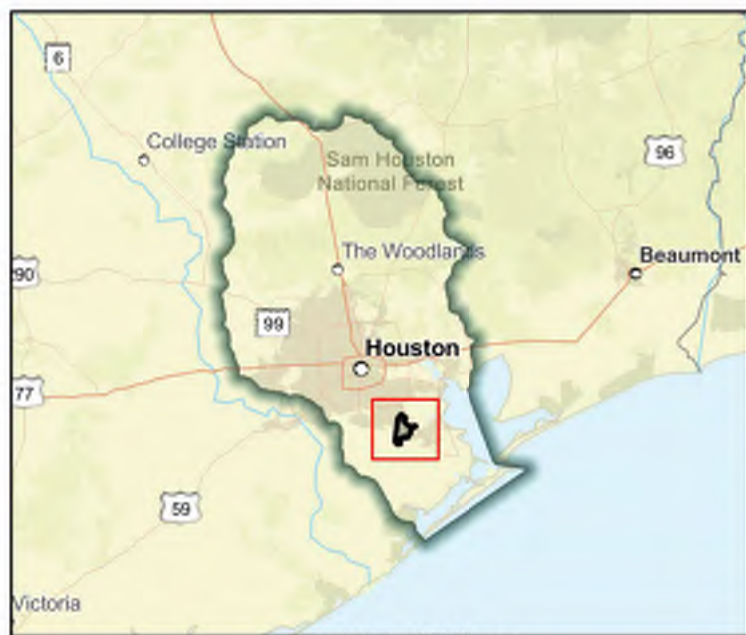
Estimated Cost and Funding Availability

Total Cost **\$750,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Fulshear Master Drainage Plan**

ID# **061000238**

Sponsor (name of entity, not person) **Fulshear (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Fort Bend**

Watershed HUC# (if known) **120401040103**

Drainage area (Square miles, est.) **12**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

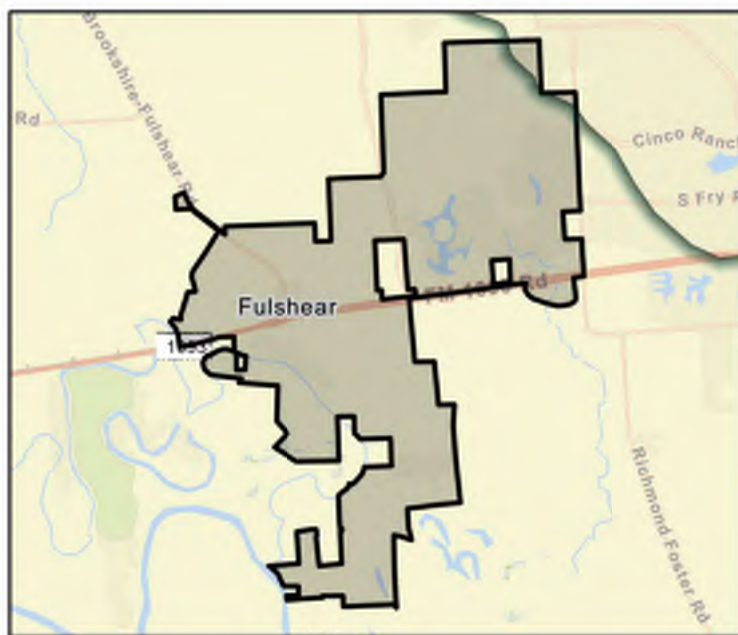
Estimated Cost and Funding Availability

Total Cost **\$340,000**

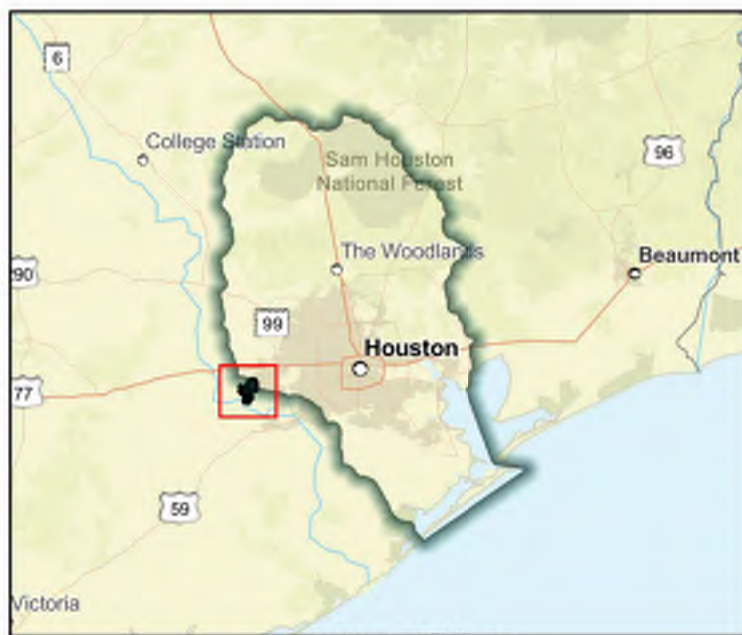
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Galena Park Master Drainage Plan**

ID# **061000239**

Sponsor (name of entity, not person) **Galena Park (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040703,120401040701**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **465**

of structures **205**

Critical facilities **9**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$250,000**

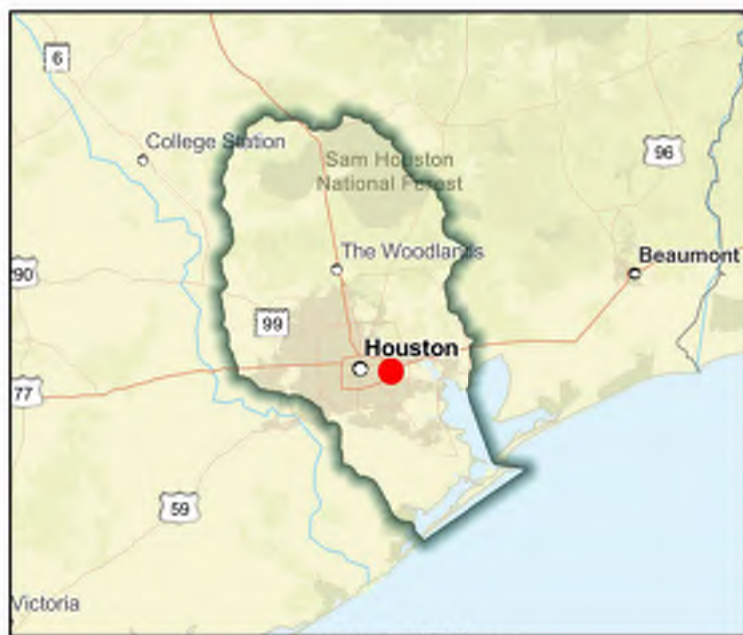
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Galveston Coastal Road Elevation**

ID# **061000055**

Sponsor (name of entity, not person) **Galveston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Elevate coastal roads to better protect public during evacuation and to protect the roads from flood damage, where feasible.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040500**

Drainage area (Square miles, est.) **211**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **64,299**

of structures **21,848**

Critical facilities **500**

Flood risk type: Riverine? **No**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **261**

Roadway(s) impacted (length) **409**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$1,000,000**

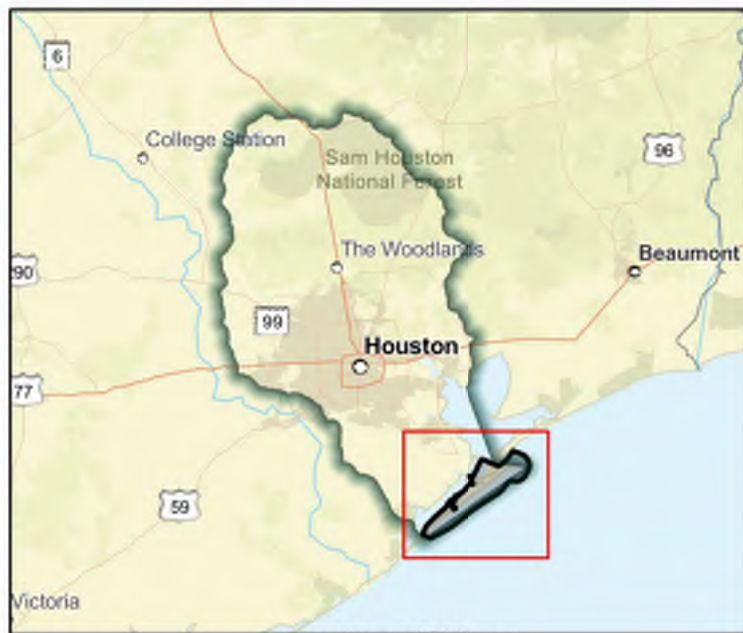
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Galveston Dune Restoration

ID# 061000071

Sponsor (name of entity, not person) Galveston (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study of dune system to determine needs and flood damage reduction potential of restoration.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040500

Drainage area (Square miles, est.) 211

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 64,299

of structures 21,848

Critical facilities 500

Flood risk type: Riverine? No

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 261

Roadway(s) impacted (length) 409

Number of low water crossings 0

Historical road closures

0

Estimated Cost and Funding Availability

Total Cost \$1,000,000

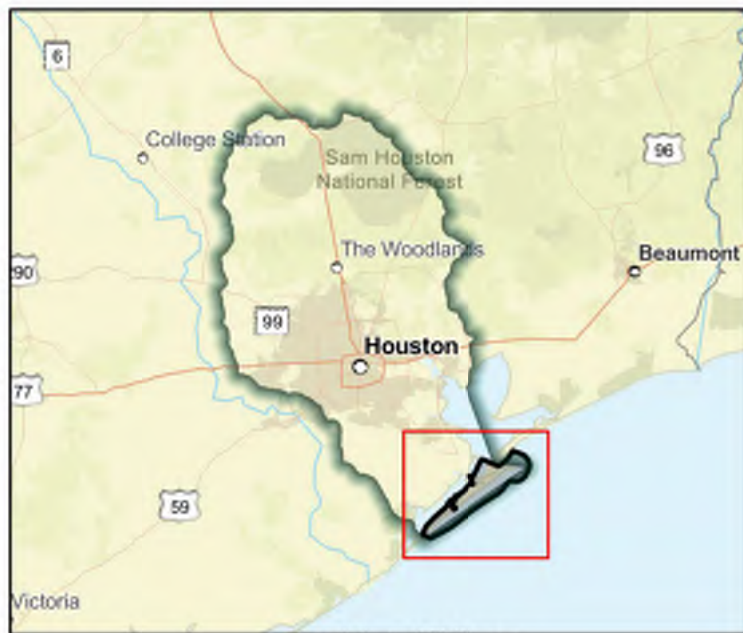
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Galveston Master Drainage Study**

ID# **061000011**

Sponsor (name of entity, not person)

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **City wide drainage and flood risk reduction planning study of Galveston to include Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040500**

Drainage area (Square miles, est.) **211**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **64,429**

of structures **23,114**

Critical facilities **504**

Flood risk type: Riverine? **No**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **264**

Roadway(s) impacted (length) **422**

Number of low water crossings **0**

Historical road closures

0

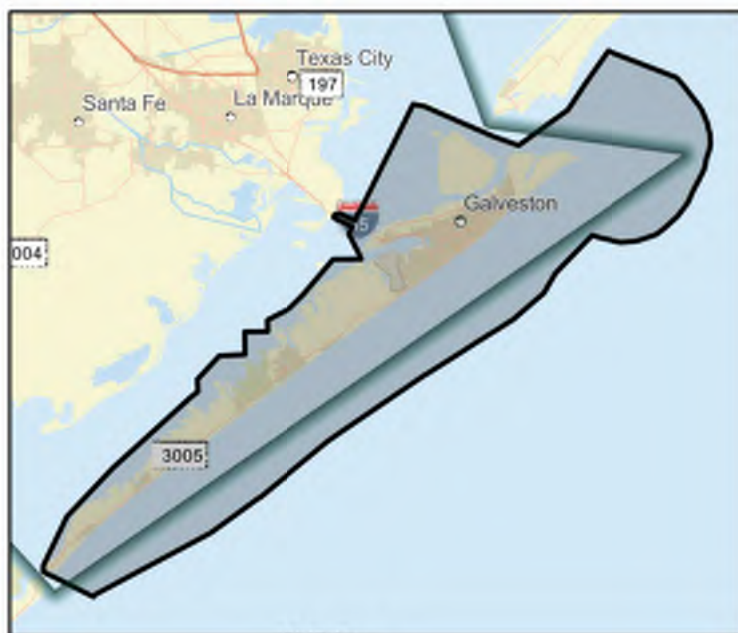
Estimated Cost and Funding Availability

Total Cost **\$1,000,000**

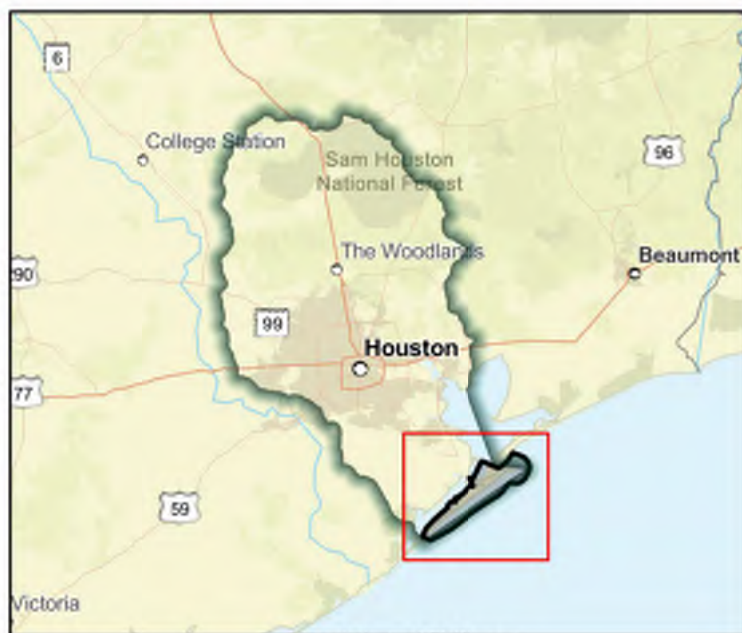
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Galveston Shoreline Protection**

ID# **061000069**

Sponsor (name of entity, not person) **Galveston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study and FMP development of a proposed shoreline protection for areas prone to coastal erosion.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040500**

Drainage area (Square miles, est.) **211**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **64,299**

of structures **21,848**

Critical facilities **500**

Flood risk type: Riverine? **No**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **261**

Roadway(s) impacted (length) **409**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$50,000**

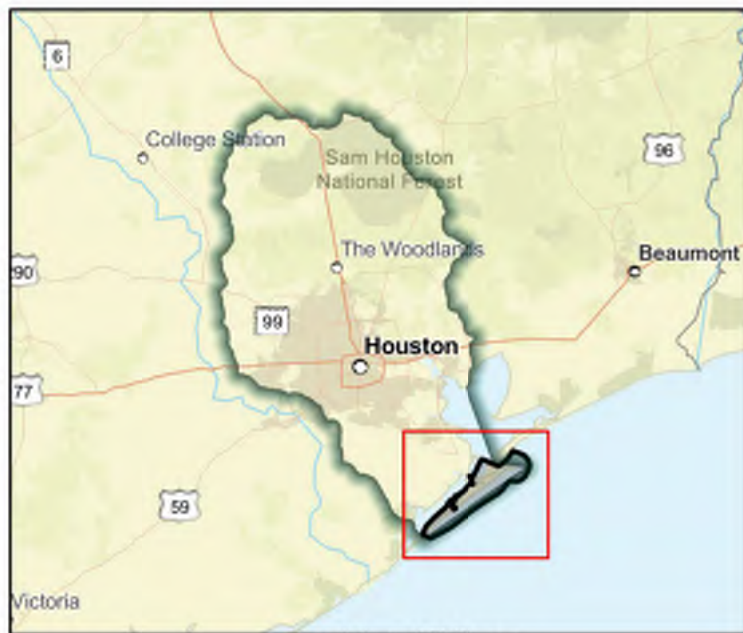
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Hedwig Village Master Drainage Plan**

ID# **061000241**

Sponsor (name of entity, not person) **Hedwig Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type:

Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

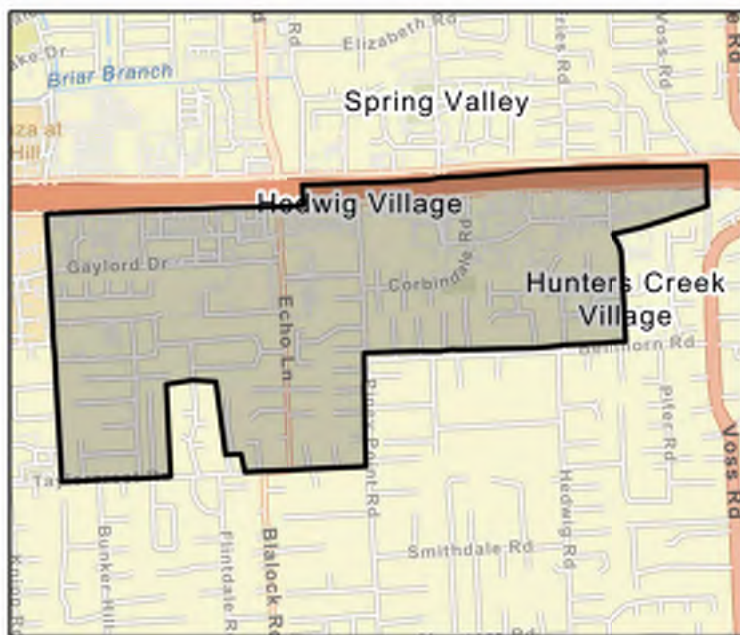
Estimated Cost and Funding Availability

Total Cost **\$150,000**

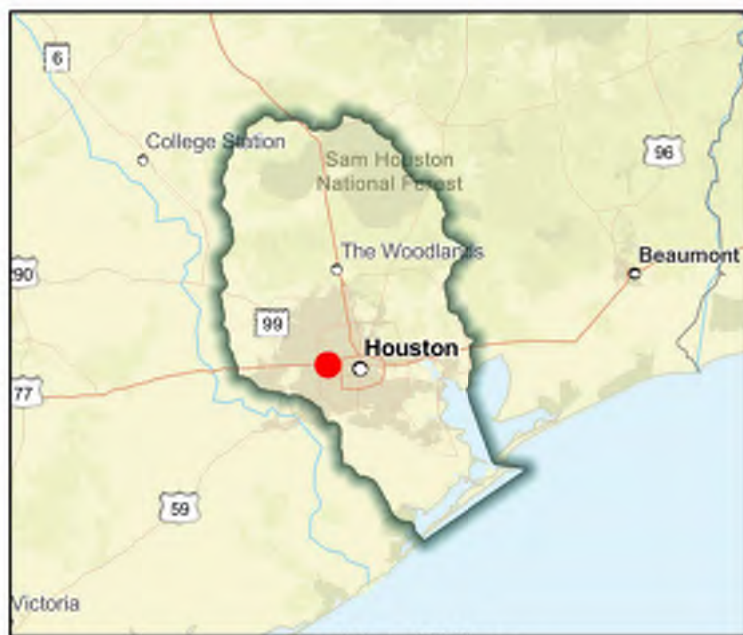
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **City of Hillcrest Master Drainage Plan**

ID# **061000242**

Sponsor (name of entity, not person) **Hillcrest Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040400**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **333**

of structures **128**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

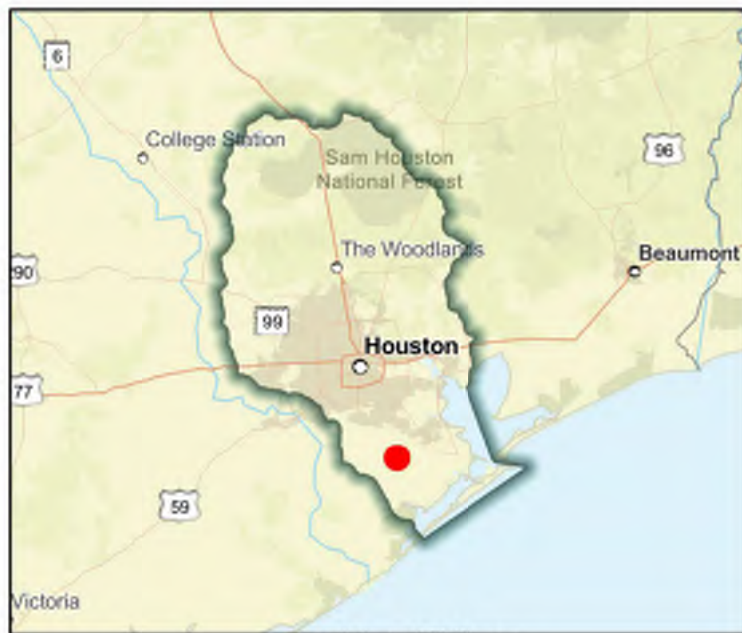
Estimated Cost and Funding Availability

Total Cost **\$130,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Hillcrest Village Drainage Improvements

ID# 061000049

Sponsor (name of entity, not person) Hillcrest Village (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study and FMP development required to assess alternatives to restore drainage and mitigate flooding throughout the City of Hillcrest Village.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 333

of structures 128

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$130,000

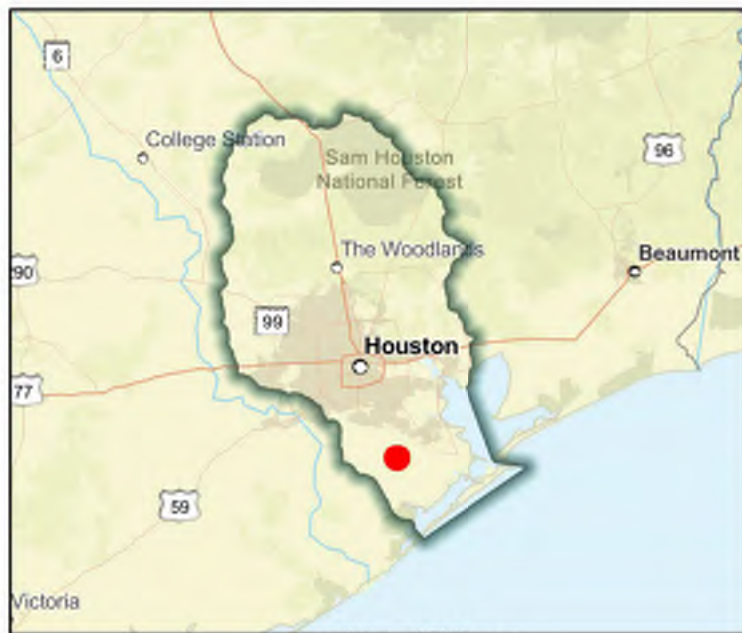
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Hillcrest Village Engineering Survey

ID# 061000072

Sponsor (name of entity, not person) Hillcrest Village (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Conduct an engineering assessment to establish proper drainage for 24 Homes located in the high risk flood Zone.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 333

of structures 128

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$300,000

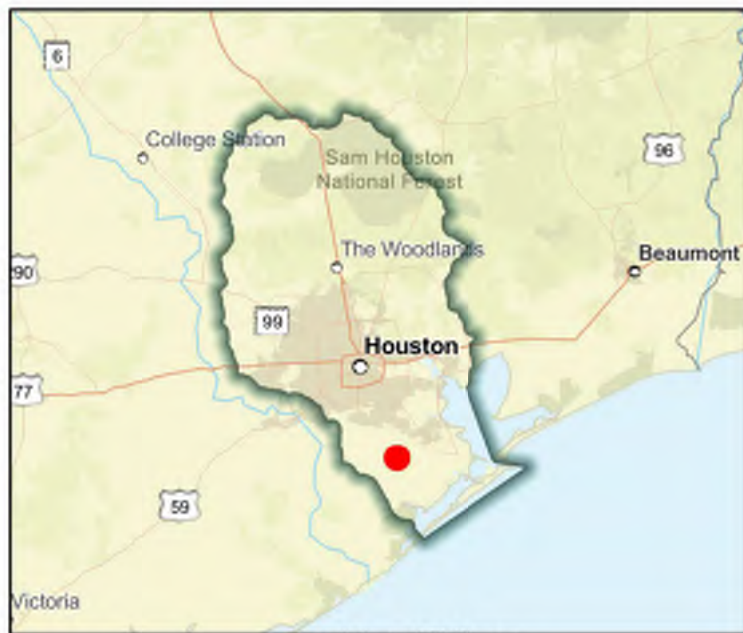
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Hillshire Village Master Drainage Plan**

ID# **061000243**

Sponsor (name of entity, not person) **Hilshire Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3**

of structures **1**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

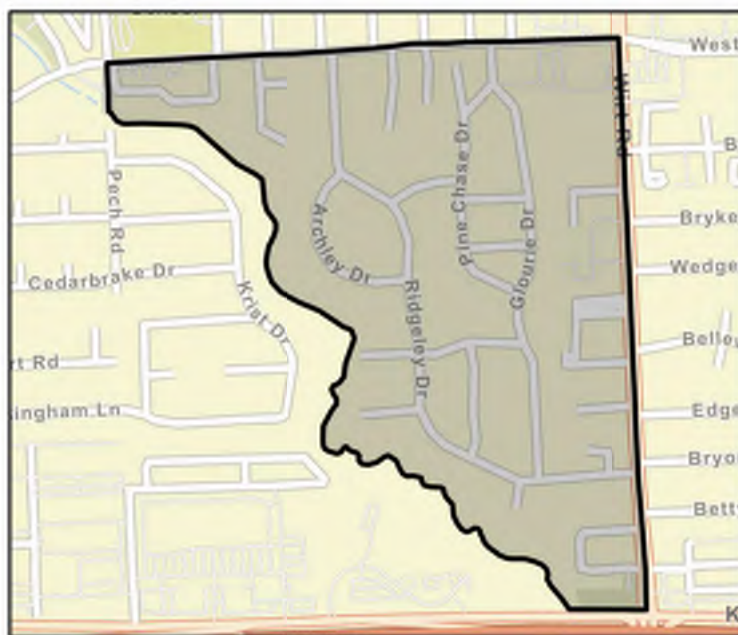
Estimated Cost and Funding Availability

Total Cost **\$110,000**

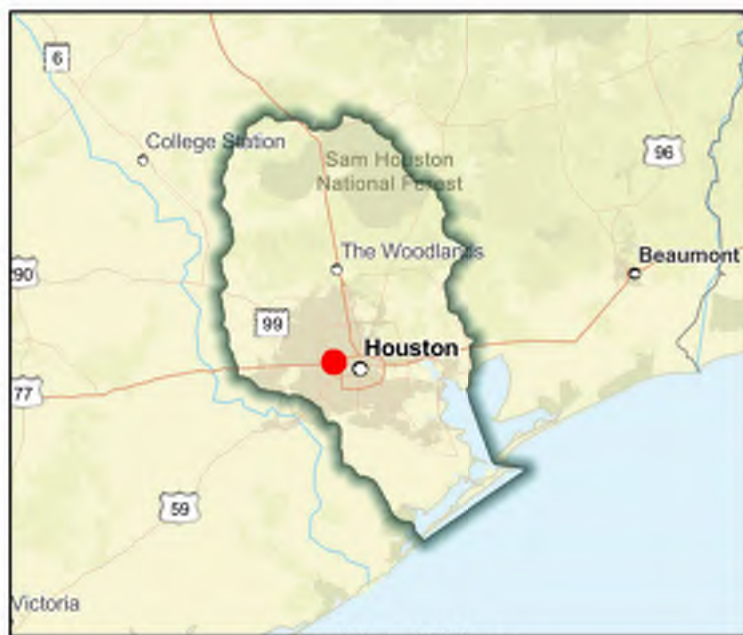
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Hitchcock Master Drainage Plan**

ID# **061000244**

Sponsor (name of entity, not person) **Hitchcock (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Brazoria, Galveston**

Watershed HUC# (if known) **120402040300, 120402040200**

Drainage area (Square miles, est.) **91**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **5,294**

of structures **2,652**

Critical facilities **11**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **884**

Roadway(s) impacted (length) **73**

Number of low water crossings **0**

Historical road closures **0**

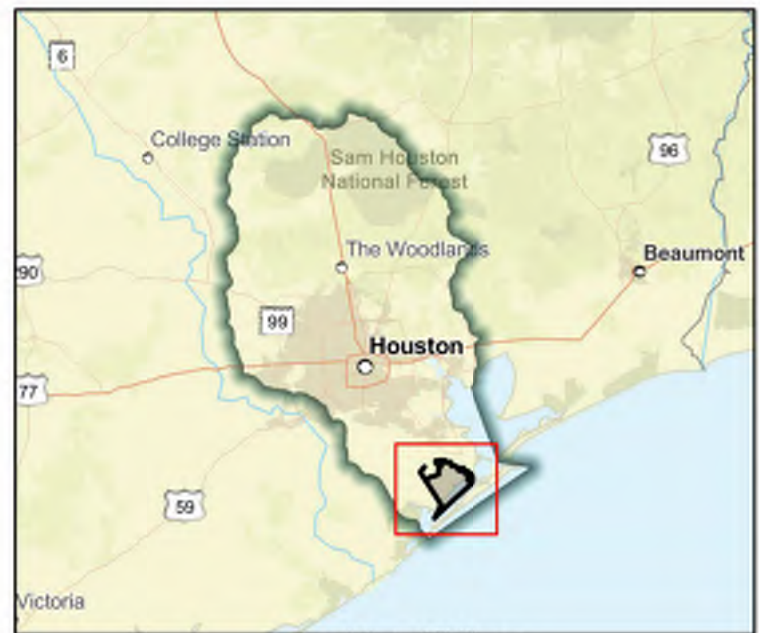
Estimated Cost and Funding Availability

Total Cost **\$720,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Humble Master Drainage Plan**

ID# **061000246**

Sponsor (name of entity, not person) **Humble (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401010501,120401020213,120401040602**

Drainage area (Square miles, est.) **10**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,460**

of structures **652**

Critical facilities **5**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **25**

Roadway(s) impacted (length) **17**

Number of low water crossings **1**

Historical road closures **1**

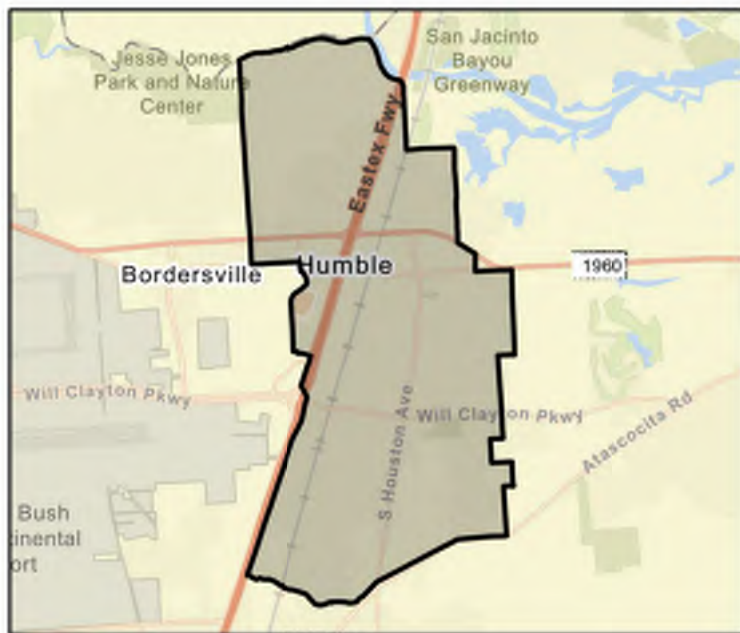
Estimated Cost and Funding Availability

Total Cost **\$320,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Hunters Creek Village Master Drainage Plan**

ID# **061000247**

Sponsor (name of entity, not person) **Hunters Creek Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **345**

of structures **108**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

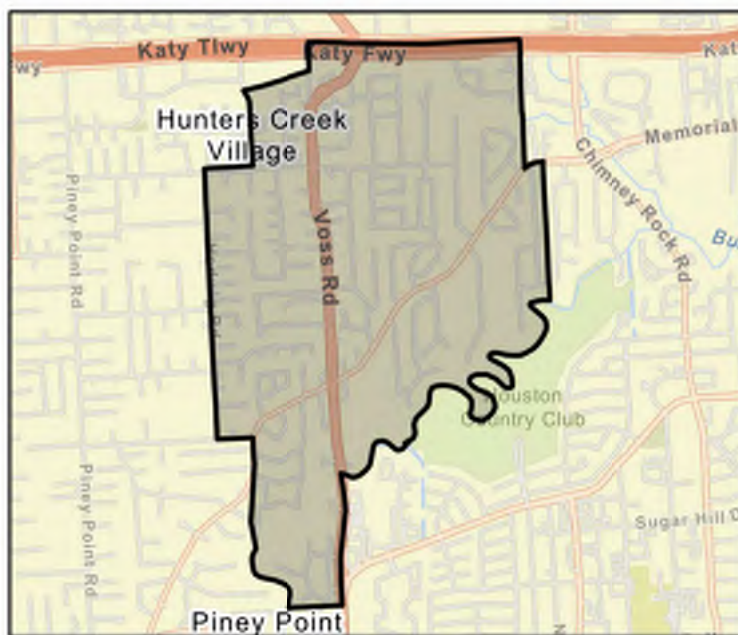
Estimated Cost and Funding Availability

Total Cost **\$190,000**

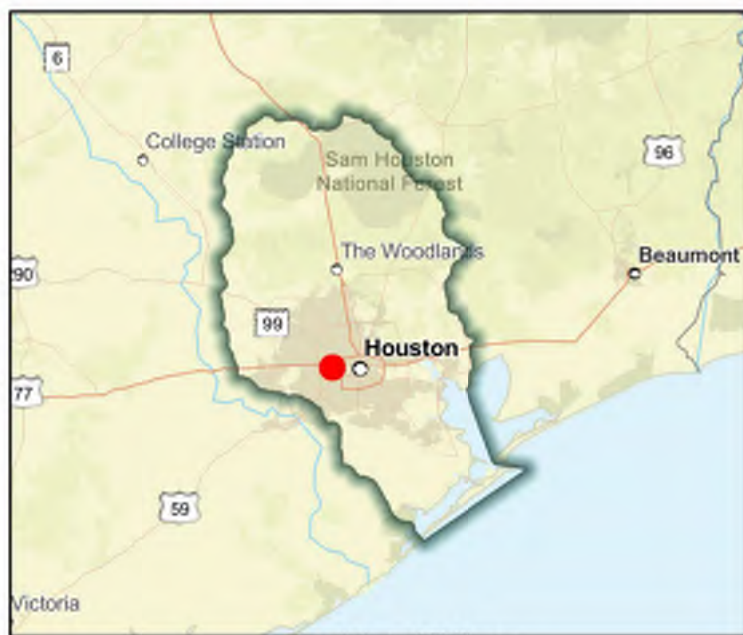
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Huntsville - Elkins Lake Watershed

ID# 061000489

Sponsor (name of entity, not person) Huntsville (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Analysis of alternatives to determine mitigation of existing flood problems

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Walker

Watershed HUC# (if known) 120401010104,120401010102,120401010201,120401010202,120401030

Drainage area (Square miles, est.) 43

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 141

of structures 69

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 2

Number of low water crossings 1

Historical road closures 1

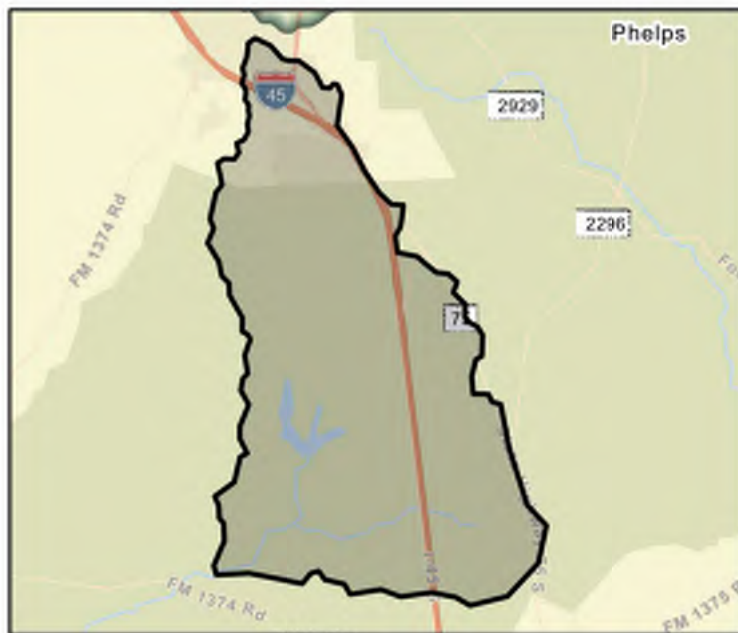
Estimated Cost and Funding Availability

Total Cost \$300,000

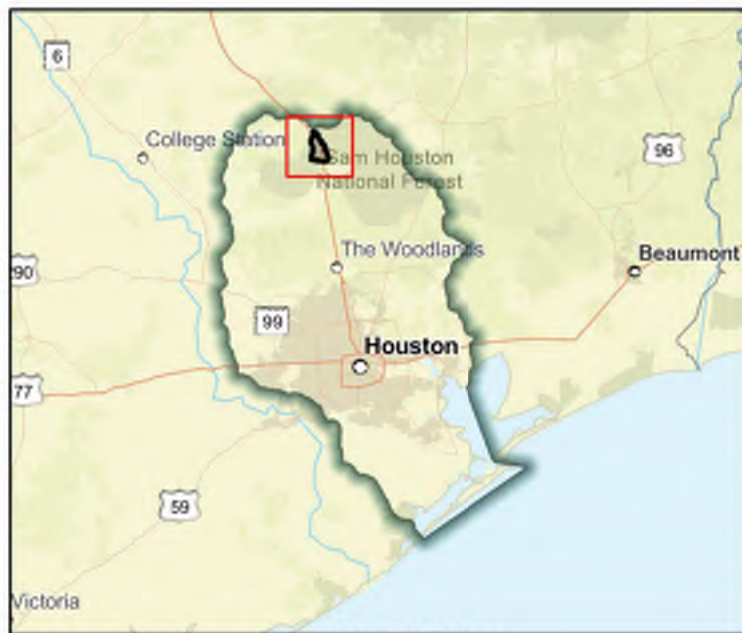
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Huntsville - Spring Lake Watershed**

ID# **061000490**

Sponsor (name of entity, not person) **Huntsville (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Analysis of alternatives to determine mitigation of existing flood problems**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Walker**

Watershed HUC# (if known) **120401010104,120401010102,120401010201,120401010202,120401030**

Drainage area (Square miles, est.) **43**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **69**

of structures **38**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

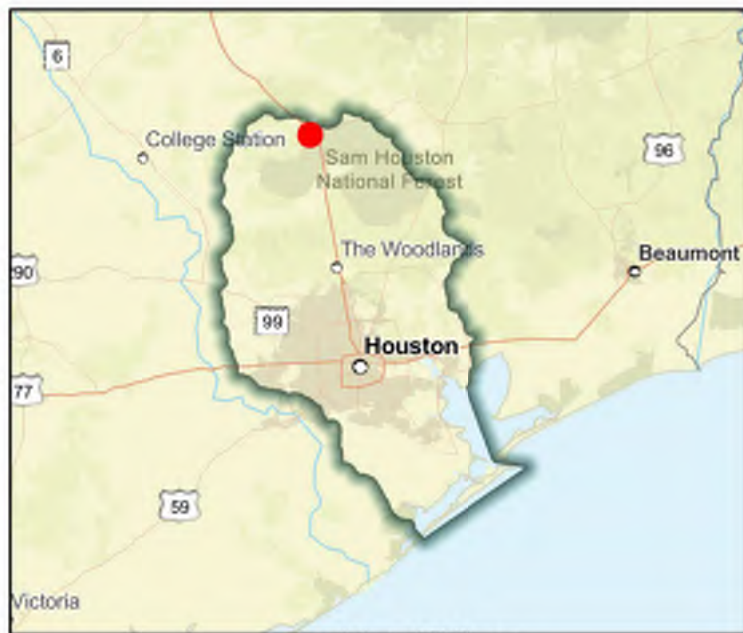
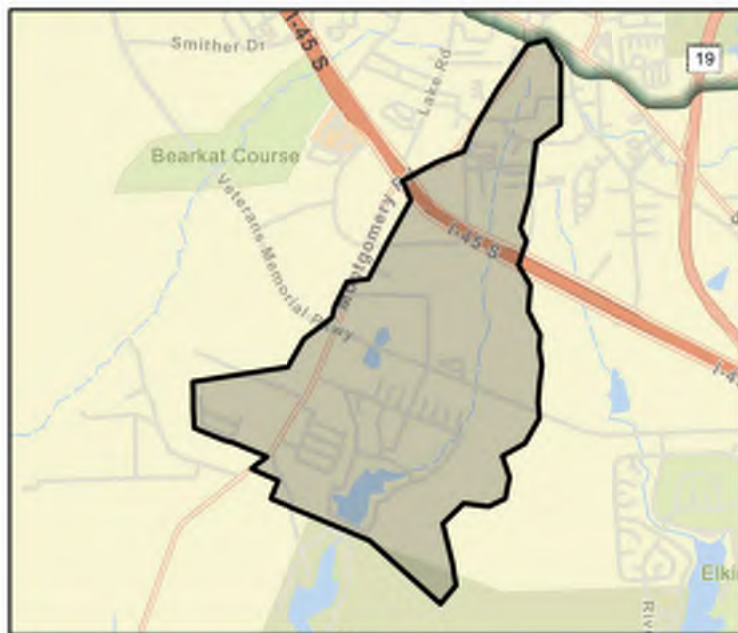
Estimated Cost and Funding Availability

Total Cost **\$300,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Huntsville Master Drainage Plan

ID# 061000248

Sponsor (name of entity, not person) Huntsville (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Walker

Watershed HUC# (if known) 120401010104,120401010102,120401010201,120401010202,120401030

Drainage area (Square miles, est.) 43

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 244

of structures 114

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 9

Roadway(s) impacted (length) 3

Number of low water crossings 1

Historical road closures 1

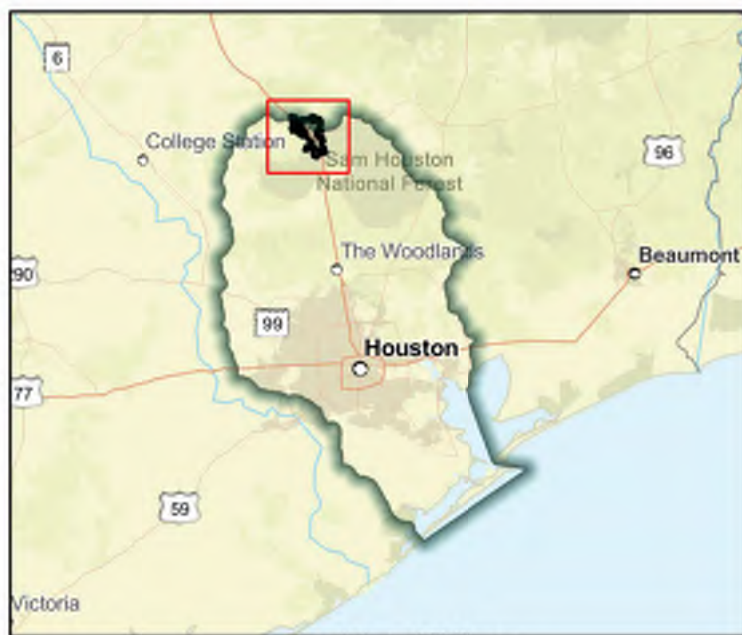
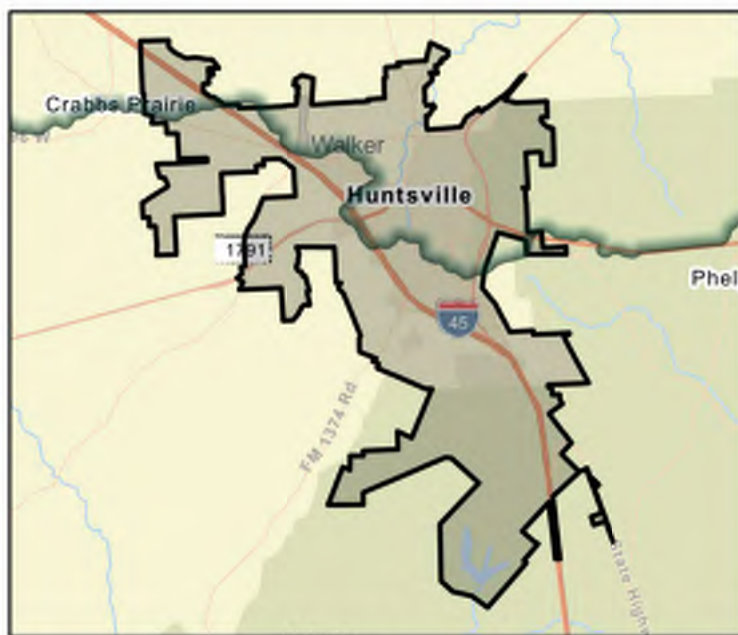
Estimated Cost and Funding Availability

Total Cost \$500,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Iowa Colony Master Drainage Plan

ID# 061000249

Sponsor (name of entity, not person) Iowa Colony (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 9

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,271

of structures 1,162

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 339

Roadway(s) impacted (length) 28

Number of low water crossings 0

Historical road closures 0

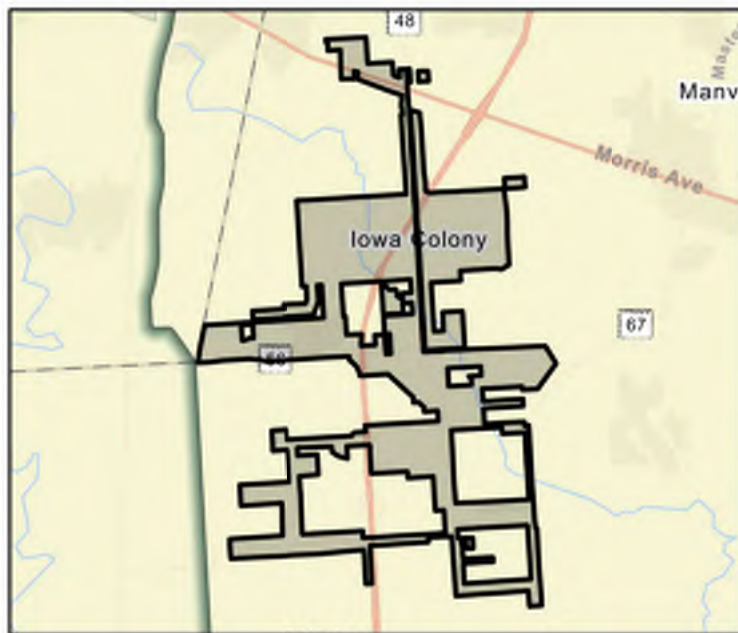
Estimated Cost and Funding Availability

Total Cost \$310,000

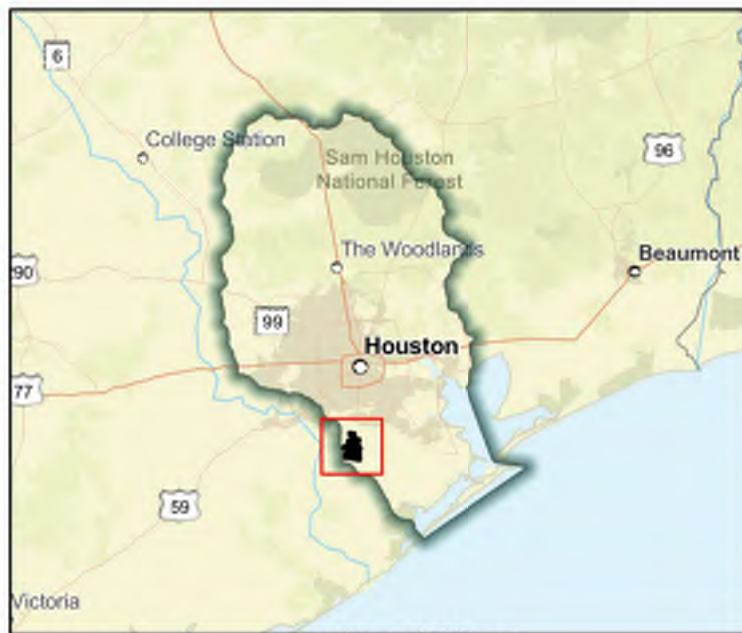
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Jacinto City Master Drainage Plan**

ID# **061000250**

Sponsor (name of entity, not person) **Jacinto City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040701**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **28**

of structures **10**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

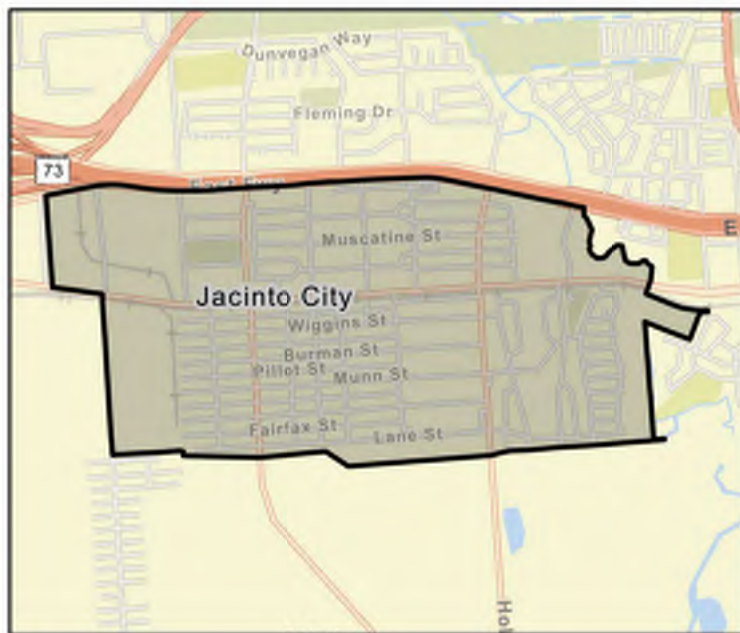
Estimated Cost and Funding Availability

Total Cost **\$180,000**

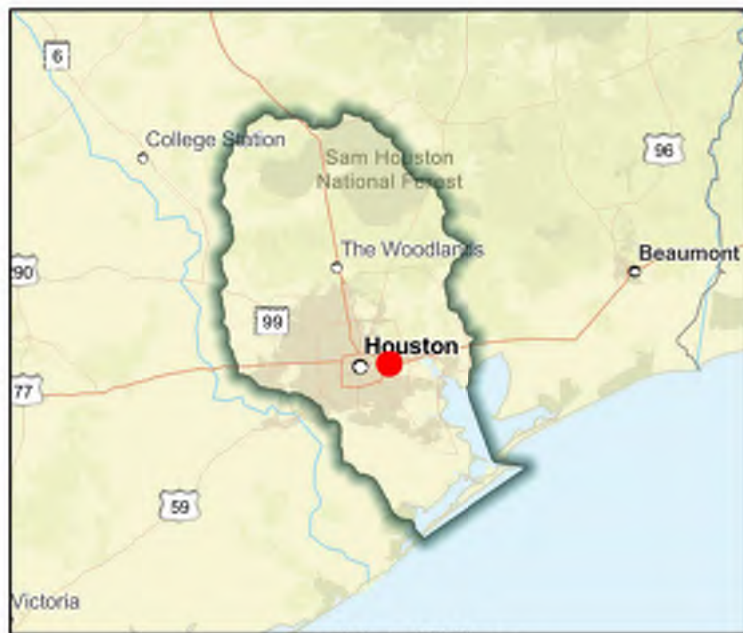
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Jamaica Beach Master Drainage Plan**

ID# **061000251**

Sponsor (name of entity, not person) **Jamaica Beach (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040300**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **275**

of structures **1,276**

Critical facilities **4**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **14**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$140,000**

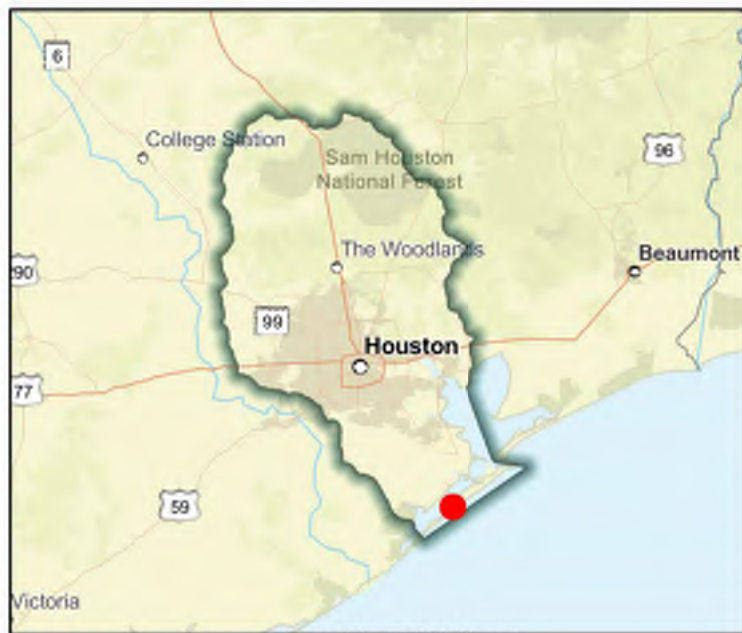
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Jersey Village Master Drainage Plan**

ID# **061000252**

Sponsor (name of entity, not person) **Jersey Village (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME.

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040302,120401040301**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **6,636**

of structures **894**

Critical facilities **12**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **14**

Number of low water crossings **0**

Historical road closures **0**

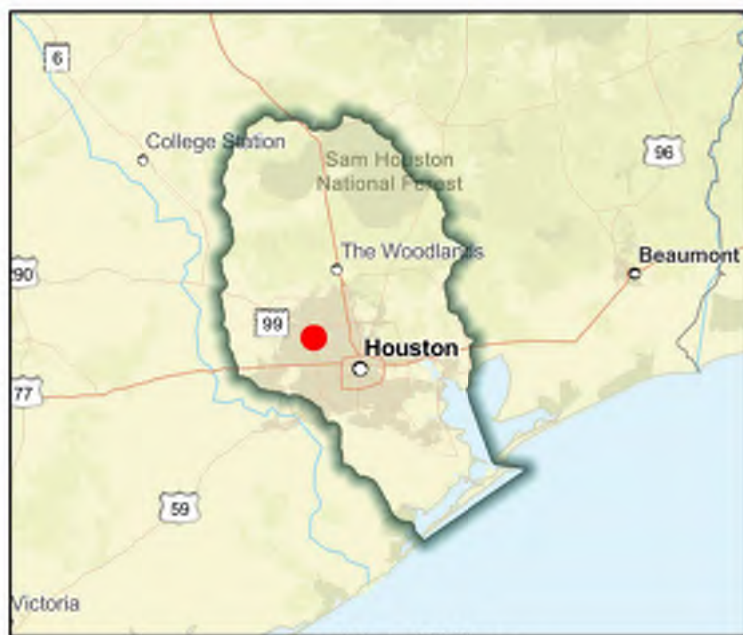
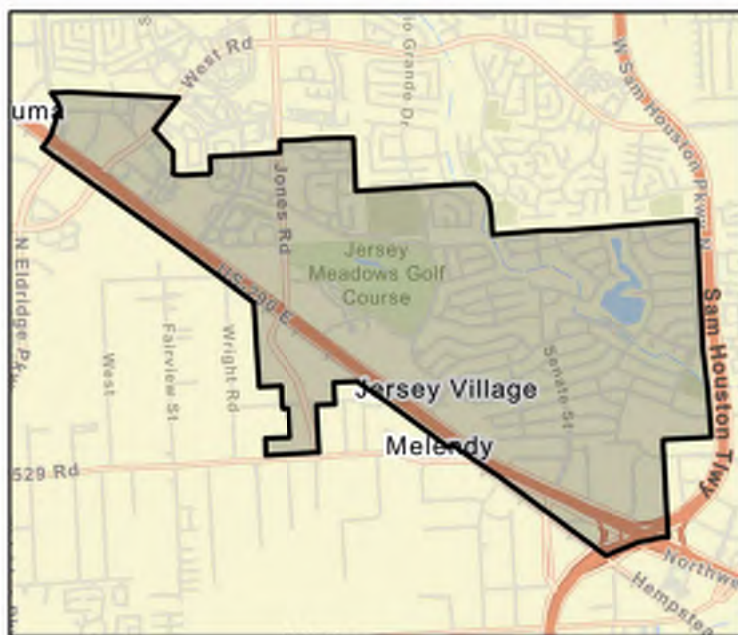
Estimated Cost and Funding Availability

Total Cost **\$220,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Katy Master Drainage Plan**

ID# **061000253**

Sponsor (name of entity, not person) **Katy (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Fort Bend,Harris,Waller**

Watershed HUC# (if known) **120401040102,120401040103,120401040104,120401040101,120401040**

Drainage area (Square miles, est.) **15**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,445**

of structures **545**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **22**

Roadway(s) impacted (length) **10**

Number of low water crossings **4**

Historical road closures **4**

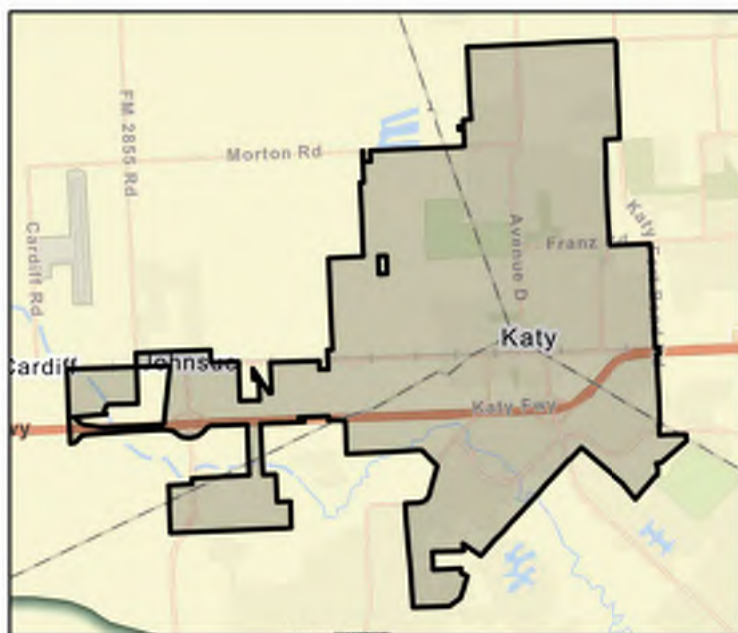
Estimated Cost and Funding Availability

Total Cost **\$360,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Kemah Master Drainage Plan

ID# 061000254

Sponsor (name of entity, not person) Kemah (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Galveston, Chambers

Watershed HUC# (if known) 120402040200, 120402040100

Drainage area (Square miles, est.) 2

Goal(s) 06000001, 06000011, 06000012, 06000015

100-Year Flood Risk Summary

Population at risk 2,792

of structures 562

Critical facilities 7

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 12

Number of low water crossings -

Historical road closures -

Estimated Cost and Funding Availability

Total Cost \$190,000

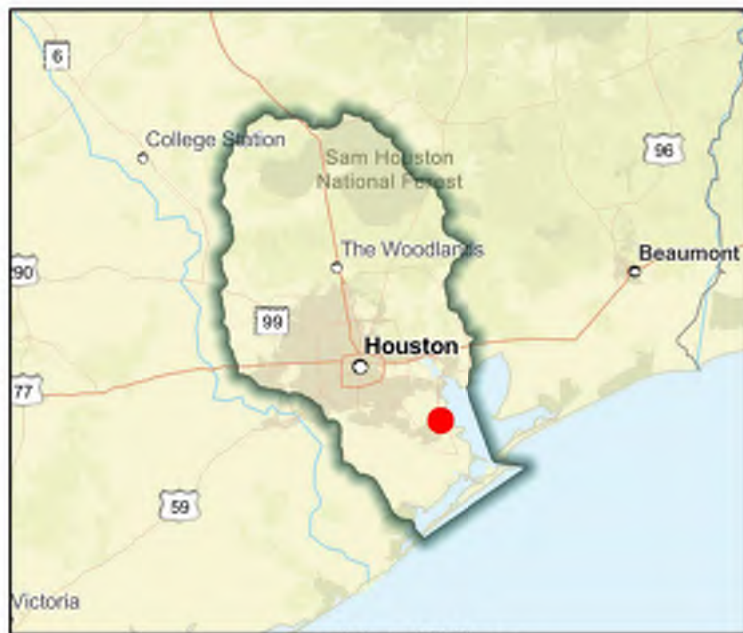
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of La Marque - East Side Storm water detention

ID# 061000087

Sponsor (name of entity, not person) La Marque (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Feasibility study and a drainage analysis of the new pond row acquisition and associated conveyance improvements on a part of 10 acres of land.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 14

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,455

of structures 829

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 38

Roadway(s) impacted (length) 31

Number of low water crossings 1

Historical road closures 1

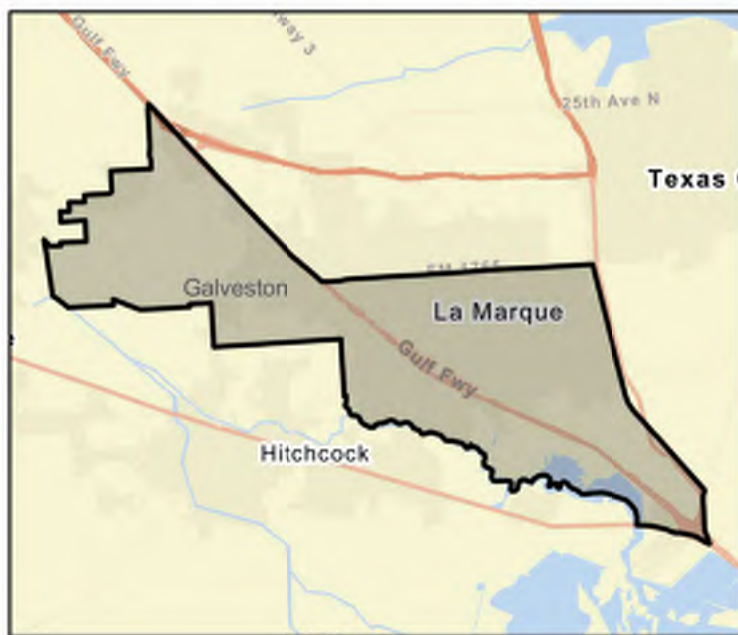
Estimated Cost and Funding Availability

Total Cost \$360,000

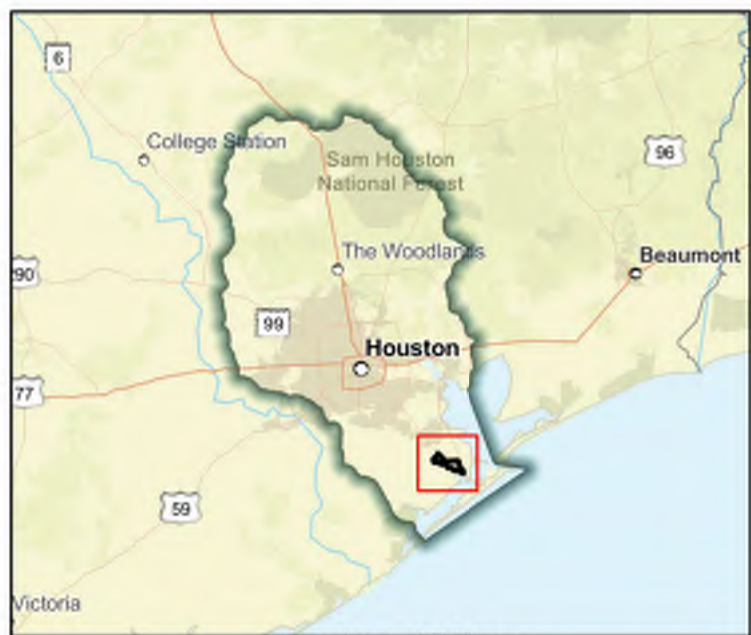
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of La Marque Master Drainage Plan

ID# 061000255

Sponsor (name of entity, not person) La Marque (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 14

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,455

of structures 829

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 38

Roadway(s) impacted (length) 31

Number of low water crossings 1

Historical road closures 1

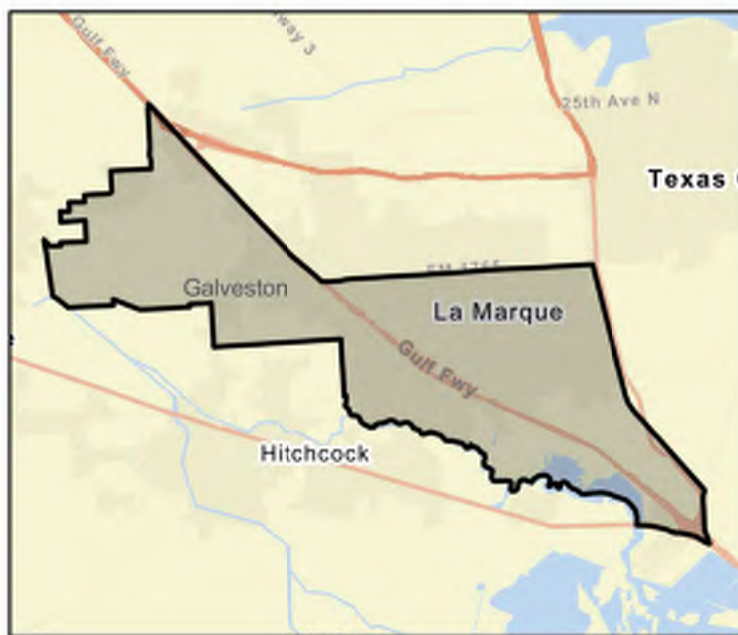
Estimated Cost and Funding Availability

Total Cost \$360,000

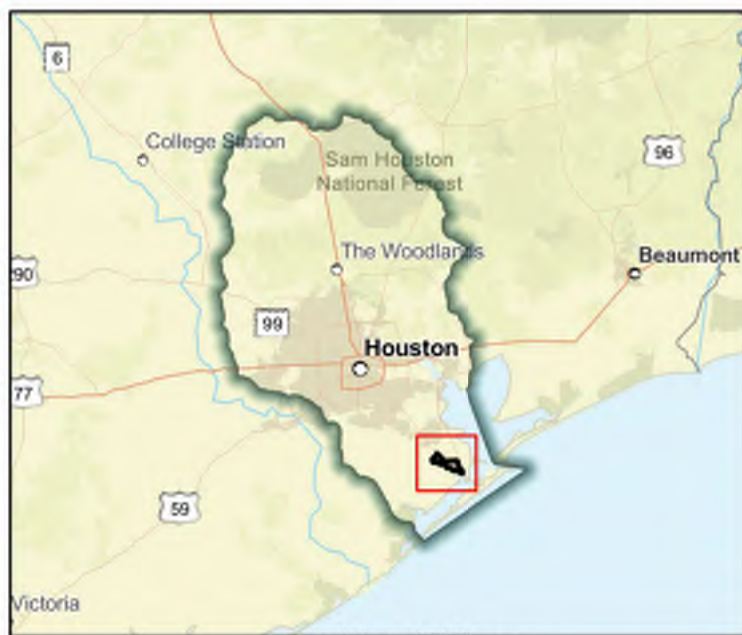
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of La Porte Master Drainage Plan**

ID# **061000256**

Sponsor (name of entity, not person) **La Porte (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040706,120402040100**

Drainage area (Square miles, est.) **20**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **6,121**

of structures **2,532**

Critical facilities **32**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **15**

Roadway(s) impacted (length) **54**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$410,000**

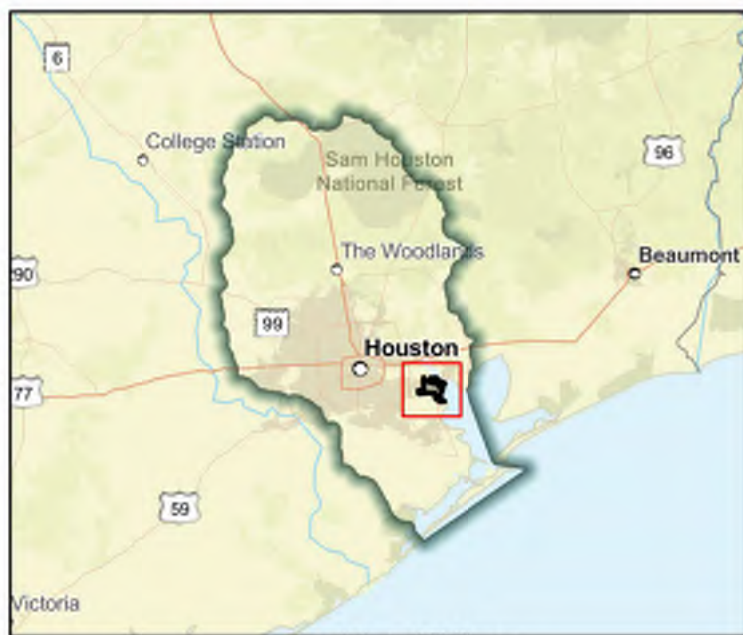
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of League City - Kansas Street Drainage

ID# 061000088

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study and FMP development of proposed street drainage modifications to Kansas Street.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 53

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 13,675

of structures 5,251

Critical facilities 25

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,308

Roadway(s) impacted (length) 105

Number of low water crossings 2

Historical road closures

2

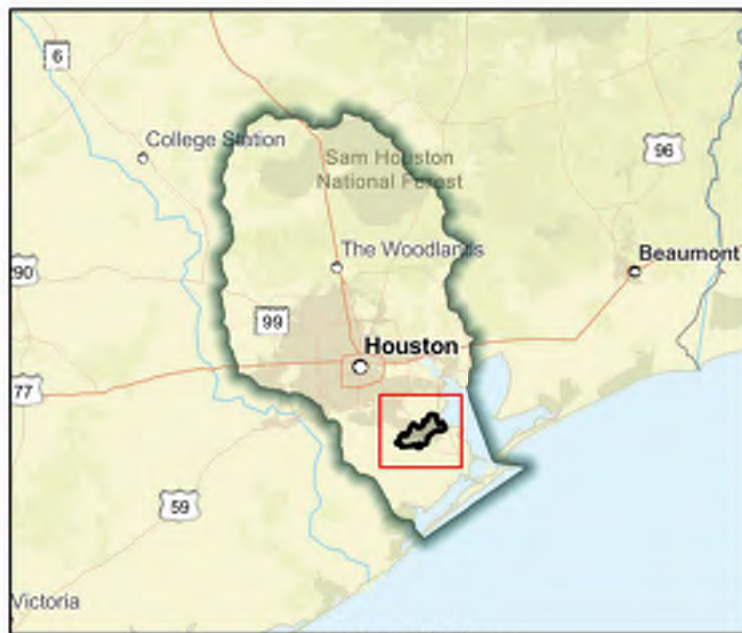
Estimated Cost and Funding Availability

Total Cost \$580,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of League City Master Drainage Plan**

ID# **061000257**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Project would be a drainage model building off the recently completed CoLC 2-D Drainage Model and expand this model in the City's subdivisions and neighborhoods. It would be intended for this to be done in phases with areas where FEMA has had a high conce**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **53**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **13,675**

of structures **5,251**

Critical facilities **25**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,308**

Roadway(s) impacted (length) **105**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$580,000**

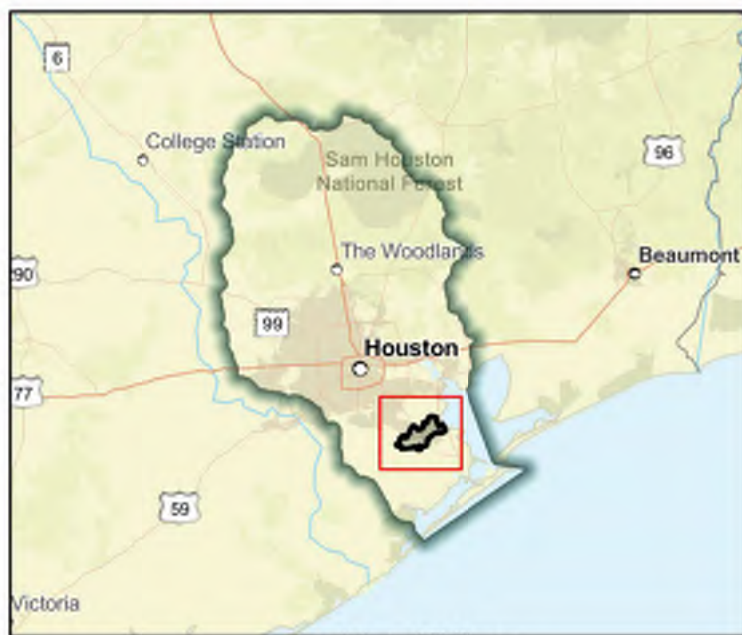
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Liverpool Master Drainage Plan**

ID# **061000258**

Sponsor (name of entity, not person) **Liverpool (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040400**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **103**

of structures **130**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$160,000**

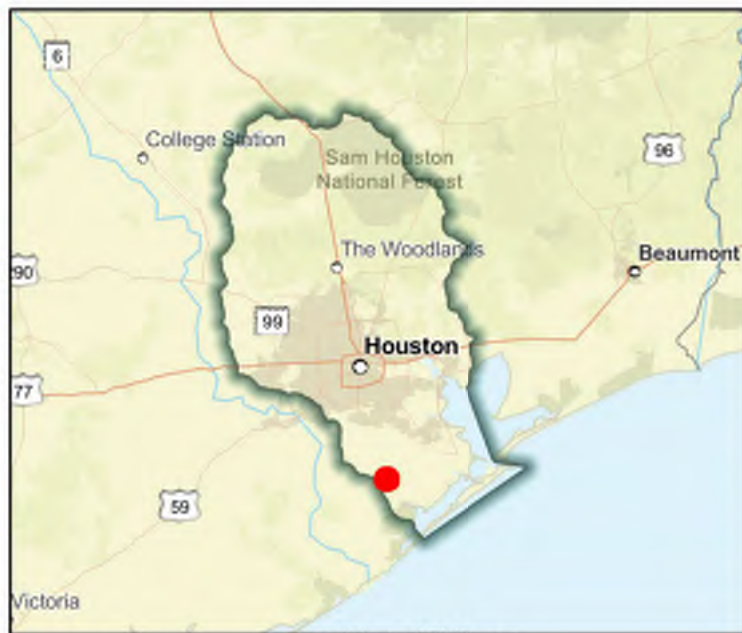
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Magnolia Master Drainage Plan**

ID# **061000259**

Sponsor (name of entity, not person) **Magnolia (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401020204,120401020207,120401020208**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **60**

of structures **23**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

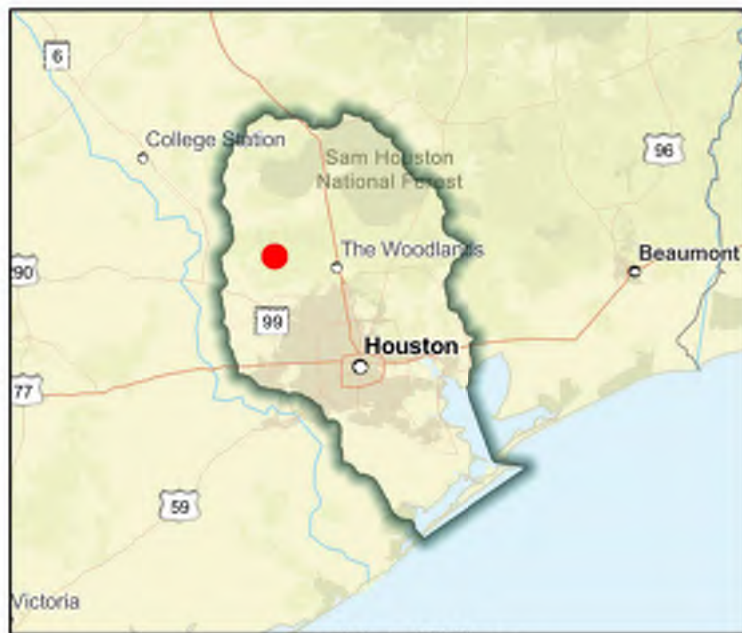
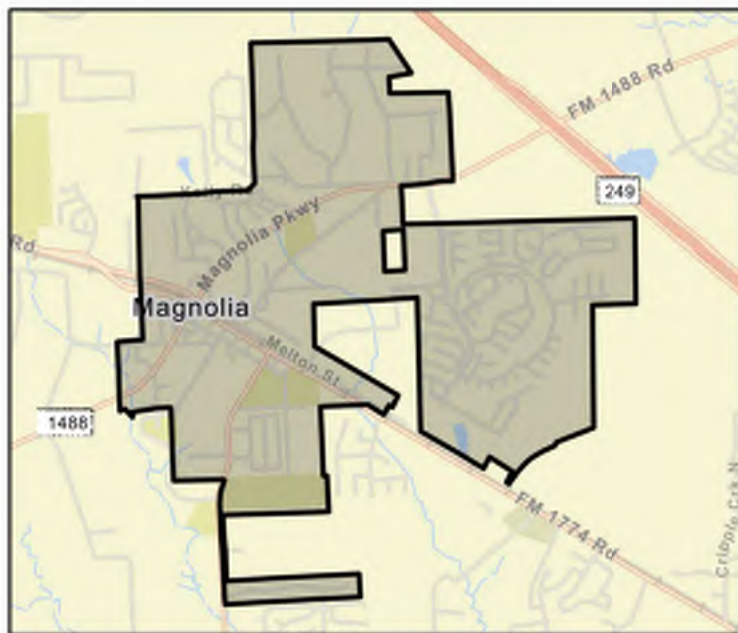
Estimated Cost and Funding Availability

Total Cost **\$210,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Manvel Flora St. Drainage Improvements**

ID# **061000045**

Sponsor (name of entity, not person) **Manvel (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **Study of possible Flora Street drainage improvements: widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding in Manvel neighborhoods.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **27**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **6,741**

of structures **1,249**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **179**

Roadway(s) impacted (length) **43**

Number of low water crossings **0**

Historical road closures **0**

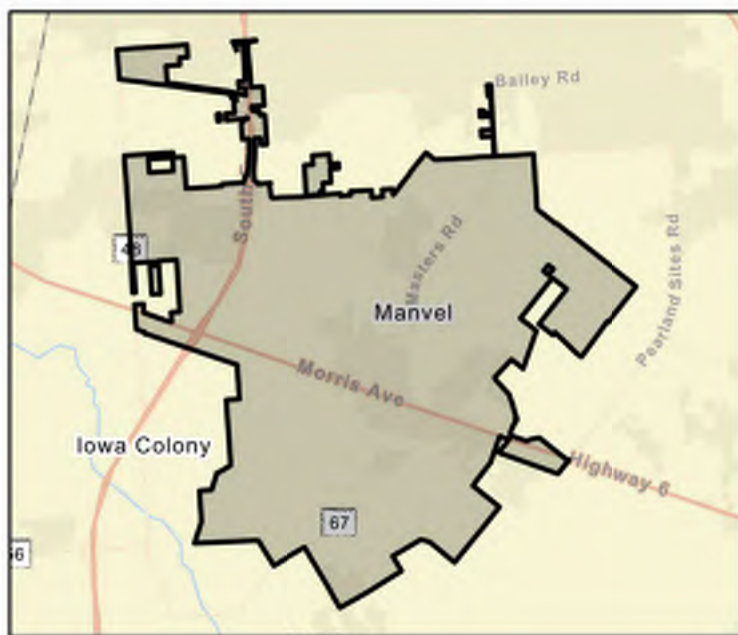
Estimated Cost and Funding Availability

Total Cost **\$100,000**

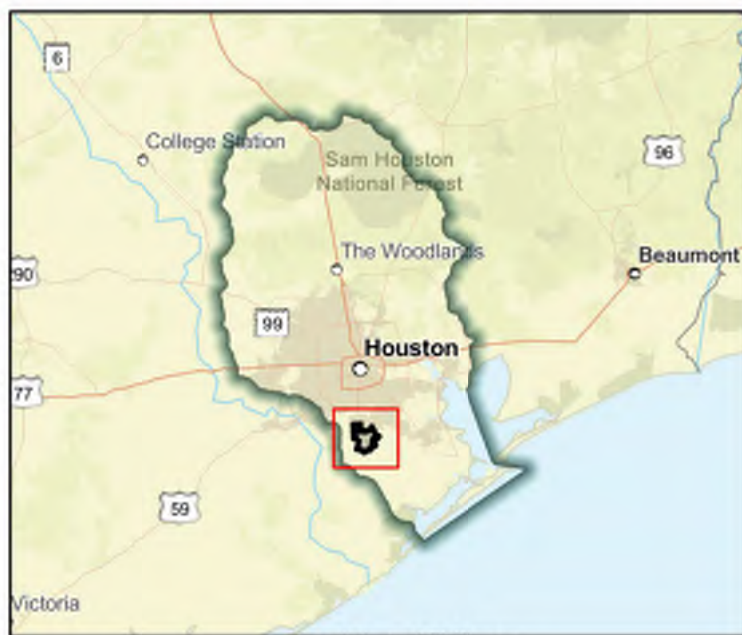
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Manvel Gates Loop Subdivision Drainage Improvement

ID# 061000059

Sponsor (name of entity, not person) Manvel (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study proposed Gates Loop subdivision drainage improvement.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

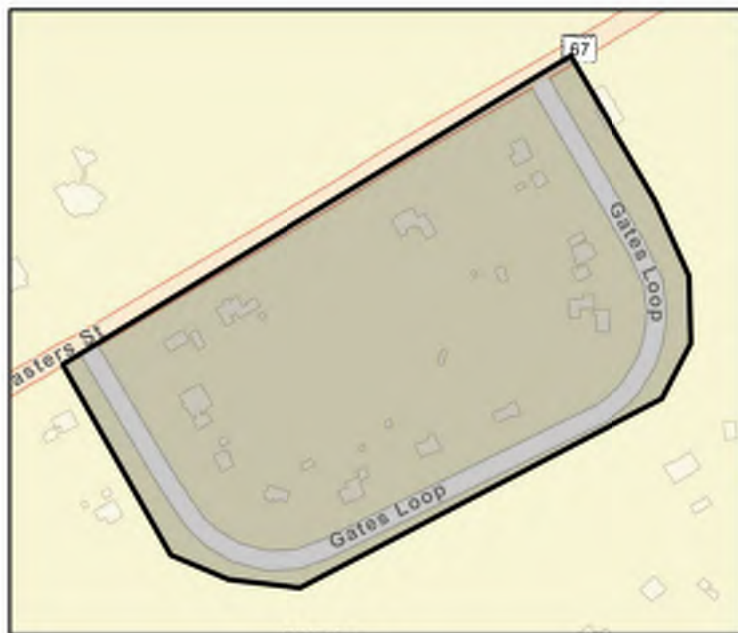
Estimated Cost and Funding Availability

Total Cost \$100,000

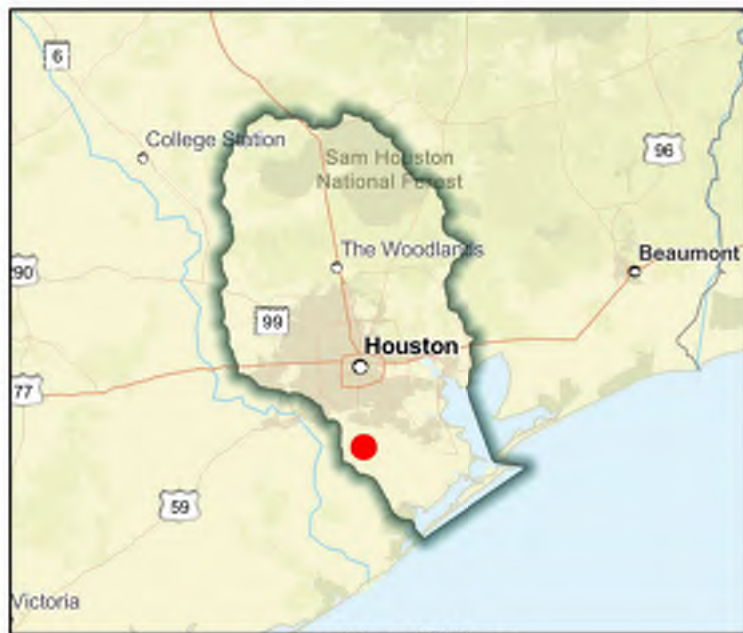
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Manvel Master Drainage Plan**

ID# **061000260**

Sponsor (name of entity, not person) **Manvel (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **27**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **6,741**

of structures **1,249**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **179**

Roadway(s) impacted (length) **43**

Number of low water crossings **0**

Historical road closures **0**

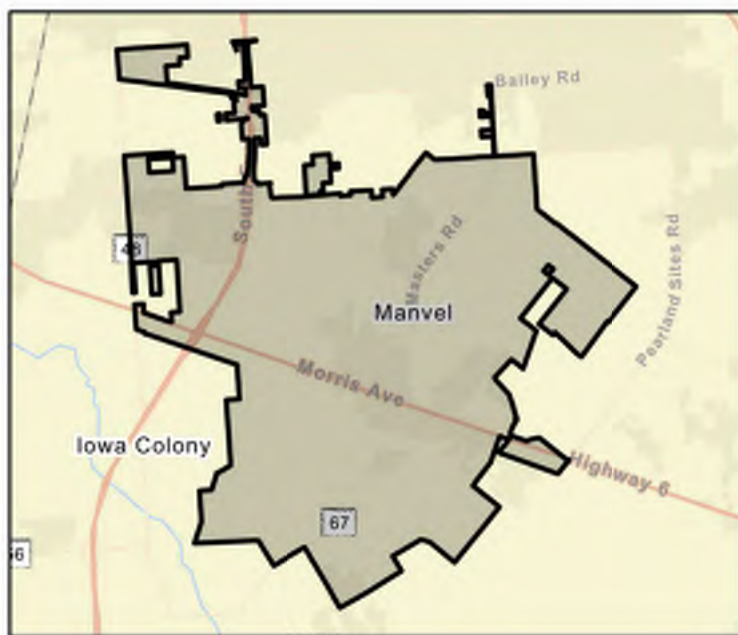
Estimated Cost and Funding Availability

Total Cost **\$460,000**

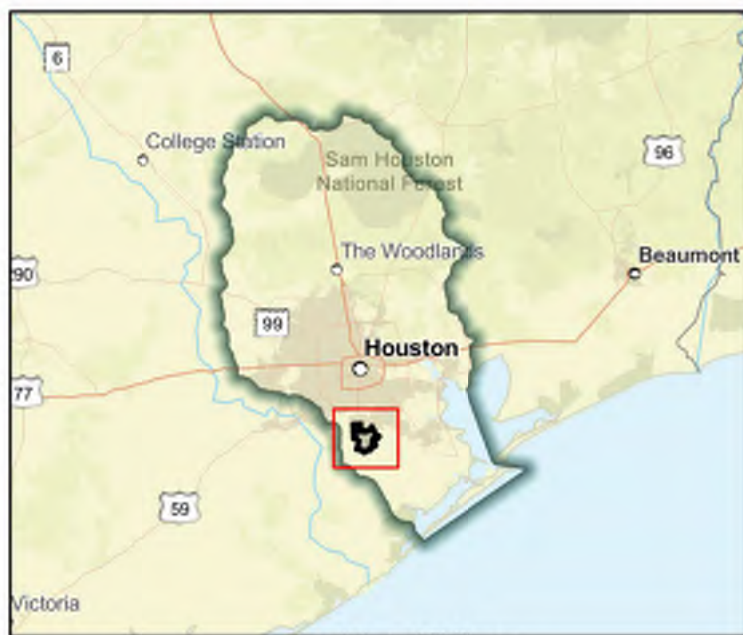
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Manvel Rogers Rd. Drainage Improvements

ID# 061000415

Sponsor (name of entity, not person) Manvel (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study Alleluia Trail Rogers Rd & All Roads off Rogers drainage improvements, including storm sewer rehabilitation and ditch deepening.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040100,120402040400,120402040200

Drainage area (Square miles, est.) 27

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,741

of structures 1,249

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 179

Roadway(s) impacted (length) 43

Number of low water crossings 0

Historical road closures

0

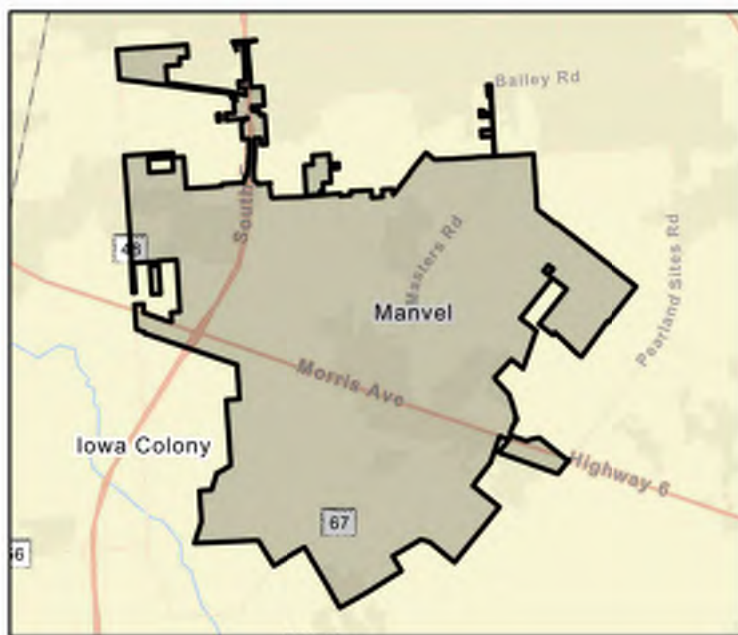
Estimated Cost and Funding Availability

Total Cost \$30,000

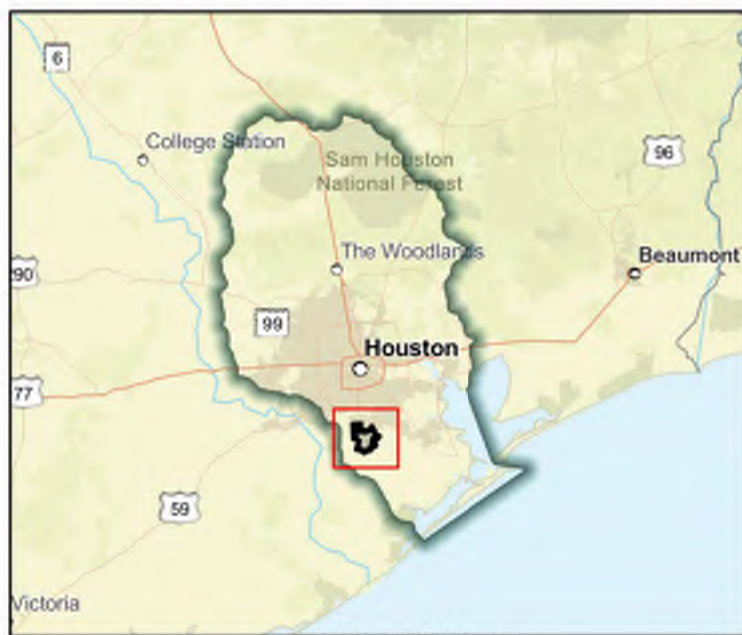
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Manvel SH. 6 Drainage Improvements

ID# 061000041

Sponsor (name of entity, not person) Manvel (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of state Highway 6 drainage improvements, including storm sewer upgrades to meet current capacities, ditch deepening, and sub regional detention ponds. Project will also widen and reshape ditches, and upgrade culverts.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 27

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,741

of structures 1,249

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 179

Roadway(s) impacted (length) 43

Number of low water crossings 0

Historical road closures

0

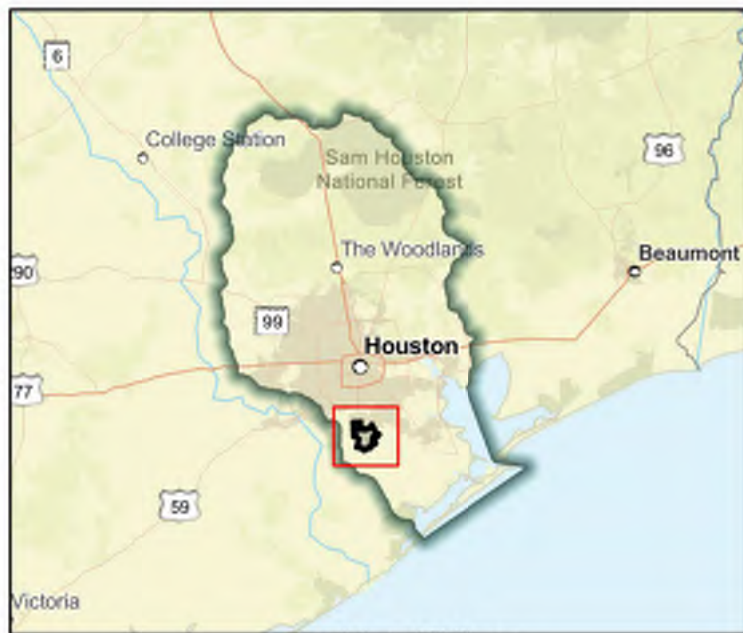
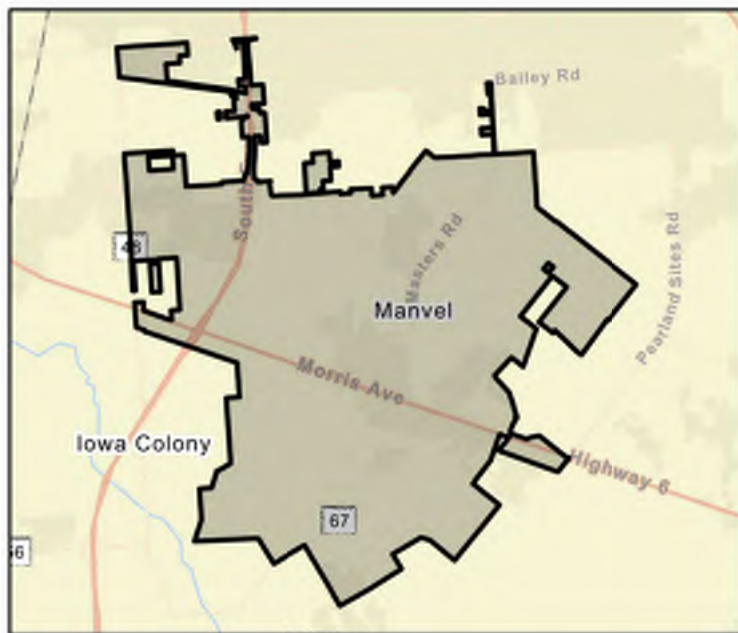
Estimated Cost and Funding Availability

Total Cost \$3,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Manvel Various Drainage Improvements

ID# 061000047

Sponsor (name of entity, not person) Manvel (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study of various drainage improvements, including storm sewer rehabilitation and ditch deepening.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Brazoria

Watershed HUC# (if known) 120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 27

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,741

of structures 1,249

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 179

Roadway(s) impacted (length) 43

Number of low water crossings 0

Historical road closures 0

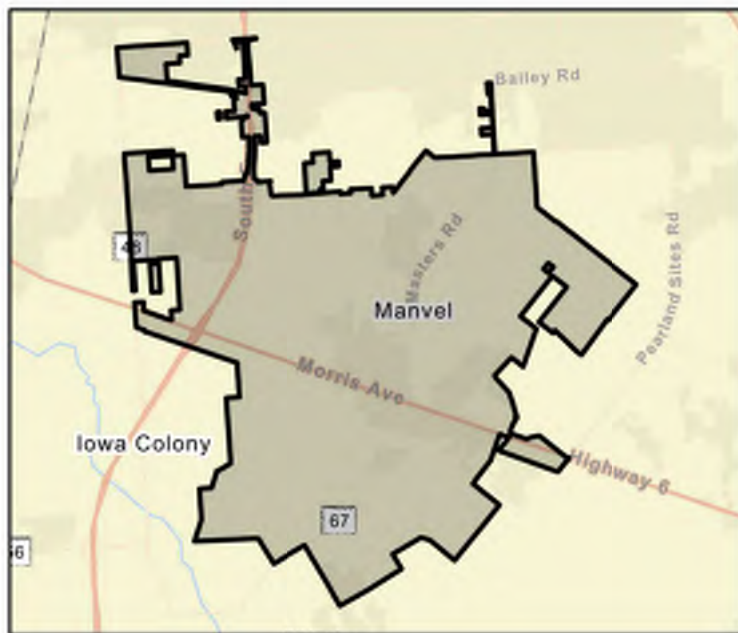
Estimated Cost and Funding Availability

Total Cost \$460,000

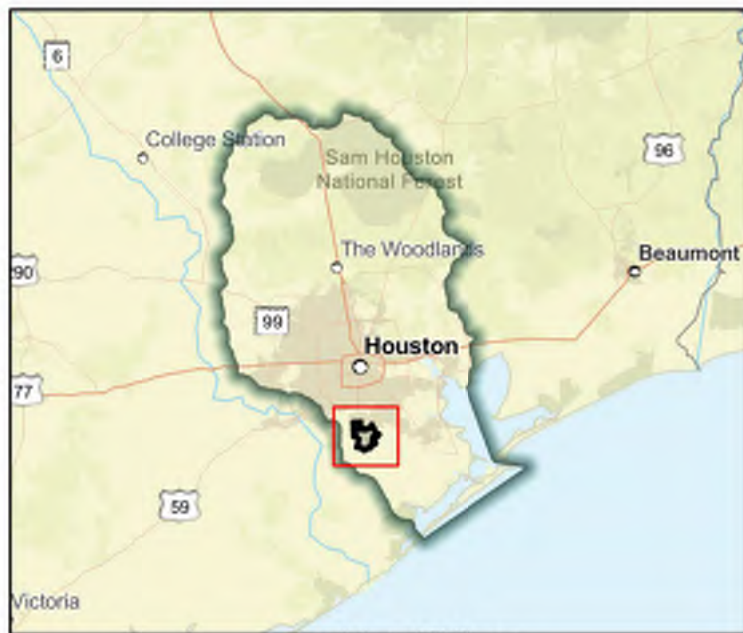
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Meadows Place Master Drainage Plan**

ID# **061000261**

Sponsor (name of entity, not person) **Meadows Place (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Fort Bend**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

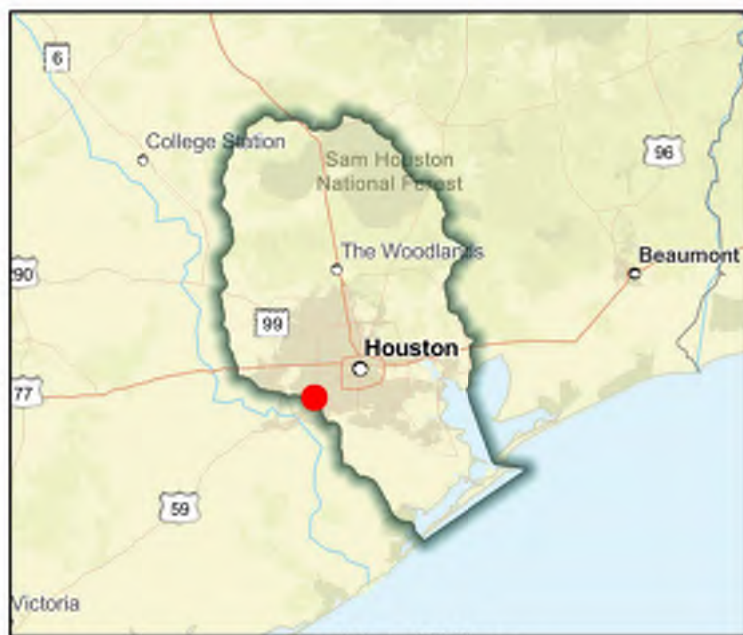
Estimated Cost and Funding Availability

Total Cost **\$150,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Missouri City Master Drainage Plan**

ID# **061000262**

Sponsor (name of entity, not person) **Missouri City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040401,120401040501,120402040400**

Drainage area (Square miles, est.) **30**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **854**

of structures **213**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

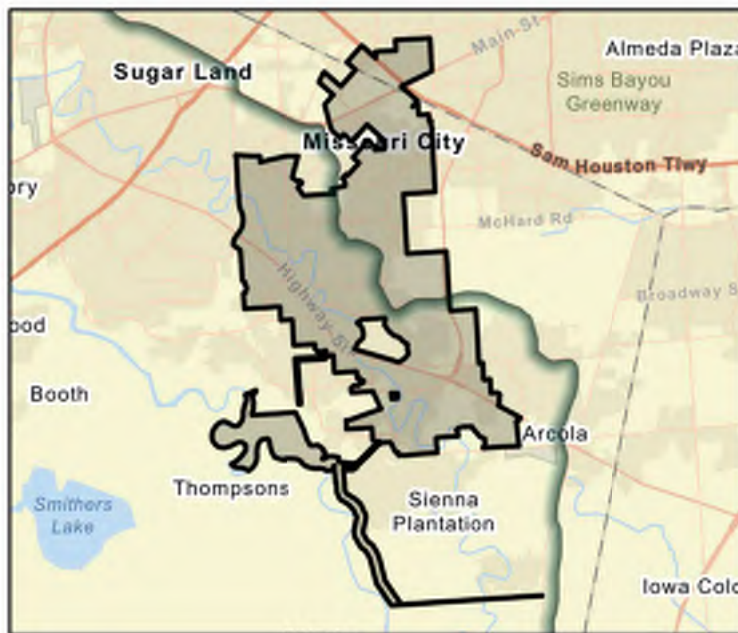
Estimated Cost and Funding Availability

Total Cost **\$470,000**

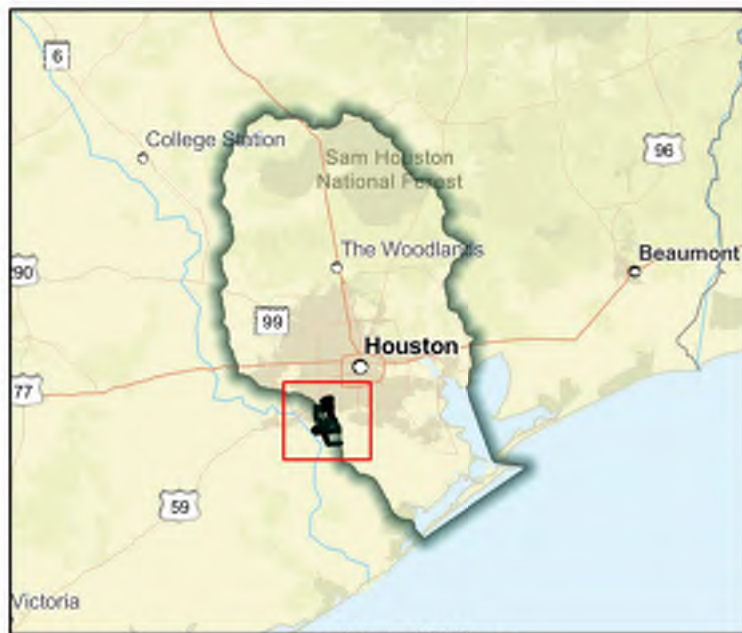
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Mont Belvieu Master Drainage Plan**

ID# **061000263**

Sponsor (name of entity, not person) **Mont Belvieu (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Chambers,Harris,Liberty**

Watershed HUC# (if known) **120402030105,120402030104**

Drainage area (Square miles, est.) **17**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **18**

of structures **30**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

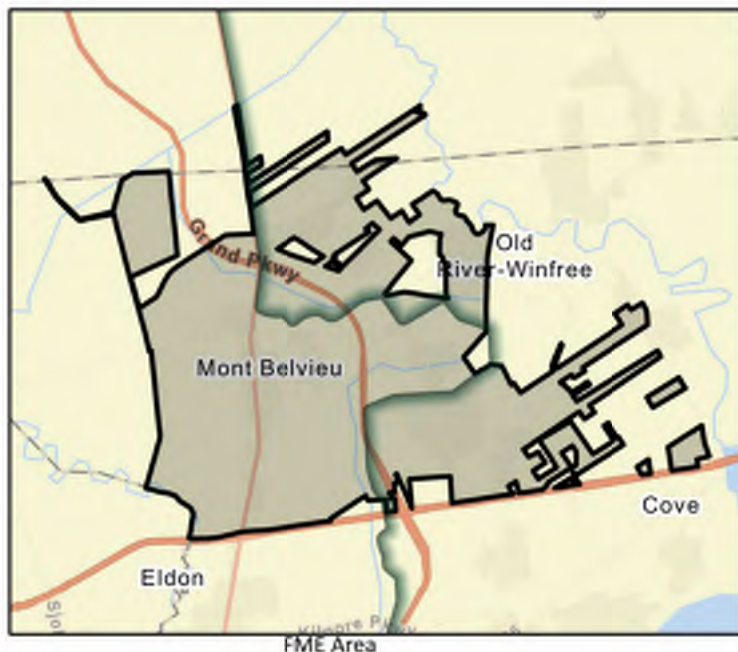
Estimated Cost and Funding Availability

Total Cost **\$390,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Montgomery Master Drainage Plan

ID# 061000264

Sponsor (name of entity, not person) Montgomery (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401010307,120401010206

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 7

of structures 27

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

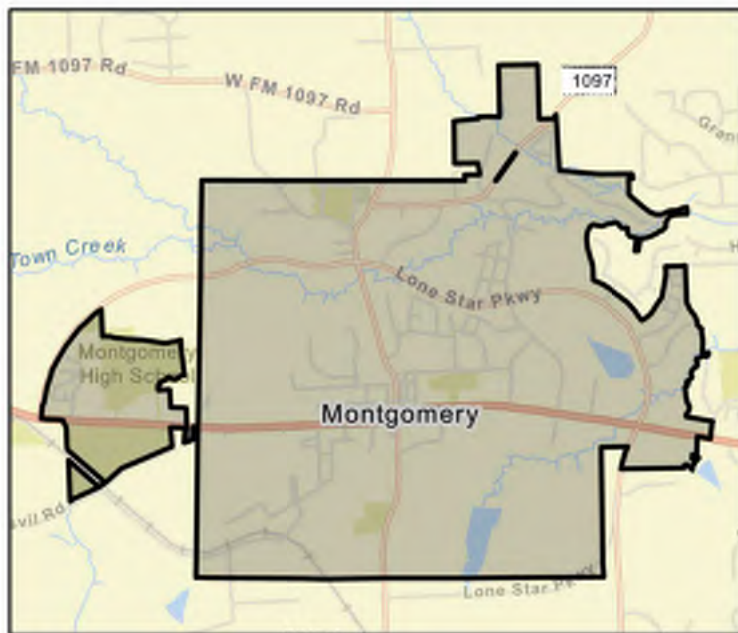
Estimated Cost and Funding Availability

Total Cost \$250,000

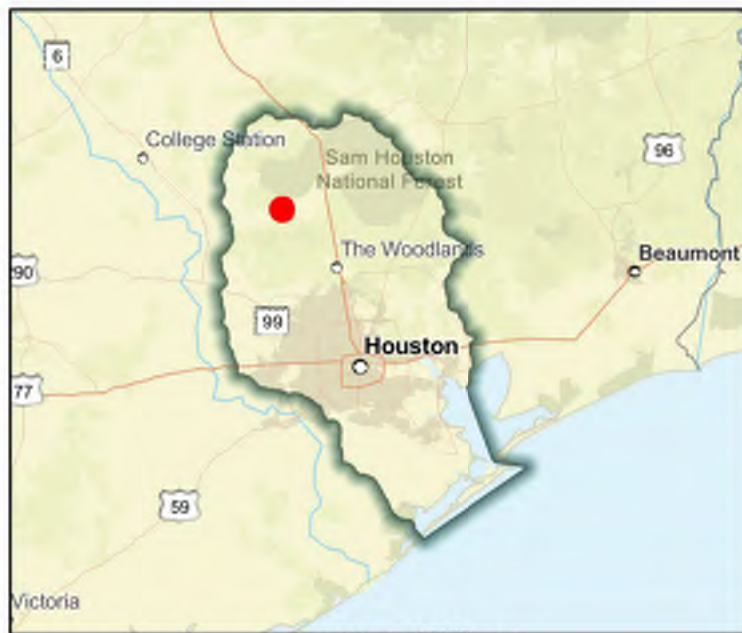
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Morgan's Point Master Drainage Plan**

ID# **061000265**

Sponsor (name of entity, not person) **Morgan's Point (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Chambers,Harris**

Watershed HUC# (if known) **120401040706,120402040100**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **249**

of structures **48**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$190,000**

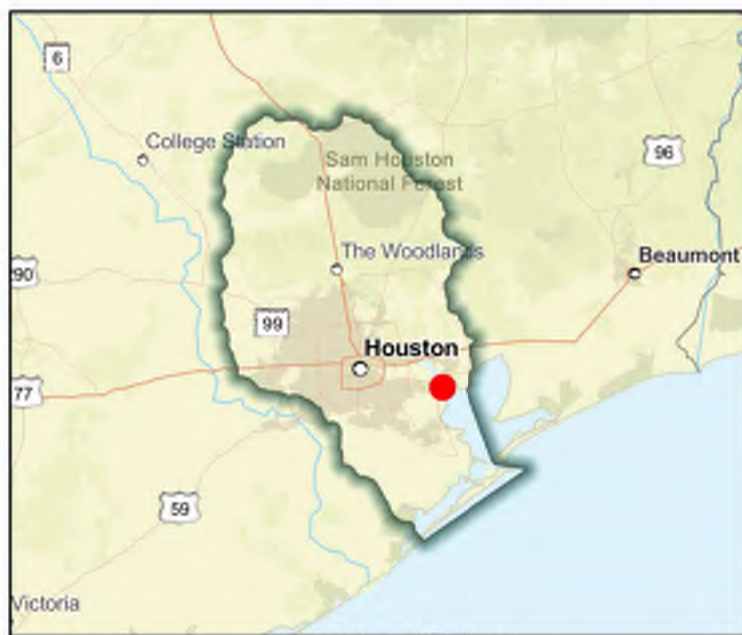
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Nassau Bay Master Drainage Plan**

ID# **061000266**

Sponsor (name of entity, not person) **Nassau Bay (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **5,328**

of structures **1,021**

Critical facilities **18**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **18**

Number of low water crossings **0**

Historical road closures **0**

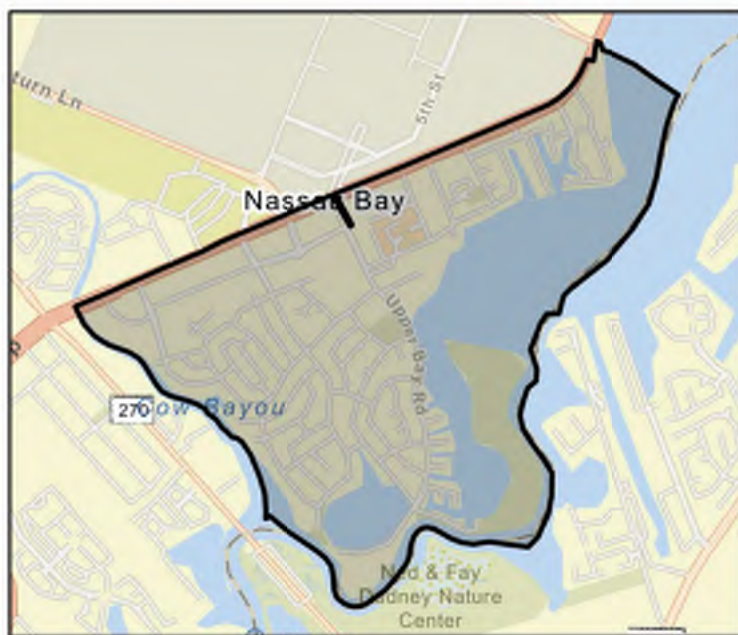
Estimated Cost and Funding Availability

Total Cost **\$180,000**

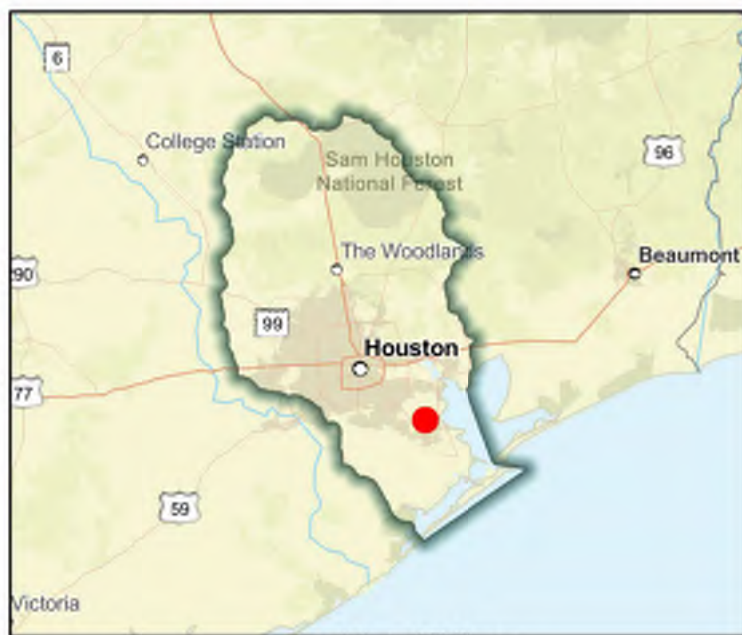
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of New Waverly Master Drainage Plan**

ID# **061000267**

Sponsor (name of entity, not person) **New Waverly (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Walker**

Watershed HUC# (if known) **120401030101**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **19**

of structures **23**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$190,000**

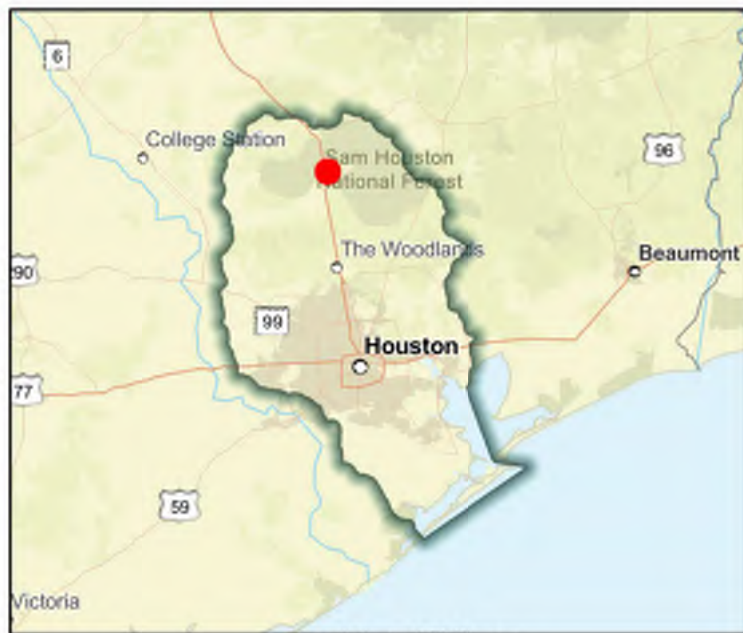
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of North Cleveland Engineering Study**

ID# **061000161**

Sponsor (name of entity, not person) **North Cleveland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to identify drainage improvements in the City of North Cleveland.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Montgomery, San Jacinto**

Watershed HUC# (if known) **120401030201, 120401030401**

Drainage area (Square miles, est.) **19**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **42**

of structures **52**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **6**

Roadway(s) impacted (length) **3**

Number of low water crossings **-**

Historical road closures **-**

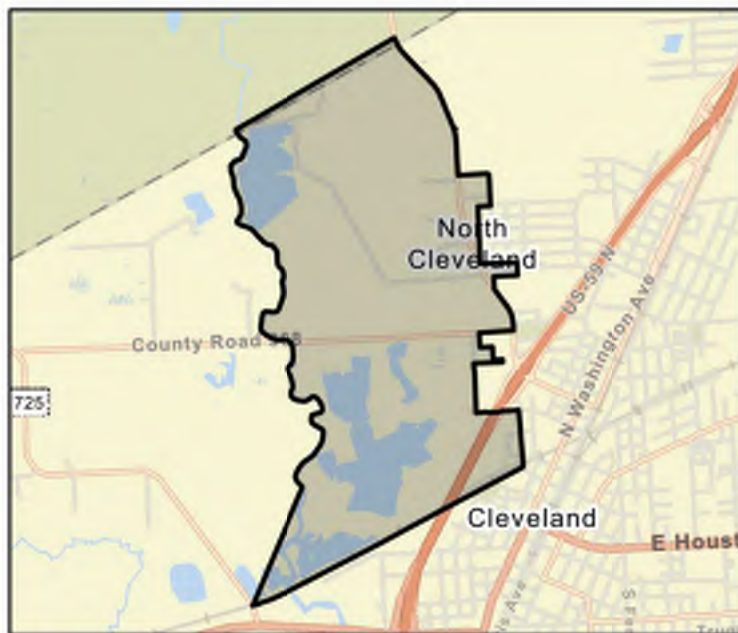
Estimated Cost and Funding Availability

Total Cost **\$400,000**

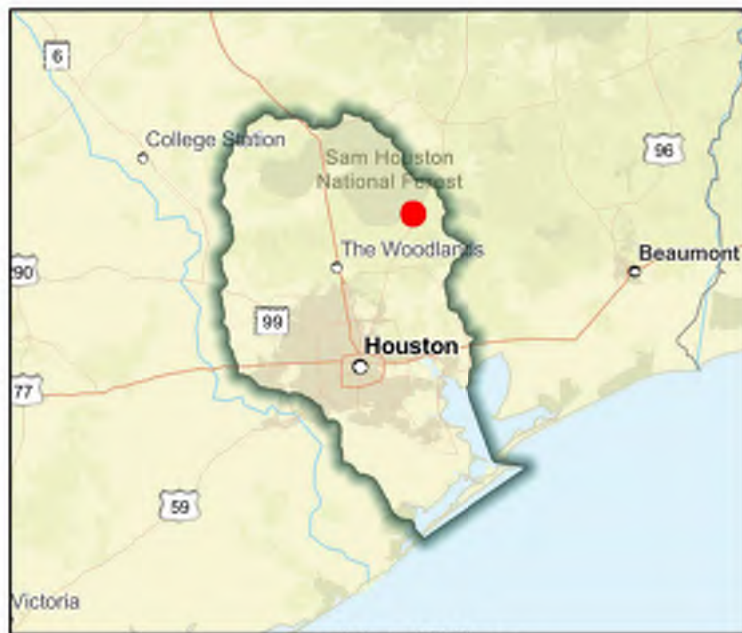
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of North Cleveland Master Drainage Plan

ID# 061000268

Sponsor (name of entity, not person) North Cleveland (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120401030201,120401030401

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 42

of structures 52

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 6

Roadway(s) impacted (length) 3

Number of low water crossings -

Historical road closures -

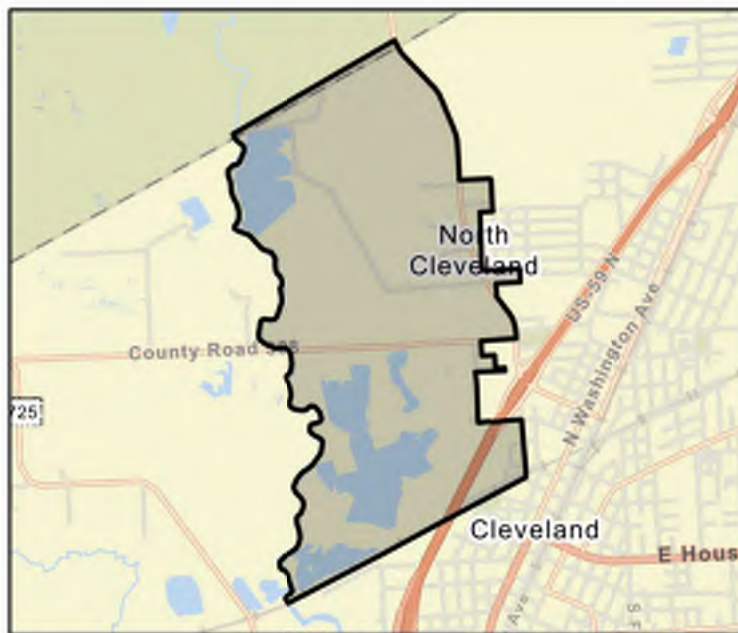
Estimated Cost and Funding Availability

Total Cost \$190,000

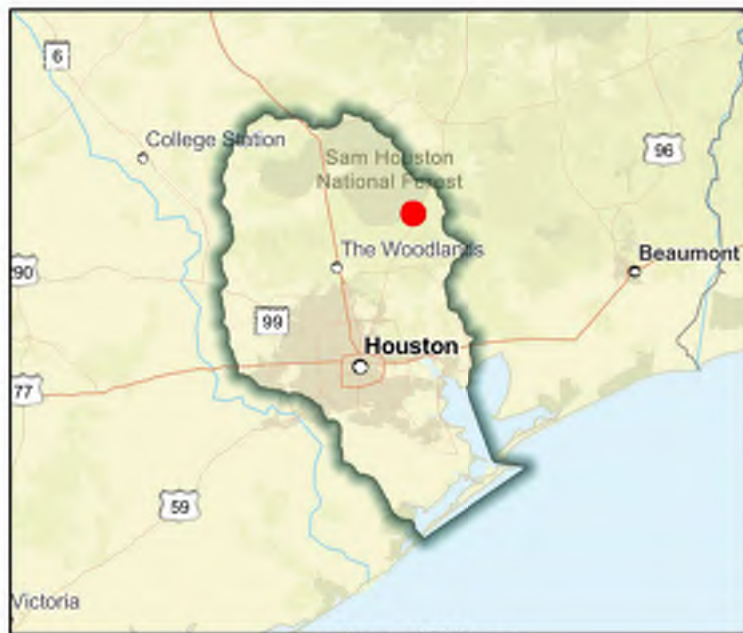
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Oak Ridge North Master Drainage Plan**

ID# **061000269**

Sponsor (name of entity, not person) **Oak Ridge North (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401010404,120401020212**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **426**

of structures **85**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

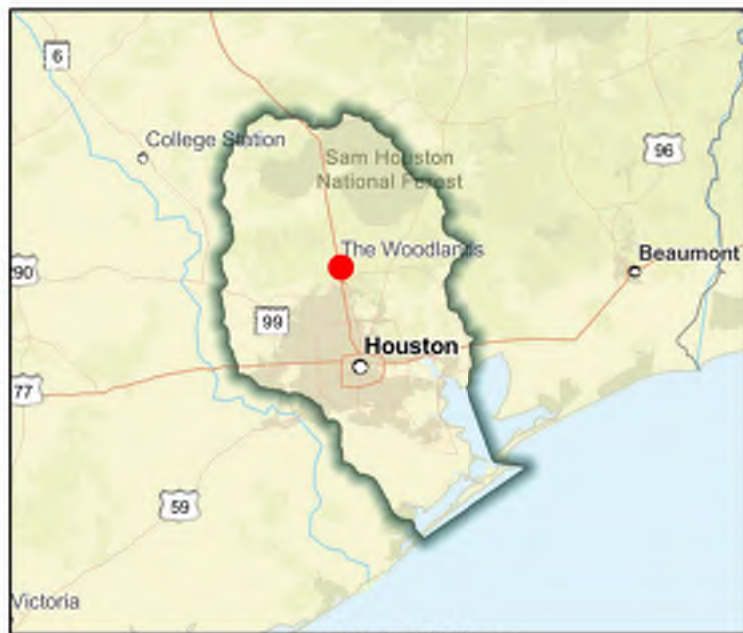
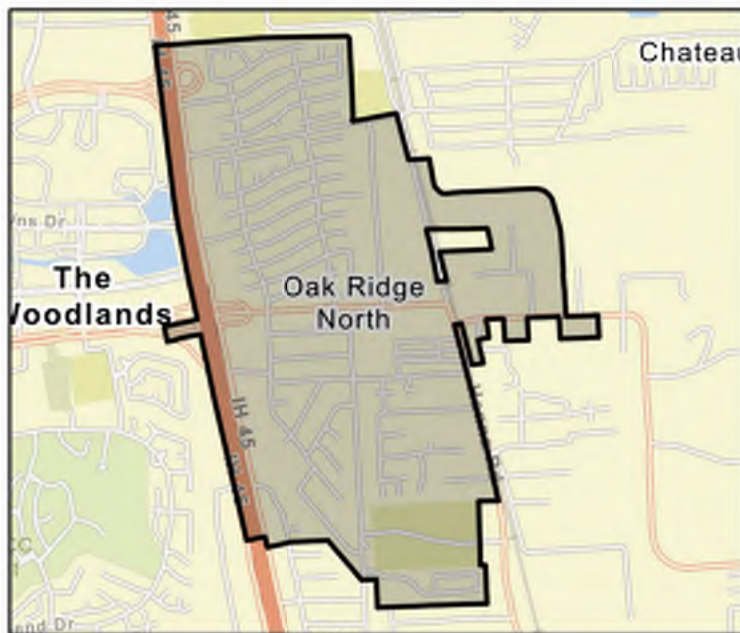
Estimated Cost and Funding Availability

Total Cost **\$170,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Panorama Village Master Drainage Plan

ID# 061000270

Sponsor (name of entity, not person) Panorama Village (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 126

of structures 77

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$160,000

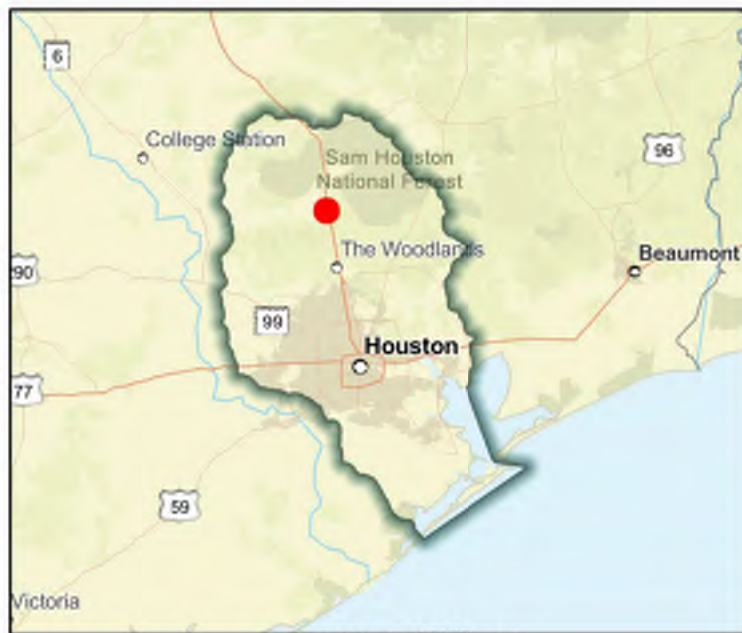
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Pasadena - Hurricane Harvey Drainage Mitigation Project 1

ID# 061000370

Sponsor (name of entity, not person) Pasadena (Municipality)

RFPG recommend? No

Reason for Recommendation

Sponsor no longer pursuing FME

Study Details

Study type Project Planning

Study description Further study to develop & elevate project into a FMP. Previously submitted by the Flood Infrastructure Fund (FIF) but was not approved at the time. Projects included in this application will be updated to include BCA and Atlas 14 rainfall consideration.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120402040100,120401040502,120401040703

Drainage area (Square miles, est.) 45

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 18,187

of structures 3,591

Critical facilities 56

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 82

Roadway(s) impacted (length) 74

Number of low water crossings 6

Historical road closures

6

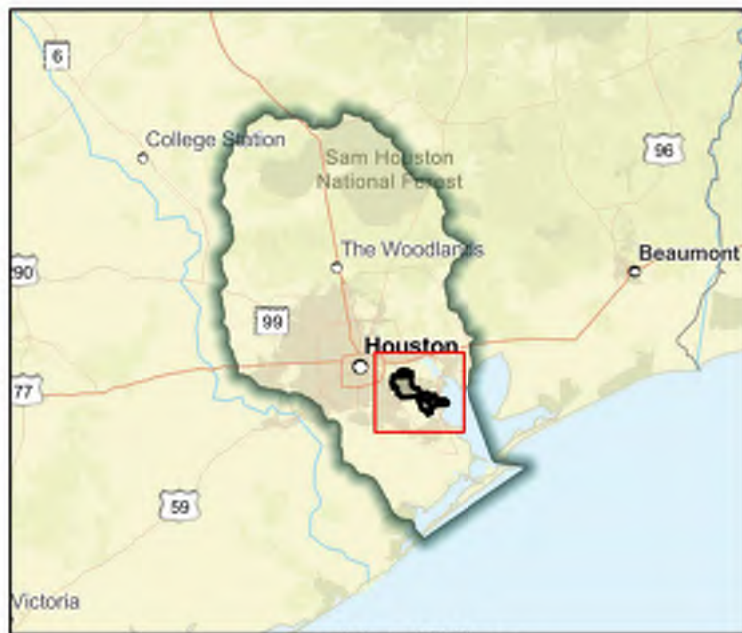
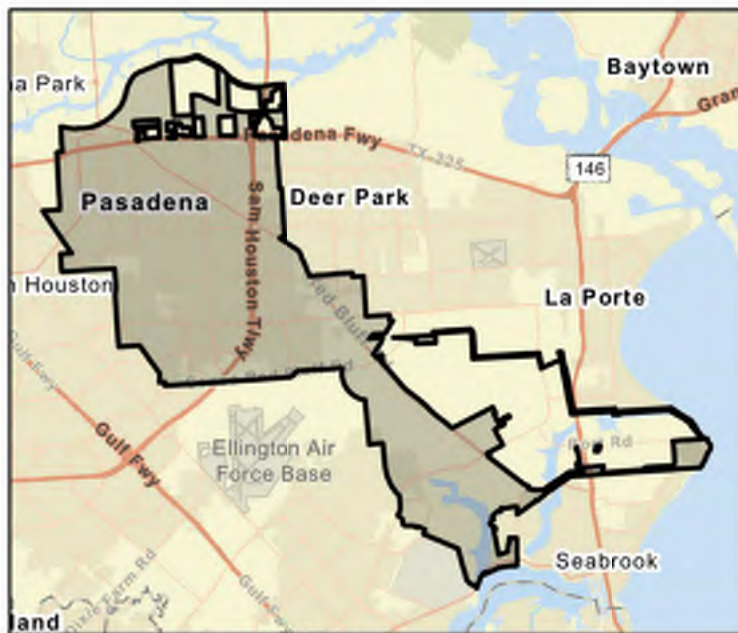
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Pasadena - Hurricane Harvey Drainage Mitigation Project 2

ID# 061000371

Sponsor (name of entity, not person) Pasadena (Municipality)

RFPG recommend? No

Reason for Recommendation

Sponsor no longer pursuing FME

Study Details

Study type Project Planning

Study description Further study to develop & elevate project into a FMP. Previously submitted by the Flood Infrastructure Fund (FIF) but was not approved at the time. Projects included in this application will be updated to include BCA and Atlas 14 rainfall consideration.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120402040100,120401040502,120401040703

Drainage area (Square miles, est.) 45

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 18,187

of structures 3,591

Critical facilities 56

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 82

Roadway(s) impacted (length) 74

Number of low water crossings 6

Historical road closures

6

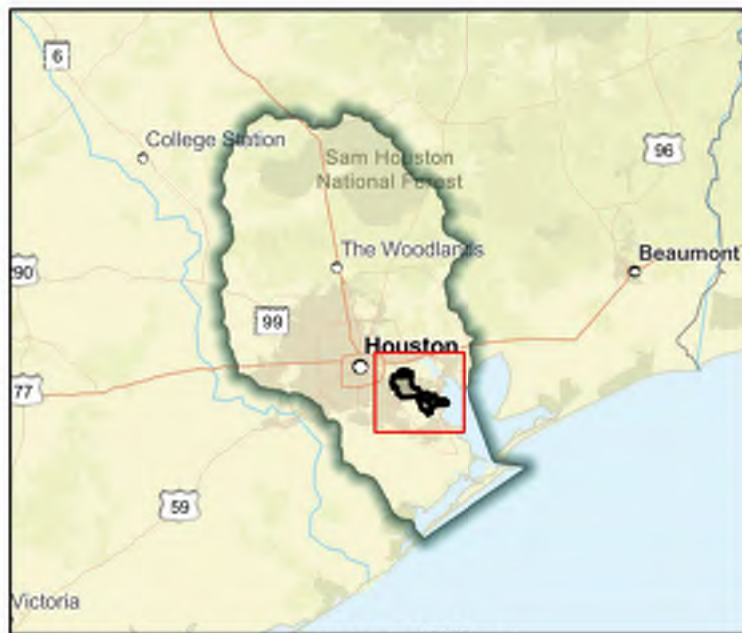
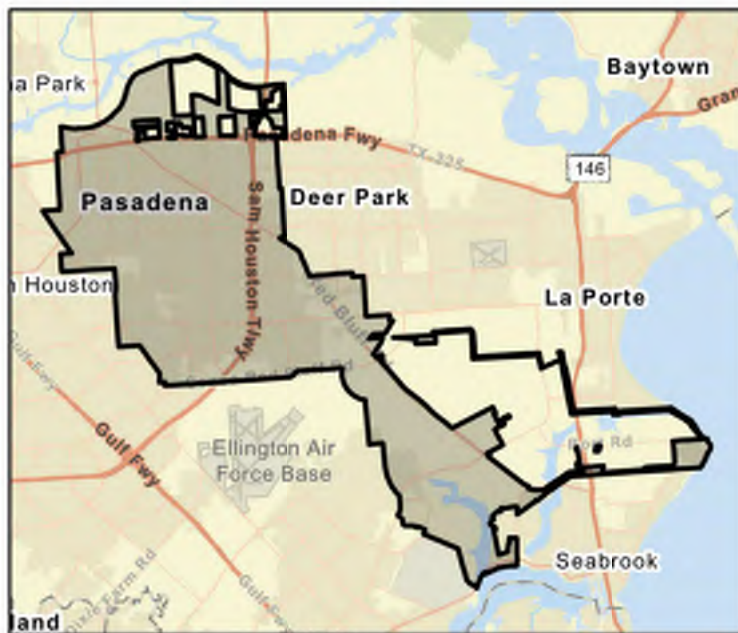
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Pasadena - Hurricane Harvey Drainage Mitigation Project 3

ID# 061000372

Sponsor (name of entity, not person) Pasadena (Municipality)

RFPG recommend? No

Reason for Recommendation

Sponsor no longer pursuing FME

Study Details

Study type Project Planning

Study description Further study to develop & elevate project into a FMP. Previously submitted by the Flood Infrastructure Fund (FIF) but was not approved at the time. Projects included in this application will be updated to include BCA and Atlas 14 rainfall consideration.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120402040100,120401040502,120401040703

Drainage area (Square miles, est.) 45

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 18,187

of structures 3,591

Critical facilities 56

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 82

Roadway(s) impacted (length) 74

Number of low water crossings 6

Historical road closures

6

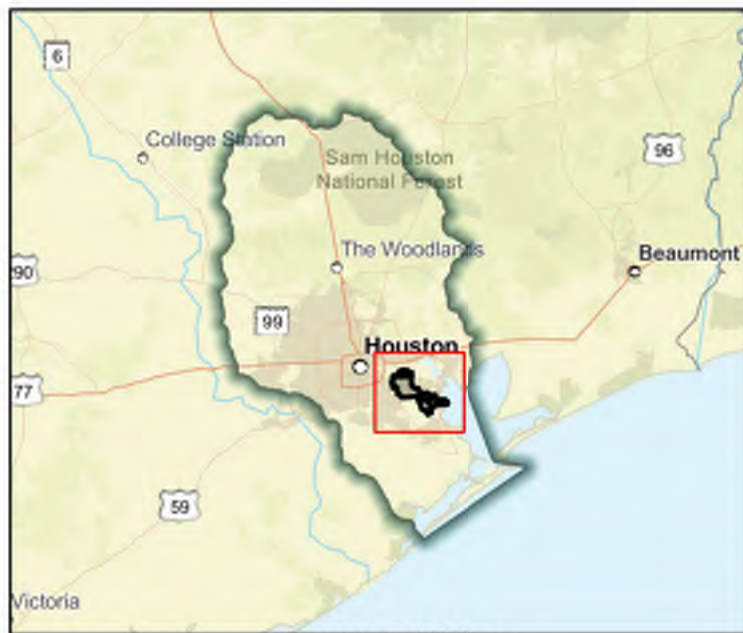
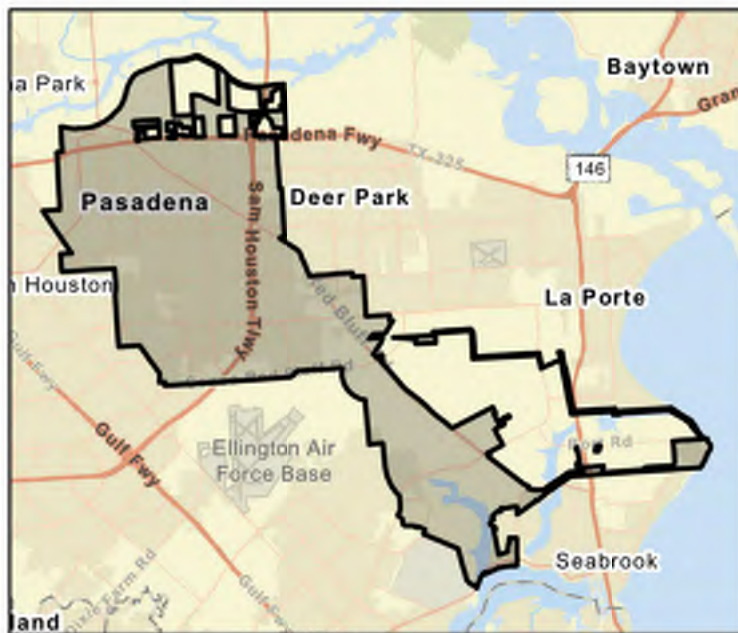
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Pasadena Master Drainage Plan

ID# 061000271

Sponsor (name of entity, not person) Pasadena (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Chambers,Harris

Watershed HUC# (if known) 120401040703,120401040502,120402040100

Drainage area (Square miles, est.) 45

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 18,187

of structures 3,591

Critical facilities 56

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 82

Roadway(s) impacted (length) 74

Number of low water crossings 6

Historical road closures 6

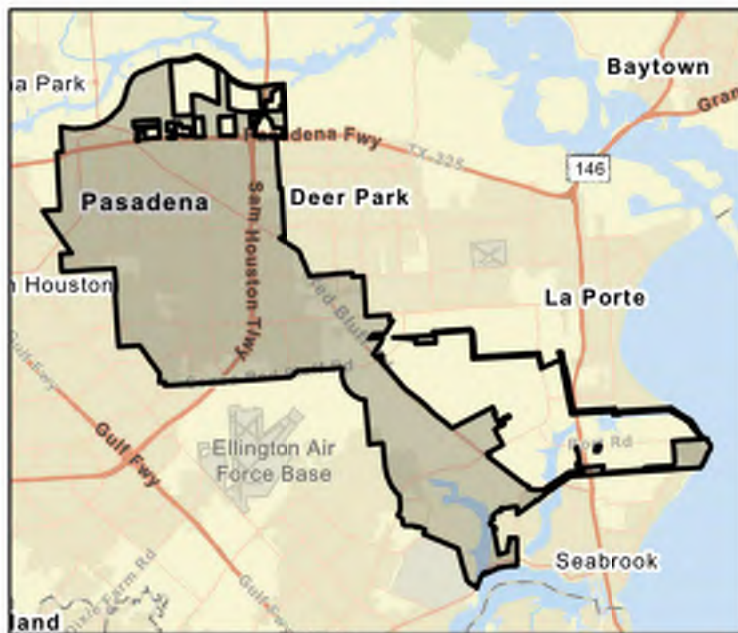
Estimated Cost and Funding Availability

Total Cost \$550,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Patton Village Master Drainage Plan**

ID# **061000272**

Sponsor (name of entity, not person) **Patton Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401030109,120401030402**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **532**

of structures **441**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **14**

Number of low water crossings **0**

Historical road closures **0**

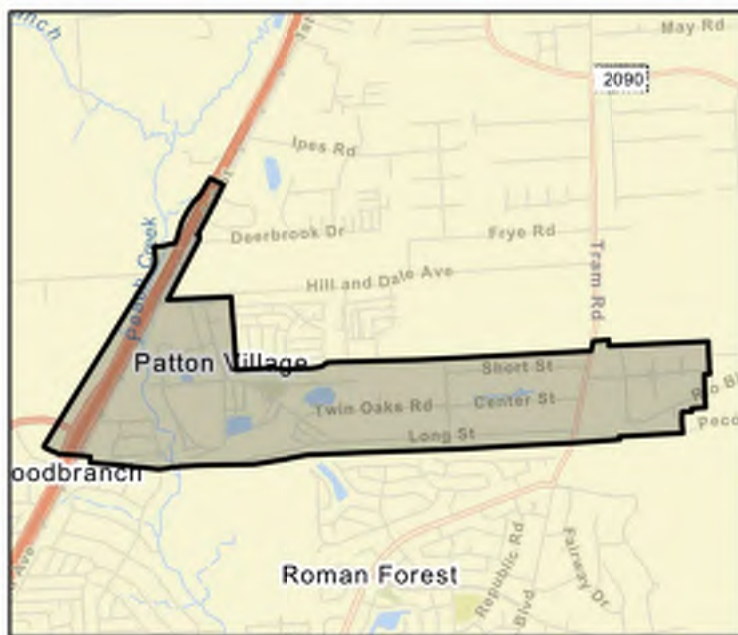
Estimated Cost and Funding Availability

Total Cost **\$200,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Piney Point Village Master Drainage Plan**

ID# **061000274**

Sponsor (name of entity, not person) **Piney Point Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **765**

of structures **129**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

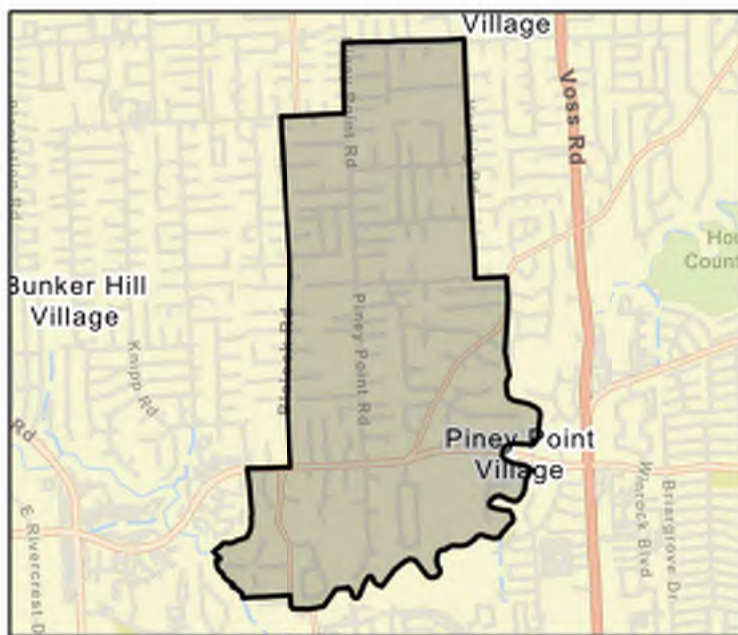
Estimated Cost and Funding Availability

Total Cost **\$190,000**

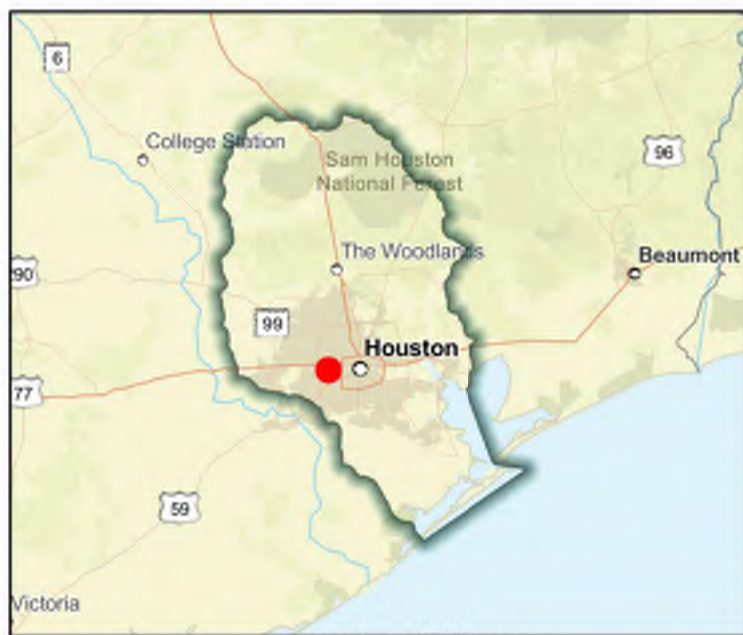
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Plantersville Master Drainage Plan

ID# 061000275

Sponsor (name of entity, not person) Plantersville (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Grimes

Watershed HUC# (if known) 120401010305,120401010306,120401020206

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 20

of structures 28

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$190,000

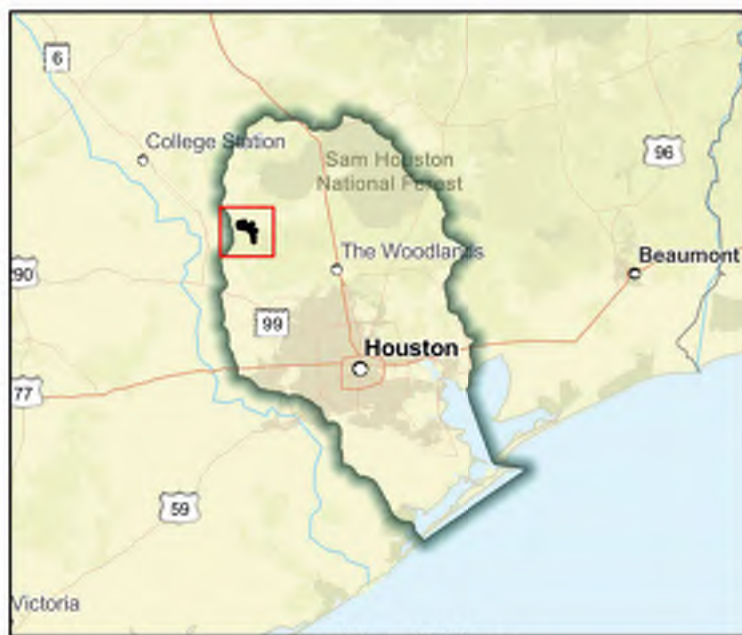
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Plum Grove Master Drainage Plan

ID# 061000276

Sponsor (name of entity, not person) Plum Grove (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120401030402

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 484

of structures 362

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 9

Roadway(s) impacted (length) 9

Number of low water crossings 0

Historical road closures 0

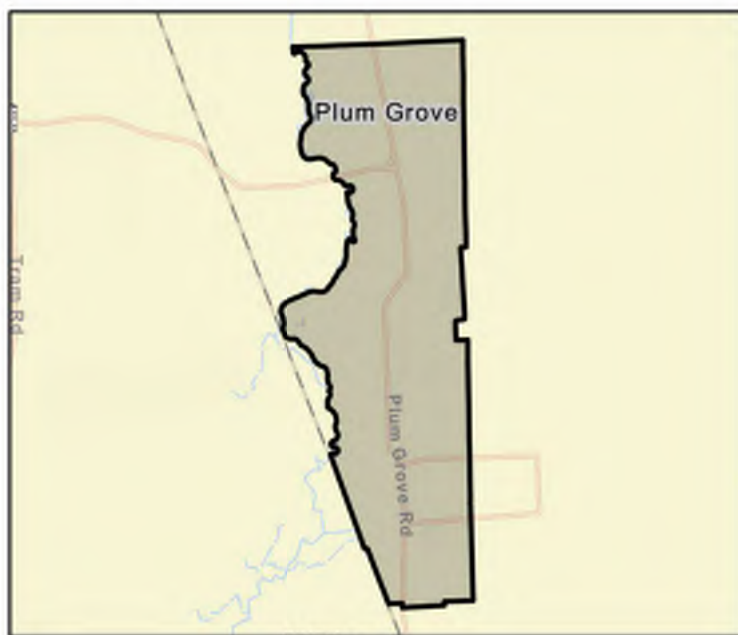
Estimated Cost and Funding Availability

Total Cost \$230,000

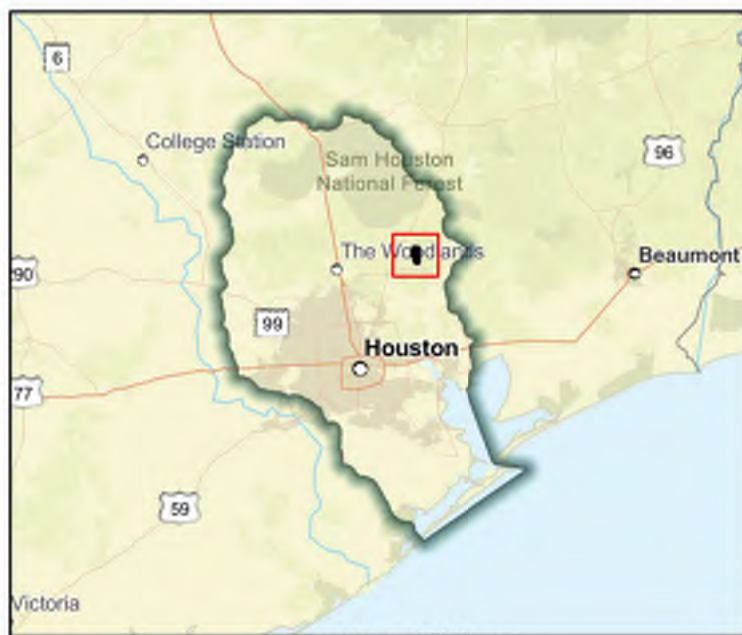
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Prairie View Master Drainage Plan**

ID# **061000277**

Sponsor (name of entity, not person) **Prairie View (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Waller**

Watershed HUC# (if known) **120401020101**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **44**

of structures **32**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **15**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

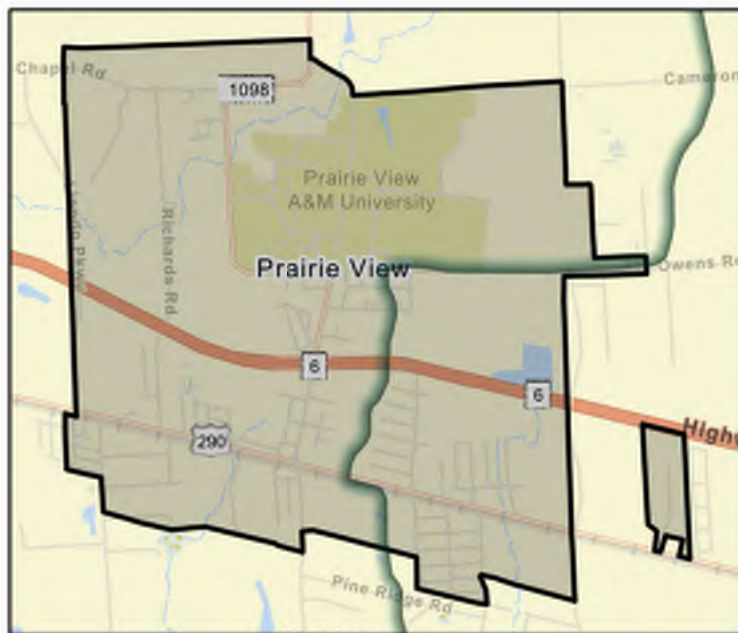
Estimated Cost and Funding Availability

Total Cost **\$290,000**

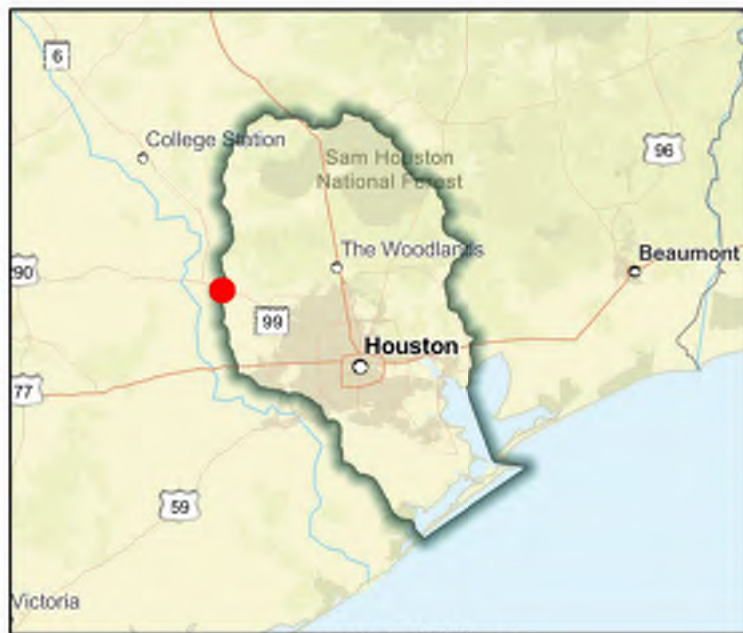
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Roman Forest Master Drainage Plan**

ID# **061000278**

Sponsor (name of entity, not person) **Roman Forest (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401030109,120401030402**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **253**

of structures **86**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

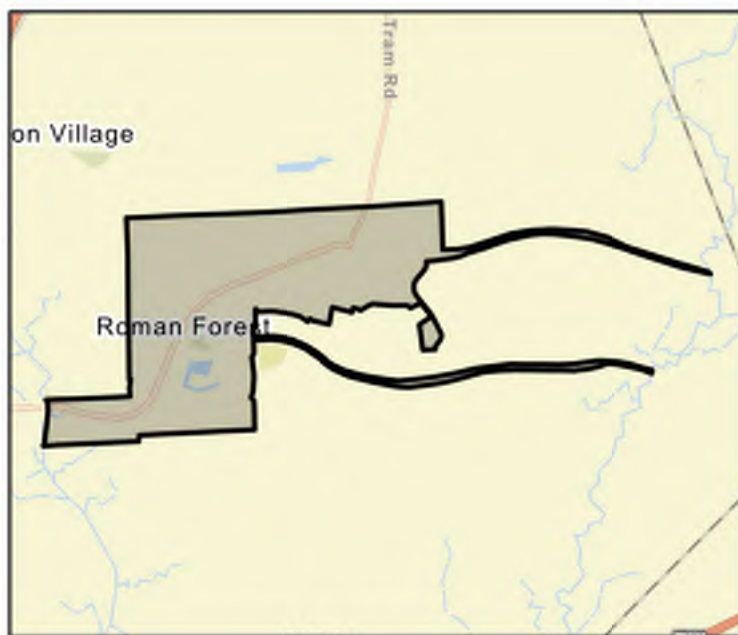
Estimated Cost and Funding Availability

Total Cost **\$190,000**

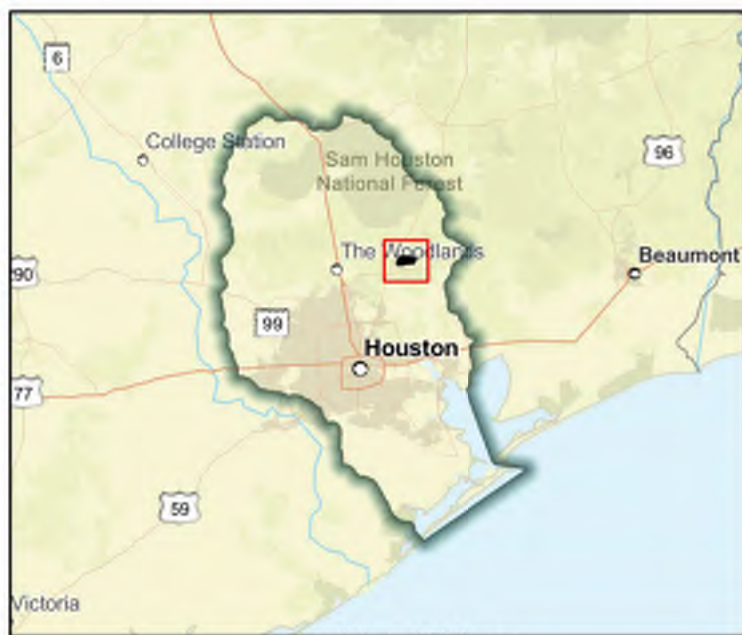
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Santa Fe Master Drainage Plan

ID# 061000279

Sponsor (name of entity, not person) Santa Fe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200

Drainage area (Square miles, est.) 17

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 748

of structures 399

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 12

Roadway(s) impacted (length) 4

Number of low water crossings 9

Historical road closures 9

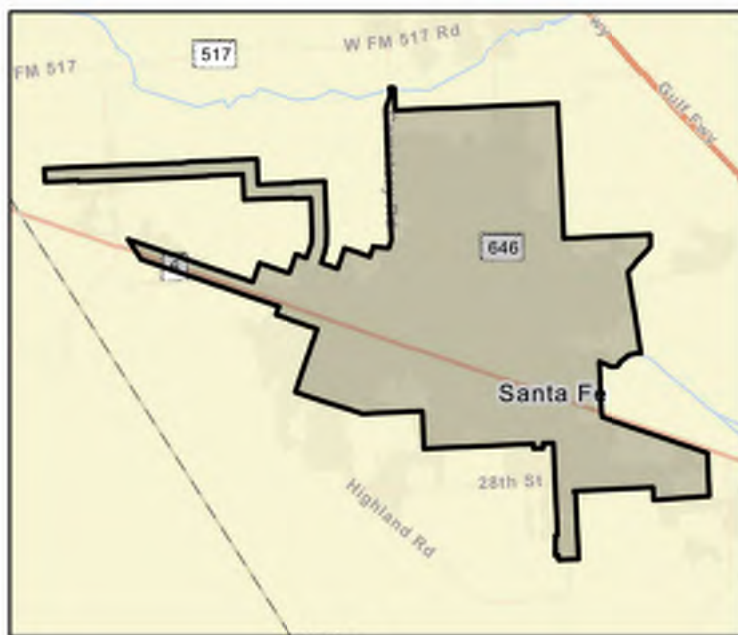
Estimated Cost and Funding Availability

Total Cost \$380,000

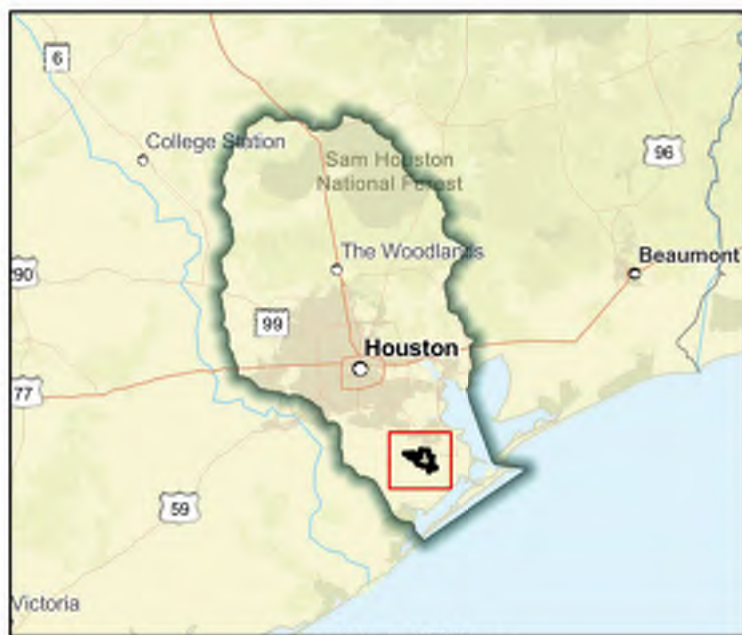
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Sante Fe - Storm Water Detention & Widening Drainage System and Cuvlerts Study**

ID# **061000094**

Sponsor (name of entity, not person) **Santa Fe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to plan for storm sewer detention and drainage system modifications.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200**

Drainage area (Square miles, est.) **17**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **748**

of structures **399**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **12**

Roadway(s) impacted (length) **4**

Number of low water crossings **9**

Historical road closures **9**

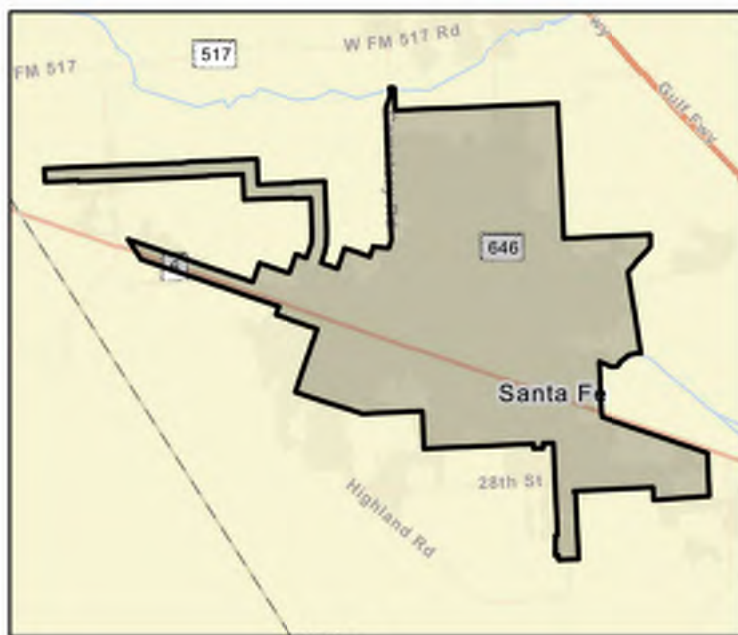
Estimated Cost and Funding Availability

Total Cost **\$300,000**

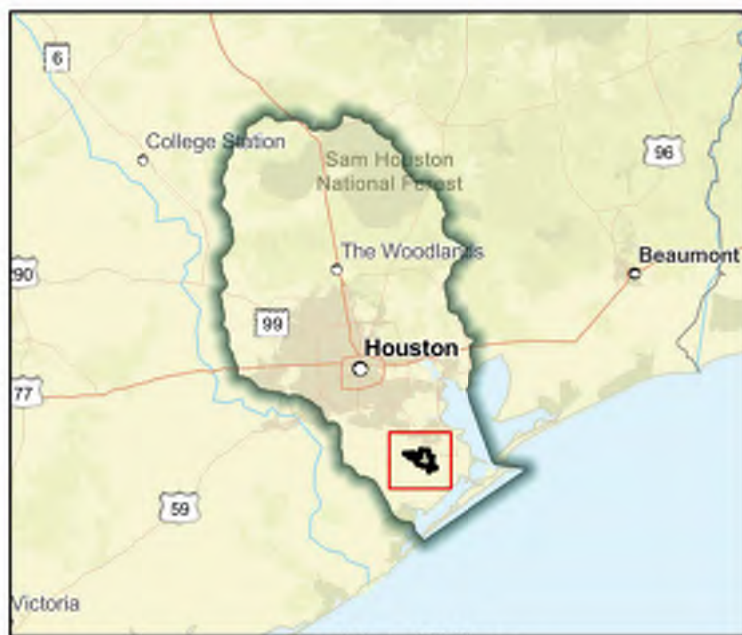
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Seabrook Master Drainage Plan**

ID# **061000280**

Sponsor (name of entity, not person) **Seabrook (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Chambers,Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **21**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **10,374**

of structures **3,567**

Critical facilities **58**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **11**

Roadway(s) impacted (length) **52**

Number of low water crossings **0**

Historical road closures **0**

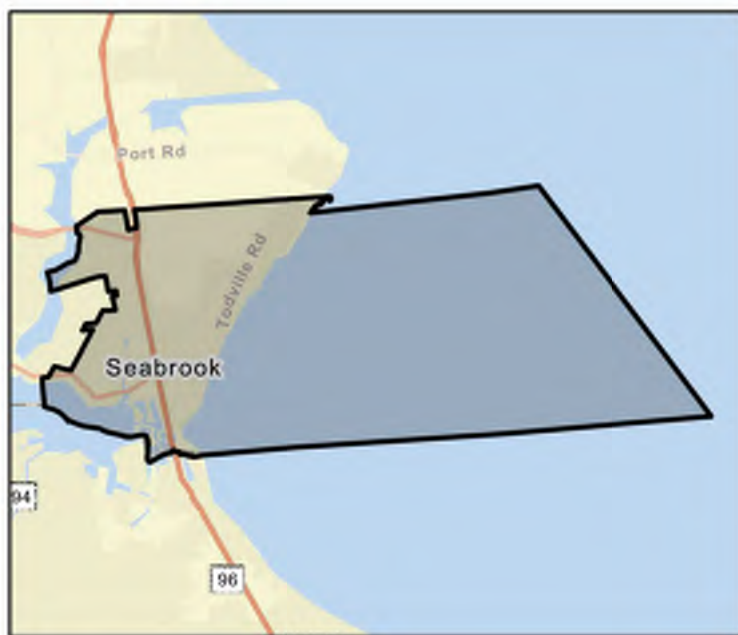
Estimated Cost and Funding Availability

Total Cost **\$420,000**

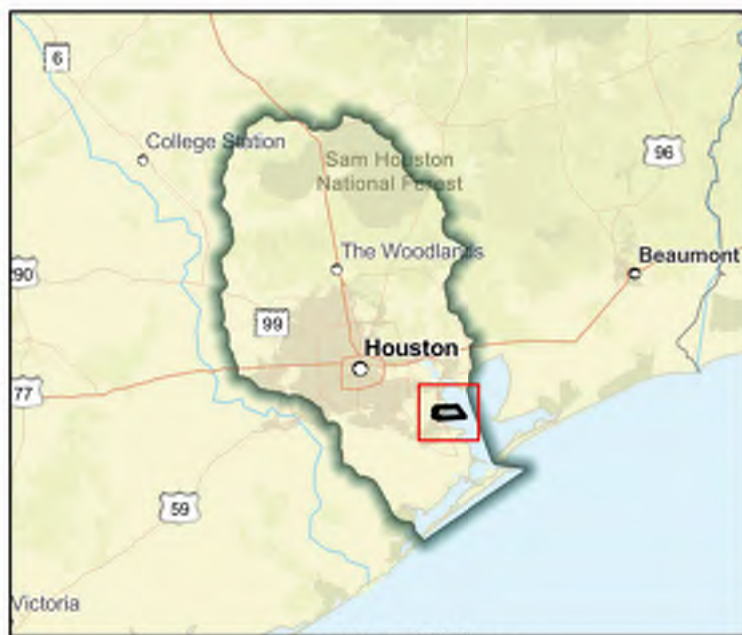
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Shenandoah Master Drainage Plan**

ID# **061000281**

Sponsor (name of entity, not person) **Shenandoah (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401010402,120401010404,120401020211,120401020212**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **45**

of structures **10**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

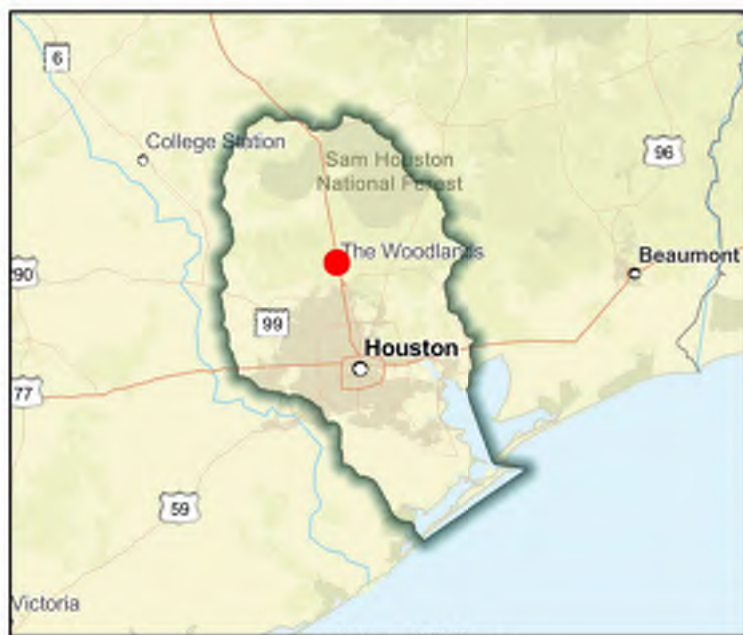
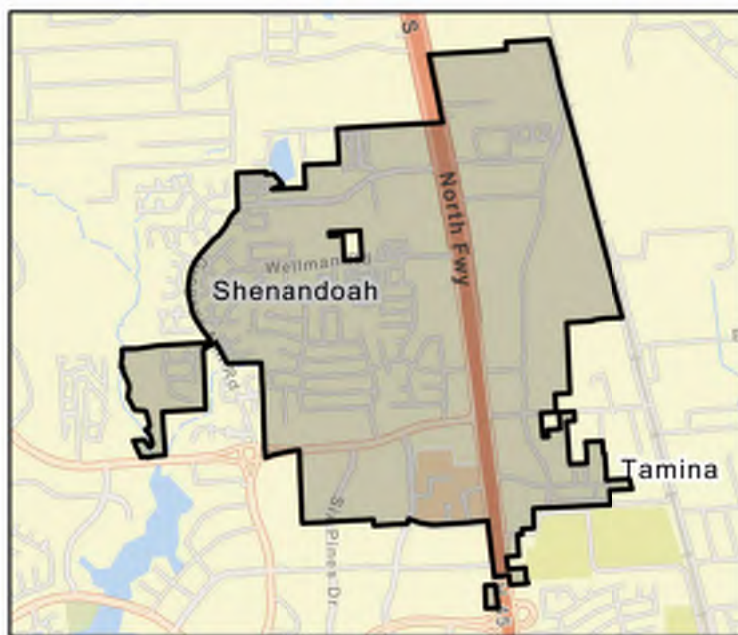
Estimated Cost and Funding Availability

Total Cost **\$190,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Shoreacres Master Drainage Plan**

ID# **061000282**

Sponsor (name of entity, not person) **Shoreacres (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Chambers,Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,148**

of structures **801**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **17**

Number of low water crossings **1**

Historical road closures **1**

Estimated Cost and Funding Availability

Total Cost **\$150,000**

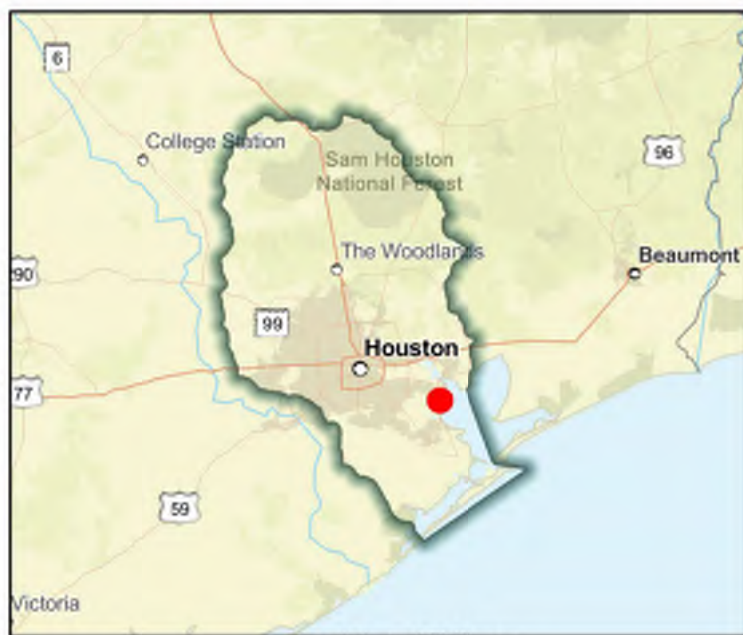
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of South Houston Master Drainage Plan

ID# 061000283

Sponsor (name of entity, not person) South Houston (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040703,120401040502

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,432

of structures 1,420

Critical facilities 22

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 19

Number of low water crossings 0

Historical road closures

0

Estimated Cost and Funding Availability

Total Cost \$210,000

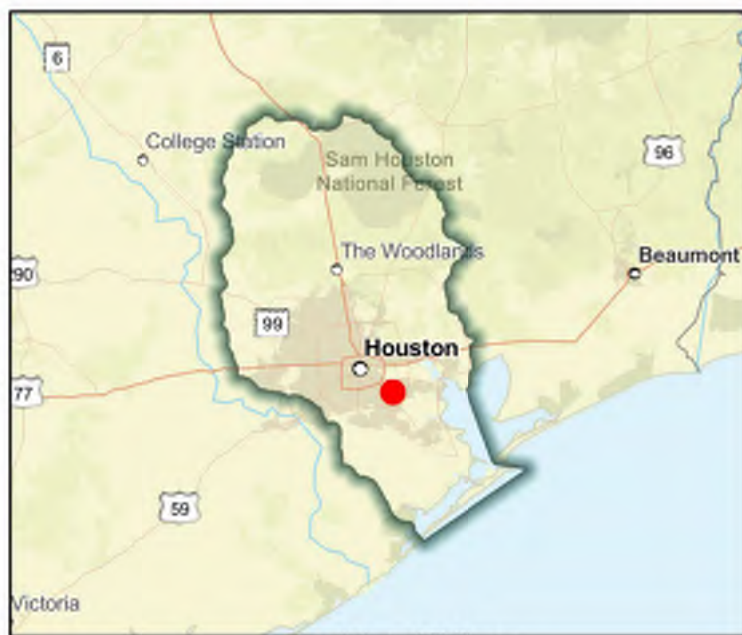
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Southside Place - Auden Street Drainage Improvement Project**

ID# **061000435**

Sponsor (name of entity, not person) **Southside Place (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **This project provides for design and construction of a new stormwater conveyance system for the City of Southside Place, that will have the capacity to convey a City standard storm event (2-year storm).**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040402**

Drainage area (Square miles, est.) **46**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **65,641**

of structures **8,850**

Critical facilities **143**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **9**

Roadway(s) impacted (length) **125**

Number of low water crossings **1**

Historical road closures **1**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Southside Place Master Drainage Plan**

ID# **061000284**

Sponsor (name of entity, not person) **Southside Place (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040402**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,468**

of structures **500**

Critical facilities **5**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

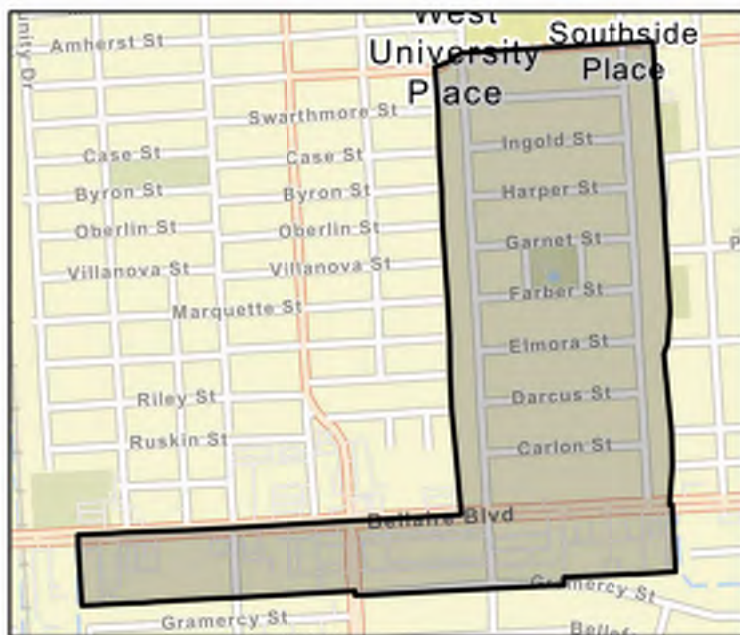
Estimated Cost and Funding Availability

Total Cost **\$110,000**

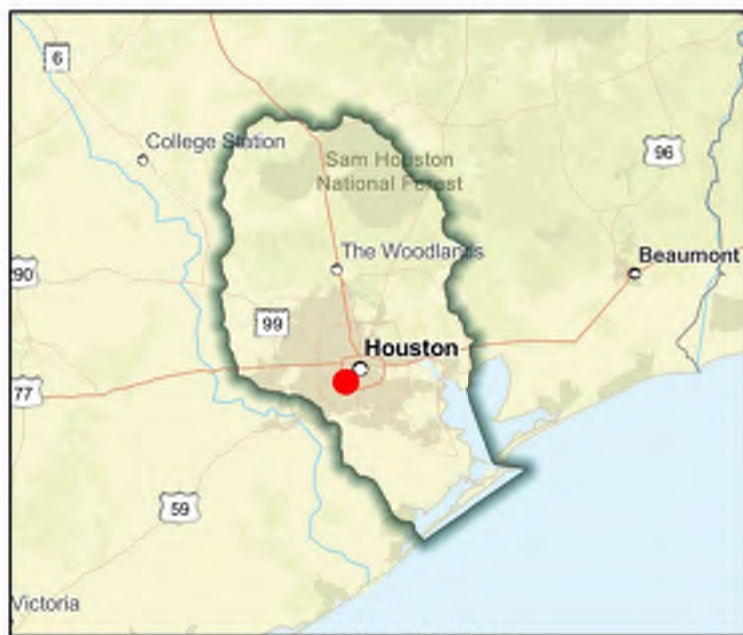
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Splendora Master Drainage Plan**

ID# **061000285**

Sponsor (name of entity, not person) **Splendora (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401030109,120401030402,120401030401**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **329**

of structures **231**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **8**

Number of low water crossings **0**

Historical road closures **0**

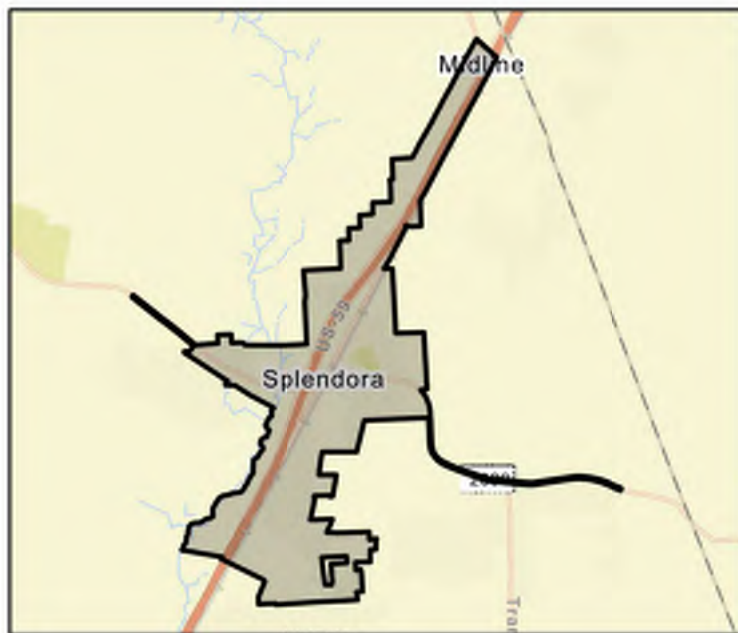
Estimated Cost and Funding Availability

Total Cost **\$210,000**

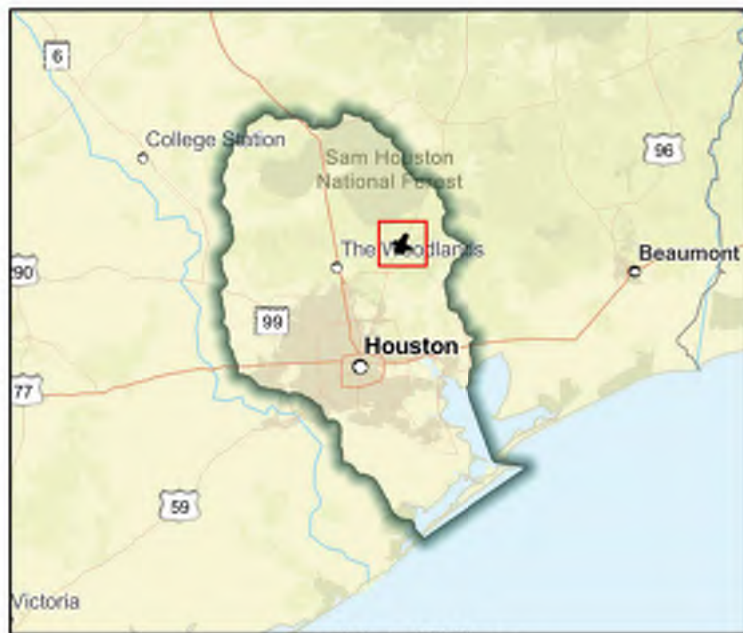
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Spring Valley Village Master Drainage Plan**

ID# **061000286**

Sponsor (name of entity, not person) **Spring Valley Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **69**

of structures **22**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

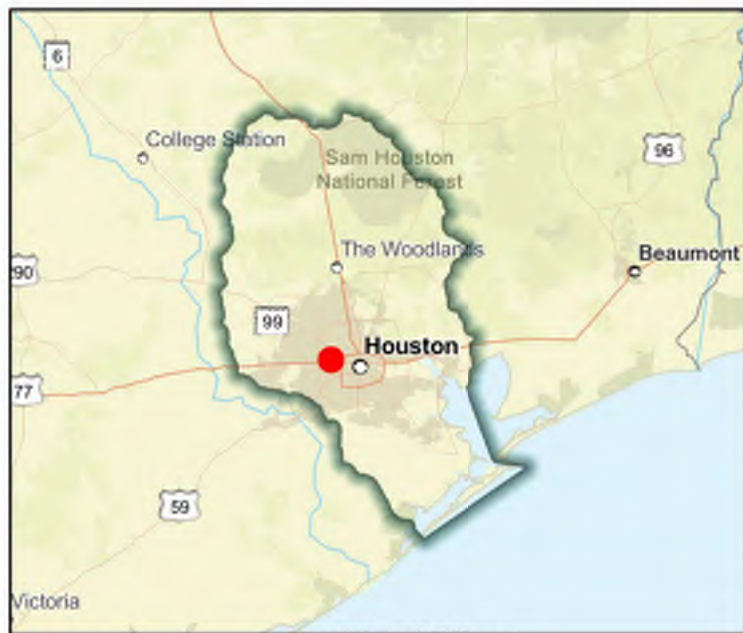
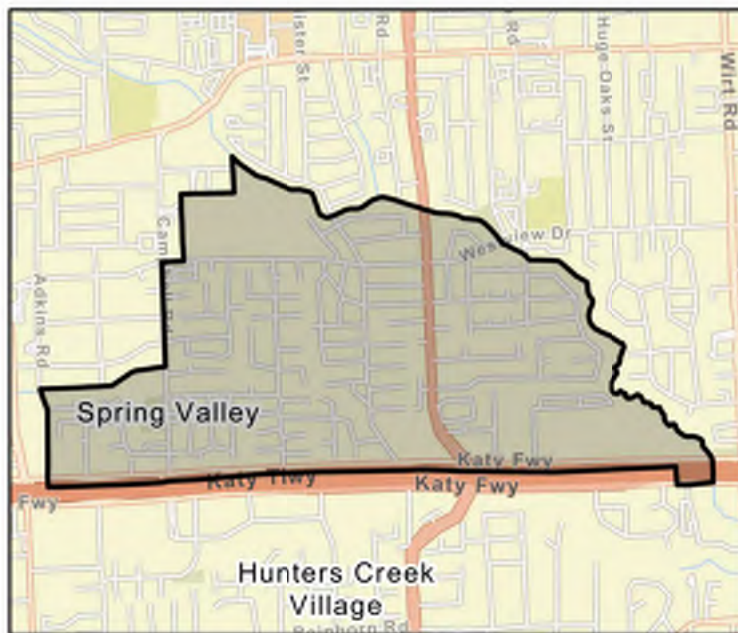
Estimated Cost and Funding Availability

Total Cost **\$160,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Stafford Drainage Improvements**

ID# **061000004**

Sponsor (name of entity, not person) **Stafford (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

Not located within Region 6.

Study Details

Study type **Project Planning**

Study description **Further study of proposed flood risk reduction project that includes drainage improvements to the Stafford Oaks neighborhood.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend**

Watershed HUC# (if known) **<Null>**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

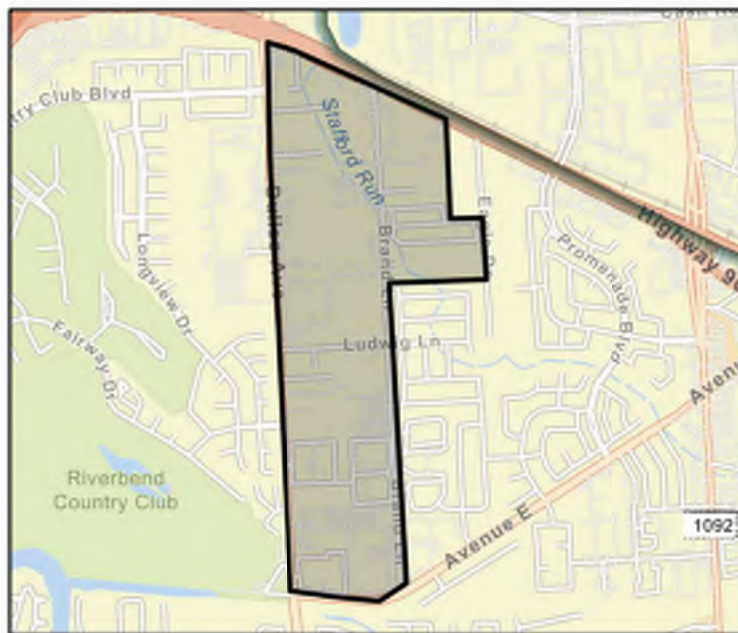
Estimated Cost and Funding Availability

Total Cost **\$300,000**

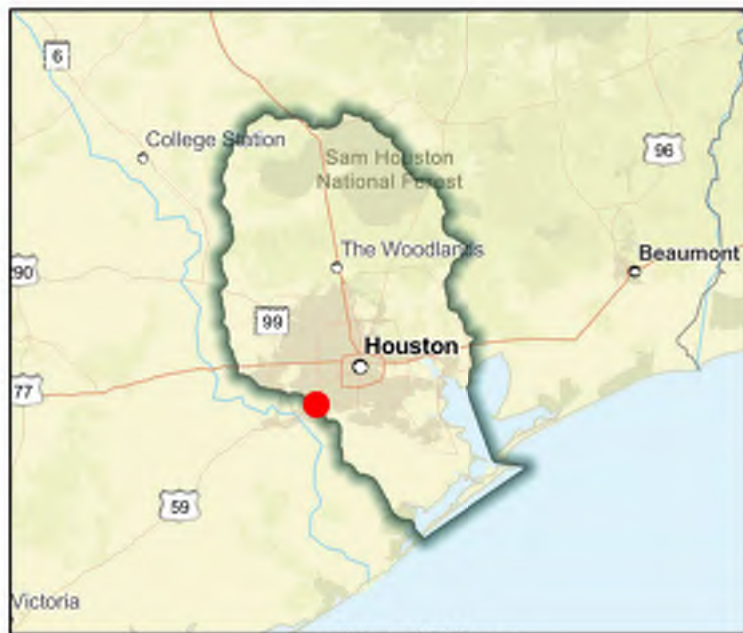
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Stafford Master Drainage Plan**

ID# **061000287**

Sponsor (name of entity, not person) **Stafford (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040401,120401040501,120402040400**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

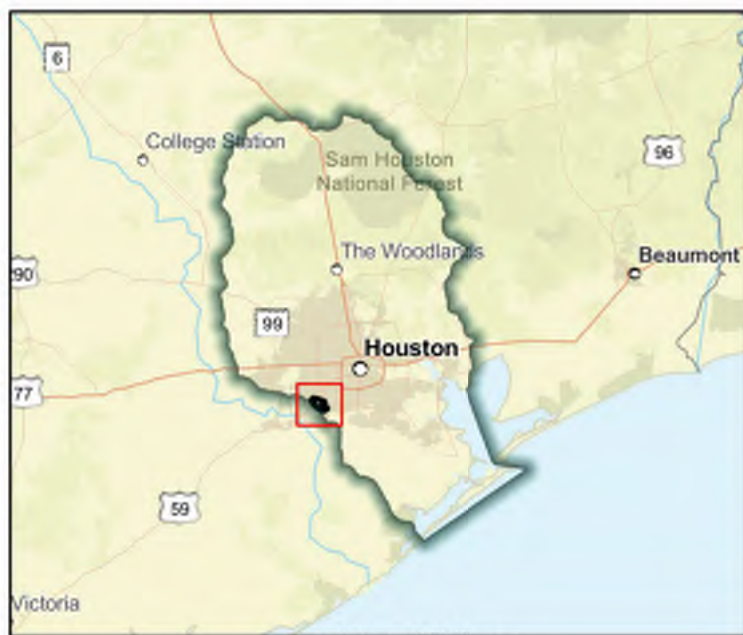
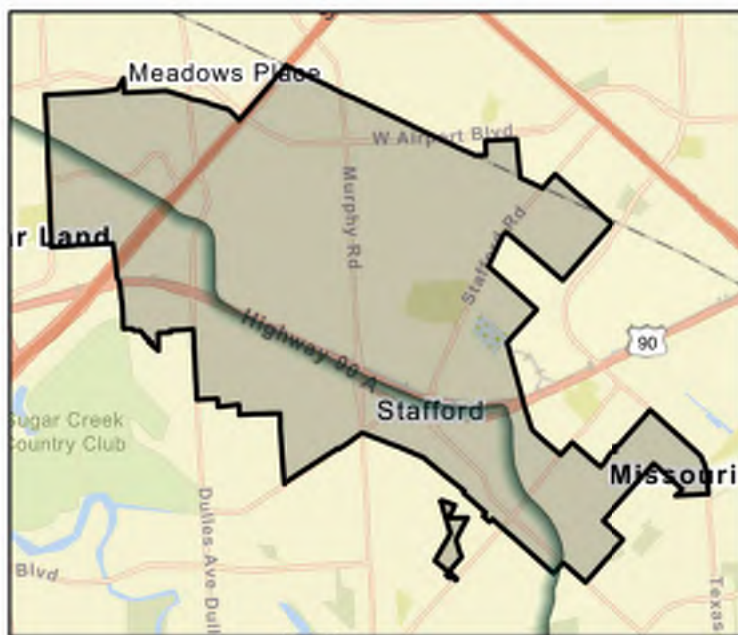
Estimated Cost and Funding Availability

Total Cost **\$280,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Stafford Run Creek Detention Pond Construction

ID# 061000166

Sponsor (name of entity, not person) Stafford (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed detention ponds immediately downstream of Brand Lane and Independence Park.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend,Harris

Watershed HUC# (if known) 120401040401,120401040501,120402040400

Drainage area (Square miles, est.) 7

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

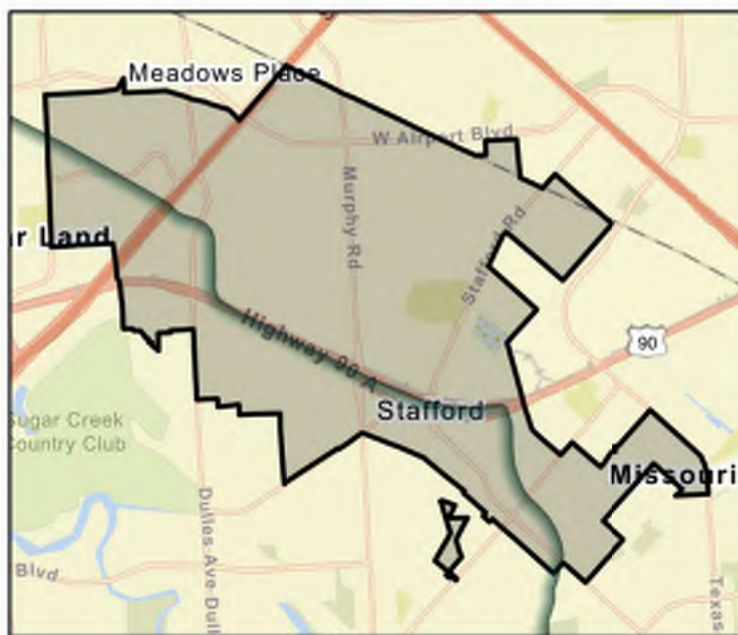
Estimated Cost and Funding Availability

Total Cost \$300,000

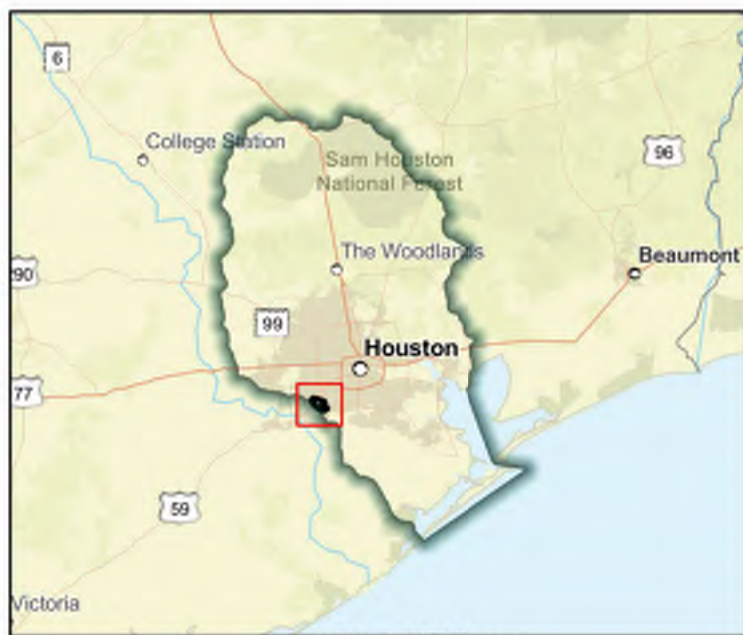
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Stagecoach Master Drainage Plan**

ID# **061000288**

Sponsor (name of entity, not person) **Stagecoach (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401020204,120401020208**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **27**

of structures **18**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

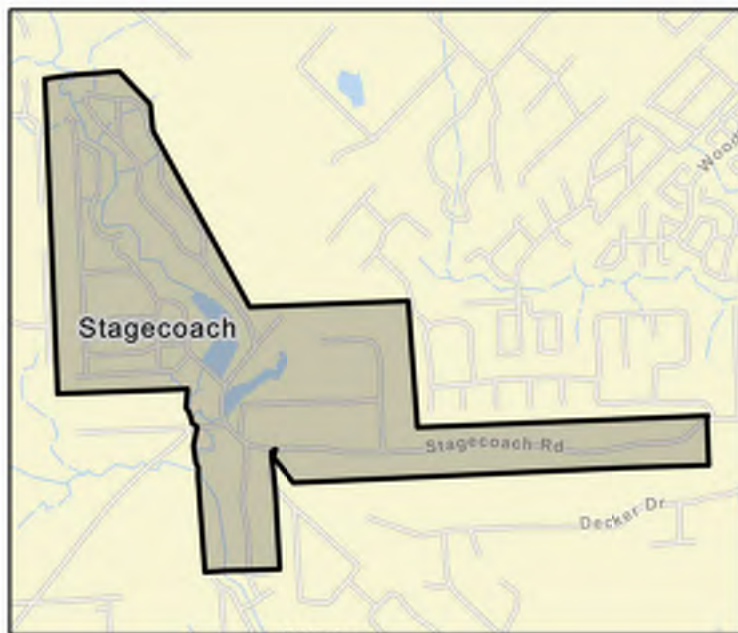
Estimated Cost and Funding Availability

Total Cost **\$160,000**

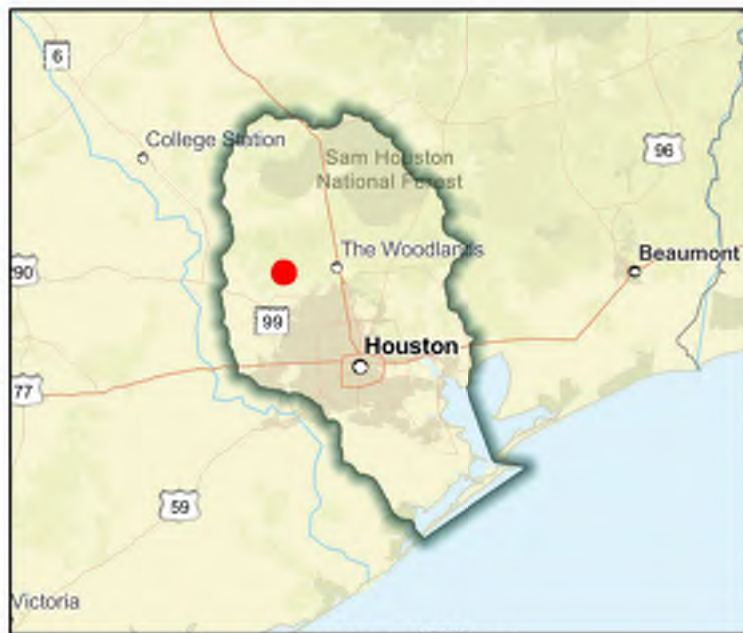
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Sugar Land Master Drainage Plan**

ID# **061000289**

Sponsor (name of entity, not person) **Sugar Land (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **43**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$540,000**

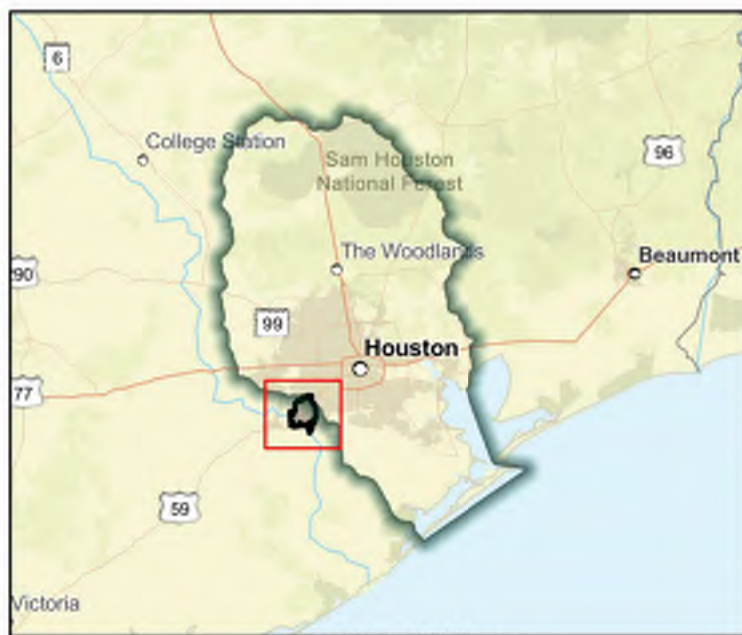
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Taylor Lake Village Master Drainage Plan**

ID# **061000290**

Sponsor (name of entity, not person) **Taylor Lake Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,955**

of structures **852**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **13**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$170,000**

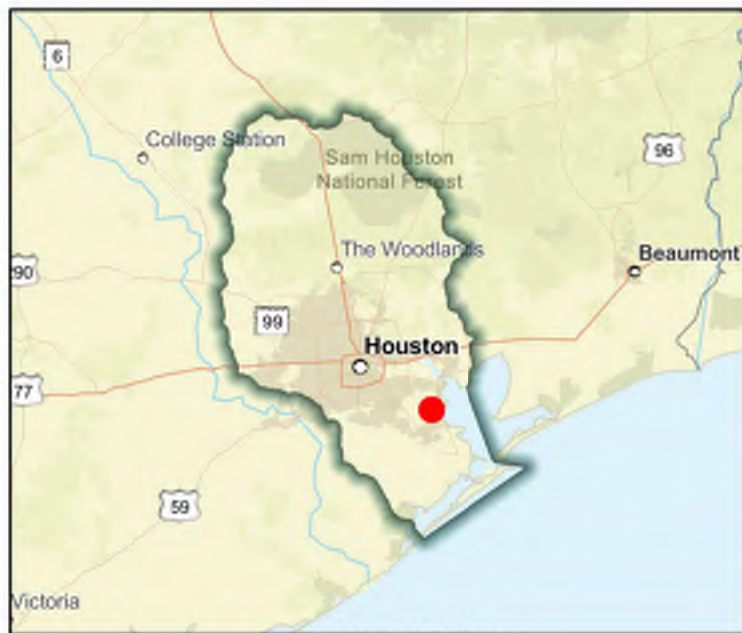
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Texas City Master Drainage Plan**

ID# **061000291**

Sponsor (name of entity, not person) **Texas City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston,Chambers**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **185**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,121**

of structures **1,284**

Critical facilities **16**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **570**

Roadway(s) impacted (length) **46**

Number of low water crossings **3**

Historical road closures **3**

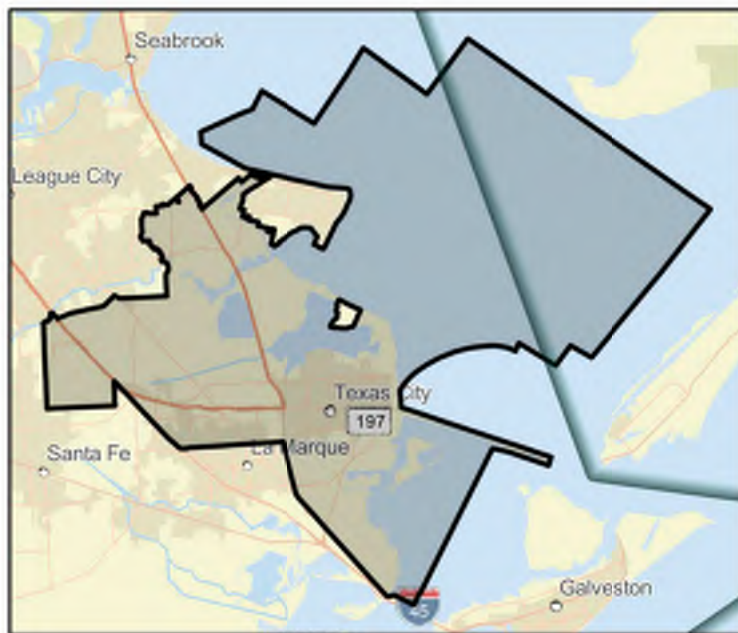
Estimated Cost and Funding Availability

Total Cost **\$950,000**

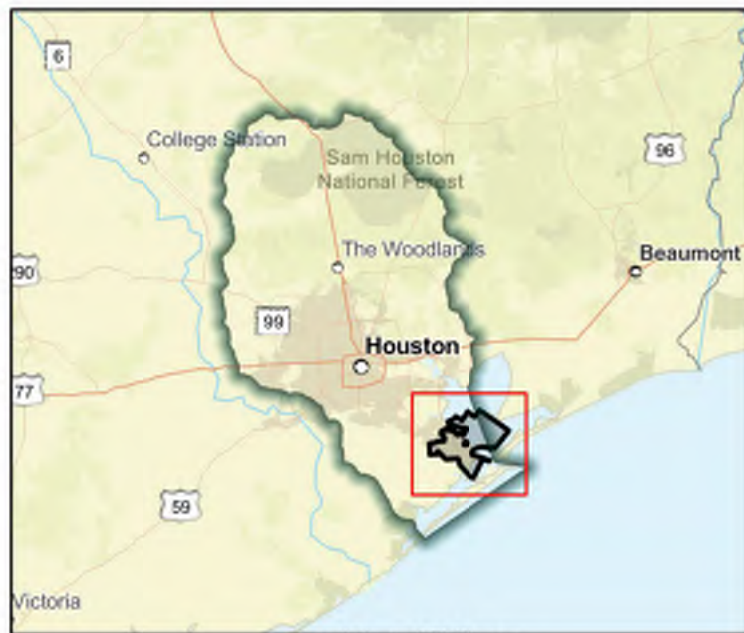
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Tiki Island Master Drainage Plan**

ID# **061000292**

Sponsor (name of entity, not person) **Tiki Island (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,681**

of structures **1,006**

Critical facilities **6**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **10**

Number of low water crossings **0**

Historical road closures **0**

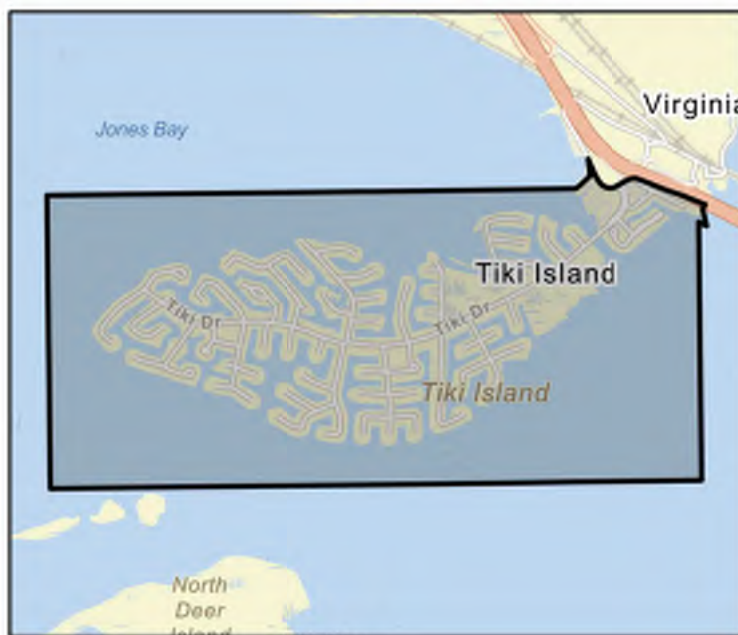
Estimated Cost and Funding Availability

Total Cost **\$180,000**

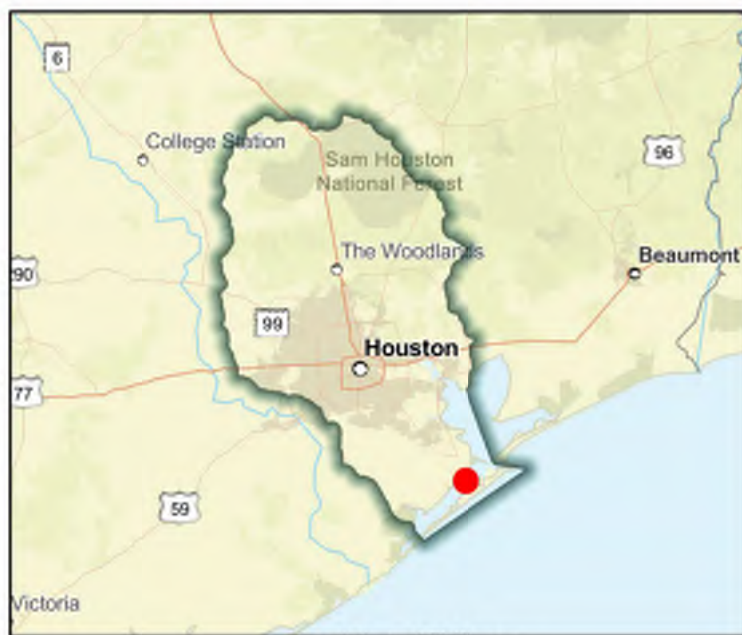
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Todd Mission Master Drainage Plan**

ID# **061000293**

Sponsor (name of entity, not person) **Todd Mission (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Grimes**

Watershed HUC# (if known) **120401020203,120401020206**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **16**

of structures **17**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

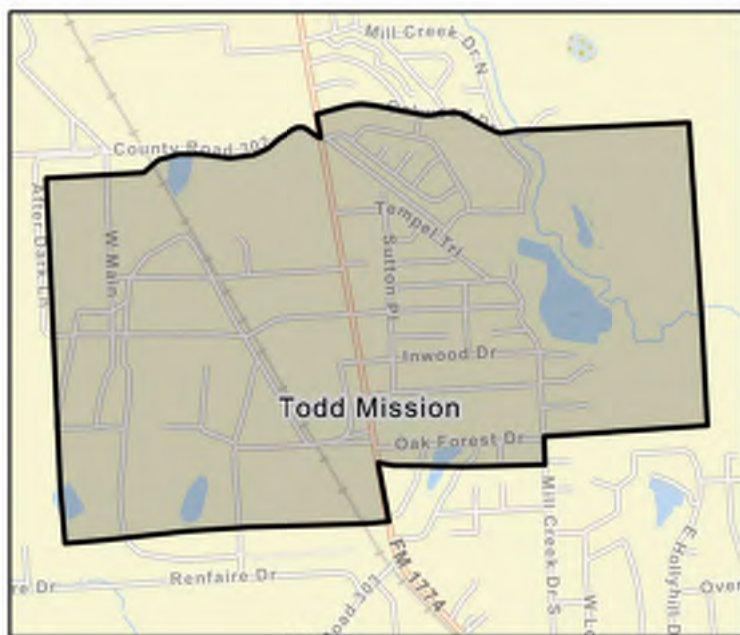
Estimated Cost and Funding Availability

Total Cost **\$190,000**

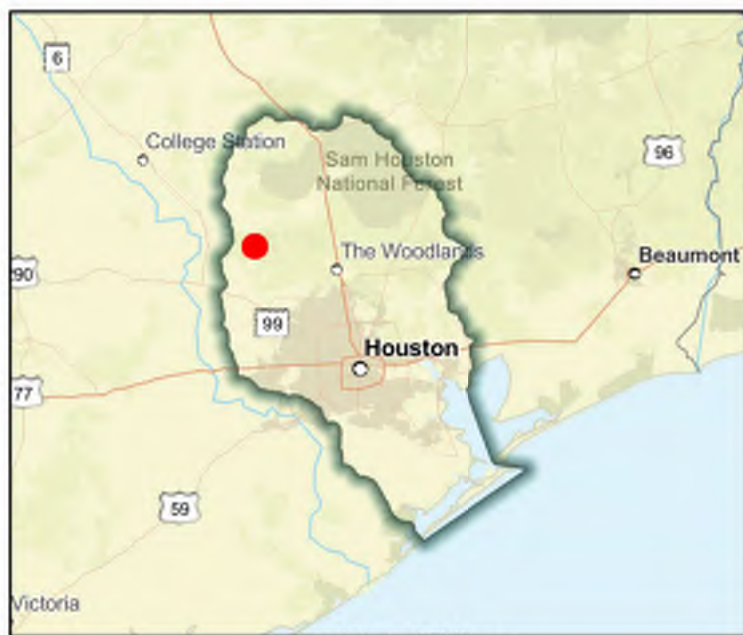
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Todd Mission Reduction of Floodplain Area Roads and Drainage Upgrade**

ID# **061000143**

Sponsor (name of entity, not person) **Todd Mission (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Analysis of potential upgrades to be made to floodplain-area roads and drainage to reduce flood risk.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Grimes**

Watershed HUC# (if known) **120401020203,120401020206**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **16**

of structures **17**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

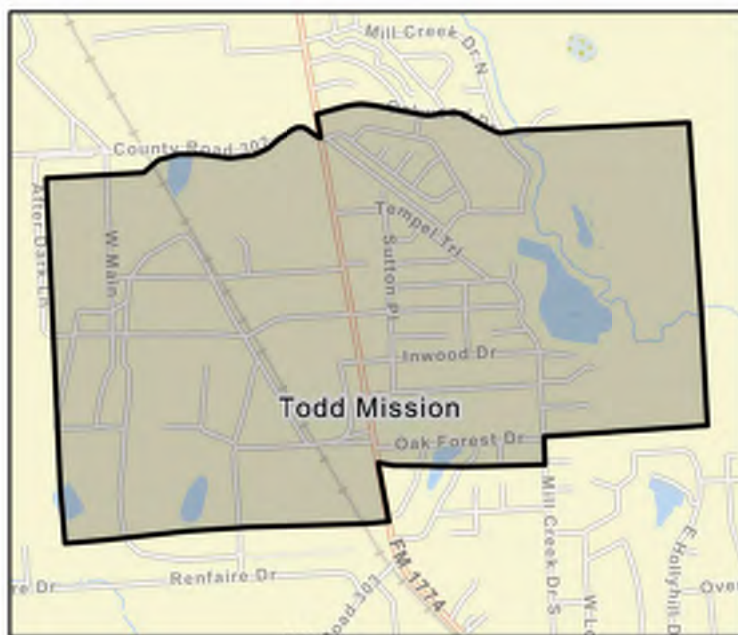
Estimated Cost and Funding Availability

Total Cost **\$220,000**

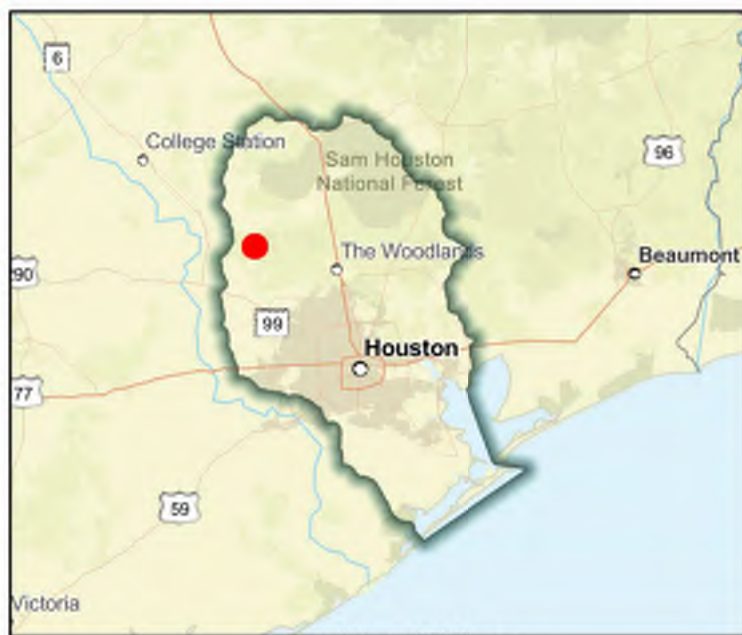
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Tomball Drainage Improvements**

ID# **061000373**

Sponsor (name of entity, not person) **Tomball (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to the the drainage project for the City of Tomball is comprised of building storm sewer systems and channel conveyance to enable flood waters to be removed from portions of the city bounded by Holderrieth Road, SH 249, UPRR, and FM 2920.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris, Montgomery**

Watershed HUC# (if known) **120401020106, 120401020205, 120401020210, 120401020209**

Drainage area (Square miles, est.) **13**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **457**

of structures **47**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

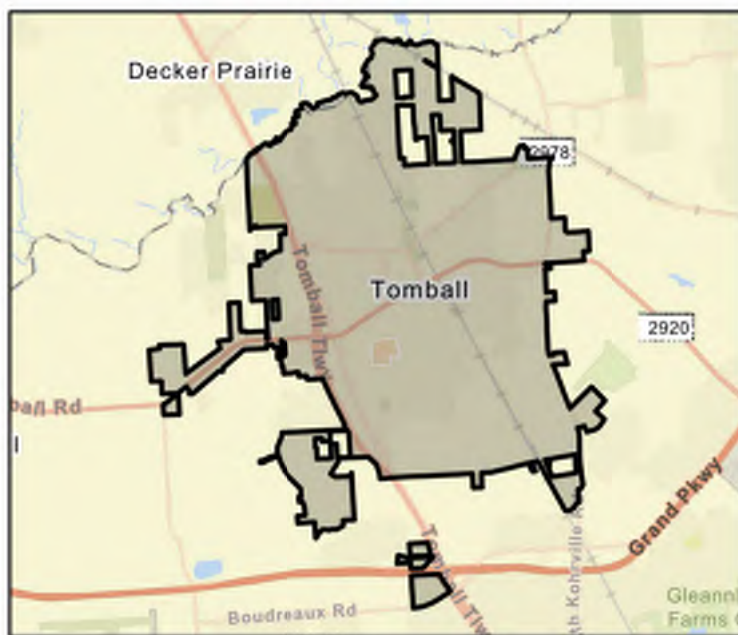
Estimated Cost and Funding Availability

Total Cost **\$30,000**

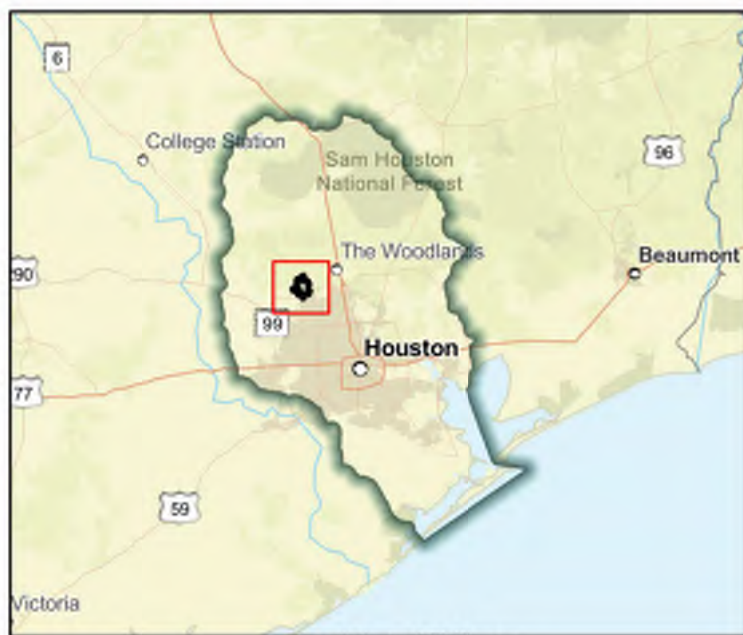
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Tomball Master Drainage Plan**

ID# **061000294**

Sponsor (name of entity, not person) **Tomball (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris, Montgomery**

Watershed HUC# (if known) **120401020106, 120401020205, 120401020210, 120401020209**

Drainage area (Square miles, est.) **13**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **457**

of structures **47**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

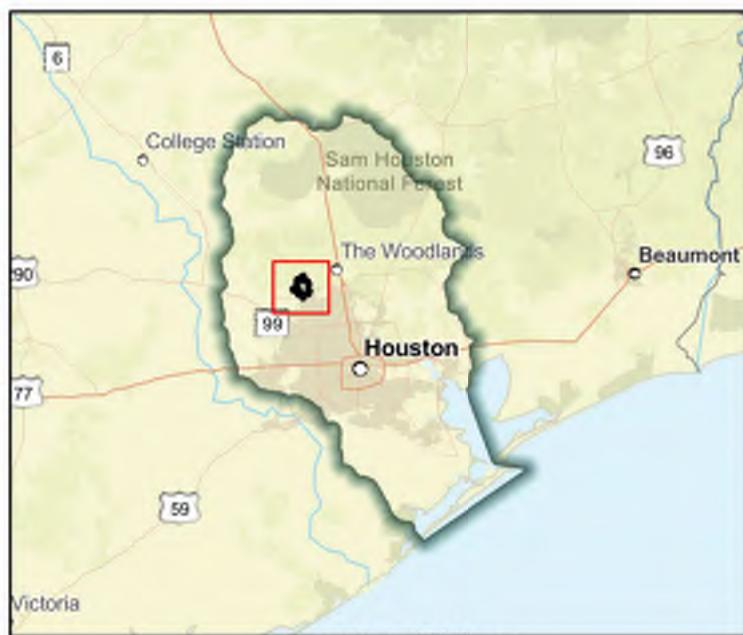
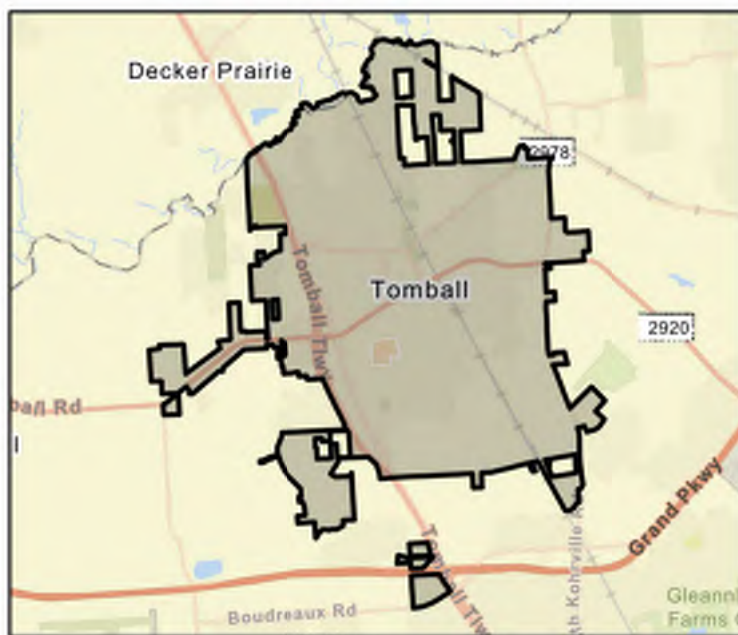
Estimated Cost and Funding Availability

Total Cost **\$350,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Waller Master Drainage Plan**

ID# **061000295**

Sponsor (name of entity, not person) **Waller (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris,Waller**

Watershed HUC# (if known) **120401020101,120401020105,120401020201**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **578**

of structures **148**

Critical facilities **4**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **48**

Roadway(s) impacted (length) **5**

Number of low water crossings **7**

Historical road closures **7**

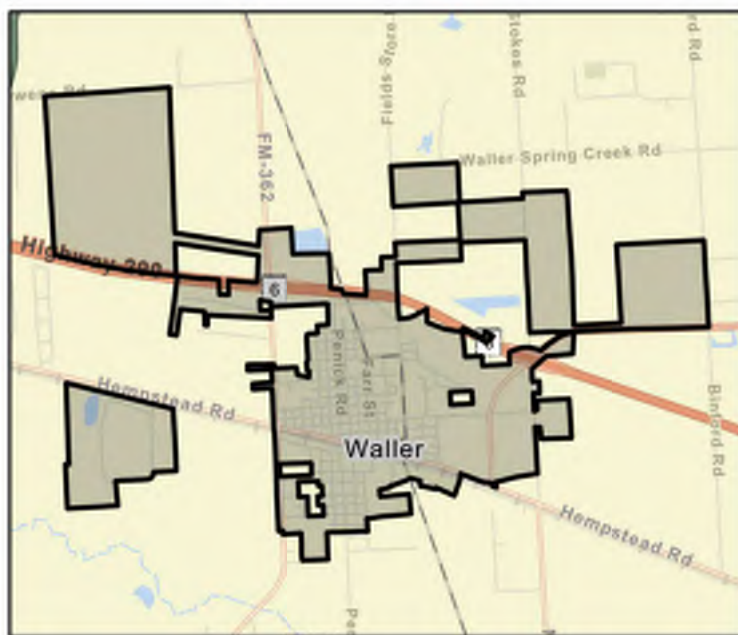
Estimated Cost and Funding Availability

Total Cost **\$100,000**

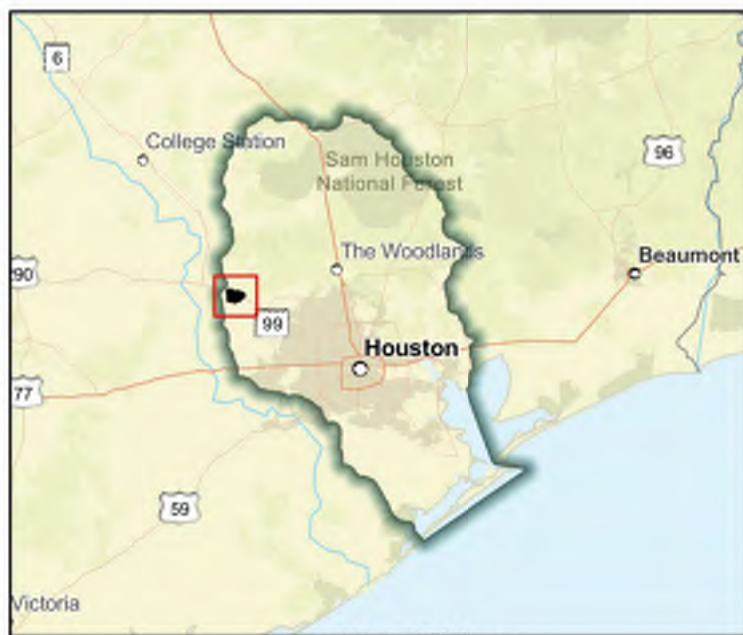
Amount of Available Funding **0**

Federal funding availability **Yes**

Funding source **General Revenue**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title City of Webster Master Drainage Plan

ID# 061000296

Sponsor (name of entity, not person) Webster (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 7

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,940

of structures 209

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 19

Roadway(s) impacted (length) 8

Number of low water crossings 1

Historical road closures 1

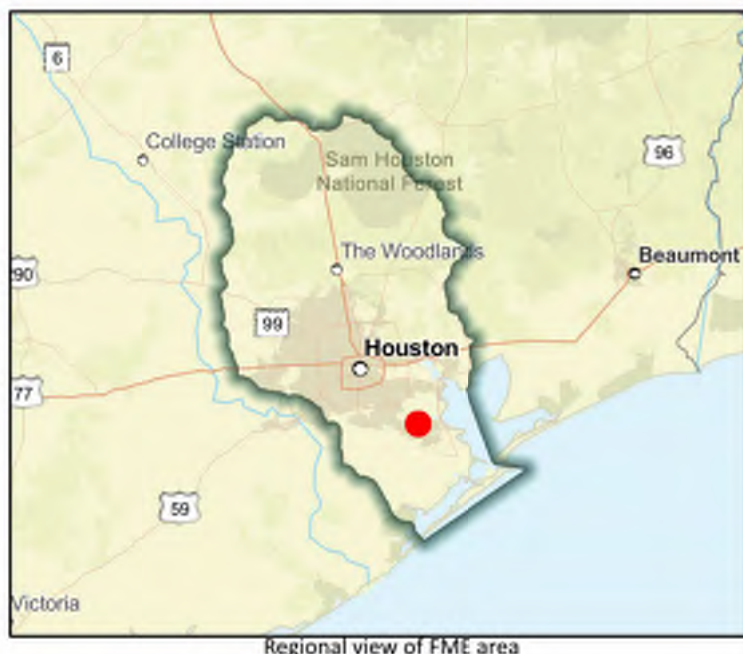
Estimated Cost and Funding Availability

Total Cost \$280,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of West University Place Master Drainage Plan**

ID# **061000297**

Sponsor (name of entity, not person) **West University Place (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop refine Master Drainage Plan and Projects using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040402**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,931**

of structures **939**

Critical facilities **6**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **12**

Number of low water crossings **0**

Historical road closures **0**

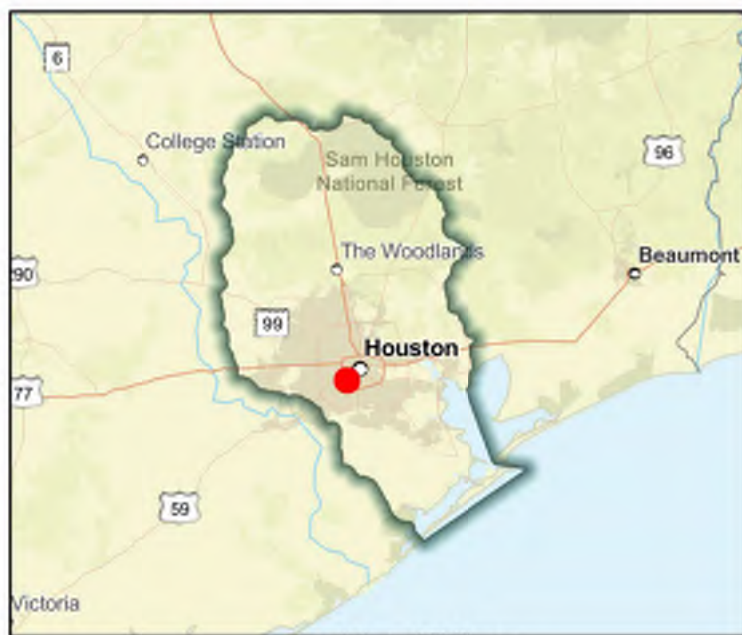
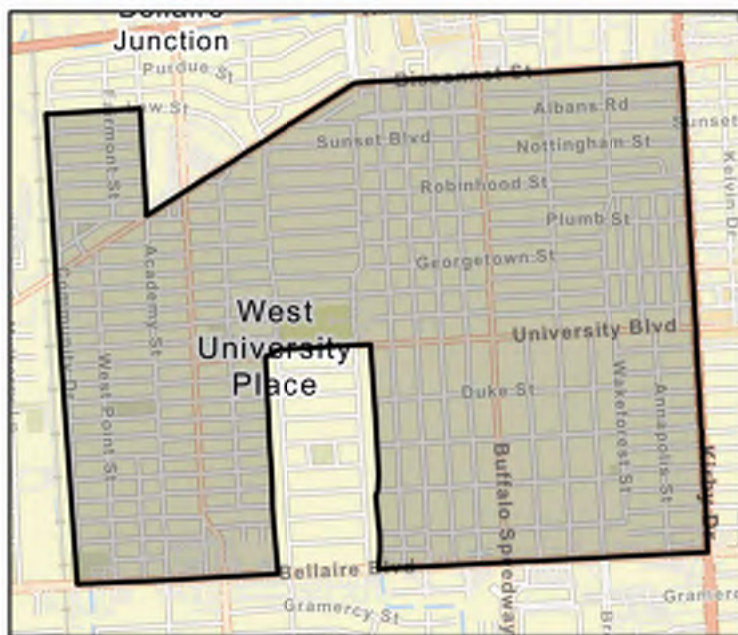
Estimated Cost and Funding Availability

Total Cost **\$190,000**

Amount of Available Funding **38000**

Federal funding availability **Yes**

Funding source **Internal CIP Dollars**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title City of Willis Master Drainage Plan

ID# 061000298

Sponsor (name of entity, not person) Willis (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401010403,120401010401,120401010204,120401010205,120401030

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 342

of structures 61

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

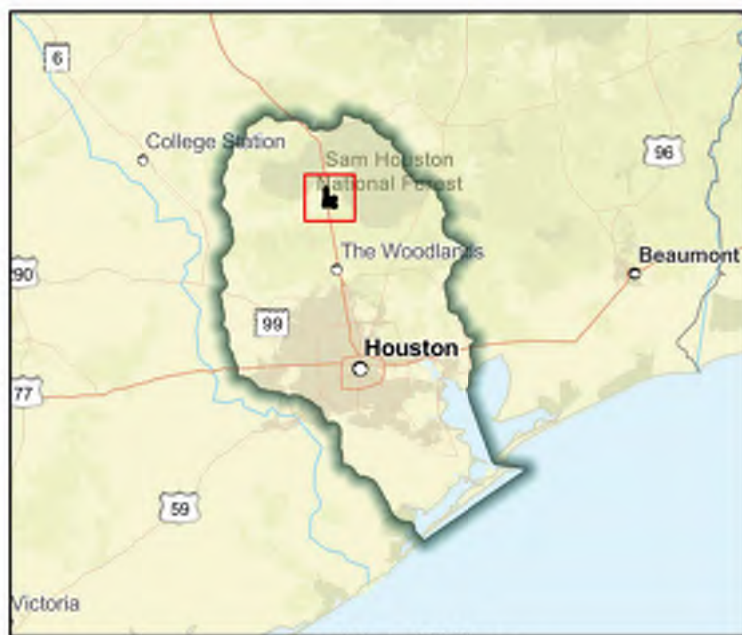
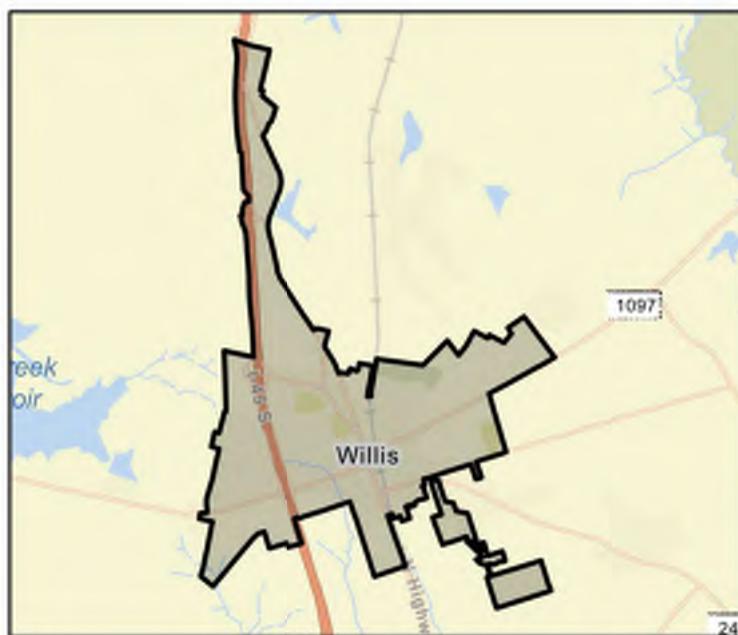
Estimated Cost and Funding Availability

Total Cost \$250,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **City of Woodbranch Master Drainage Plan**

ID# **061000299**

Sponsor (name of entity, not person) **Woodbranch Village (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401030105,120401030109**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **398**

of structures **197**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

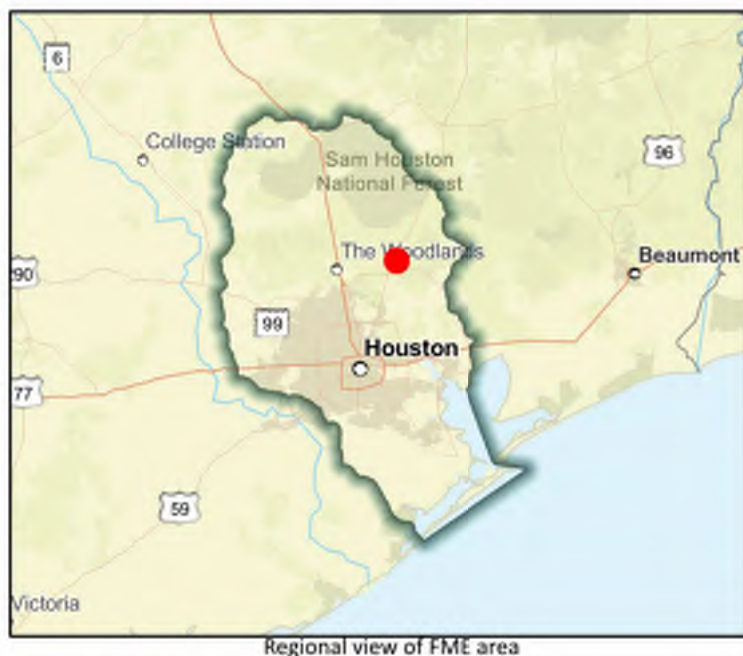
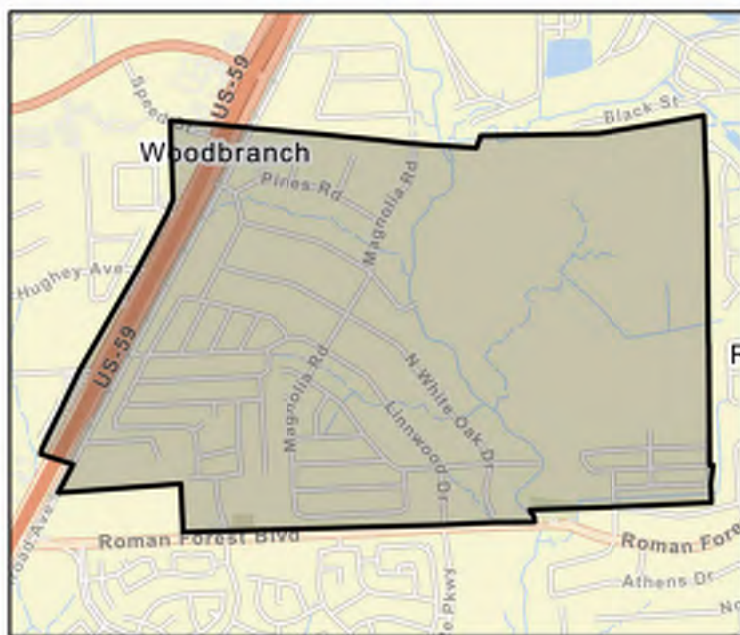
Estimated Cost and Funding Availability

Total Cost **\$190,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Clear Creek - Friendswood Detention Basin Near FM 528 in Friendswood**

ID# **061000420**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. ROW acquisition, design, and construction of 39 ac stormwater detention basin holding 500 ac-ft near FM 528; Additional solutions include buyouts, improving channel conveyance, and tributary detention.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria, Galveston, Harris**

Watershed HUC# (if known) **120402040200, 120402040100**

Drainage area (Square miles, est.) **102**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **43,960**

of structures **14,912**

Critical facilities **153**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **162**

Roadway(s) impacted (length) **264**

Number of low water crossings **9**

Historical road closures **9**

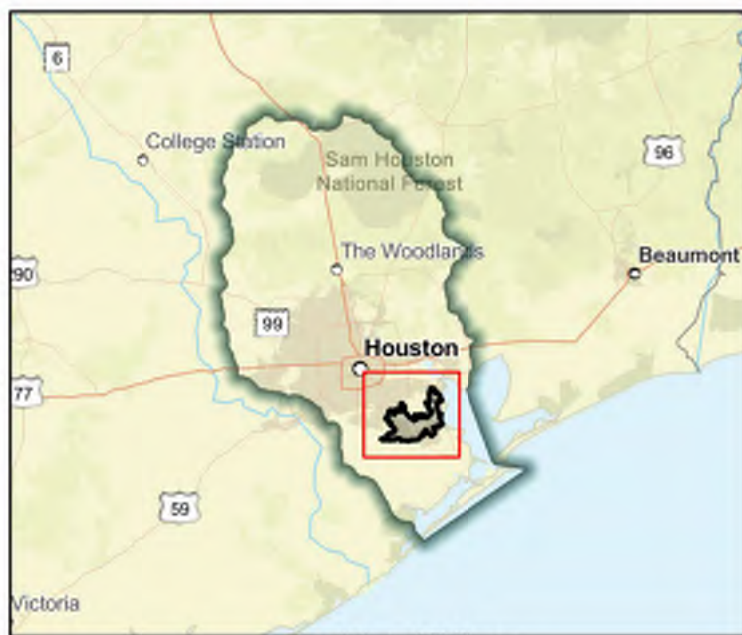
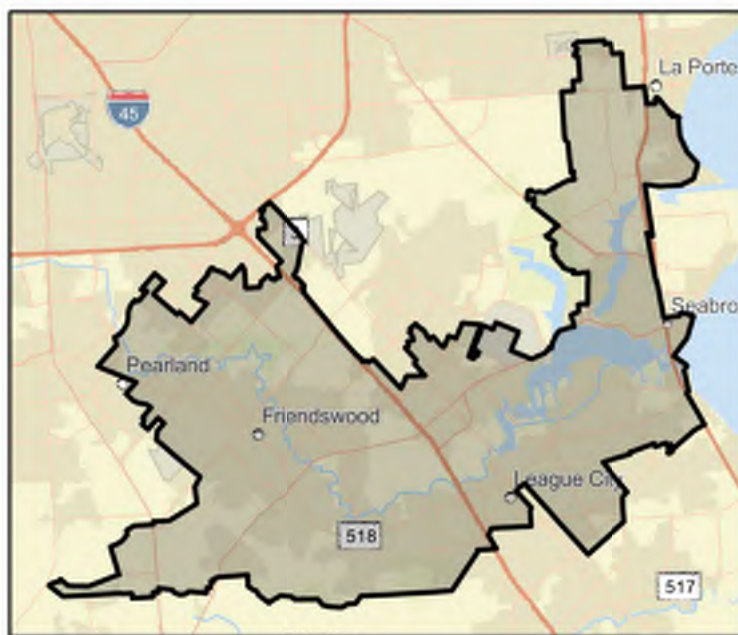
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Clear Creek - Hughes Stormwater Detention (SWD) Basin

ID# 061000421

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become a FMP. Project identified in Clear Creek Federal Project study for flood management but did not yield high enough cost benefit ratio for Federal funding. Therefore, Harris and Galveston County have decided to fund this effort.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria, Galveston, Fort Bend, Harris

Watershed HUC# (if known) 120401040502, 120401040501, 120402040200, 120402040400, 120402040

Drainage area (Square miles, est.) 200

Goal(s) 06000001, 06000011, 06000012, 06000015

100-Year Flood Risk Summary

Population at risk 75,345

of structures 27,153

Critical facilities 231

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 533

Roadway(s) impacted (length) 458

Number of low water crossings 12

Historical road closures

12

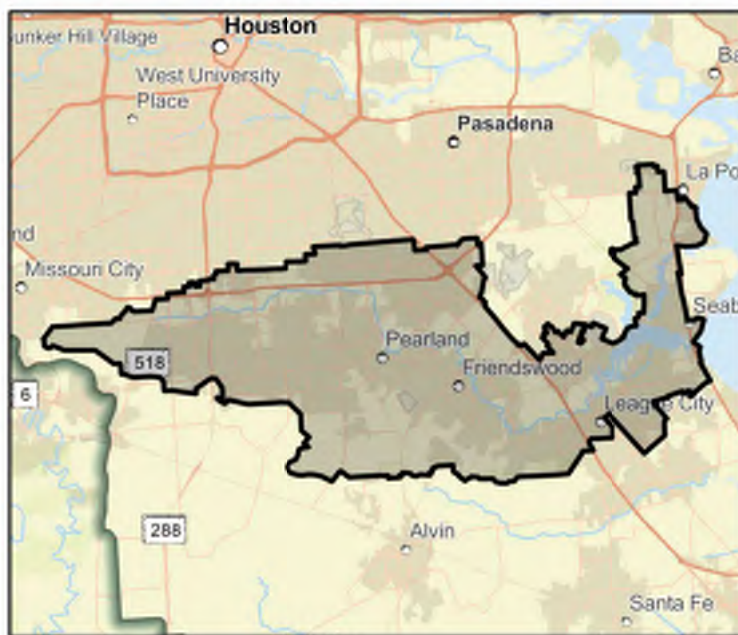
Estimated Cost and Funding Availability

Total Cost \$30,000

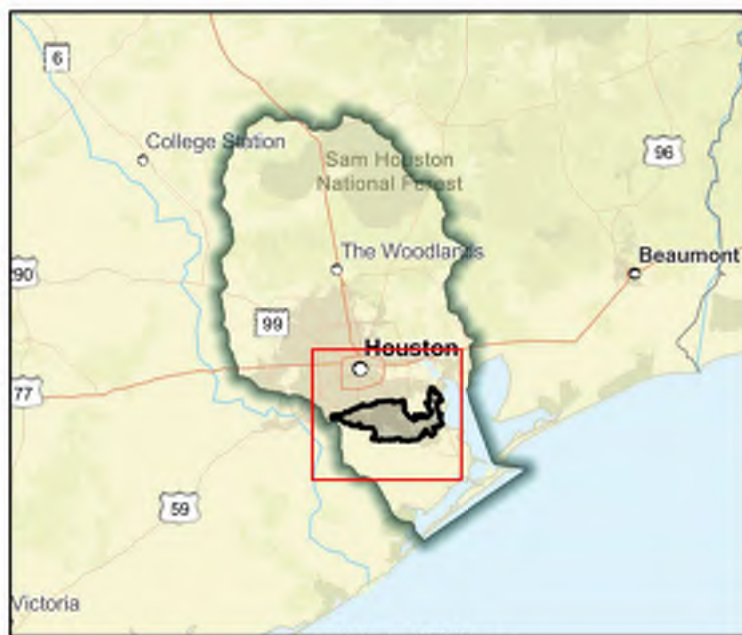
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Clear Creek - Neighborhood Future Floodplain Analysis

ID# 061000508

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Clear Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Fort Bend, Brazoria, Galveston

Watershed HUC# (if known) 120401040501, 120401040502, 120401040703, 120402030100,

Drainage area (Square miles, est.) 201

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 75,345

of structures 27,153

Critical facilities 231

Flood risk type: Riverine? Yes

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 533

Roadway(s) impacted (length) 458

Number of low water crossings 12

Historical road closures

12

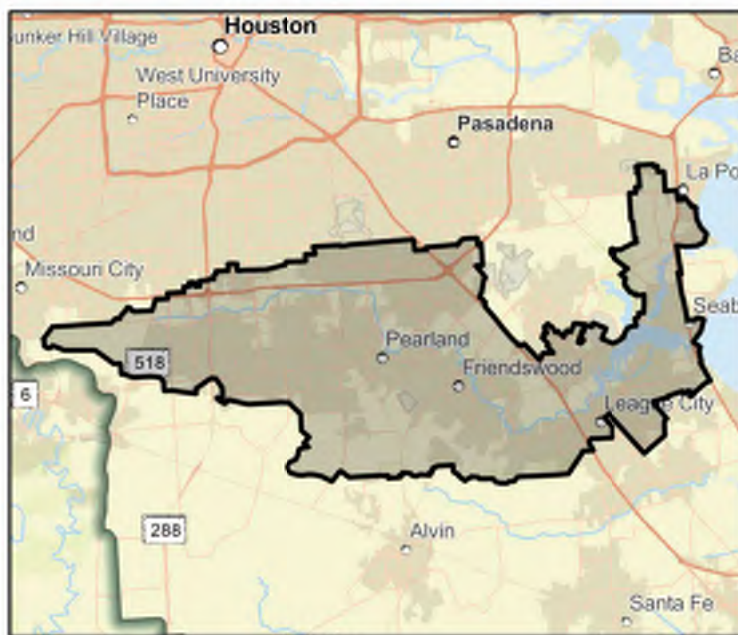
Estimated Cost and Funding Availability

Total Cost \$75,232,832

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Clear Creek - Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity**

ID# **061000425**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Major maintenance to restore channel conveyance capacity.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Galveston,Harris**

Watershed HUC# (if known) **120401040502,120401040501,120402040200,120402040400,120402040**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,153**

of structures **424**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **9**

Number of low water crossings **0**

Historical road closures **0**

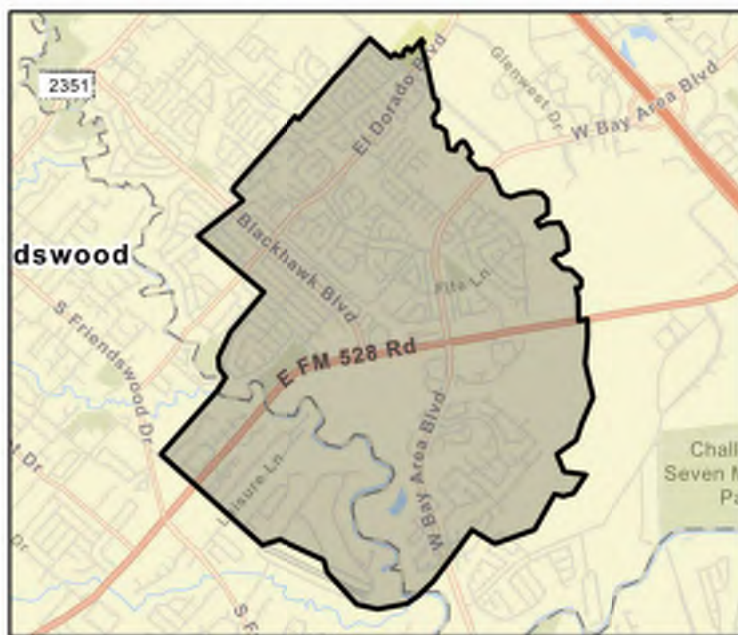
Estimated Cost and Funding Availability

Total Cost **\$30,000**

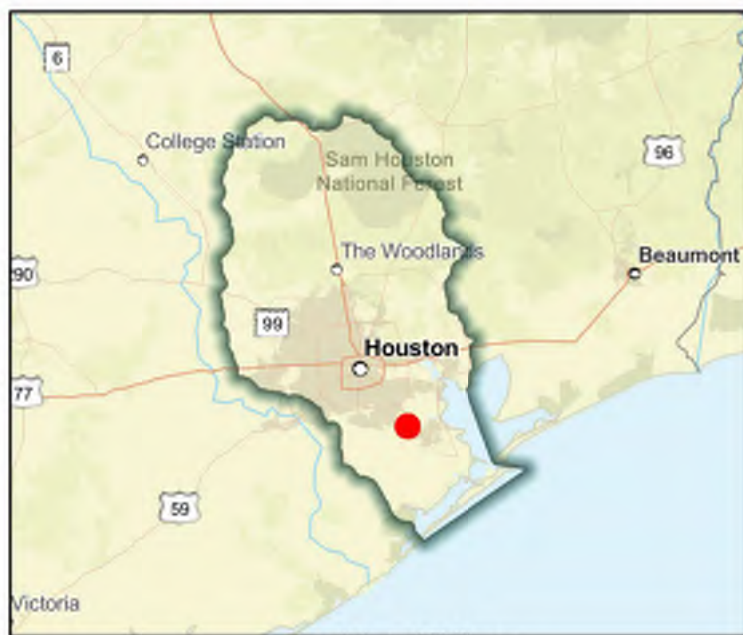
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Clear Creek Local Drainage Study**

ID# **061000520**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Clear Creek watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend, Brazoria, Galveston**

Watershed HUC# (if known)

120401040501,120401040502,120401040703,120402040100,120402040

Drainage area (Square miles, est.) **201**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **75,345**

of structures **27,153**

Critical facilities **231**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **533**

Roadway(s) impacted (length) **458**

Number of low water crossings **12**

Historical road closures

12

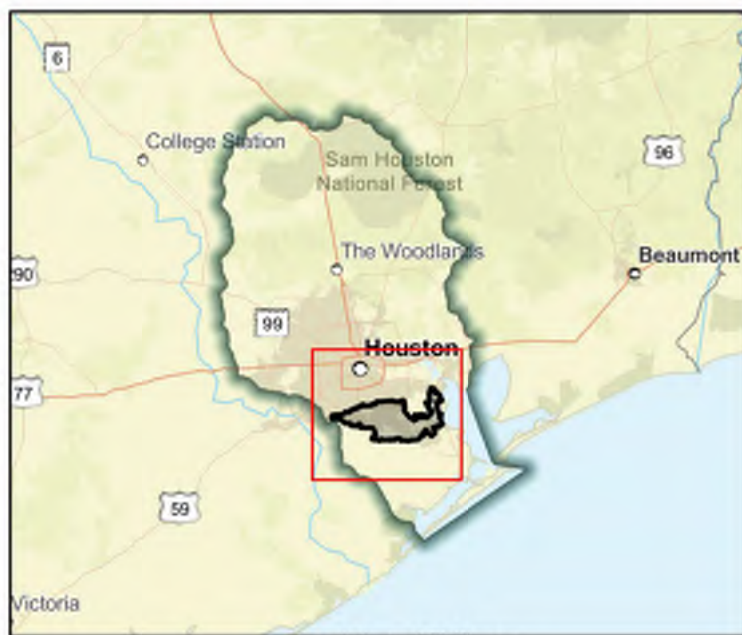
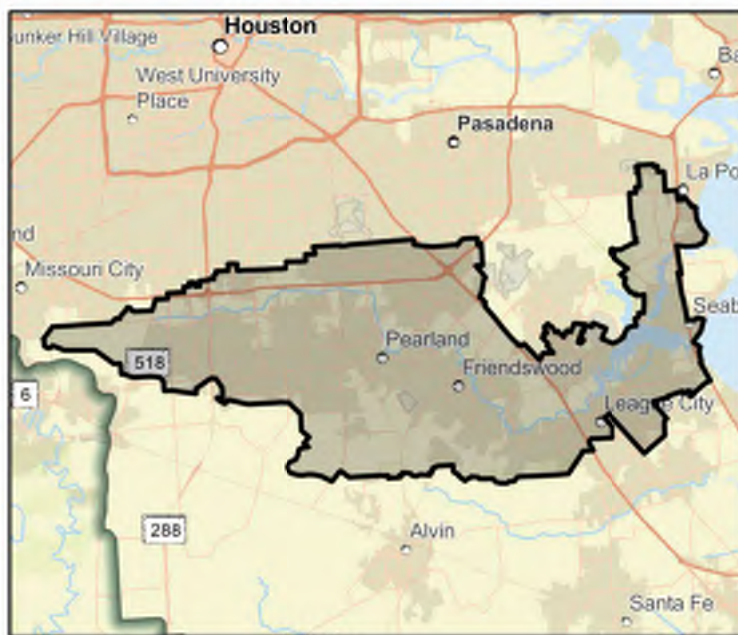
Estimated Cost and Funding Availability

Total Cost **\$3,007,354**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Columbia Memorial Parkway Drainage Improvement Project**

ID# **061000552**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **A detailed drainage analysis is needed to confirm storm sewer sizes and if detention would be needed. Project would replace roadside ditches with a curb and gutter system.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,734**

of structures **1,016**

Critical facilities **4**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **22**

Number of low water crossings **0**

Historical road closures **0**

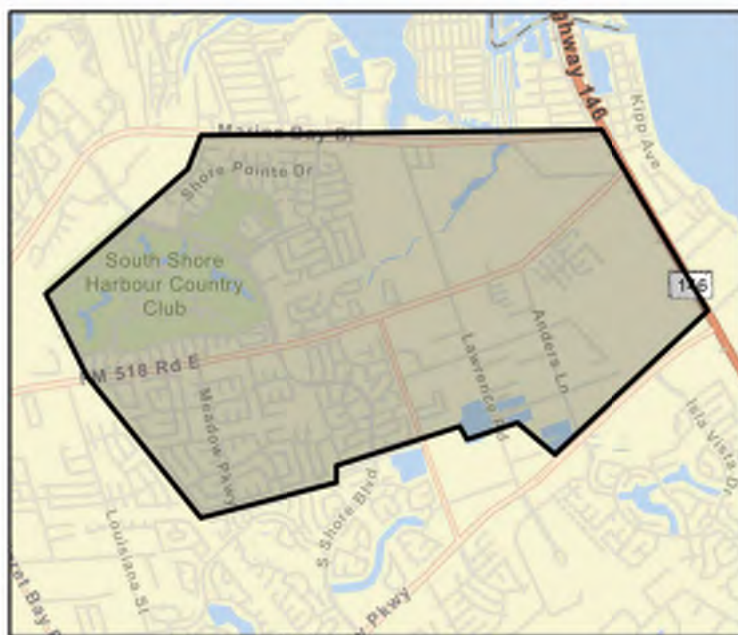
Estimated Cost and Funding Availability

Total Cost **\$100,000**

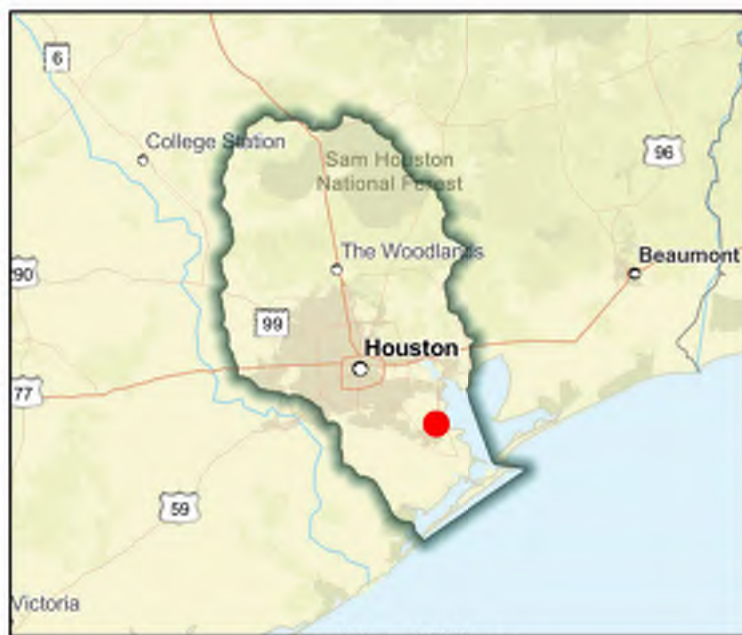
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system

ID# 061000136

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120401030201,120401030401

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 42

of structures 52

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 6

Roadway(s) impacted (length) 3

Number of low water crossings -

Historical road closures -

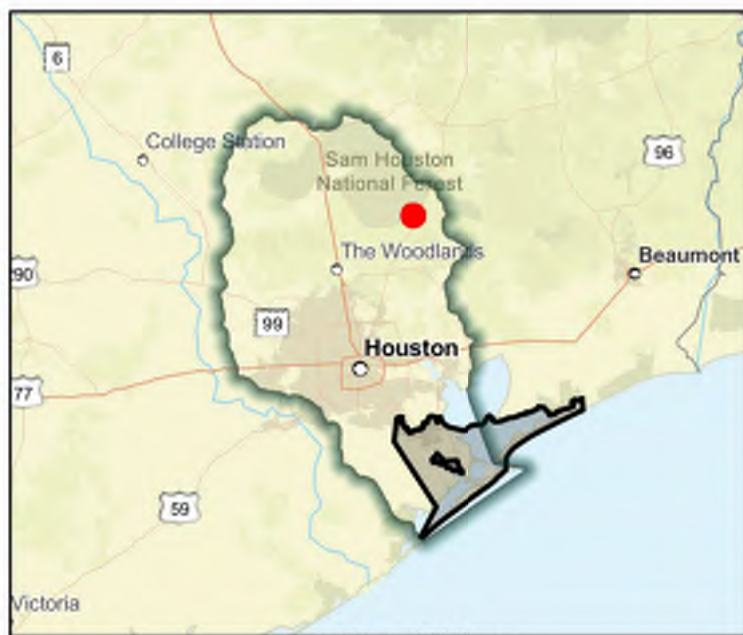
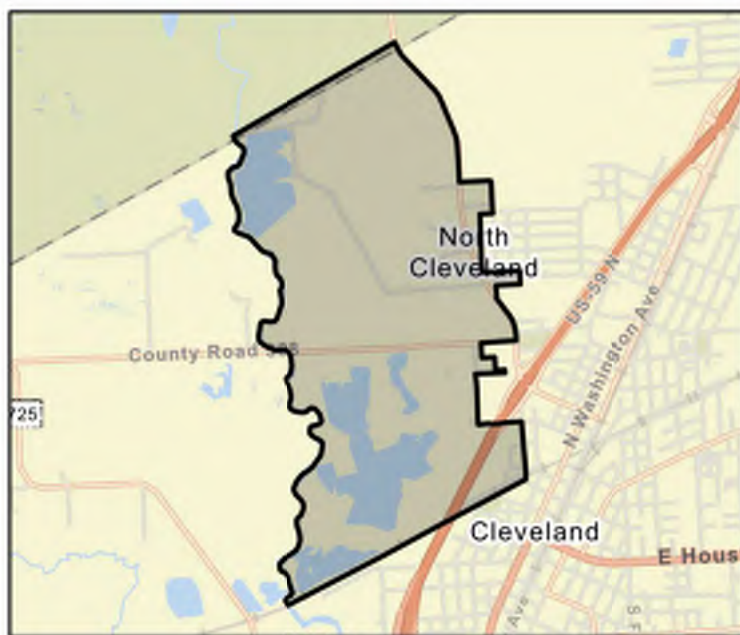
Estimated Cost and Funding Availability

Total Cost \$190,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system

ID# 061000137

Sponsor (name of entity, not person) Clear Lake Shores (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,597

of structures 633

Critical facilities 4

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 9

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$140,000

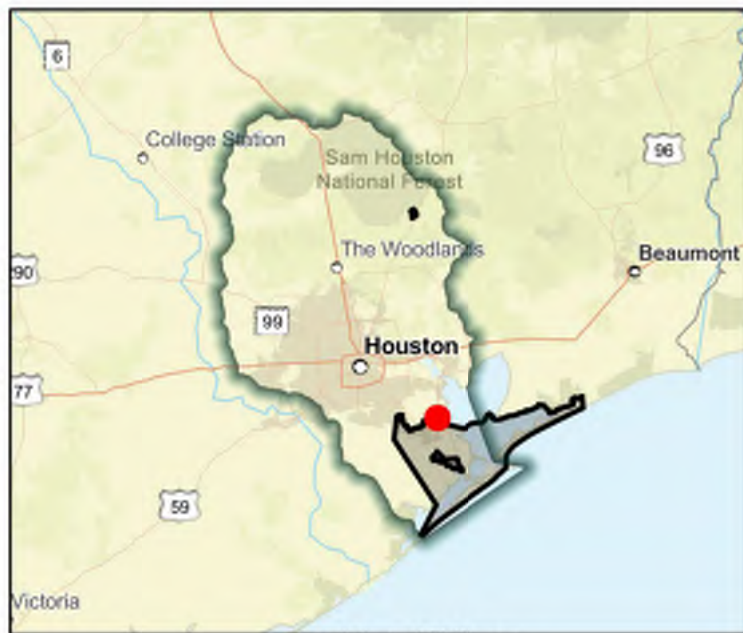
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system

ID# 061000138

Sponsor (name of entity, not person) La Marque (Municipality)

RFPG recommend? No Reason for Recommendation Duplicate FME.

Study Details

Study type Project Planning

Study description Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040200

Drainage area (Square miles, est.) 14

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,455

of structures 829

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 38

Roadway(s) impacted (length) 31

Number of low water crossings 1

Historical road closures 1

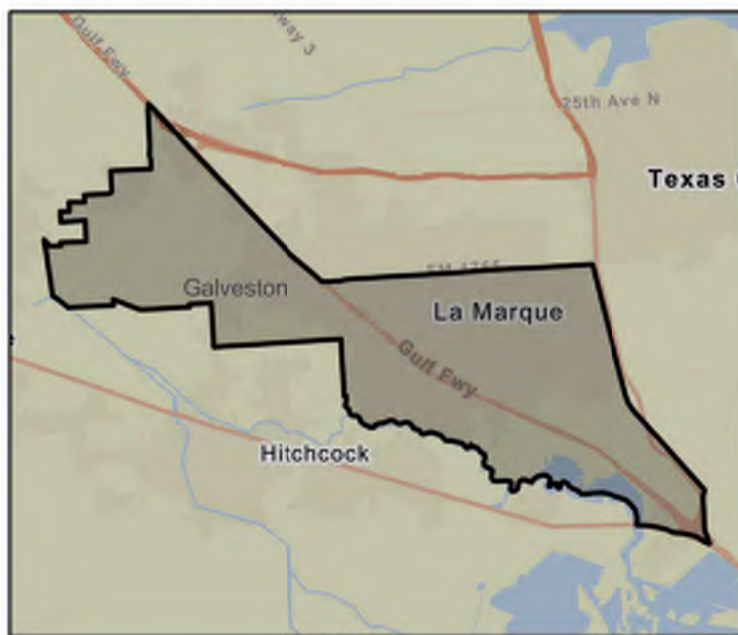
Estimated Cost and Funding Availability

Total Cost \$360,000

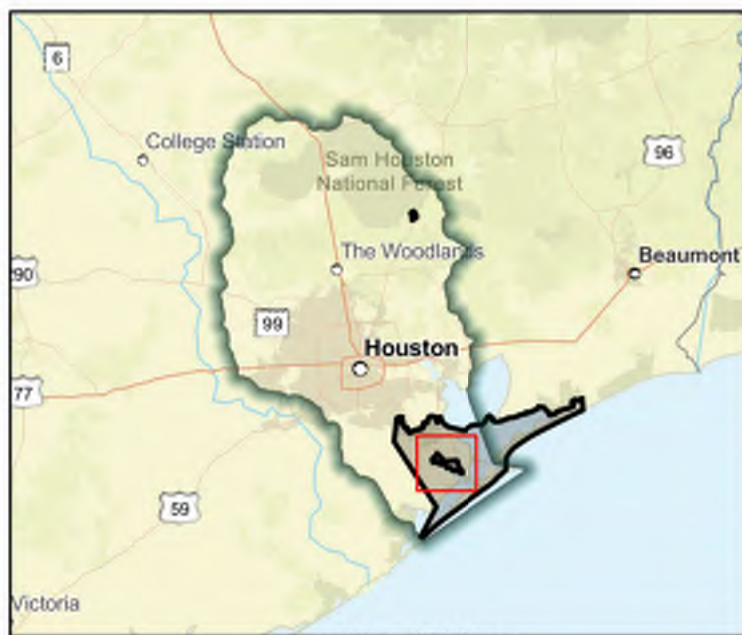
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system**

ID# **061000134**

Sponsor (name of entity, not person) **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **665**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **102,745**

of structures **48,545**

Critical facilities **667**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3,412**

Roadway(s) impacted (length) **910**

Number of low water crossings **30**

Historical road closures **30**

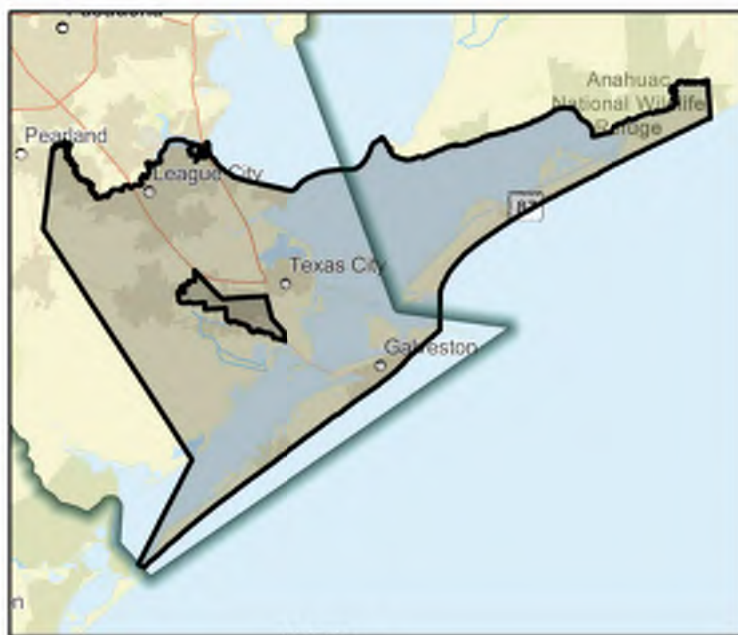
Estimated Cost and Funding Availability

Total Cost **\$1,590,000**

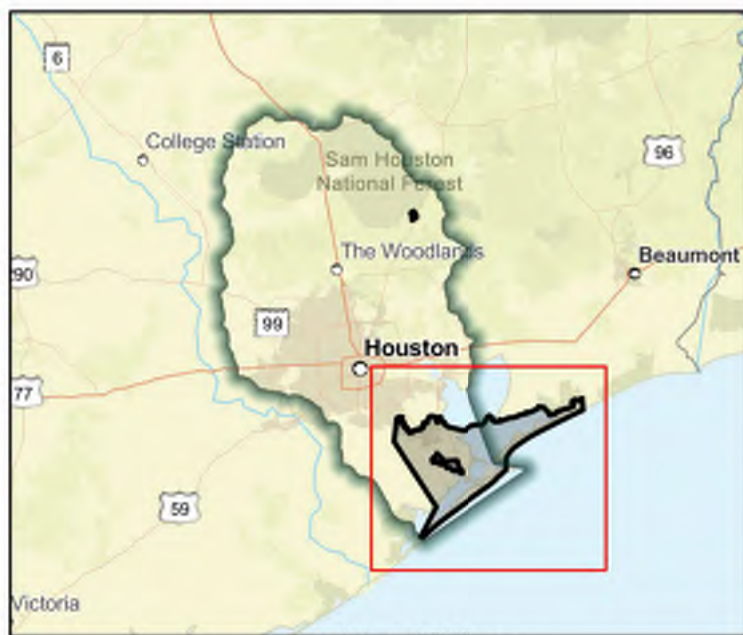
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cowart Creek Segment 16

ID# 061000070

Sponsor (name of entity, not person) Pearland (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 278

of structures 150

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 8

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

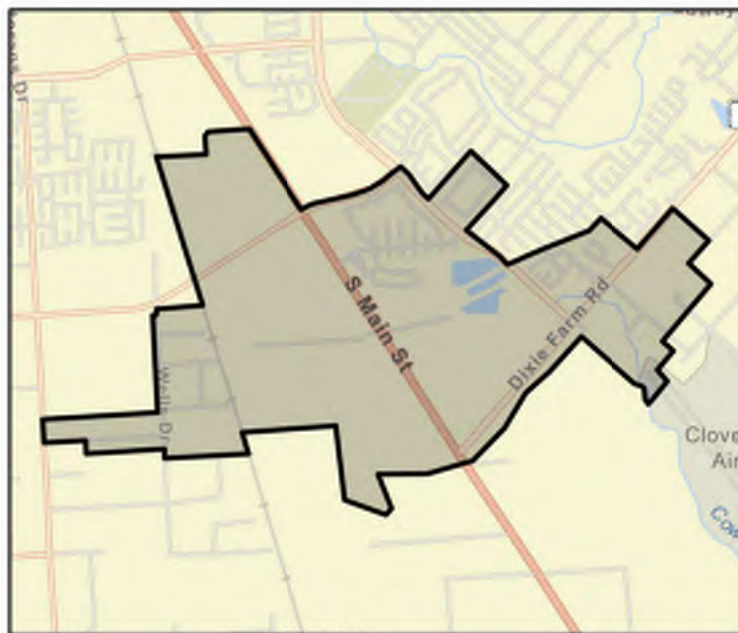
Estimated Cost and Funding Availability

Total Cost \$40,000

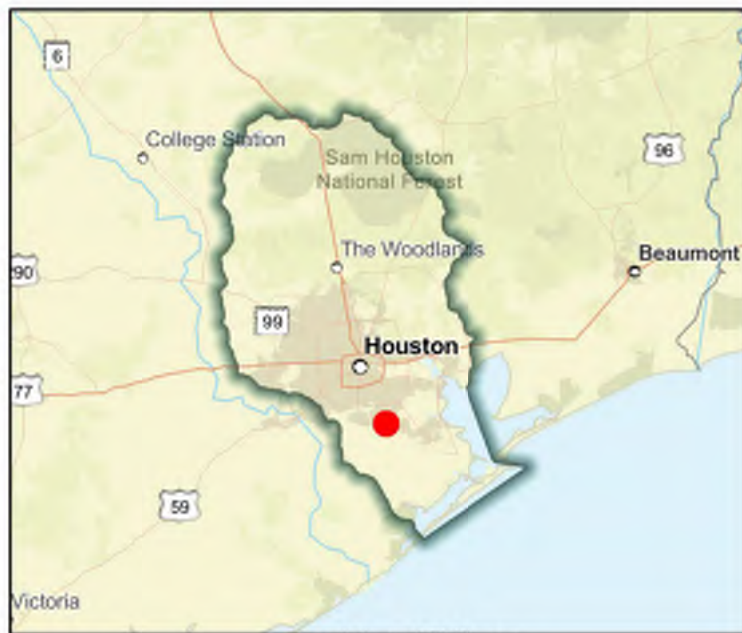
Amount of Available Funding -

Federal funding availability Yes

Funding source Other



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cypress Creek - Neighborhood Future Floodplain Analysis

ID# 061000522

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Cypress Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Waller

Watershed HUC# (if known)

Drainage area (Square miles, est.) 267

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 13,877

of structures 4,159

Critical facilities 87

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,660

Roadway(s) impacted (length) 109

Number of low water crossings 18

Historical road closures

18

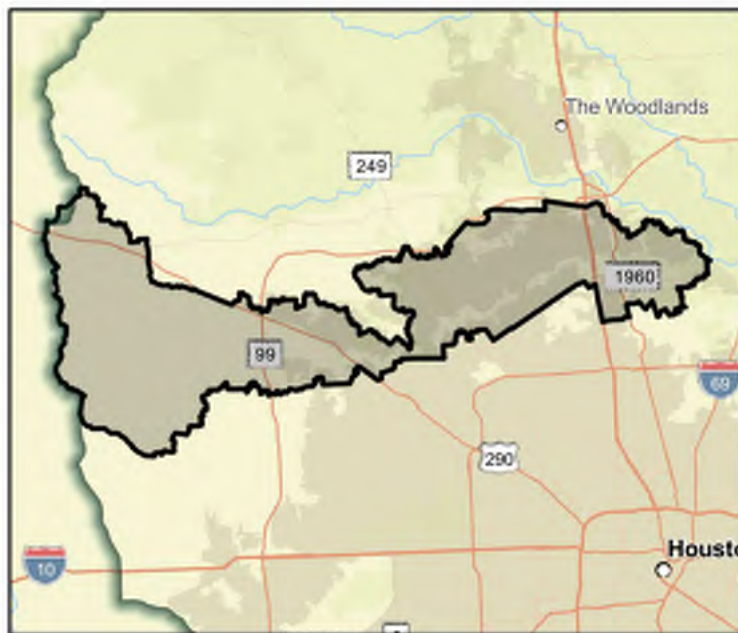
Estimated Cost and Funding Availability

Total Cost \$67,762,432

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Cypress Creek Implementation Plan - Various Detention Sites

ID# 061000357

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? No

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The Implementation Plan identifies that approximately 14,000 acre-feet of stormwater detention volume across 23 different sites reducing flooding risk.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020104,120401020106,120401020105,120401020107,120401020

Drainage area (Square miles, est.) 118

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 14,047

of structures 4,098

Critical facilities 70

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 75

Roadway(s) impacted (length) 80

Number of low water crossings 3

Historical road closures

3

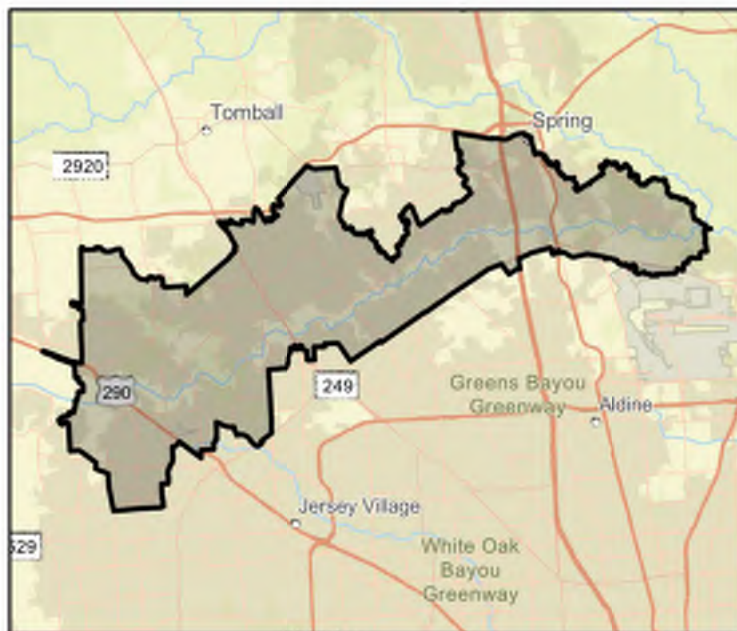
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cypress Creek Local Drainage Study

ID# 061000521

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Cypress Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Waller

Watershed HUC# (if known)

Drainage area (Square miles, est.) 267

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 13,877

of structures 4,159

Critical facilities 87

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,660

Roadway(s) impacted (length) 109

Number of low water crossings 18

Historical road closures

18

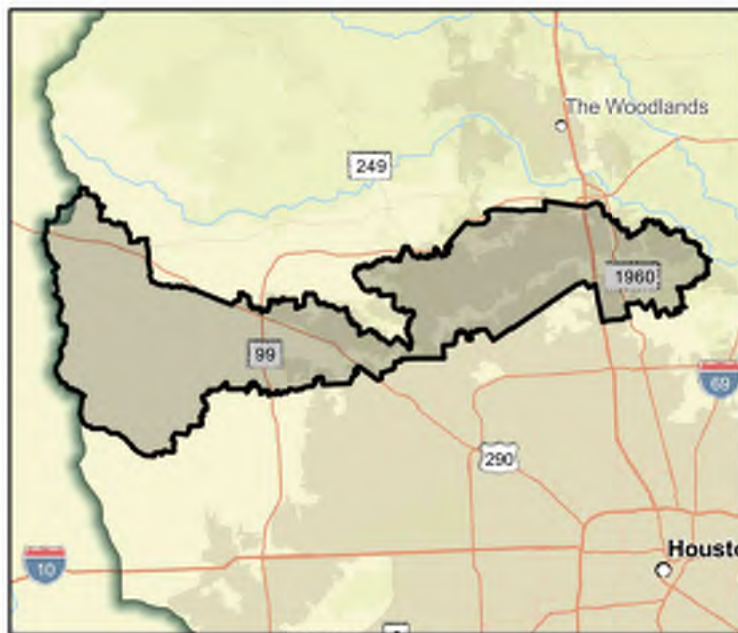
Estimated Cost and Funding Availability

Total Cost \$10,767,413

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Cypress Creek Watershed Study

ID# 061000181

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.

New Hydrologic or Hydraulic model? No

Emergency Need? Yes

Existing/Anticipated models in near term? Yes

County Harris,Waller

Watershed HUC# (if known) 120401020102,120401020103,120401020104,120401020106,120401020

Drainage area (Square miles, est.) 266

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 13,877

of structures 4,159

Critical facilities 87

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,660

Roadway(s) impacted (length) 109

Number of low water crossings 18

Historical road closures

18

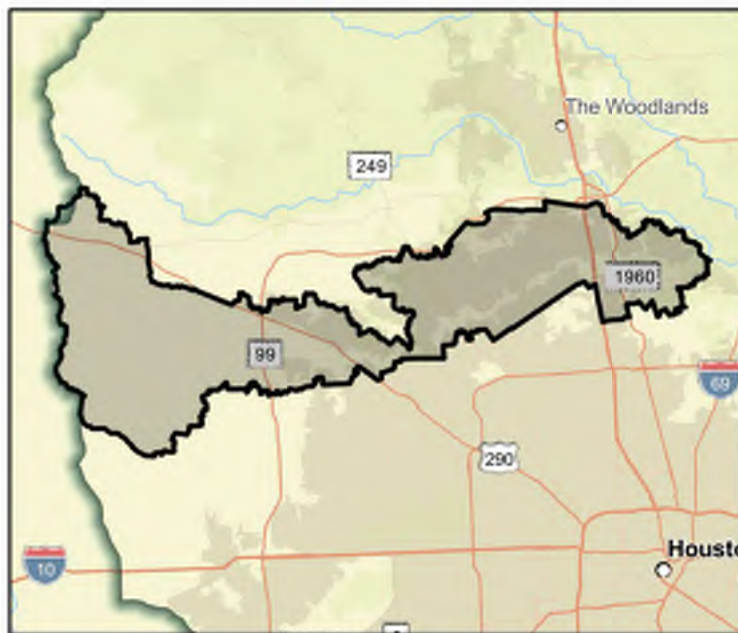
Estimated Cost and Funding Availability

Total Cost \$1,230,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **D-133 Sharpstown**

ID# **061000484**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **This project provides for the right-of-way acquisition, design and construction of detention basins in the Sharpstown Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **9**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **20,445**

of structures **2,373**

Critical facilities **65**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **31**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

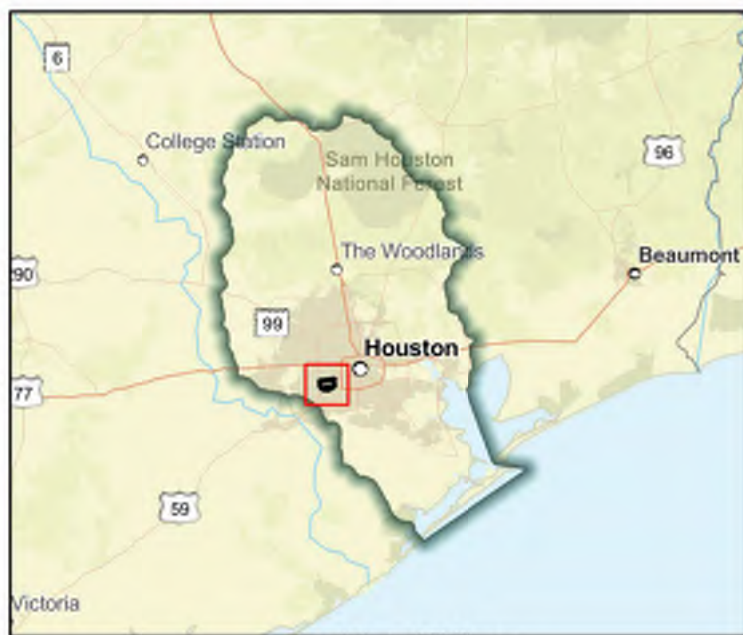
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Dam and Levee Failure Inundation Map Update**

ID# **061000078**

Sponsor (name of entity, not person) **Brazoria (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study by each jurisdiction to update their dam and levee failure inundation maps to identify the probability and impact of a dam and levee failures.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040300,120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **1,482**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **38,615**

of structures **18,836**

Critical facilities **246**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **8,584**

Roadway(s) impacted (length) **328**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$2,200,000**

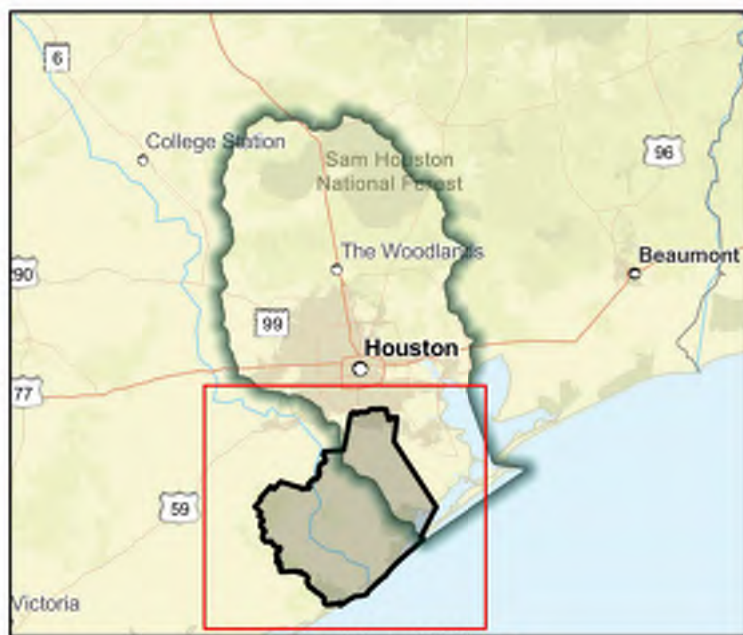
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Danubina Drainage Improvements**

ID# **061000422**

Sponsor (name of entity, not person) **Baytown (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **Study to further this project and develop an FMP. This CDBG-MIT application involves the installation and construction of various storm sewer and detention infrastructure.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Chambers,Harris**

Watershed HUC# (if known) **120402030106**

Drainage area (Square miles, est.) **48**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,514**

of structures **550**

Critical facilities **7**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **98**

Roadway(s) impacted (length) **14**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

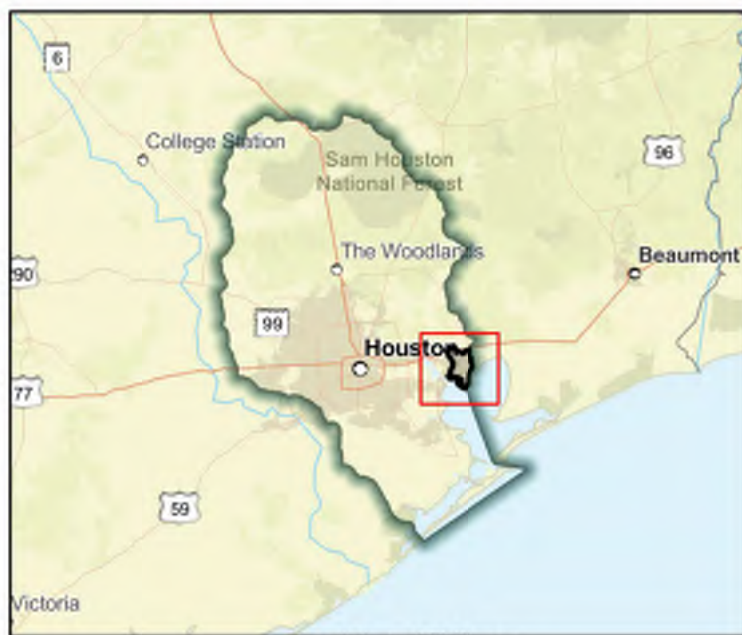
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Downtown Cleveland Drainage Line Installation**

ID# **061000153**

Sponsor (name of entity, not person) **Cleveland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed larger drainage lines in downtown Cleveland to reduce flooding.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Montgomery, San Jacinto**

Watershed HUC# (if known) **120401030201, 120401030108, 120401030109, 120401030203, 120401030**

Drainage area (Square miles, est.) **19**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **1,037**

of structures **260**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **29**

Roadway(s) impacted (length) **27**

Number of low water crossings **1**

Historical road closures **1**

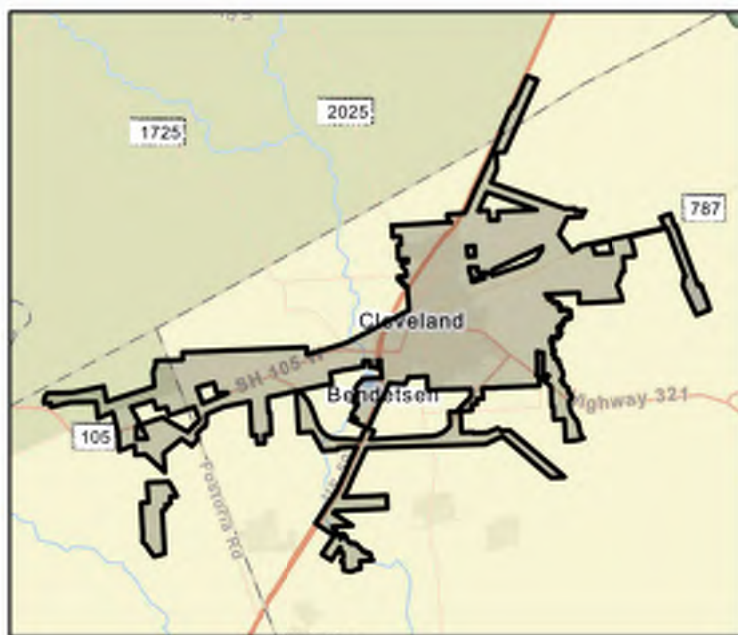
Estimated Cost and Funding Availability

Total Cost **\$50,000**

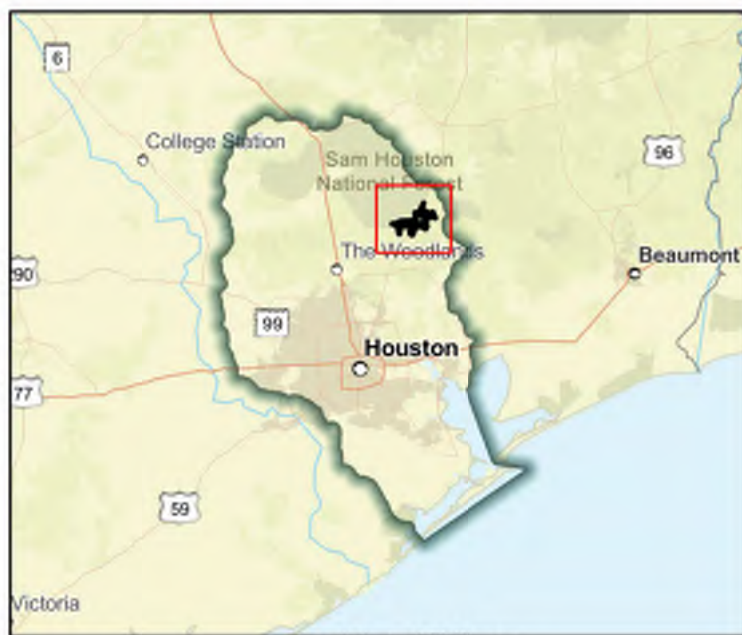
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Drainage and Paving Improvements for Cottage Grove East - Phase I**

ID# **061000557**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Phase 1 of storm drainage and street improvements bounded by IH-10W, White Oak Bayou, Durham Dr. and Shepherd Dr. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040304**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **19**

of structures **3**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

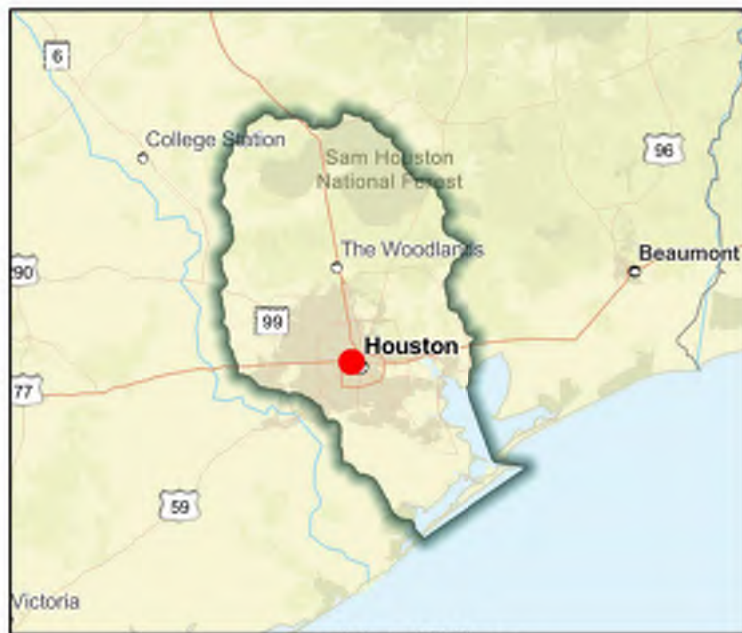
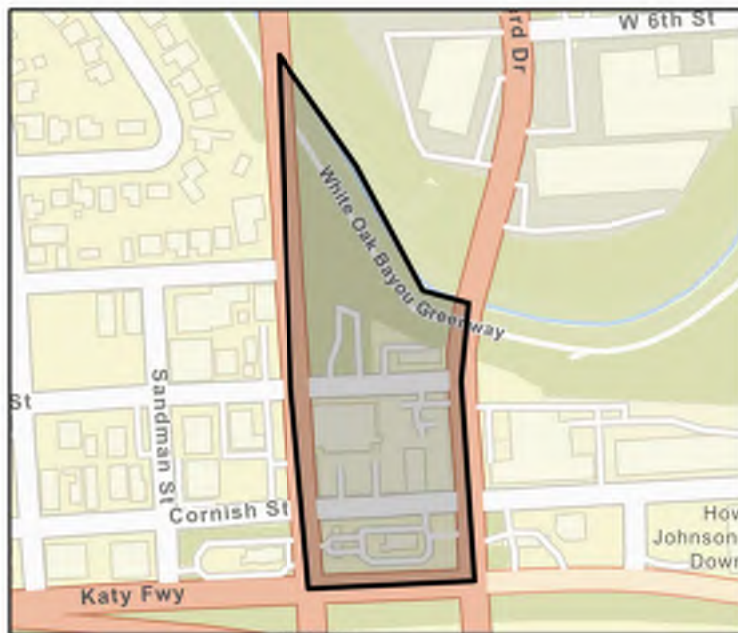
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Drainage and Paving Improvements for Cottage Grove East - Phase II**

ID# **061000477**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Phase 2 of storm drainage and street improvements bounded by IH-10W, White Oak Bayou, TC Jester, and Durham Dr. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040304**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **30**

of structures **27**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

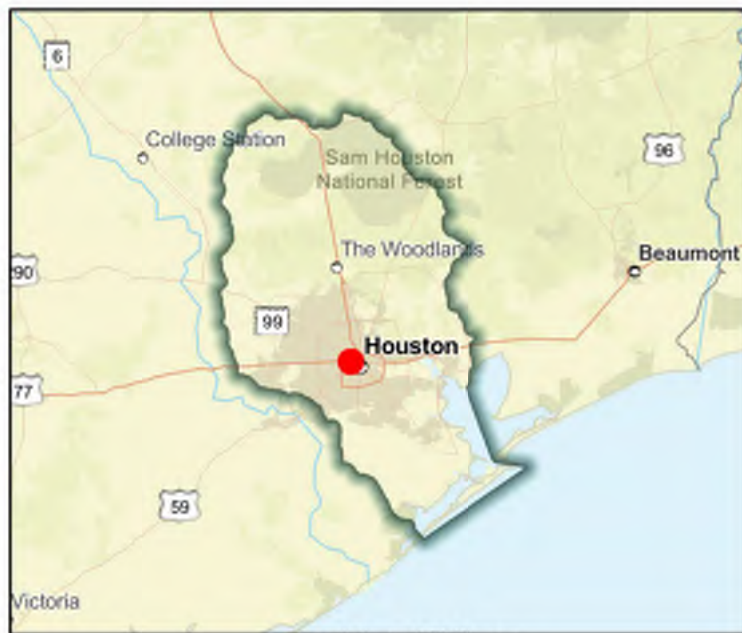
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Drainage System Analysis for City of Santa Fe**

ID# **061000165**

Sponsor (name of entity, not person) **Santa Fe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040300,120402040200**

Drainage area (Square miles, est.) **17**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **748**

of structures **399**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **12**

Roadway(s) impacted (length) **4**

Number of low water crossings **9**

Historical road closures **9**

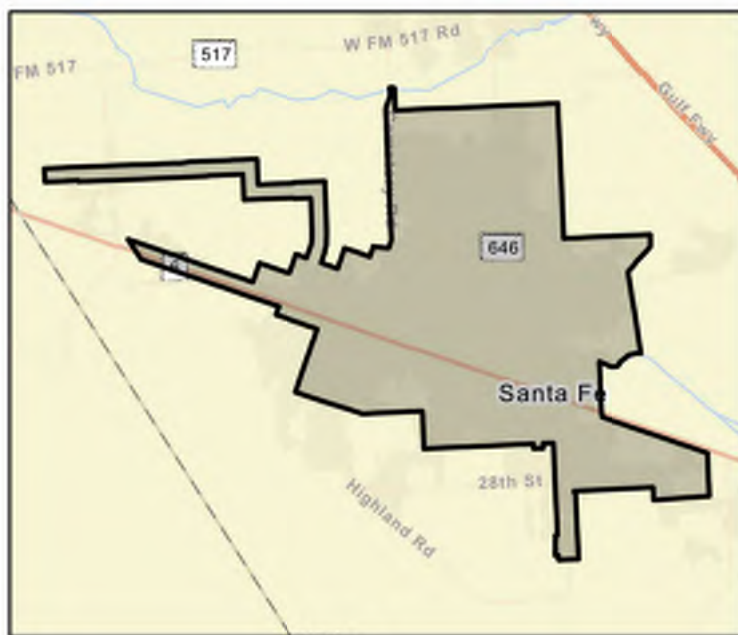
Estimated Cost and Funding Availability

Total Cost **\$300,000**

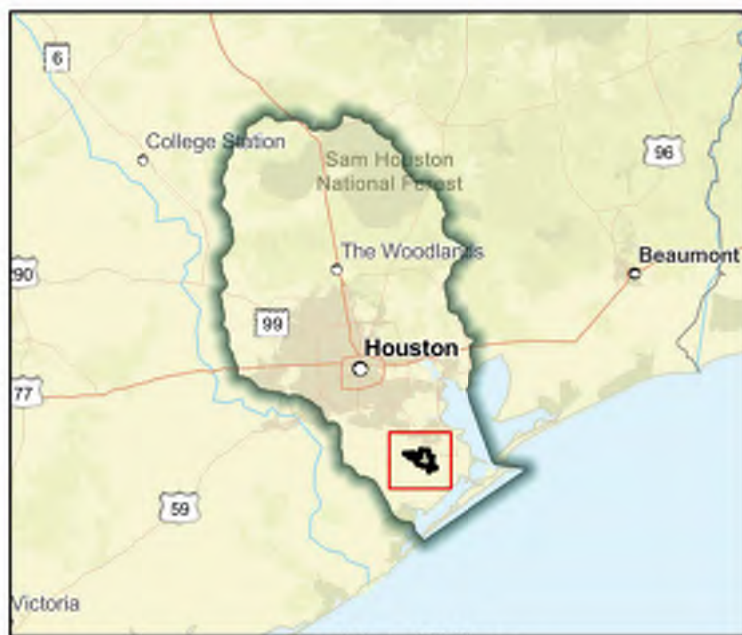
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Dredging Cedar Bayou**

ID# **061000076**

Sponsor (name of entity, not person) **Chambers (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study of proposed Cedar Bayou dredging to determine flood risk reduction potential.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Chambers**

Watershed HUC# (if known) **120402030105,120402030104,120402030106,120402030200**

Drainage area (Square miles, est.) **44**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **677**

of structures **119**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **341**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

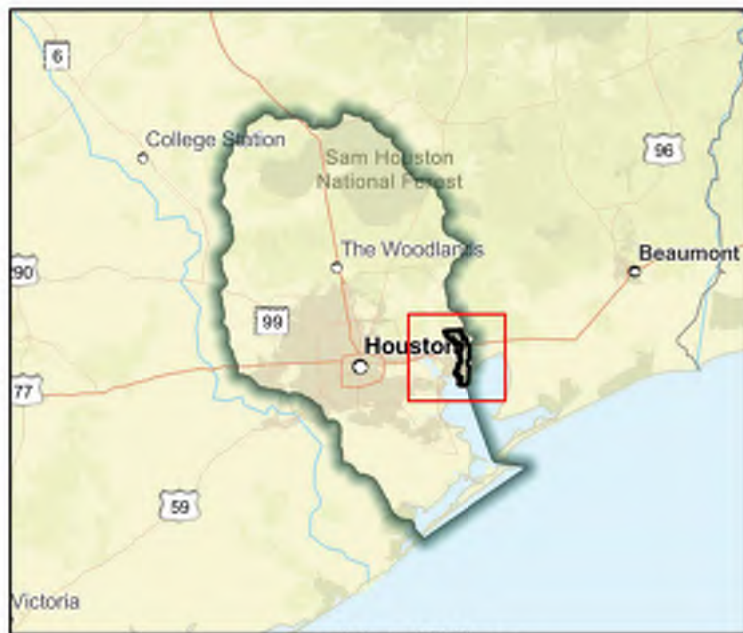
Estimated Cost and Funding Availability

Total Cost **\$7,070,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Durant Street Storm Sewer and Pavement Improvements - Phase 1**

ID# **061000001**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **15,260**

of structures **3,521**

Critical facilities **16**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **259**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

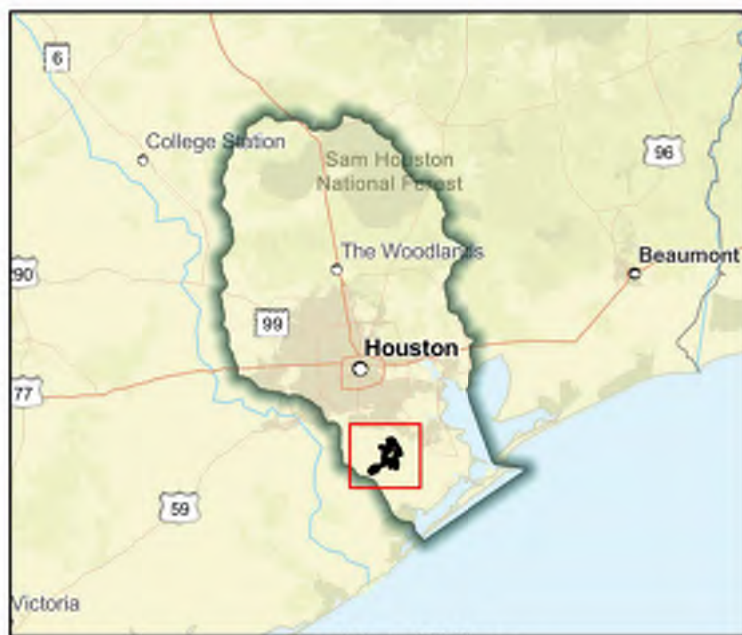
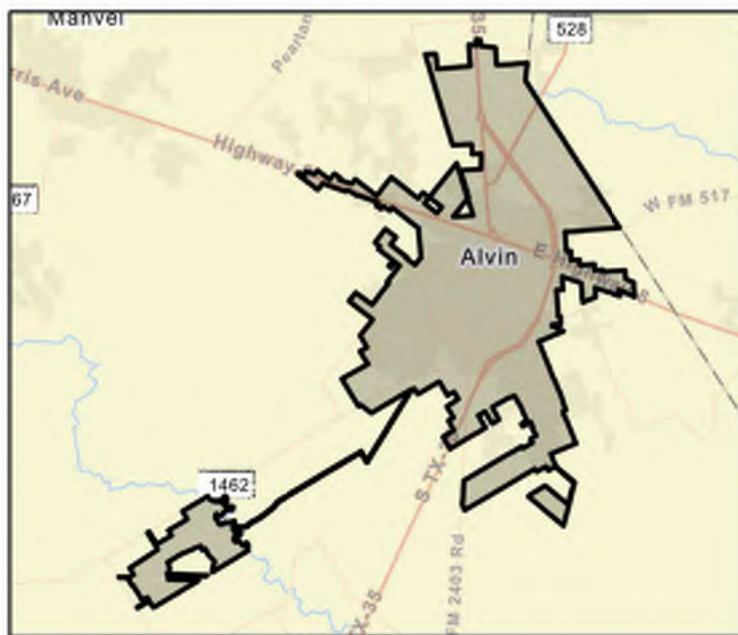
Estimated Cost and Funding Availability

Total Cost **\$110,000**

Amount of Available Funding **110000**

Federal funding availability **Yes**

Funding source **Bonds/Other Financing**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Durant Street Storm Sewer and Pavement Improvements - Phase 2**

ID# **061000002**

Sponsor (name of entity, not person) **Alvin (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of Durant Street Phase 2 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Brazoria**

Watershed HUC# (if known) **120402040200,120402040400,120402040100**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **15,260**

of structures **3,521**

Critical facilities **16**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **259**

Roadway(s) impacted (length) **57**

Number of low water crossings **0**

Historical road closures **0**

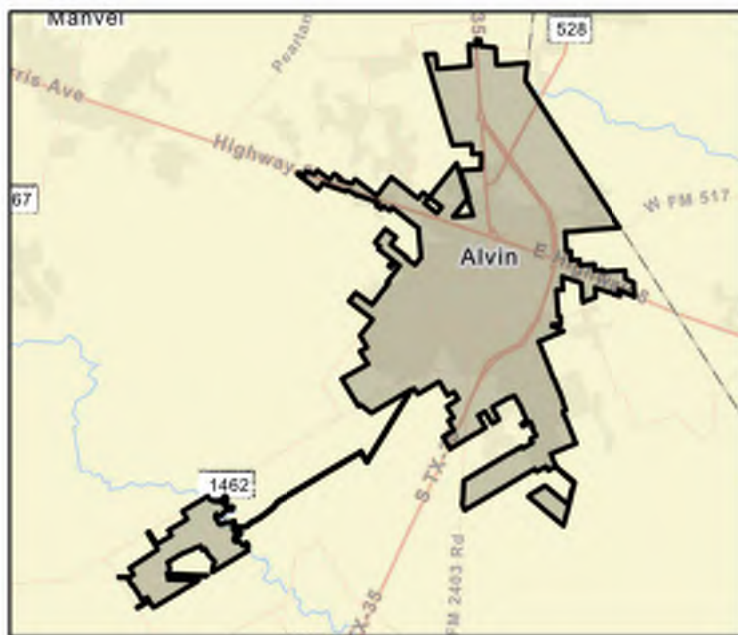
Estimated Cost and Funding Availability

Total Cost **\$90,000**

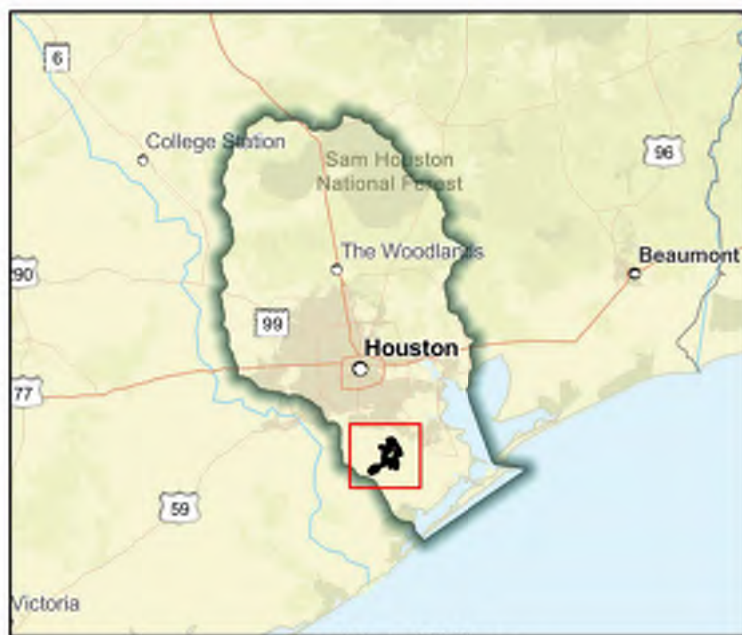
Amount of Available Funding **90000**

Federal funding availability **Yes**

Funding source **Bonds/Other Financing**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **East Chocolate Bayou (E103-00-00)**

ID# **061000053**

Sponsor (name of entity, not person) **Brazoria Drainage District 4**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria**

Watershed HUC# (if known) **120402040400**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

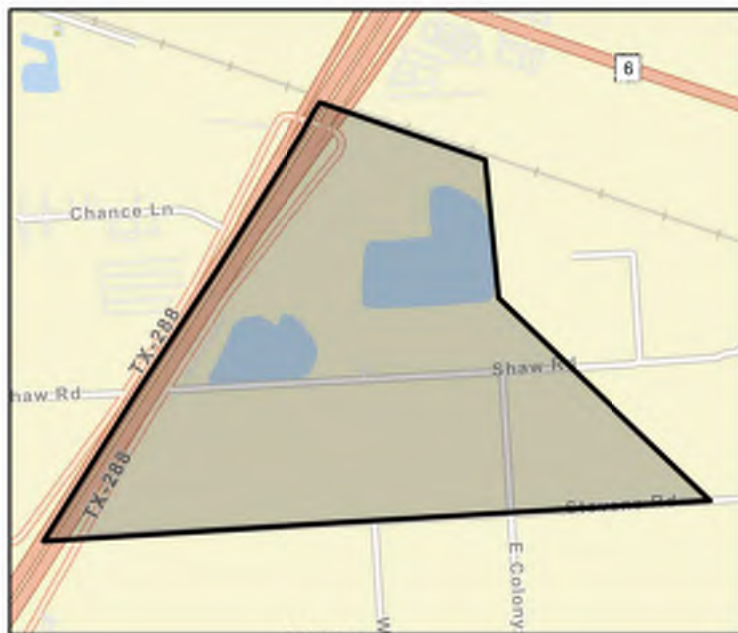
Estimated Cost and Funding Availability

Total Cost **\$48,000**

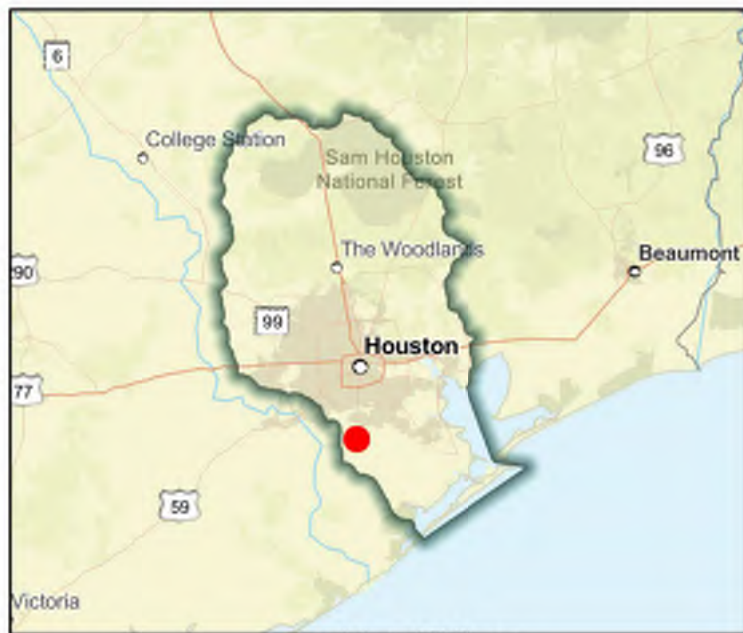
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **East Fork North - Alligator Creek Watershed**

ID# **061000446**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,300**

of structures **516**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **10**

Number of low water crossings **9**

Historical road closures **9**

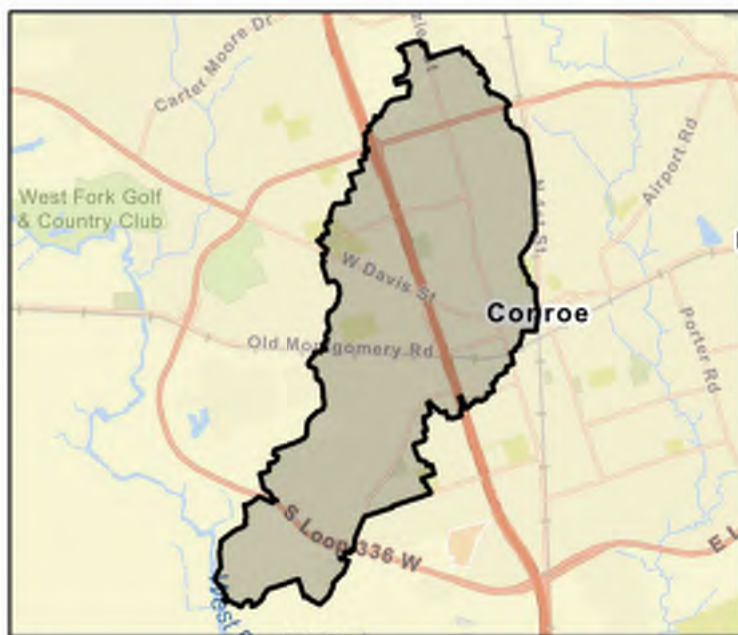
Estimated Cost and Funding Availability

Total Cost **\$30,000**

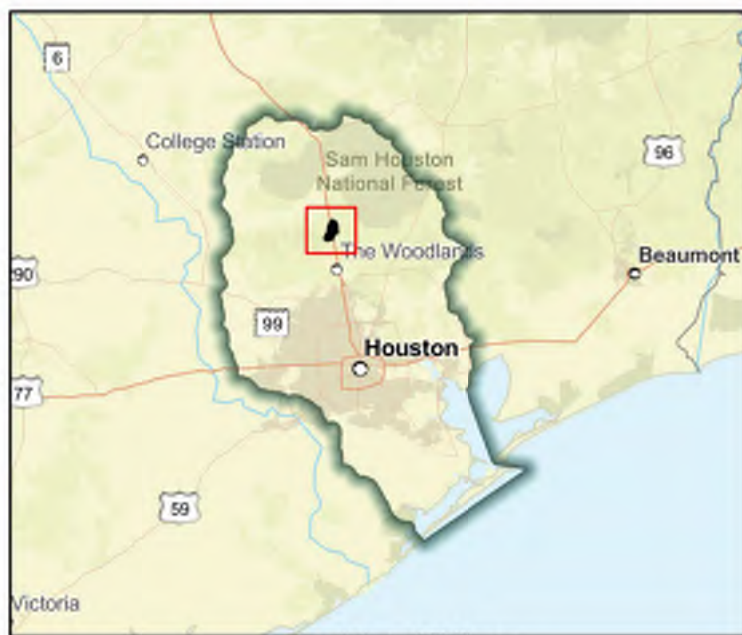
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title East Fork South - Alligator Creek Watershed

ID# 061000447

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,300

of structures 516

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 10

Number of low water crossings 9

Historical road closures 9

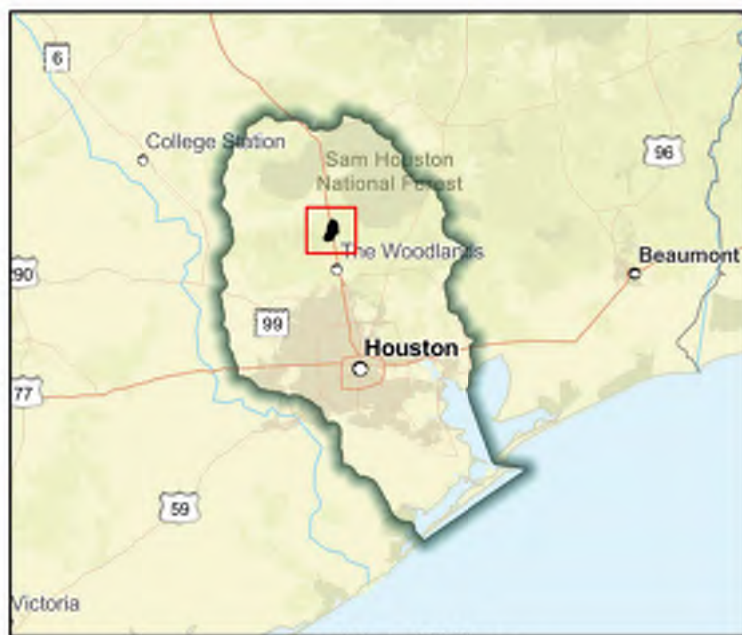
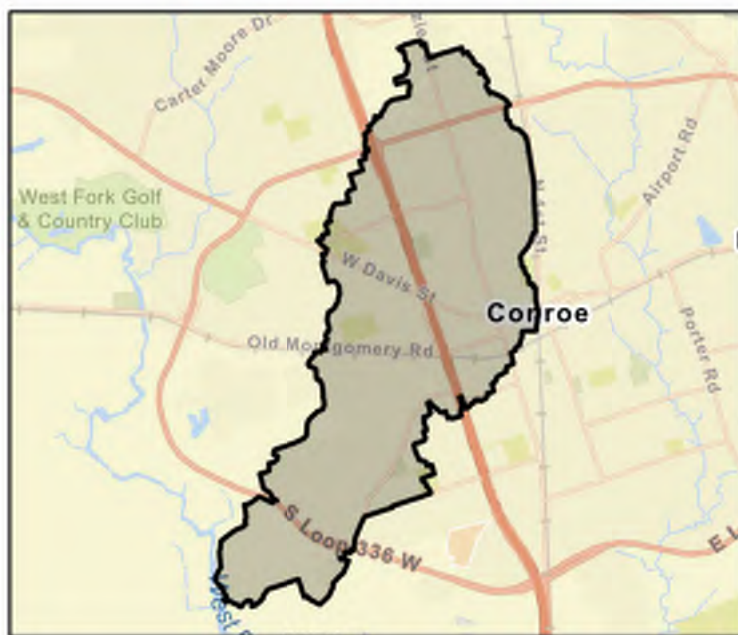
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Eastex Freeway Forest Sections 3 & 4 Subdivision Improvements

ID# 061000469

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? No

Reason for Recommendation

Current RRD project. No additional funding is needed.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040604,120401040603

Drainage area (Square miles, est.) 20

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 17,612

of structures 6,510

Critical facilities 59

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 12

Roadway(s) impacted (length) 72

Number of low water crossings 3

Historical road closures

3

Estimated Cost and Funding Availability

Total Cost \$30,000

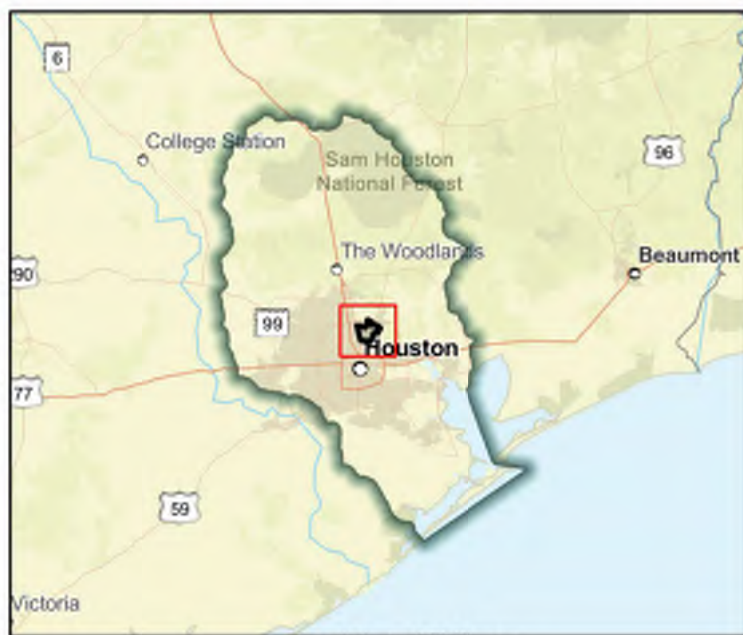
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Elevate Existing Bridge - East Fork San Jacinto River**

ID# **061000140**

Sponsor (name of entity, not person) **North Cleveland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Evaluate, Design and construct new bridge over east fork san jacinto river on low water bridge road to reduce flooding.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030201,120401030401**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **42**

of structures **52**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **6**

Roadway(s) impacted (length) **3**

Number of low water crossings **-**

Historical road closures **-**

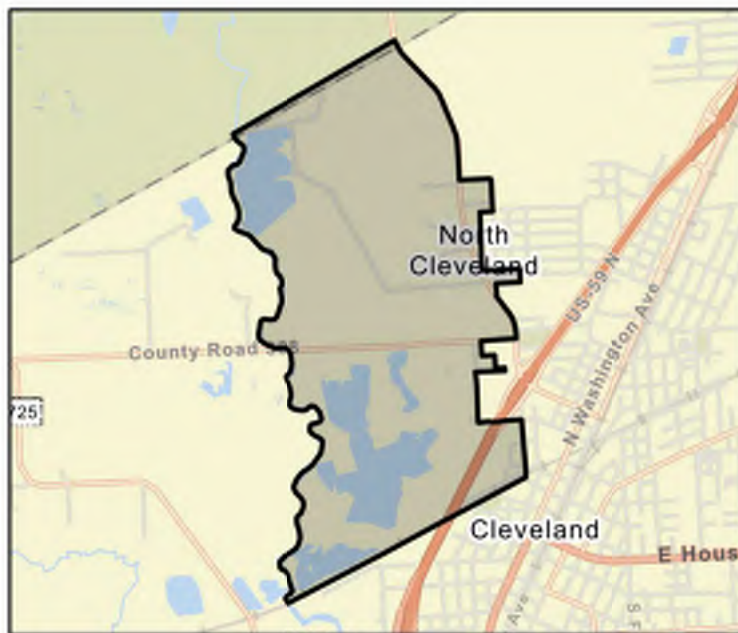
Estimated Cost and Funding Availability

Total Cost **\$1,000,000**

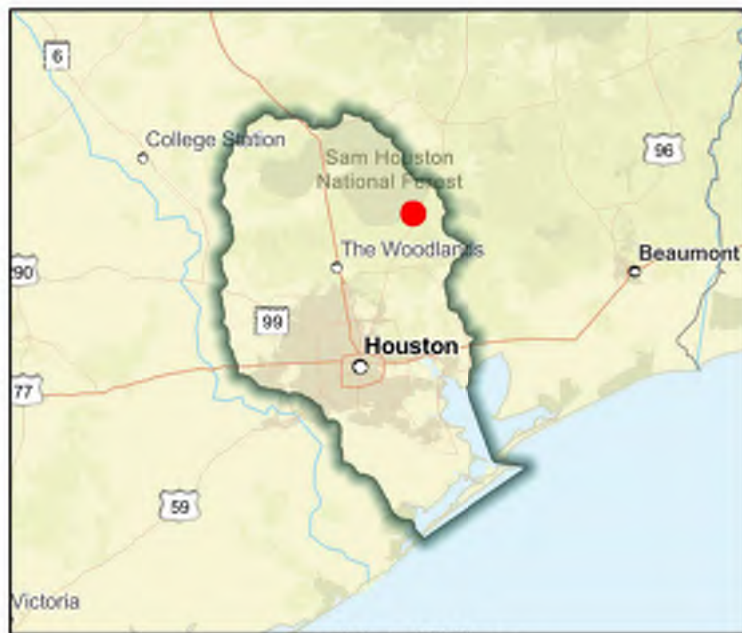
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Elevation of Bridge Road in City of North Cleveland

ID# 061000162

Sponsor (name of entity, not person) North Cleveland (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study to elevate Bridge road.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty, Montgomery, San Jacinto

Watershed HUC# (if known) 120401030201, 120401030401

Drainage area (Square miles, est.) 19

Goal(s) 06000001, 06000011, 06000012, 06000015

100-Year Flood Risk Summary

Population at risk 42

of structures 52

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 6

Roadway(s) impacted (length) 3

Number of low water crossings -

Historical road closures -

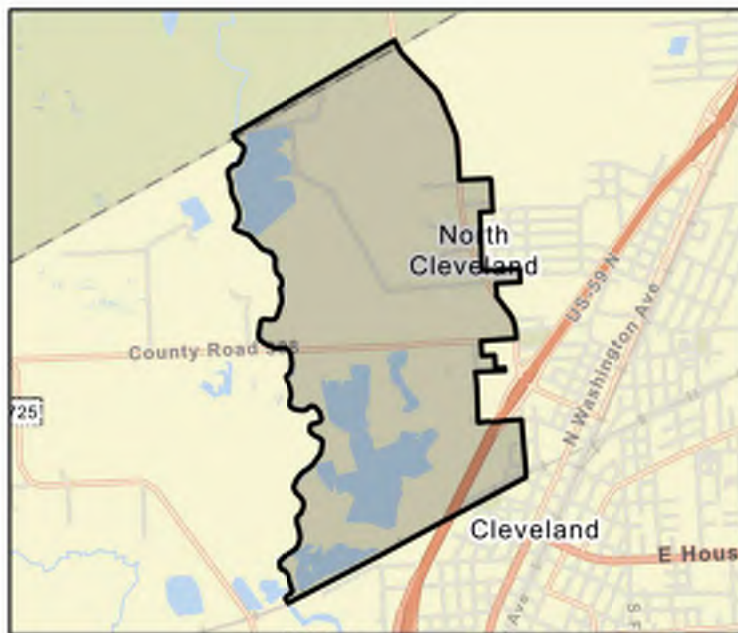
Estimated Cost and Funding Availability

Total Cost \$120,000

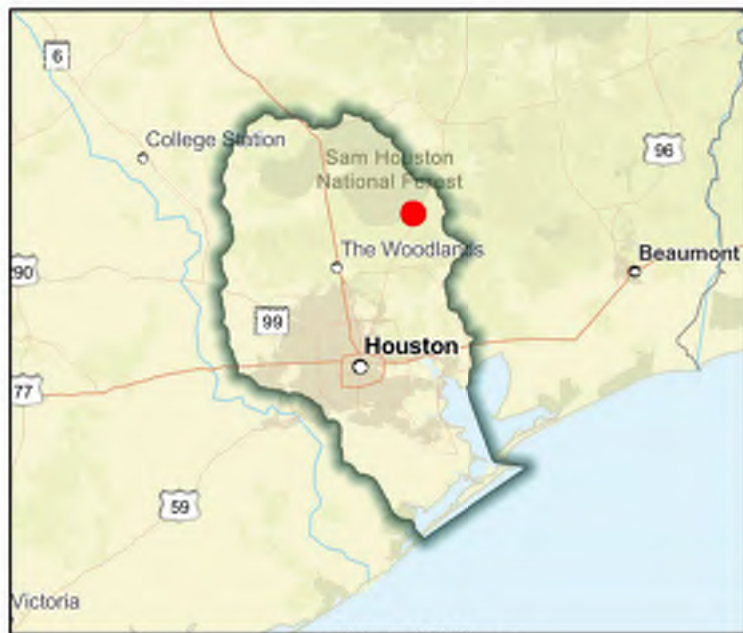
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Evaluatin of Increase Height of Existing Levee Wall System in City of La Marque**

ID# **061000149**

Sponsor (name of entity, not person) **La Marque (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Increase height of existing Levee wall system to withstand a Category 5 storm surge.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **14**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,455**

of structures **829**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **38**

Roadway(s) impacted (length) **31**

Number of low water crossings **1**

Historical road closures **1**

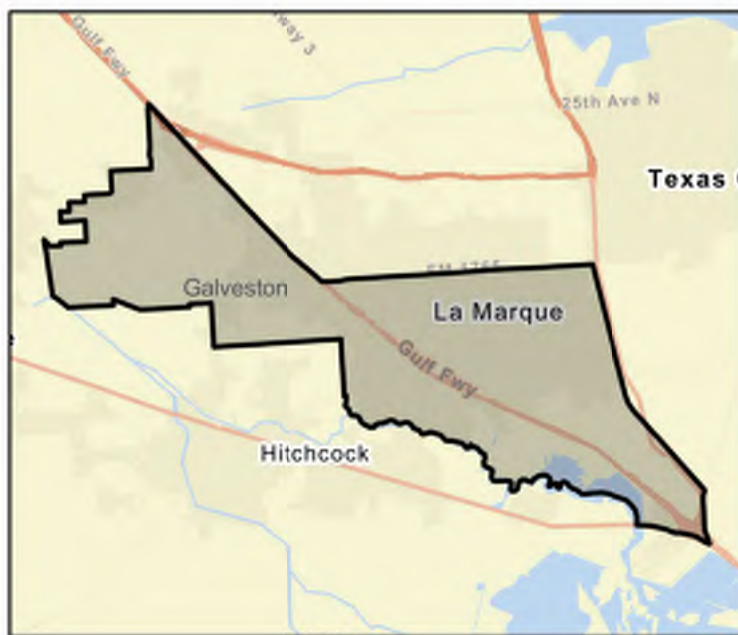
Estimated Cost and Funding Availability

Total Cost **\$810,000**

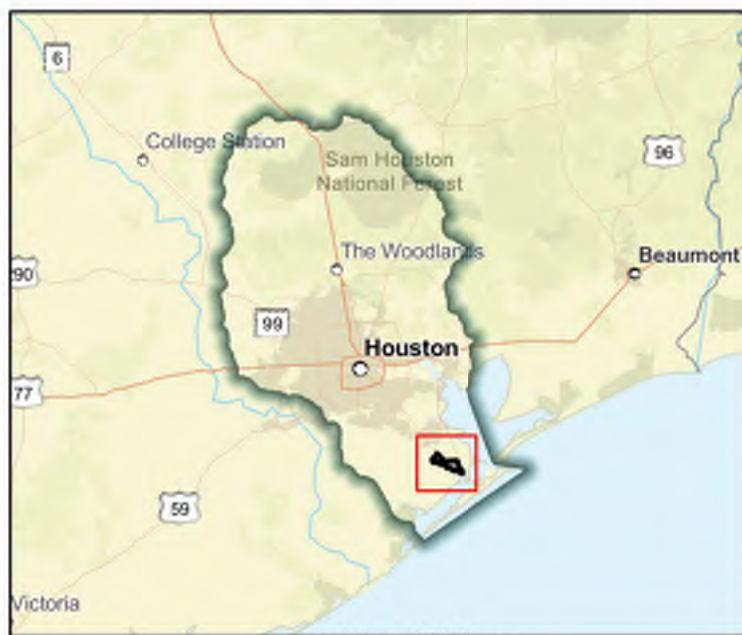
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Evaluation of Culvert Enlargement and Bridge Elevation in Grimes County

ID# 061000120

Sponsor (name of entity, not person) Grimes (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to identify flood-prone areas and mitigate the flooding problem by enlarging culverts under roads and bridges.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Grimes

Watershed HUC# (if known) 120401010101,120401010301,120401010302,120401010303,120401010

Drainage area (Square miles, est.) 799

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 95

of structures 144

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 151

Roadway(s) impacted (length) 11

Number of low water crossings 1

Historical road closures

1

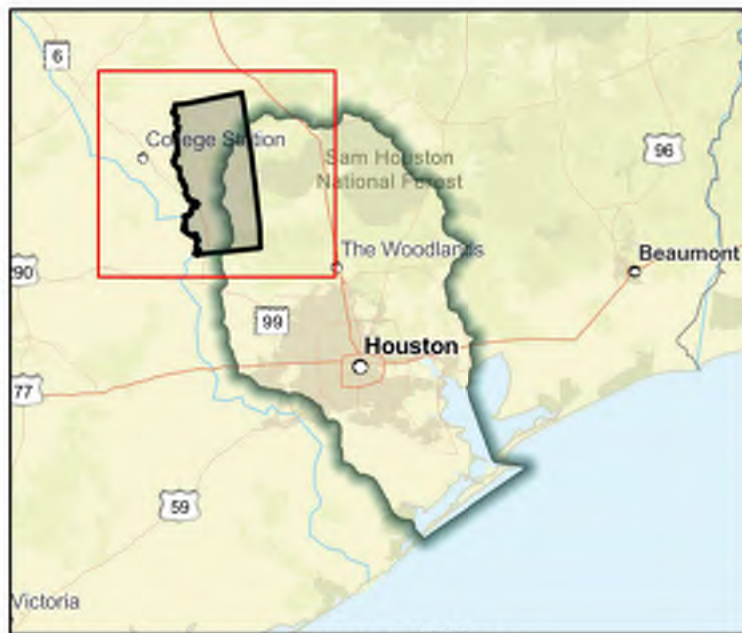
Estimated Cost and Funding Availability

Total Cost \$750,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Evaluation of Dredging of Channels that Exit Into Lake Houston

ID# 061000437

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris,Liberty,Montgomery

Watershed HUC# (if known) 120401010501,120401030205,120401030402

Drainage area (Square miles, est.) 156

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 15,791

of structures 6,656

Critical facilities 64

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 327

Roadway(s) impacted (length) 169

Number of low water crossings 1

Historical road closures

1

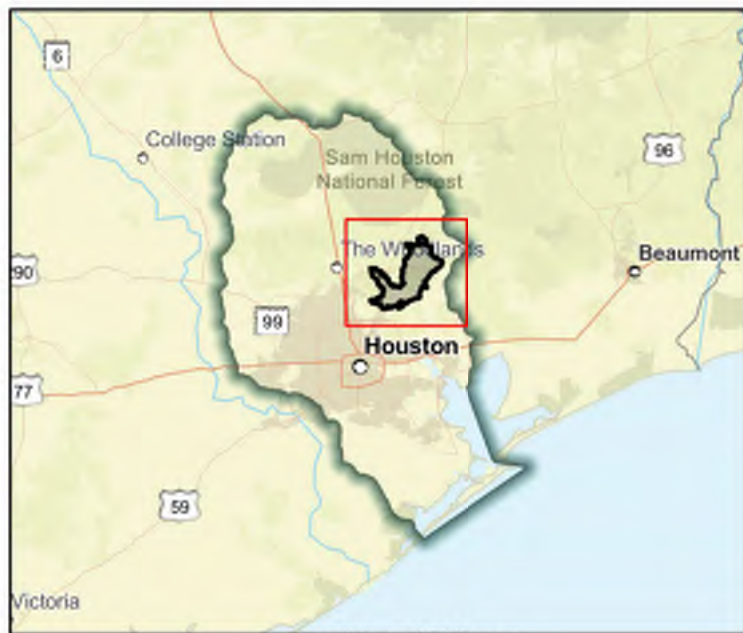
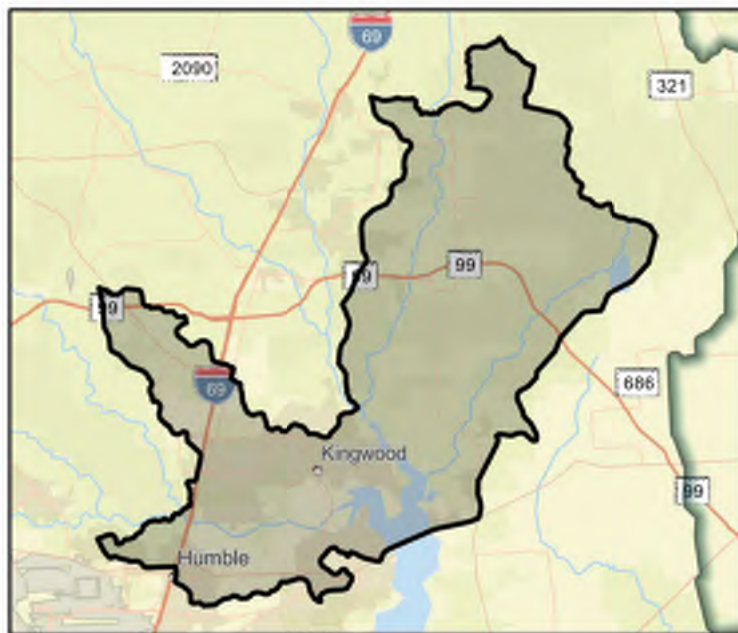
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Evaluation of Mitigation Alternatives for Repetitive Flood Claims Properties in Galveston County

ID# 061000151

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Evaluate Mitigation Alternatives of Repetitive Flood Claim Properties in Galveston County.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 665

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 102,745

of structures 48,545

Critical facilities 667

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,412

Roadway(s) impacted (length) 910

Number of low water crossings 30

Historical road closures

30

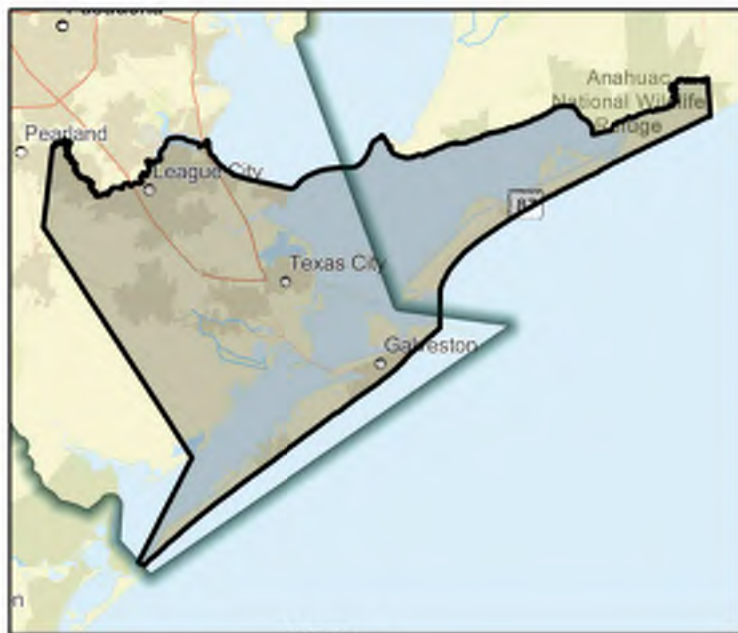
Estimated Cost and Funding Availability

Total Cost \$11,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Evaluation of Reinforcement of Critical Facilities in the City of Arcola

ID# 061000150

Sponsor (name of entity, not person) Arcola (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Reinforcement of critical facilities to withstand high winds from severe weather.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 39

of structures 41

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

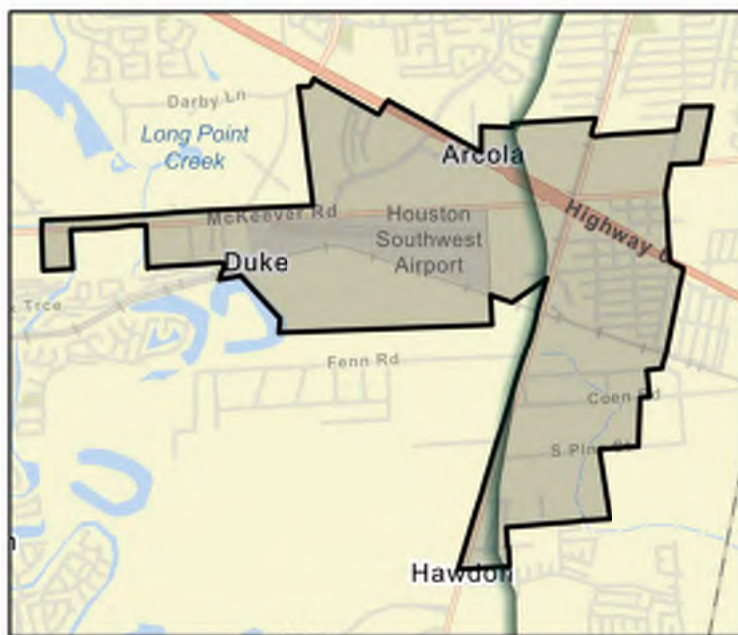
Estimated Cost and Funding Availability

Total Cost \$200,000

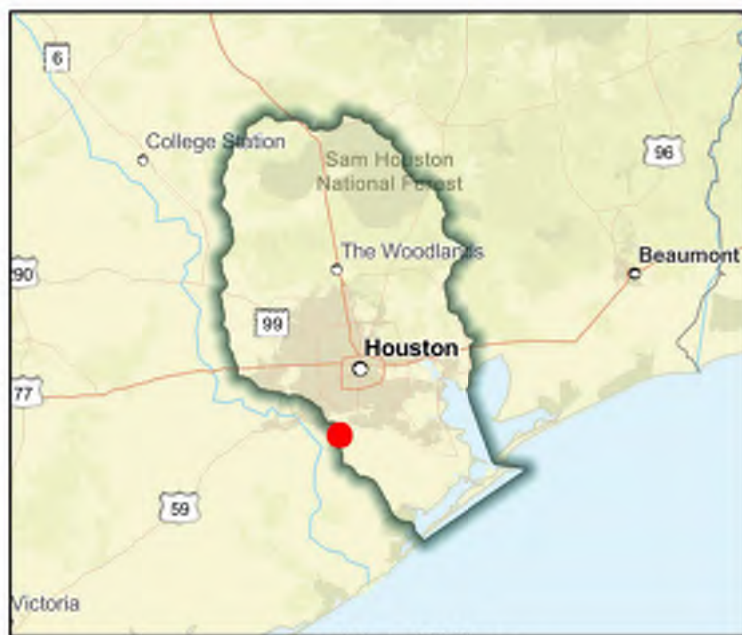
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Fallbrook, Ridgepoint and Westpoint Subdivision Drainage Improvements**

ID# **061000416**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040604,120401040603**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **313**

of structures **114**

Critical facilities **5**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

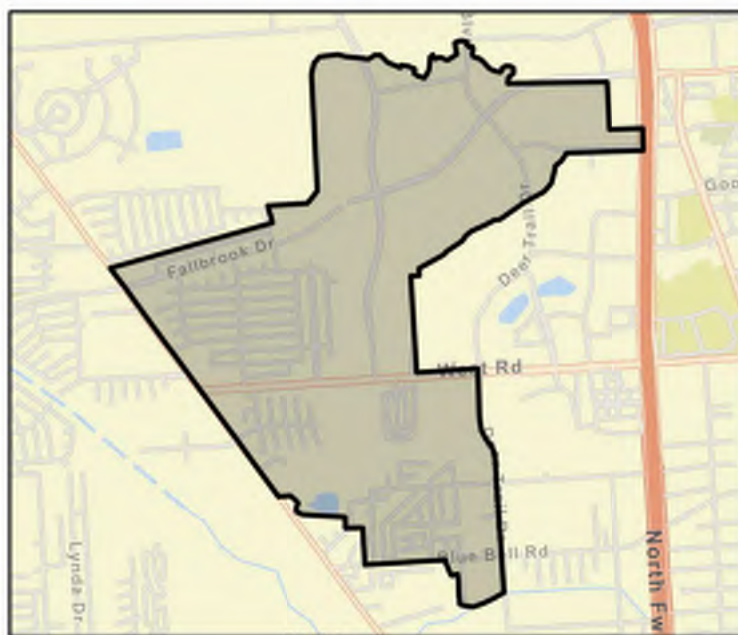
Estimated Cost and Funding Availability

Total Cost **\$30,000**

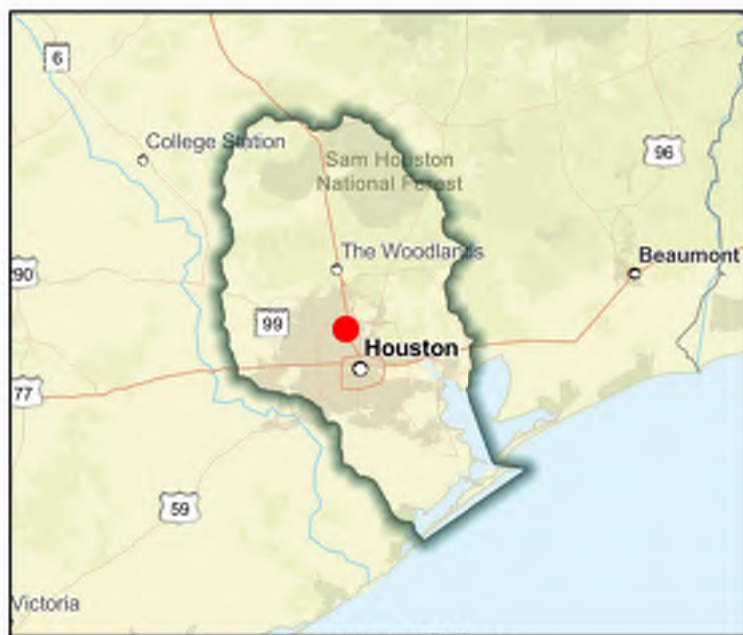
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Feasibility Study - Convert Enderli Reservoir into a Detention Pond

ID# 061000496

Sponsor (name of entity, not person) Liberty County Water Control District 1

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Request to study converting Enderli Reservoir into a detention pond

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty, Harris

Watershed HUC# (if known) 120402030102, 120402030103

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,690

of structures 769

Critical facilities 22

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,345

Roadway(s) impacted (length) 21

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$4,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Flood Gates Evaluation at Walker County Annex #2**

ID# **061000156**

Sponsor (name of entity, not person) **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Evaluation of proposed removable facility flood gates at Walker County Annex #2**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Walker**

Watershed HUC# (if known) **120401010104,120401010101,120401010102,120401010103,1204010101**

Drainage area (Square miles, est.) **798**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **545**

of structures **505**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **180**

Roadway(s) impacted (length) **25**

Number of low water crossings **2**

Historical road closures **2**

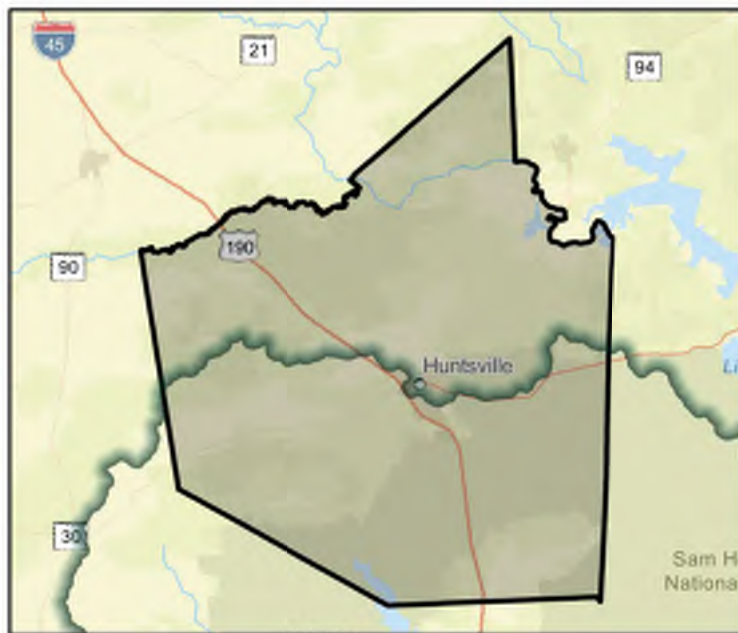
Estimated Cost and Funding Availability

Total Cost **\$20,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **FM518 Drainage Improvements- Phase 2**

ID# **061000123**

Sponsor (name of entity, not person) **Friendswood (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME.

Study Details

Study type **Project Planning**

Study description **Further study of component of 2007 Master Drainage Plan to include Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **21**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,640**

of structures **1,680**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **18**

Roadway(s) impacted (length) **38**

Number of low water crossings **5**

Historical road closures **5**

Estimated Cost and Funding Availability

Total Cost **\$410,000**

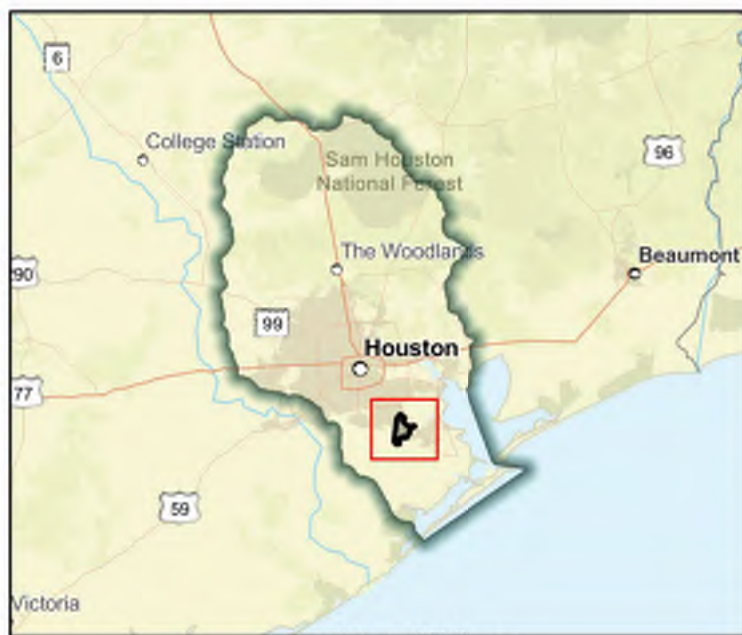
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Forest Estates - Live Oak Creek Watershed
Artesian Forest 1 - Artesian Creek Watershed

ID# 061000442

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 343

of structures 99

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

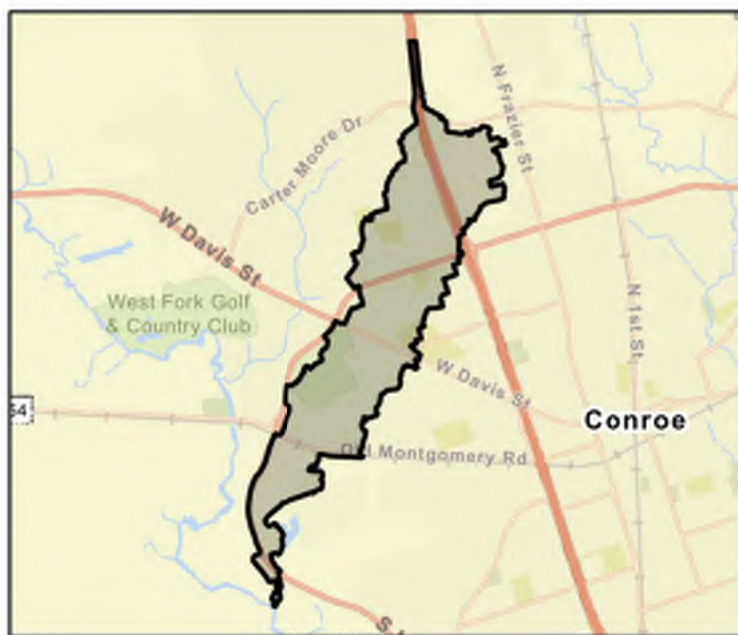
Estimated Cost and Funding Availability

Total Cost \$30,000

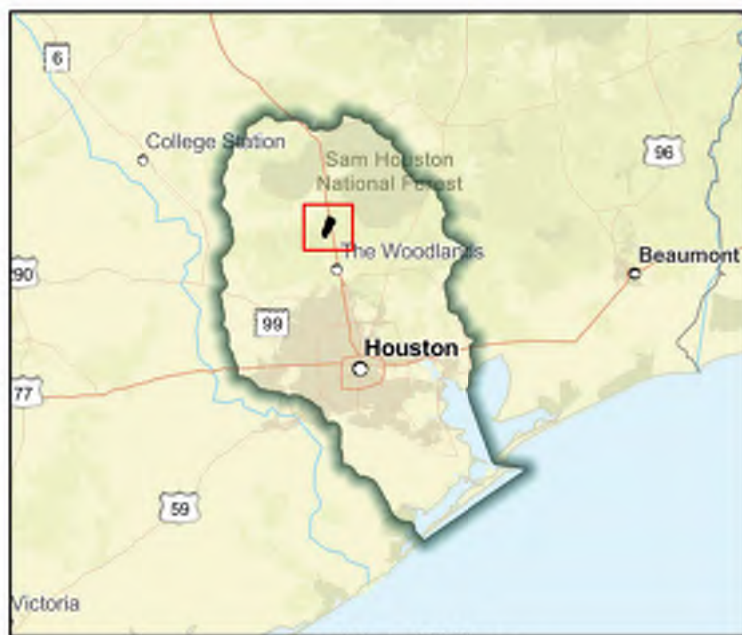
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Fort Bend County - Big Creek Project

ID# 061000101

Sponsor (name of entity, not person) Fort Bend County Drainage District

RFPG recommend? No

Reason for Recommendation

FME included in Region 8.

Study Details

Study type Project Planning

Study description Further study of Big Creek channel improvements and wetland mitigation sites.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend

Watershed HUC# (if known) 120401040102,120401040103,120401040104,120401040101,120401040

Drainage area (Square miles, est.) 883

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 3,408

of structures 1,539

Critical facilities 11

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 122

Roadway(s) impacted (length) 18

Number of low water crossings 6

Historical road closures 6

Estimated Cost and Funding Availability

Total Cost \$200,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Fort Bend County Willow Fork Channel Improvements

ID# 061000318

Sponsor (name of entity, not person) Fort Bend County Drainage District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study and BCA development. Combo of 11 different channel improvements were identified along Willow Fork and its tributaries as part of the Fort Bend County Master Drainage Plan that, when combined, will provide a 100-year level of service.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Fort Bend,Harris,Waller

Watershed HUC# (if known) 120401040102,120401040103,120401040104,120401040101,120401040

Drainage area (Square miles, est.) 46

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 991

of structures 403

Critical facilities 10

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 80

Roadway(s) impacted (length) 8

Number of low water crossings 2

Historical road closures

2

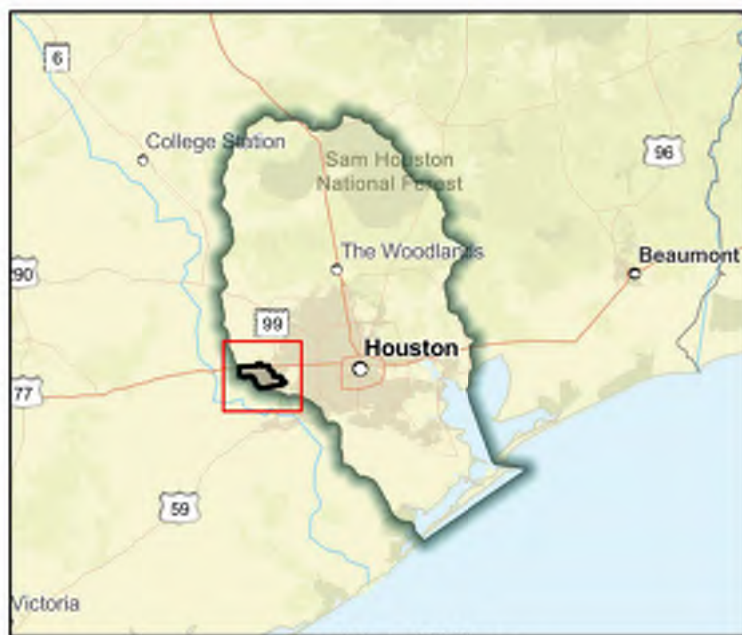
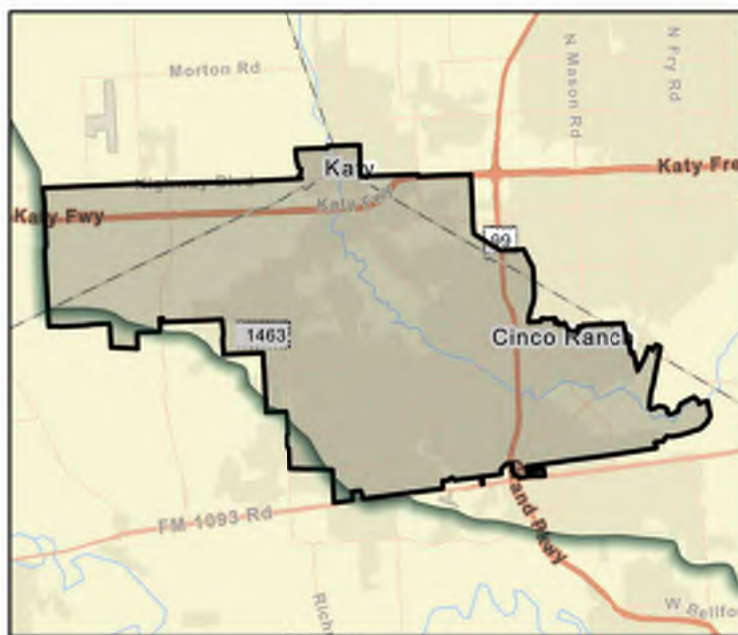
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Freeway Manor North Area Drainage and Paving Improvements FMN, FMS, GWT and C106-10**

ID# **061000472**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements in the Freeway Manor North Area to mitigate structural flooding risk. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040502**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **715**

of structures **205**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **3**

Number of low water crossings **-**

Historical road closures **-**

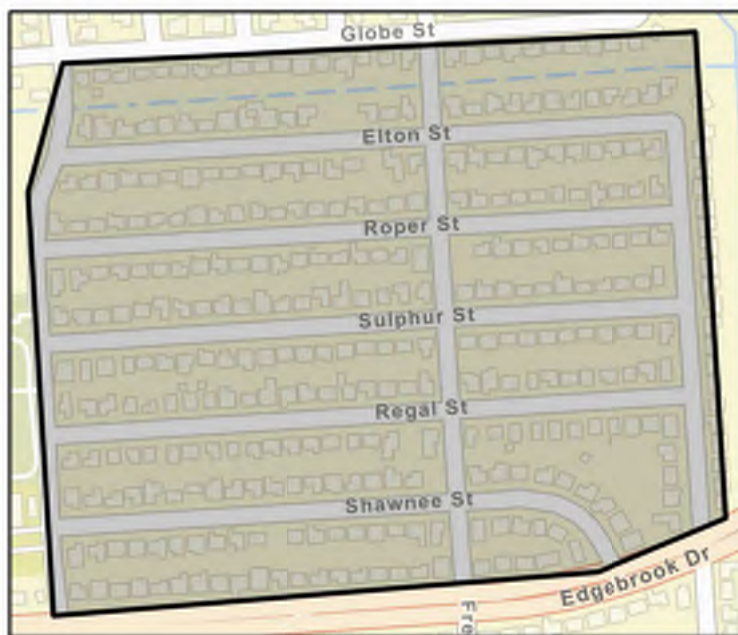
Estimated Cost and Funding Availability

Total Cost **\$30,000**

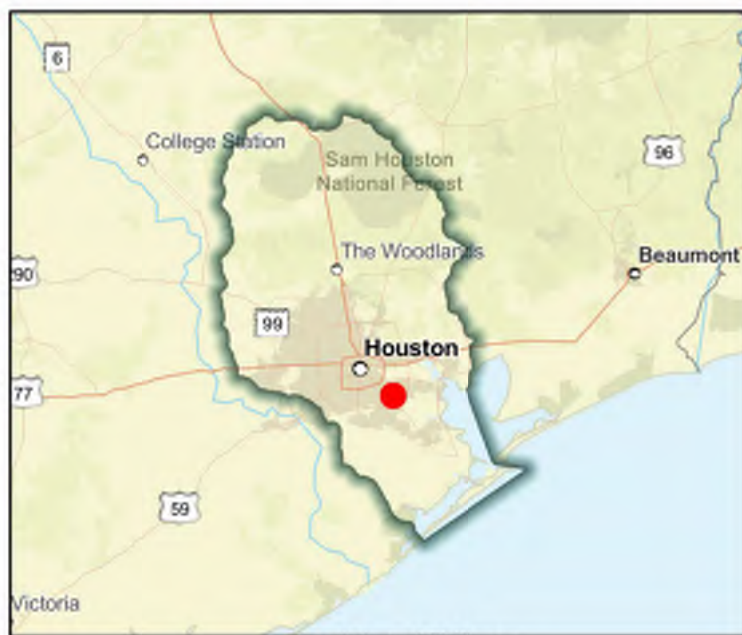
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **G103-38-00 (Kingwood Diversion Ditch)**

ID# **061000360**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this to become a FMP. Improvements to the Kingwood Diversion Ditch include channel modifications, flow diversion from Bens Branch, bridge replacements, as well as a new outfall to the West Fork San Jacinto River.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Montgomery**

Watershed HUC# (if known) **120401030110,120401010501**

Drainage area (Square miles, est.) **8**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,119**

of structures **295**

Critical facilities **7**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **5**

Number of low water crossings **0**

Historical road closures **0**

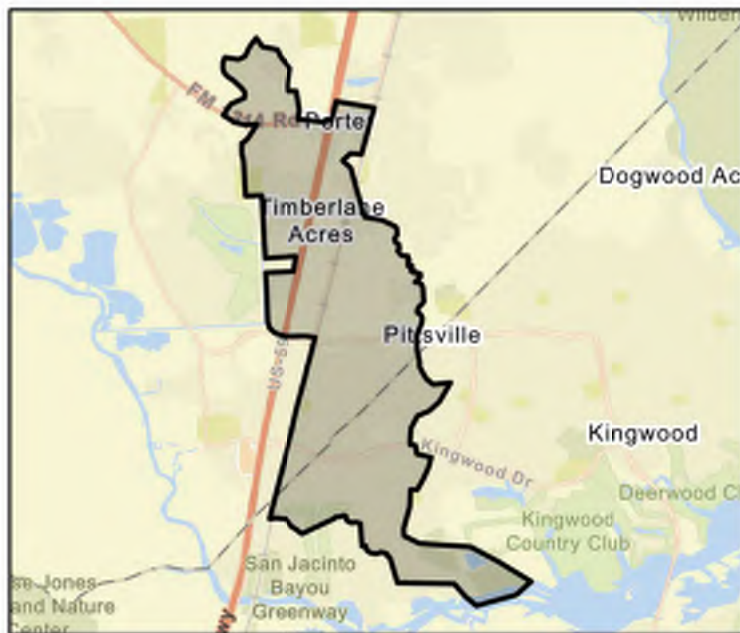
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title G103-80-03.18 (Taylor Gully)

ID# 061000361

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a BCR required for this project to become a FMP. Improvements to Taylor Gully include two miles of channel conveyance improvements to the upper limits of Taylor Gully and a concrete low flow structure.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Montgomery

Watershed HUC# (if known) 120401010501,120401030110,120401030402

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,517

of structures 582

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 8

Number of low water crossings 1

Historical road closures

1

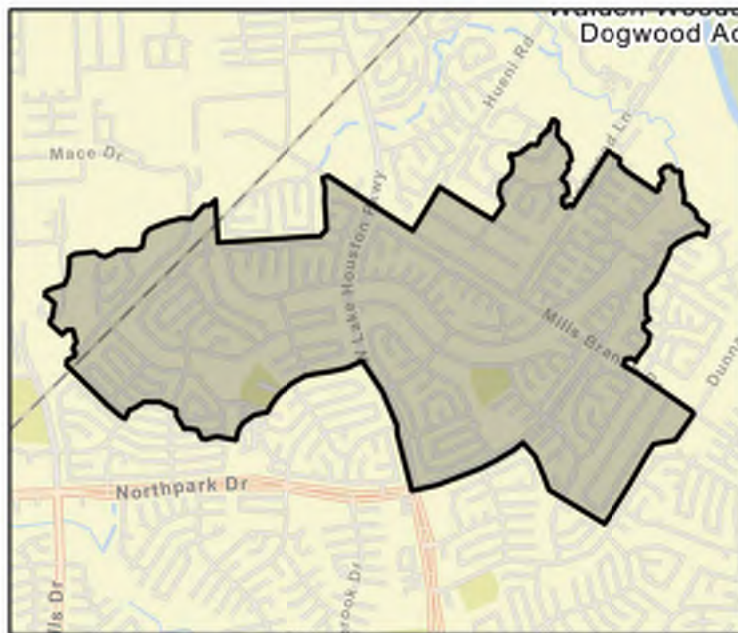
Estimated Cost and Funding Availability

Total Cost \$30,000

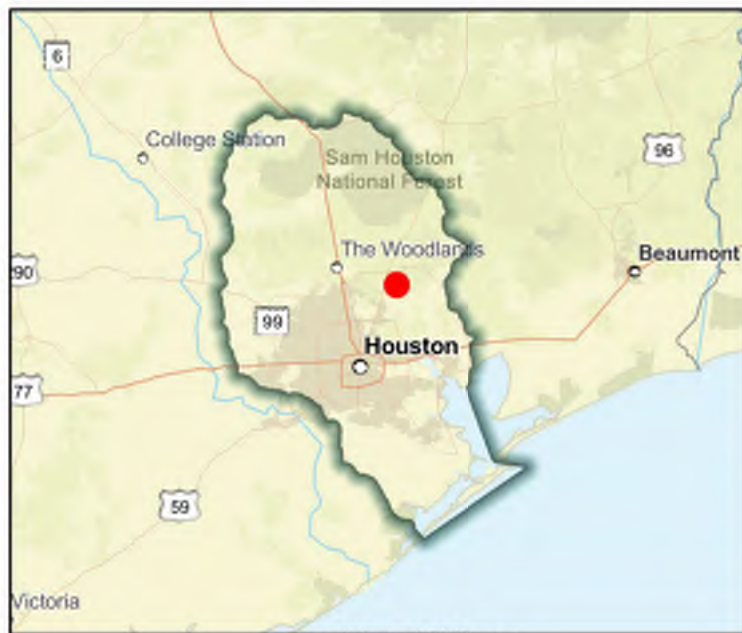
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00

ID# 061000349

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The project could reduce the risk of flooding for over 40 structures in an Atlas 14 1% rainfall event.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040706,120402040100

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

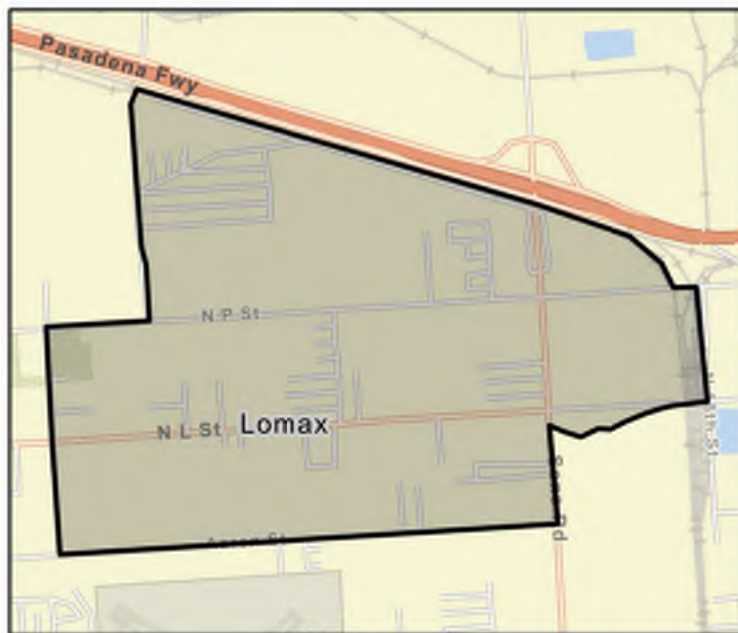
Estimated Cost and Funding Availability

Total Cost \$30,000

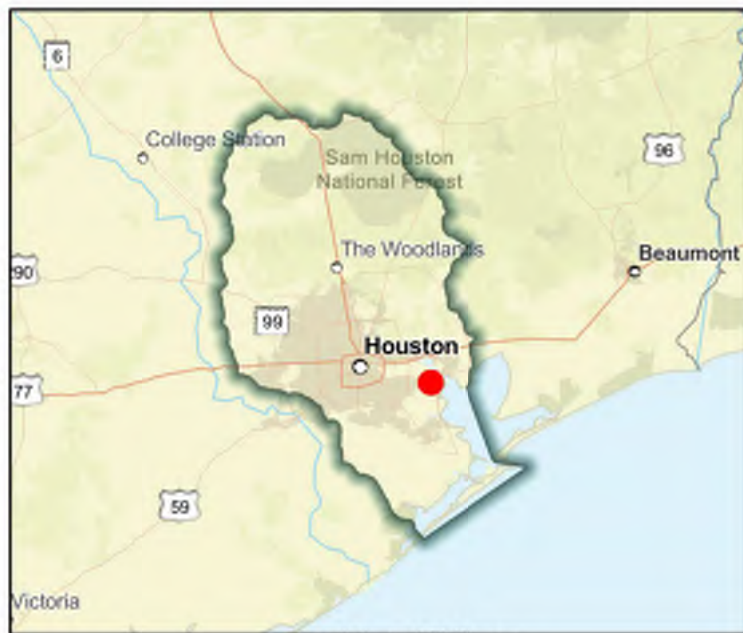
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00

ID# 061000348

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The project could reduce the risk of flooding for more than 450 structures in an Atlas 14 1% rainfall event.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040706,120402040100

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 800

of structures 384

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 10

Number of low water crossings 0

Historical road closures 0

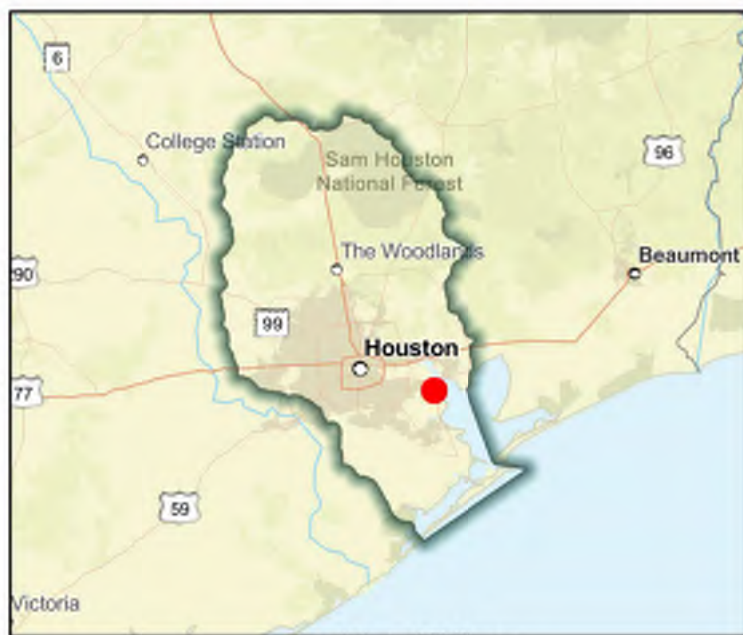
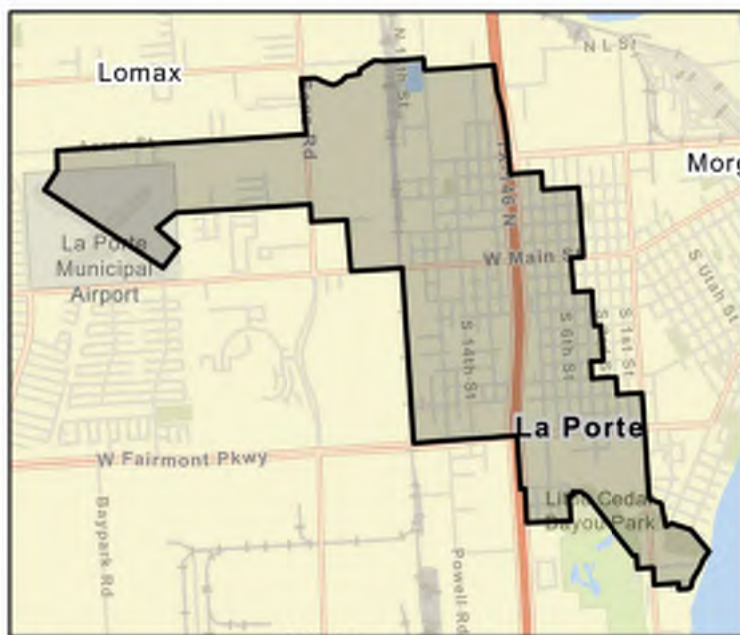
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay Watershed Plan- PA01 (N+6) Channel & Crossing Improvements

ID# 061000343

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become FMP. Channel deepening from N Broadway St to N Utah St, convert open channel segment to closed conduit w/ 8'x5' concrete boxes b/w N Utah St & Main St, replace concrete pipe w/ dual 8'x5' concrete box culvert outfall to F212.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 562

of structures 259

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 5

Number of low water crossings 0

Historical road closures 0

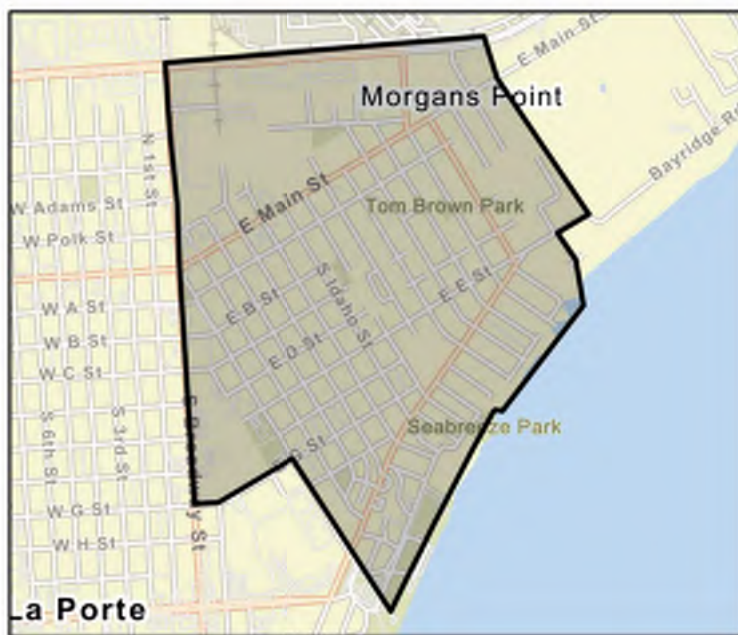
Estimated Cost and Funding Availability

Total Cost \$30,000

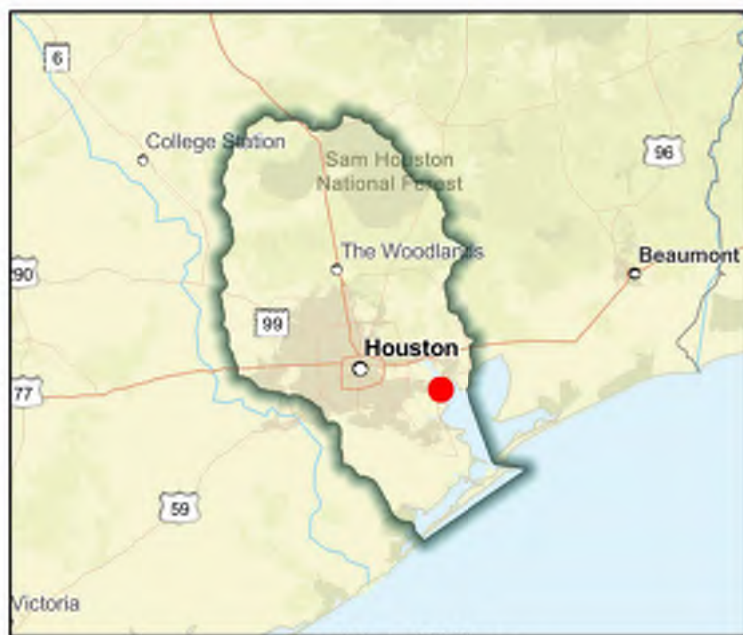
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay Watershed Plan- Analysis of PA07 100-year Conveyance Project

ID# 061000034

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project recommended by the Galveston Bay Watershed Plan. Modeling required to determine no negative Proposed subdivision drainage improvements to the Battle Ground Estates include replacement of driveway crossings and widening F101-08.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers,Harris

Watershed HUC# (if known) 120401040706,120402040100

Drainage area (Square miles, est.) 19

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 8,623

of structures 3,301

Critical facilities 107

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 55

Number of low water crossings 0

Historical road closures

0

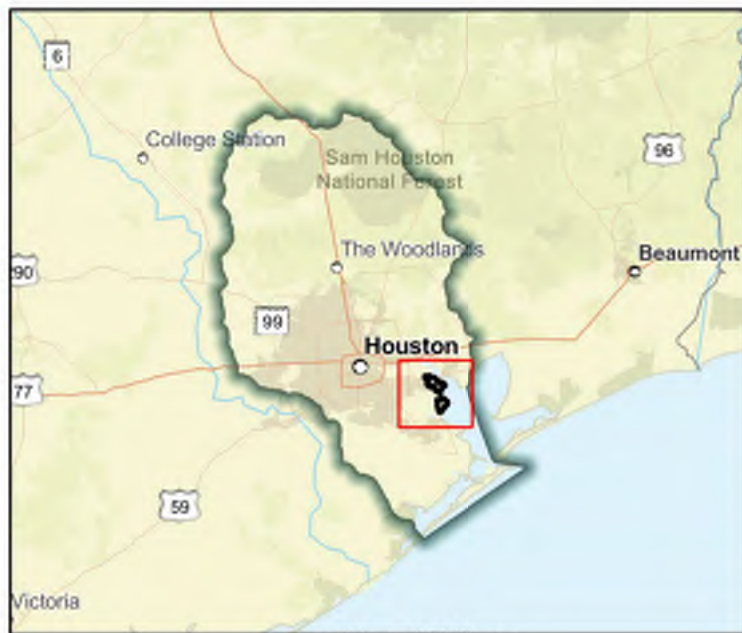
Estimated Cost and Funding Availability

Total Cost \$400,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay Watershed Plan- Analysis of PA08 100-year Conveyance Project

ID# 061000035

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project recommended by the Galveston Bay Watershed Plan. Modeling required to determine no negative impacts. Storm sewer improvements to Monument Estates, increase roadside ditch capacity, and expand bypass channel outflowing into F101-00-00.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Chambers,Harris

Watershed HUC# (if known) 120401040706,120402040100

Drainage area (Square miles, est.) 19

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 8,623

of structures 3,301

Critical facilities 107

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 55

Number of low water crossings 0

Historical road closures

0

Estimated Cost and Funding Availability

Total Cost \$800,000

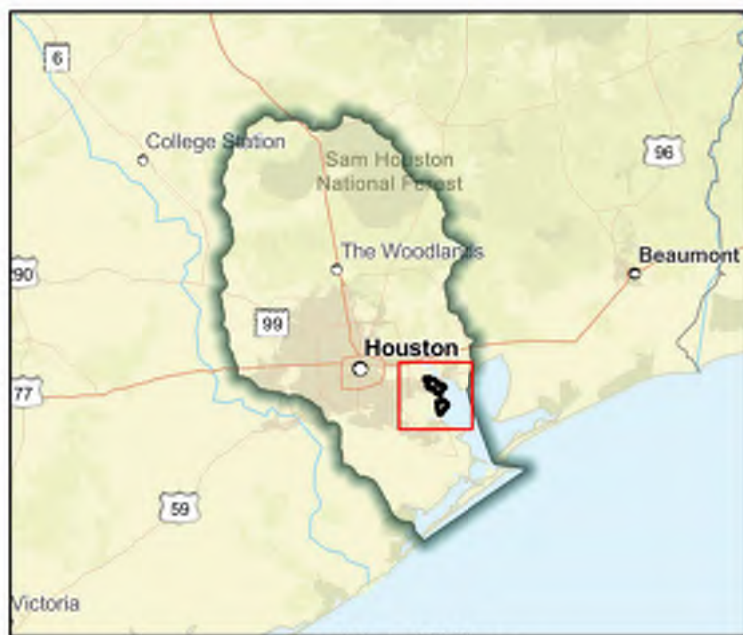
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Bay Watershed Plan- PA04 (S+4) Crossing Improvements

ID# 061000350

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Recommended alternative directly addresses need for improved channel conveyance by increasing the size of the crossings at El Jardin Dr and Youpon Dr. to 8'x5' box culverts.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Chambers,Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 390

of structures 190

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

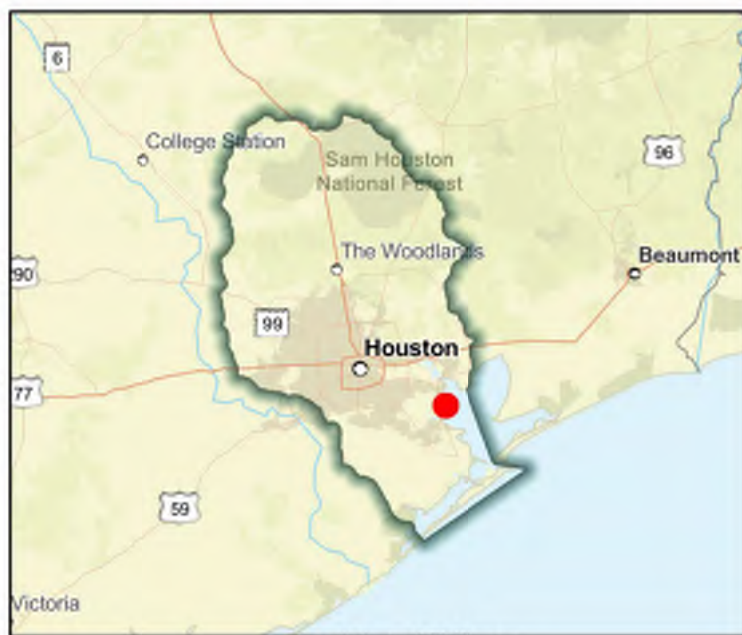
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston County Drainage System Improvement Study

ID# 061000163

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 665

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 102,745

of structures 48,545

Critical facilities 667

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,412

Roadway(s) impacted (length) 910

Number of low water crossings 30

Historical road closures

30

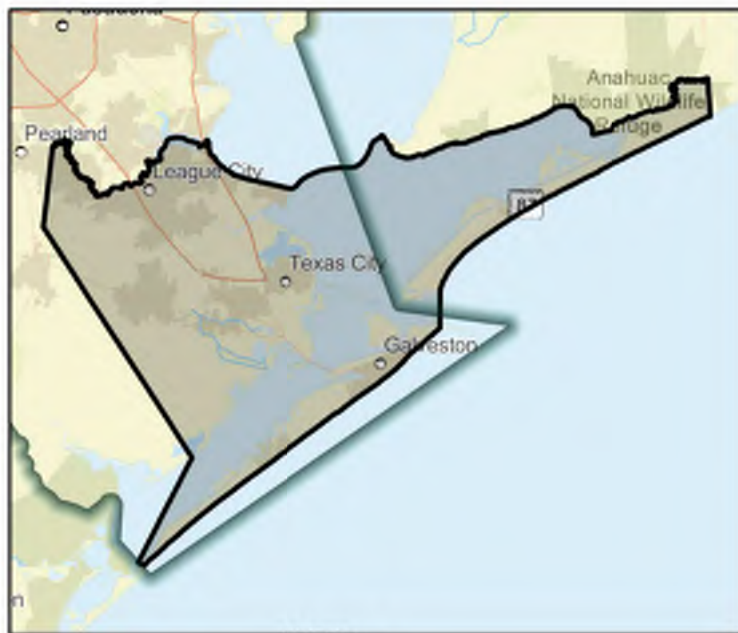
Estimated Cost and Funding Availability

Total Cost \$1,590,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Galveston Flood Mapping Updates

ID# 061000304

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description County wide study to produce flood mapping updates including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 665

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 102,745

of structures 48,545

Critical facilities 667

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,412

Roadway(s) impacted (length) 910

Number of low water crossings 30

Historical road closures

30

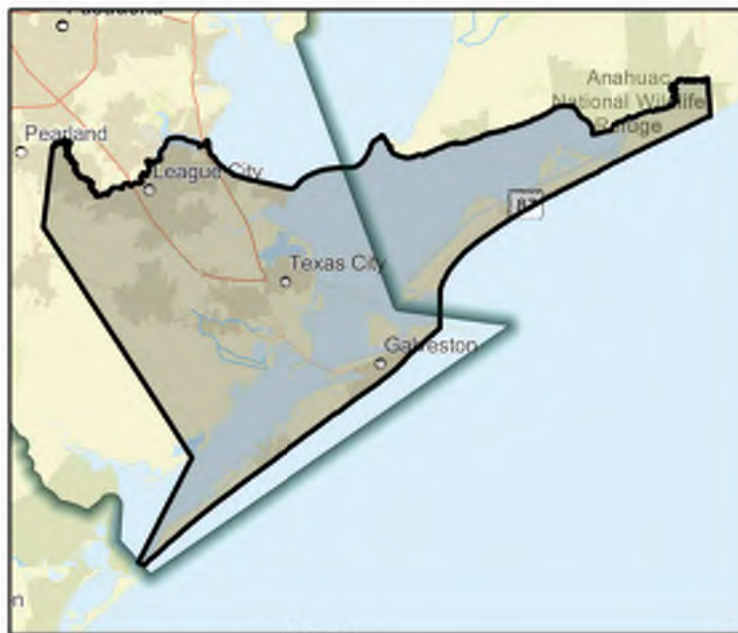
Estimated Cost and Funding Availability

Total Cost \$2,960,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Gellhorn**

ID# **061000482**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **This project provides for paving improvements including storm inlet improvements in the Gellhorn Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040701**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **8,578**

of structures **36**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **7**

Number of low water crossings **2**

Historical road closures **2**

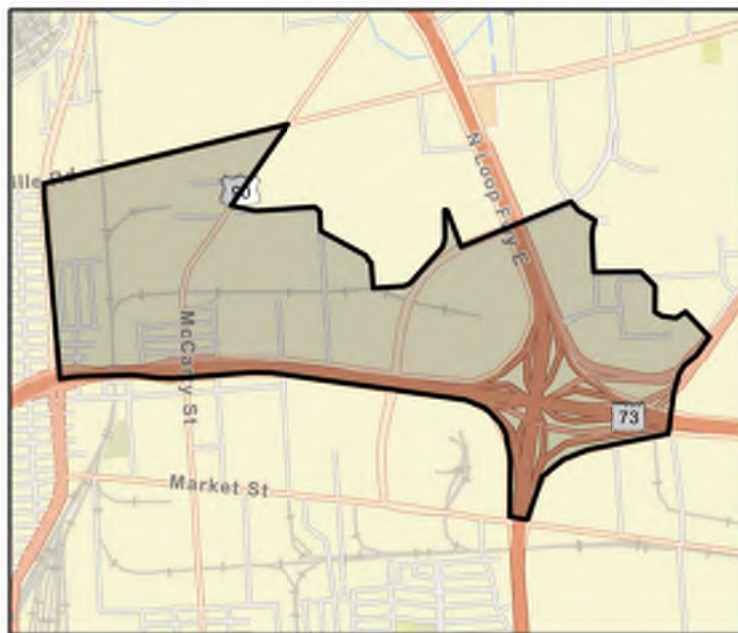
Estimated Cost and Funding Availability

Total Cost **\$30,000**

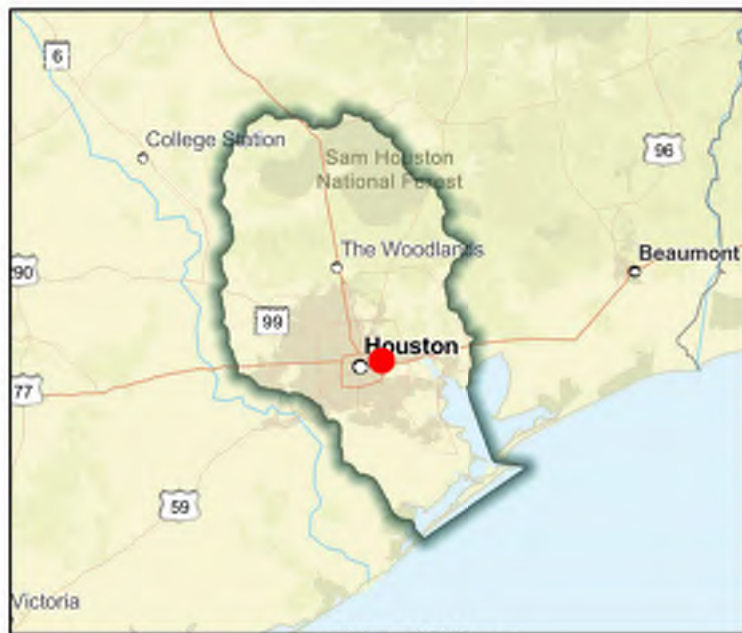
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Goose Creek Flood Risk Reduction Phase 1**

ID# **061000334**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No**

Reason for Recommendation

This FME has been elevated to an FMP as part of the Task 12 Effort.

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. 1.65 Miles of Goose Creek channel modifications (Downstream of IH 10) with proposed detention basin "J".**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040705,120401040706**

Drainage area (Square miles, est.) **35**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **5,995**

of structures **1,882**

Critical facilities **64**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **73**

Roadway(s) impacted (length) **33**

Number of low water crossings **1**

Historical road closures **1**

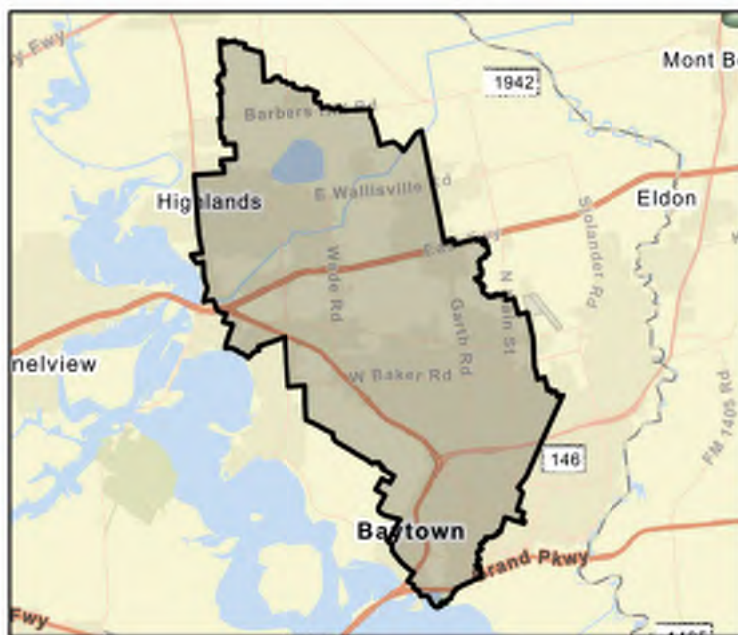
Estimated Cost and Funding Availability

Total Cost **\$30,000**

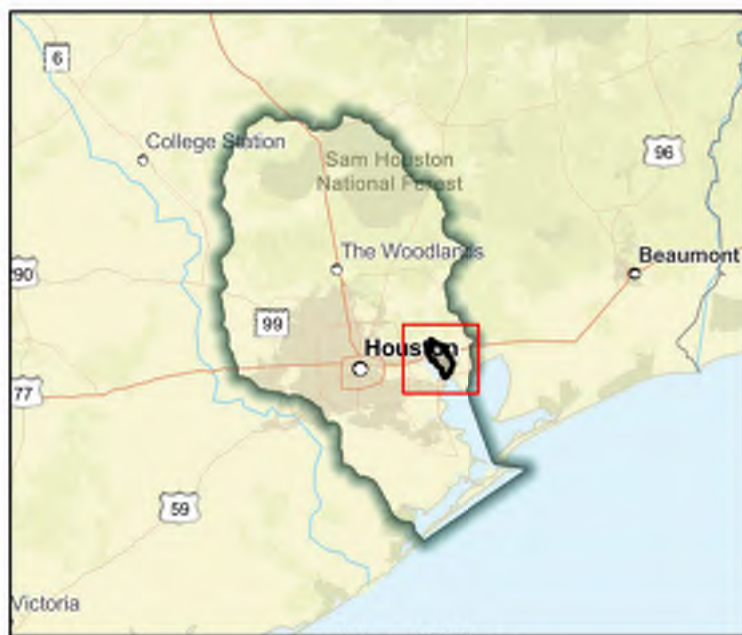
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Goose Creek Flood Risk Reduction Phase 2**

ID# **061000335**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No**

Reason for Recommendation

This FME has been elevated to an FMP as part of the Task 12 Effort.

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. 1.00 Mile of Goose Creek channel modifications (Upstream of IH 10) with proposed detention basin "I".**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040705,120401040706**

Drainage area (Square miles, est.) **35**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **5,995**

of structures **1,882**

Critical facilities **64**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **73**

Roadway(s) impacted (length) **33**

Number of low water crossings **1**

Historical road closures **1**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

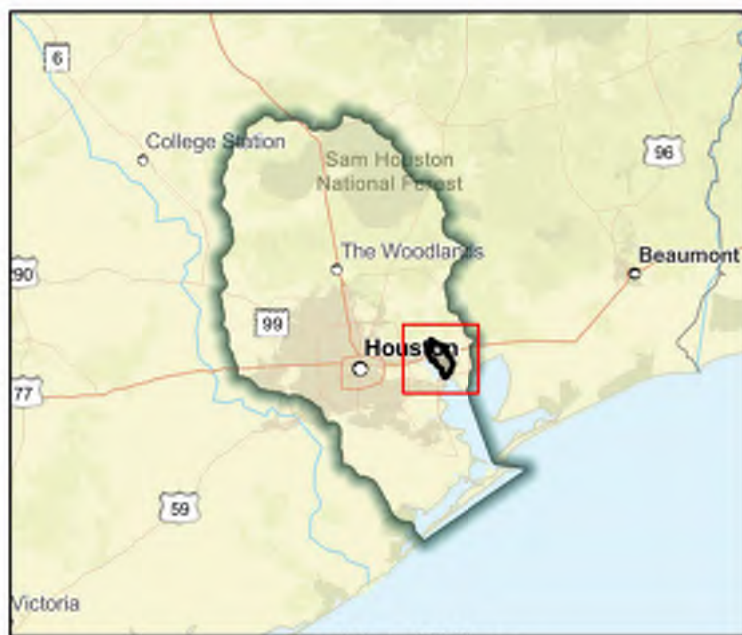
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Goose Creek Flood Risk Reduction Phase 3**

ID# **061000336**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No**

Reason for Recommendation

This FME has been elevated to an FMP as part of the Task 12 Effort.

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Local channel modifications and crossing structure improvements along O117 and O126.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040705**

Drainage area (Square miles, est.) **35**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **5,995**

of structures **1,882**

Critical facilities **64**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **73**

Roadway(s) impacted (length) **33**

Number of low water crossings **1**

Historical road closures **1**

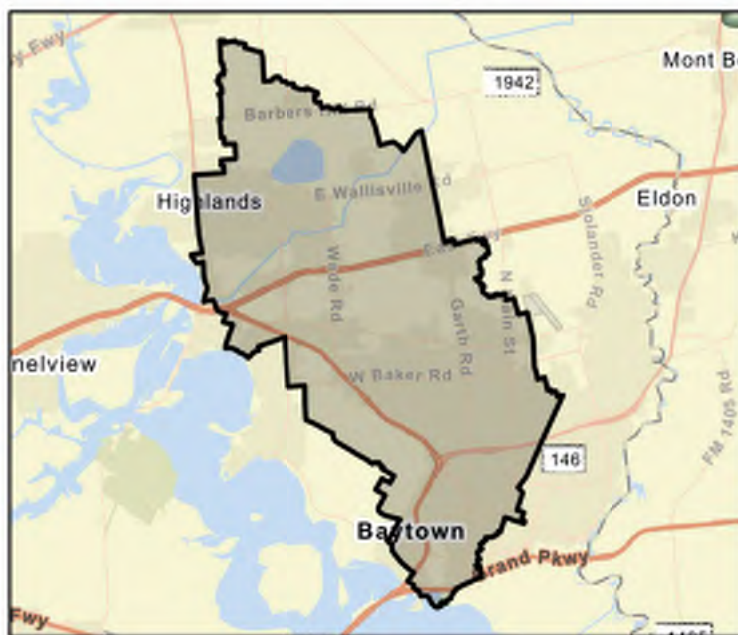
Estimated Cost and Funding Availability

Total Cost **\$30,000**

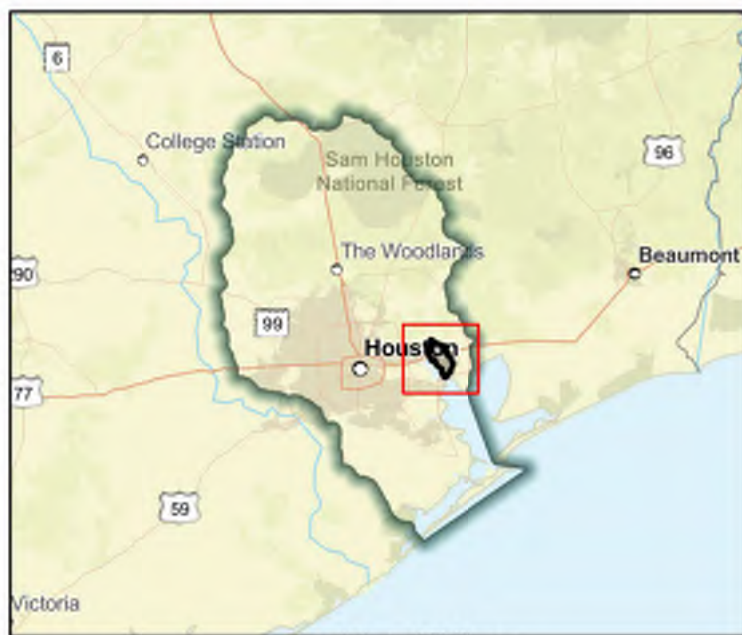
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Goose Creek O119-00-00-P001 (Alt 2A1)**

ID# **061000362**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel modifications and in-line stormwater detention along O119 to facilitate Harris County drainage improvements in Highland Mobile Estates.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040705,120402030104**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

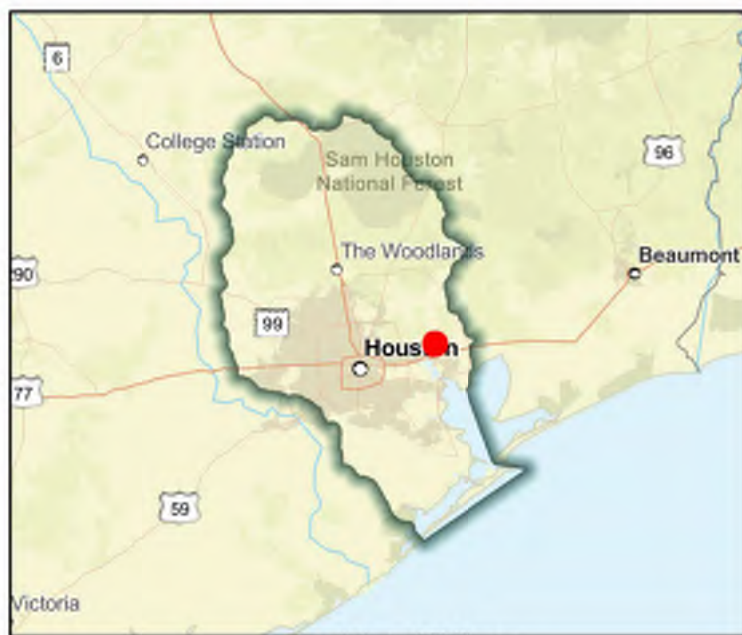
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Goose Creek O119-00-00-P001 (Alt 2A3)**

ID# **061000363**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Secondary option for the recommended alternative with less benefits and project cost.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040705,120402030104**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

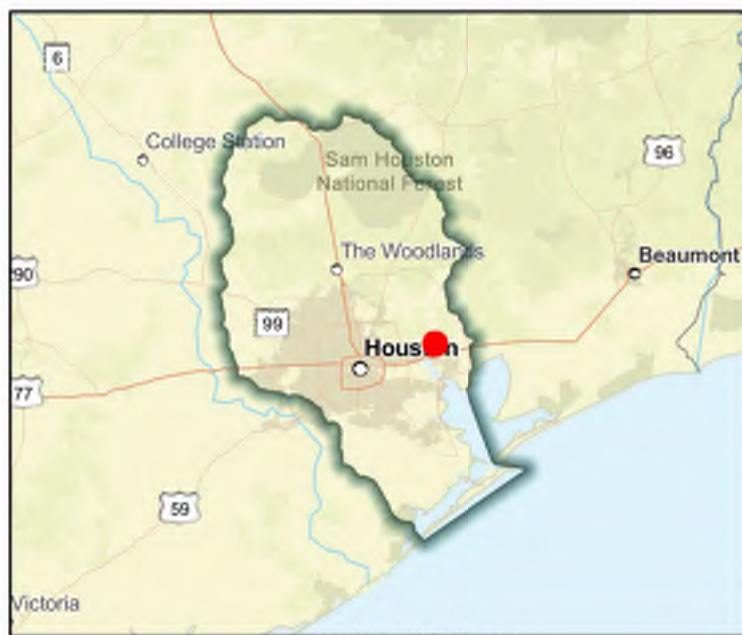
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Green Acres Neighborhood Drainage Improvement Study

ID# 061000500

Sponsor (name of entity, not person) Webster (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Evaluate existing flood risk in the Green Acres Neighborhood and identify solutions to mitigate flooding.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000010

100-Year Flood Risk Summary

Population at risk 1,694

of structures 127

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 2

Number of low water crossings -

Historical road closures -

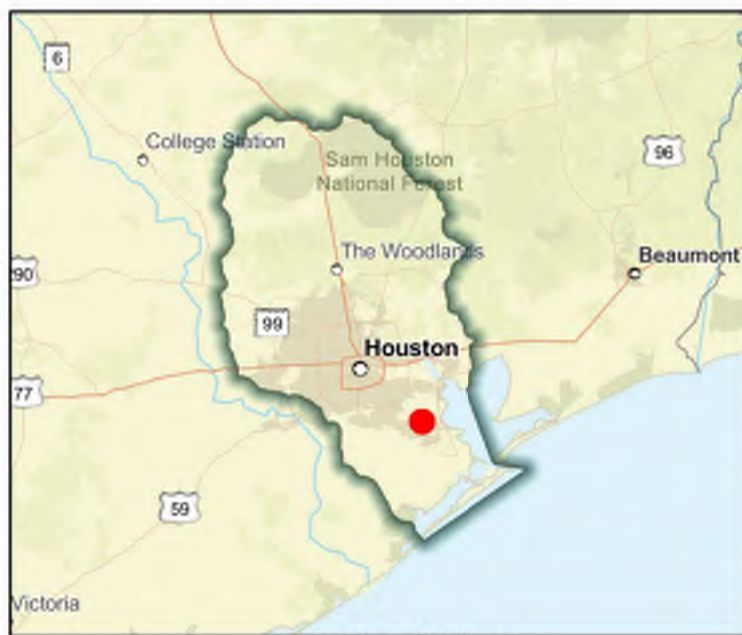
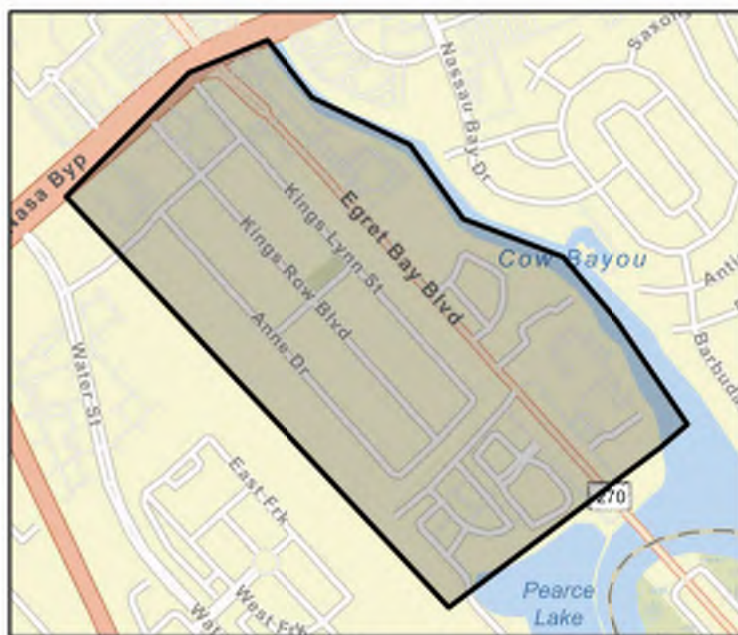
Estimated Cost and Funding Availability

Total Cost \$100,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou - Neighborhood Future Floodplain Analysis

ID# 061000509

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Greens Bayou watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401010501, 120401010502, 120401020106, 120401020107,

Drainage area (Square miles, est.) 211

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 97,307

of structures 25,037

Critical facilities 291

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 164

Roadway(s) impacted (length) 333

Number of low water crossings 17

Historical road closures

17

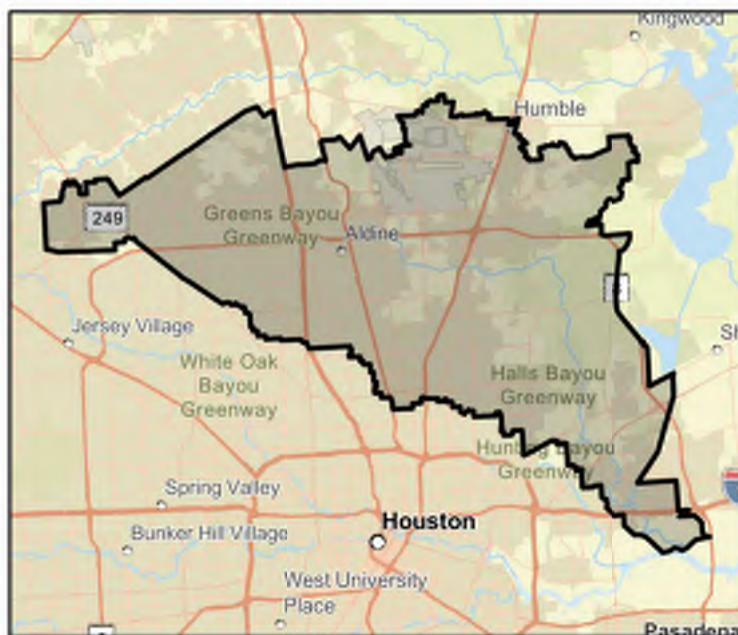
Estimated Cost and Funding Availability

Total Cost \$92,078,920

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou - P103-00-00

ID# 061000216

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for P103-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040703,120401040702,120401040606

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 1,343

of structures 391

Critical facilities 5

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 15

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$300,000

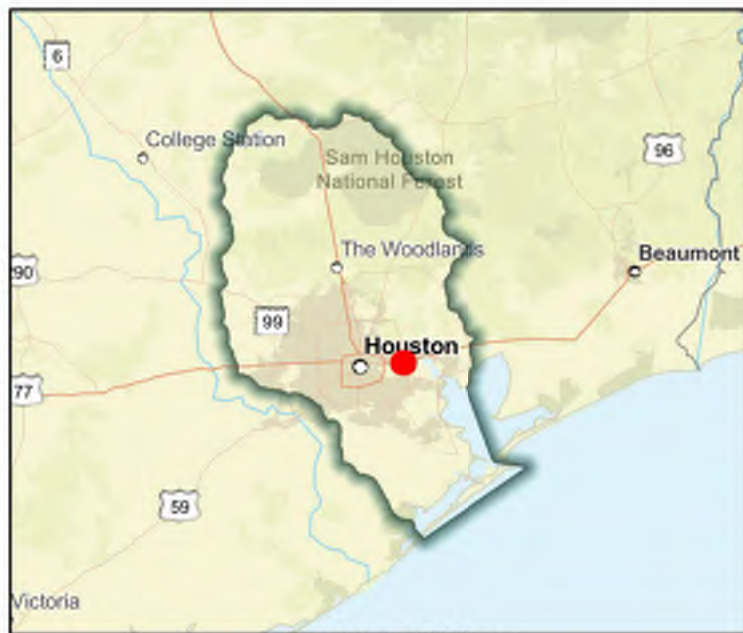
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou - P130-05-02

ID# 061000204

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for P130-05-02-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040602

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 177

of structures 124

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 2

Number of low water crossings -

Historical road closures -

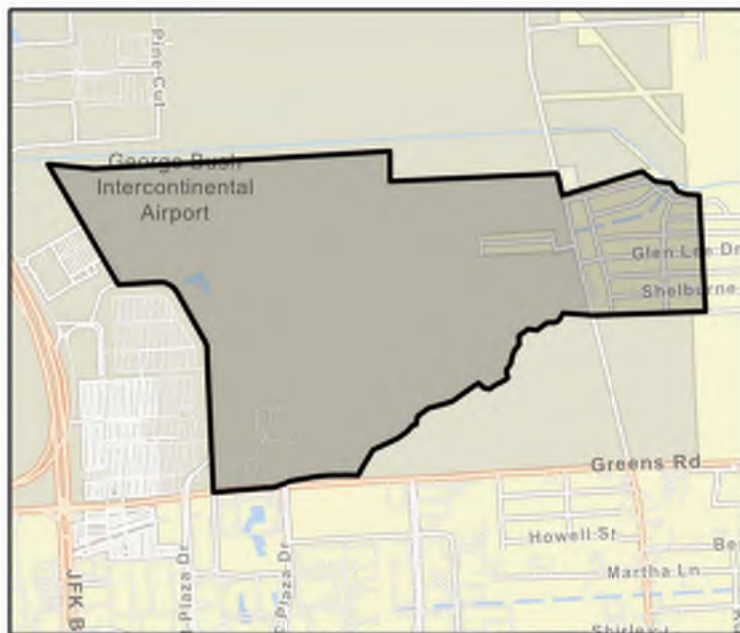
Estimated Cost and Funding Availability

Total Cost \$150,000

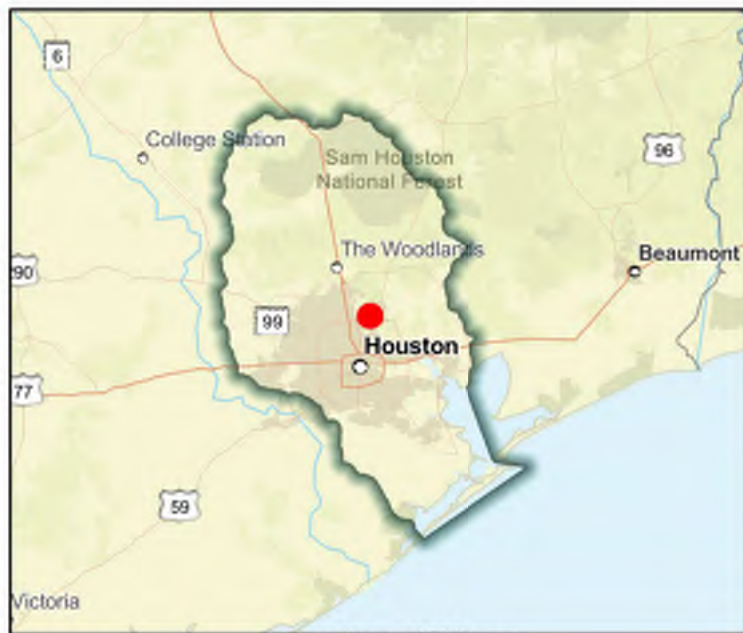
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou - P142-00-00

ID# 061000205

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for P142-00-00 through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040603

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 3,381

of structures 997

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 23

Number of low water crossings 0

Historical road closures 0

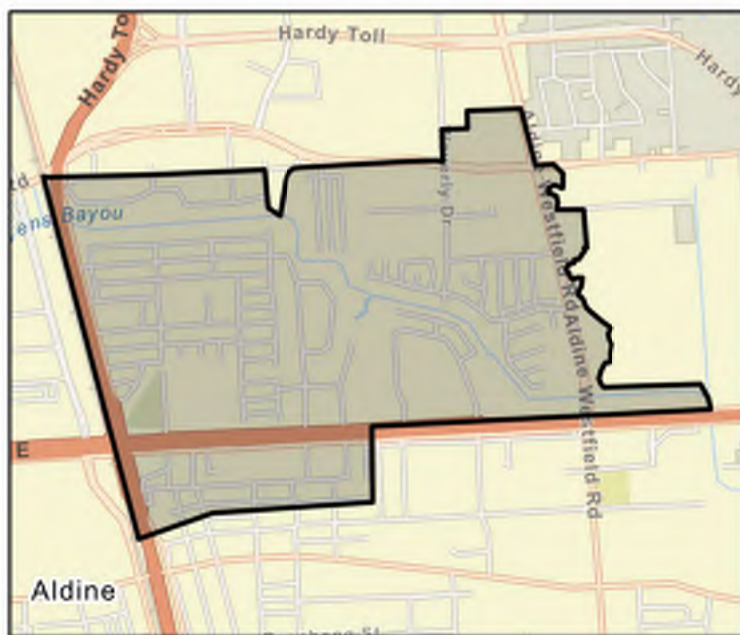
Estimated Cost and Funding Availability

Total Cost \$250,000

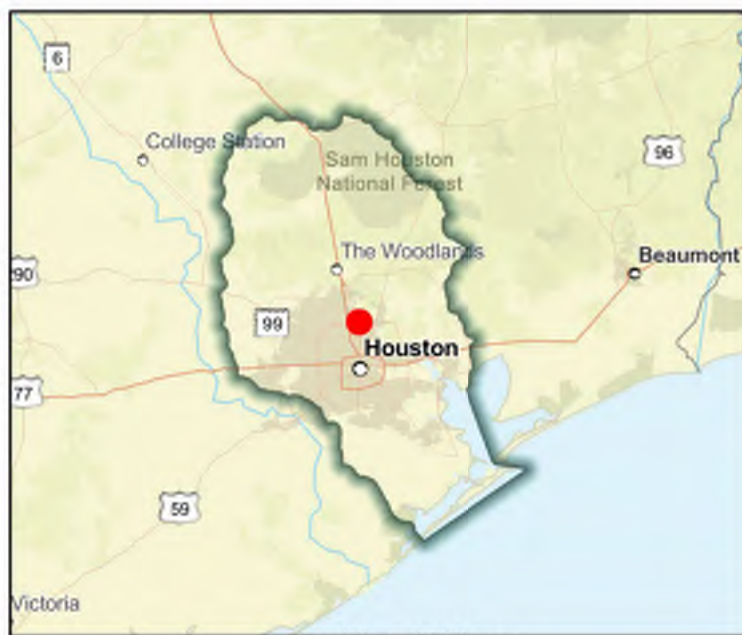
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01

ID# 061000366

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Potential federal funded project, the risk of flooding could be reduced for approximately 100 structures in a pre-Atlas 1% rainfall event.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040604,120401040603

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 133

of structures 41

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

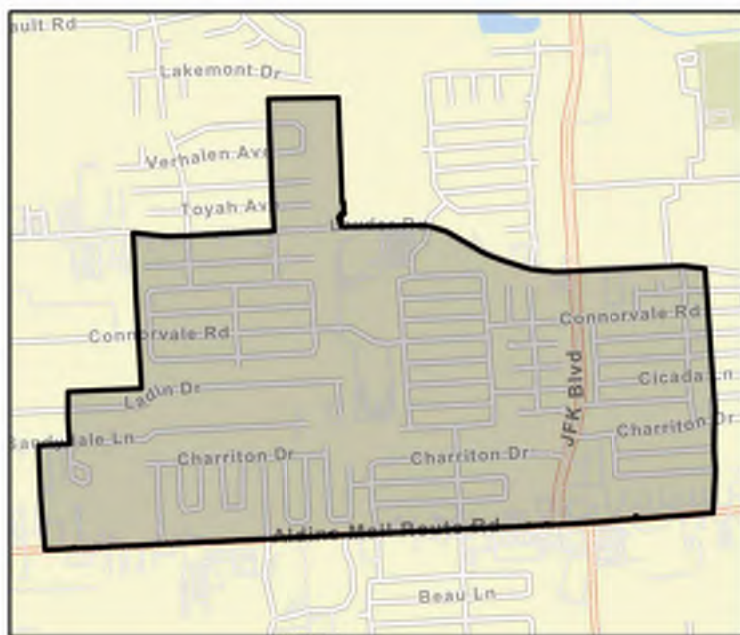
Estimated Cost and Funding Availability

Total Cost \$30,000

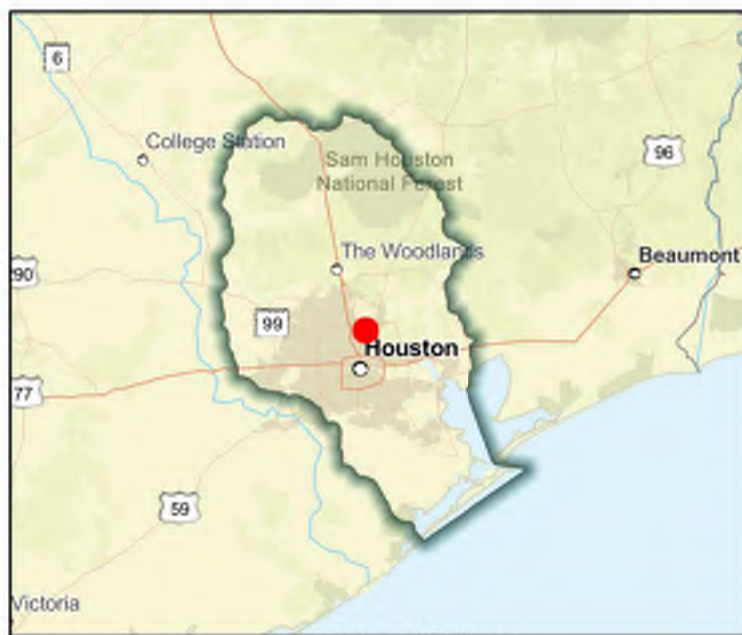
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou (P100-00-00) Mid-Reach Channel Conveyance Improvements
From John F. Kennedy Blvd to Veterans Memorial Drive (Ultimate Project)

ID# 061000365

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? No Reason for Recommendation Duplicate FME

Study Details

Study type Project Planning

Study description Study to develop a BCR required for this project to become a FMP. 2,000 ac-ft proposed Hardy stormwater detention basin and channel conveyance improvements throughout the Green's Bayou Mid-Reach (From John F. Kennedy Blvd to Veterans Memorial Drive).

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401010502,120401010501,120401020106,120401020107,120401040

Drainage area (Square miles, est.) 14

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 42,758

of structures 3,244

Critical facilities 60

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 14

Roadway(s) impacted (length) 71

Number of low water crossings 0

Historical road closures

0

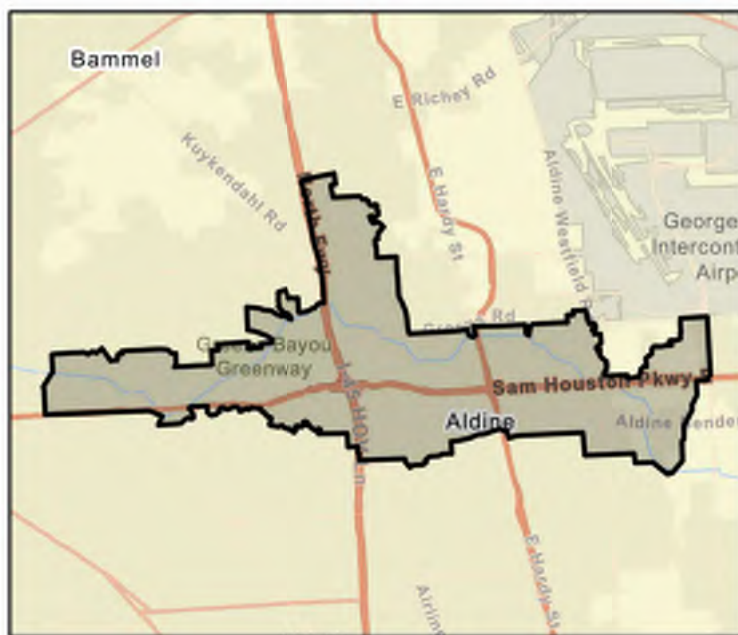
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou Local Drainage Study

ID# 061000517

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Greens Bayou watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401010501,120401010502,120401020106,120401020107,120401040

Drainage area (Square miles, est.) 211

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 97,307

of structures 25,037

Critical facilities 291

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 164

Roadway(s) impacted (length) 333

Number of low water crossings 17

Historical road closures 17

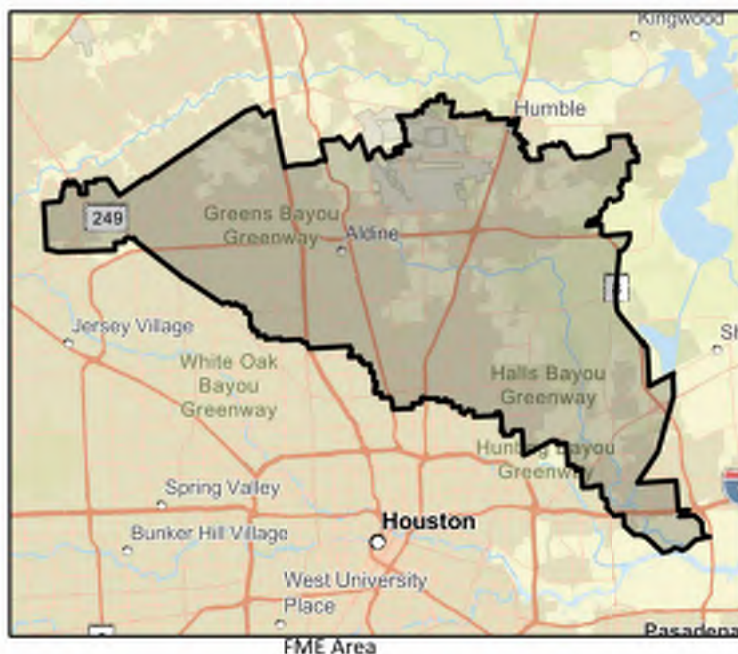
Estimated Cost and Funding Availability

Total Cost \$21,648,482

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou, Jackson Bayou, White Oak Bayou, Cypress Creek and San Jacinto River Areas Subdivision Drainage Mitigation Project

ID# 061000438

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description This proposed solution recommends establishing positive drainage and clear flow lines, which are expected to reduce the water surface elevation in the subdivision to mitigate the structural flood risk for all 1,445 beneficiaries.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris,Waller,Liberty,Montgomery

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 1,042

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 205,981

of structures 42,056

Critical facilities 745

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,543

Roadway(s) impacted (length) 789

Number of low water crossings 27

Historical road closures

27

Estimated Cost and Funding Availability

Total Cost \$30,000

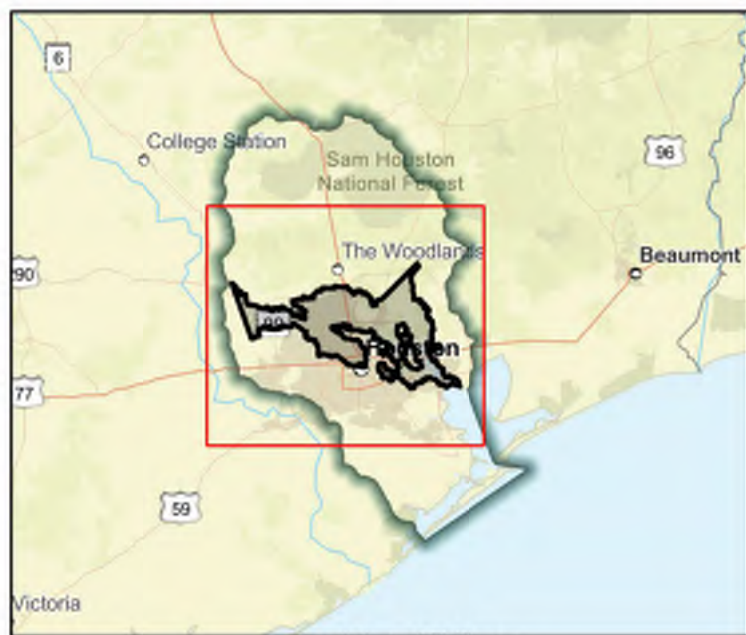
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project

ID# 061000439

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description The mitigation solution for Cypress Creek Estates is to install storm sewer systems along West Shadow Lake, East Shadow Lake, North Shadow Lake and Winding Lane, to re-grade the roadside ditches, and to remove and replace of all driveways and culverts.

New Hydrologic or Hydraulic model? No Emergency Need? No Existing/Anticipated models in near term? Yes

County Harris,Waller Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 543 Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 176,096 # of structures 33,835 Critical facilities 425

Flood risk type: Riverine? No Coastal? No Local? Yes Playa? No Other? No

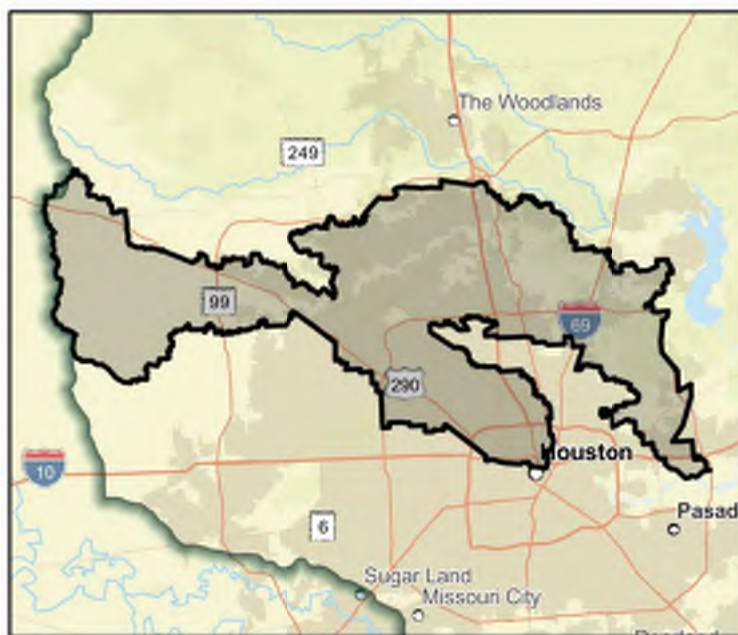
Farm/Ranch land impacted (acres) 1,842 Roadway(s) impacted (length) 601

Number of low water crossings 32 Historical road closures 32

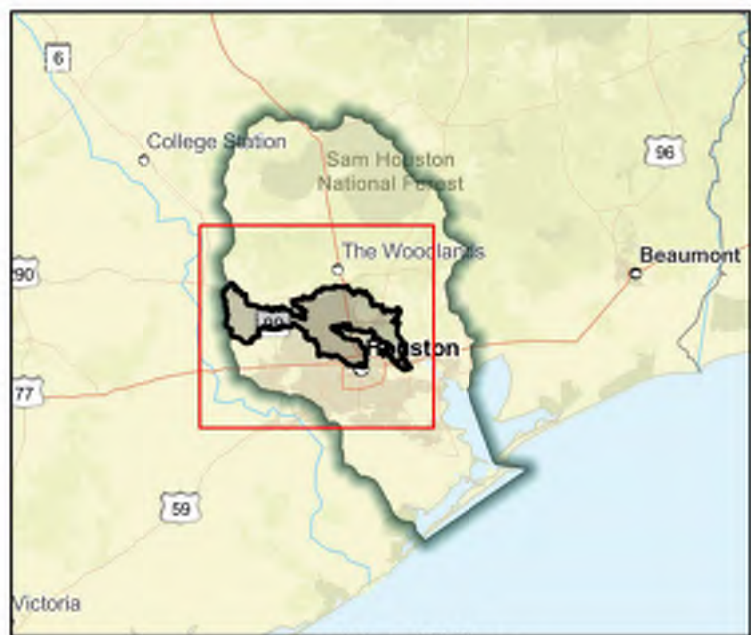
Estimated Cost and Funding Availability

Total Cost \$30,000 Amount of Available Funding - Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Grimes Flood Mapping Updates**

ID# **061000305**

Sponsor (name of entity, not person) **Grimes (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **County wide study to produce flood mapping updates including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Grimes**

Watershed HUC# (if known) **120401010101,120401010301,120401010302,120401010303,120401010**

Drainage area (Square miles, est.) **799**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **95**

of structures **144**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **151**

Roadway(s) impacted (length) **11**

Number of low water crossings **1**

Historical road closures **1**

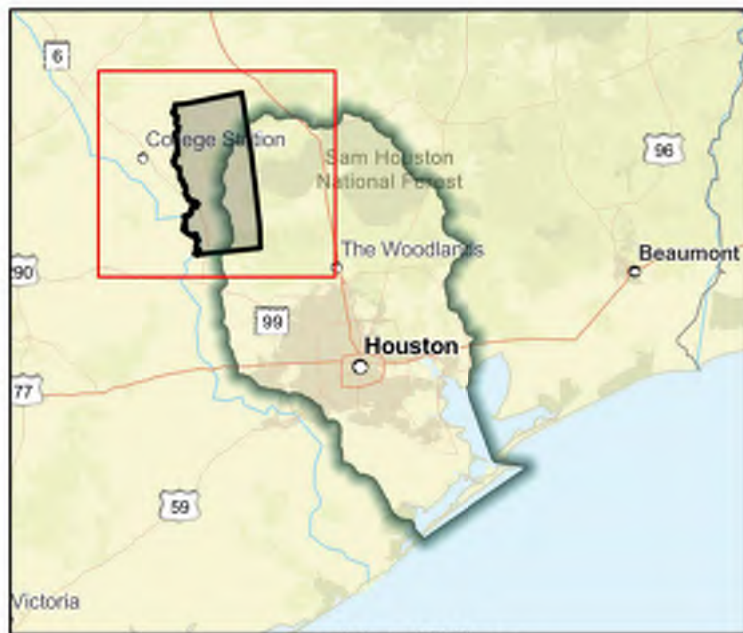
Estimated Cost and Funding Availability

Total Cost **\$3,530,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Gum Bayou Drainage Improvements

ID# 061000543

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Widen Gum Bayou from approximately SH 96 to the City's ETJ and create a new detention pond approximately 270 ac-ft in size.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040100, 120402040200

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,357

of structures 927

Critical facilities 6

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 42

Roadway(s) impacted (length) 18

Number of low water crossings 0

Historical road closures

0

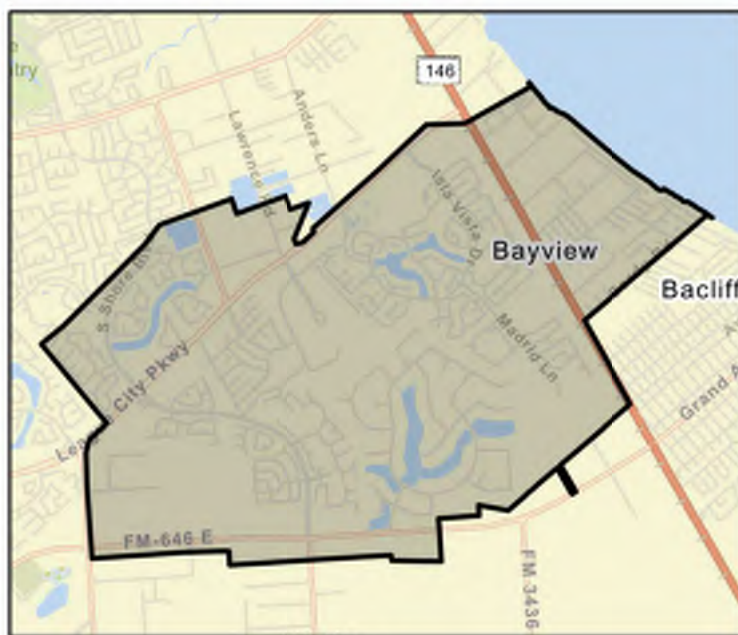
Estimated Cost and Funding Availability

Total Cost \$1,200,000

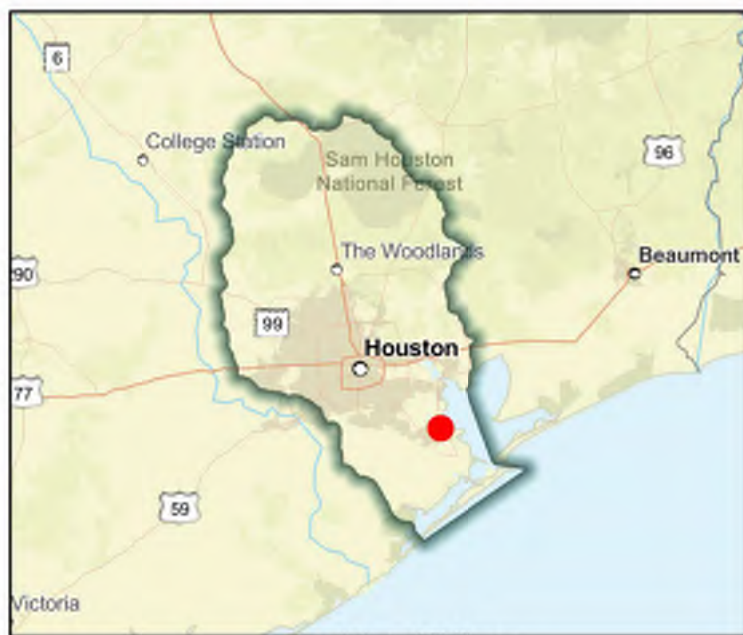
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Gum Gully Rd, W Stroker Rd, Wigwam Ln, and Related Infrastructure Drainage Improvements**

ID# **061000028**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study as report recommendation (2019) indicates that regional drainage improvements to the streams must be studied and implemented before Harris County can obtain a benefit from roadway drainage improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040704**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4**

of structures **3**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$130,000**

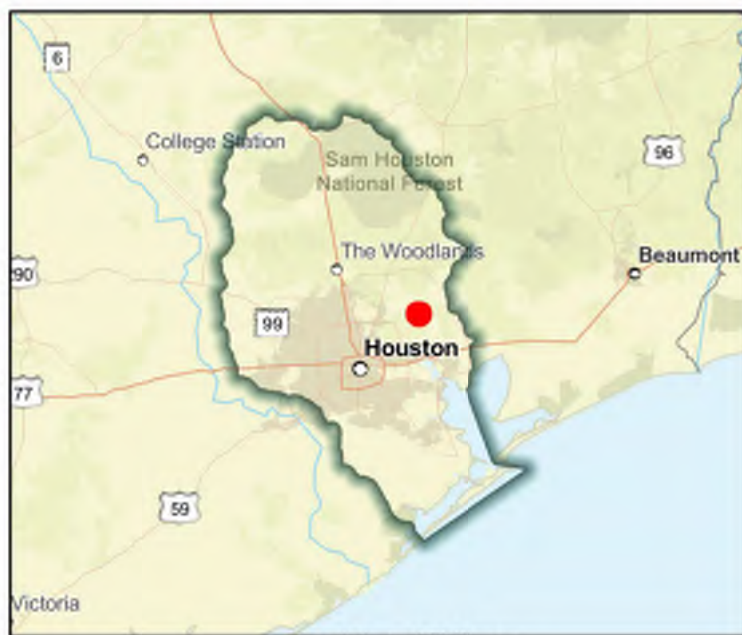
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Design and Construction of a Stormwater Detention Basin in Brock Park**

ID# **061000403**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. Provides additional stormwater detention in support of flood damage reduction as part of the Halls Ahead Bond Implementation Program. The project will be a partnership with the City of Houston.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **44**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **34,396**

of structures **12,415**

Critical facilities **98**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **10**

Roadway(s) impacted (length) **122**

Number of low water crossings **7**

Historical road closures **7**

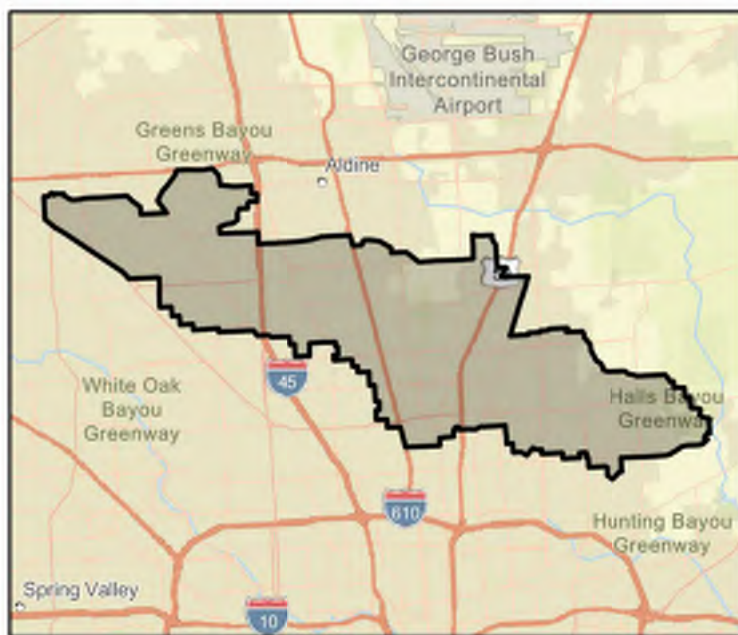
Estimated Cost and Funding Availability

Total Cost **\$30,000**

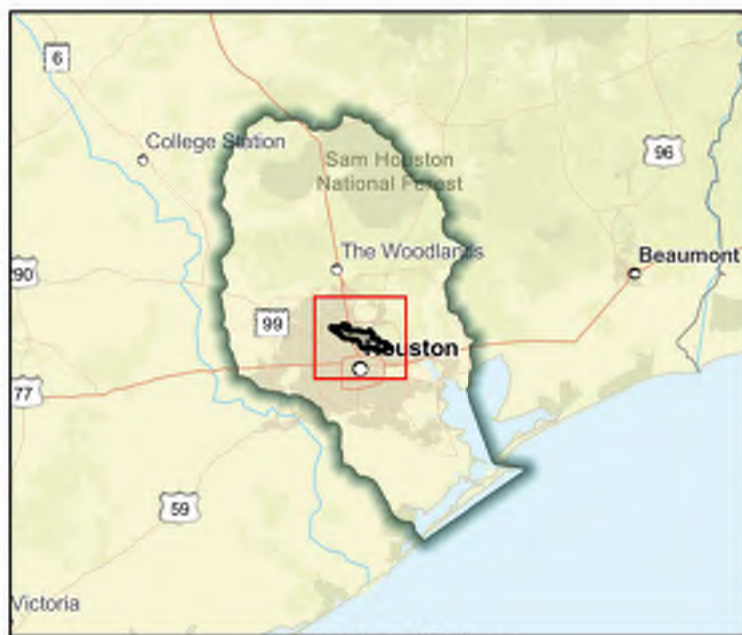
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project**

ID# **061000404**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Other**

Study description **Develop BCA to become a FMP. Projects as part of the Halls Ahead Bond Implementation Program, could reduce the risk of flooding for more than 700 structures in an Atlas 14 1% rainfall event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **44**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **34,396**

of structures **12,415**

Critical facilities **98**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **10**

Roadway(s) impacted (length) **122**

Number of low water crossings **7**

Historical road closures **7**

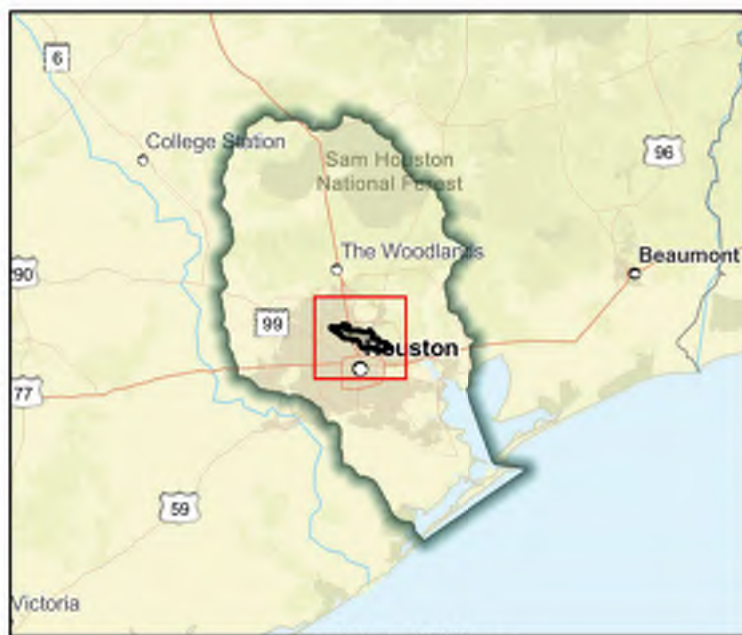
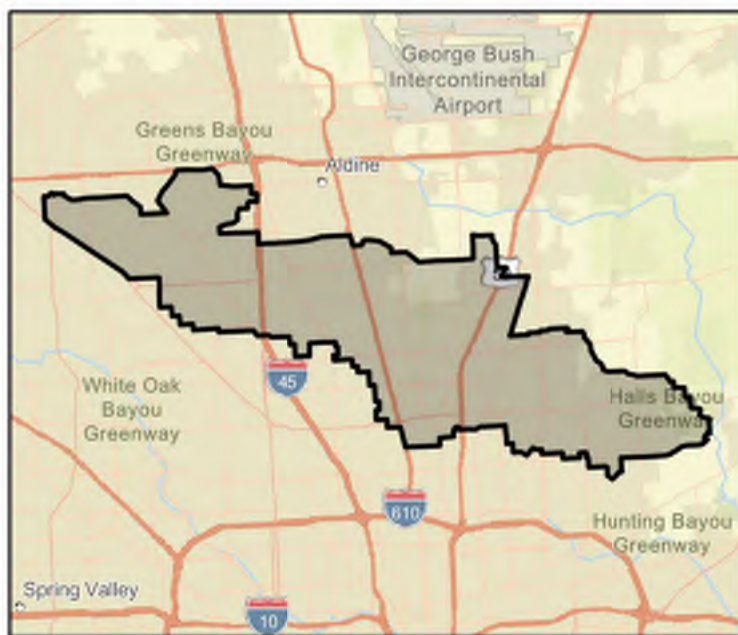
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00**

ID# **061000394**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. This project could reduce the risk of flooding for over 210 structures and could reduce the 1% rainfall event for over 170 acres as part of the Halls Ahead Bond Implementation Program.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **64**

of structures **39**

Critical facilities **2**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

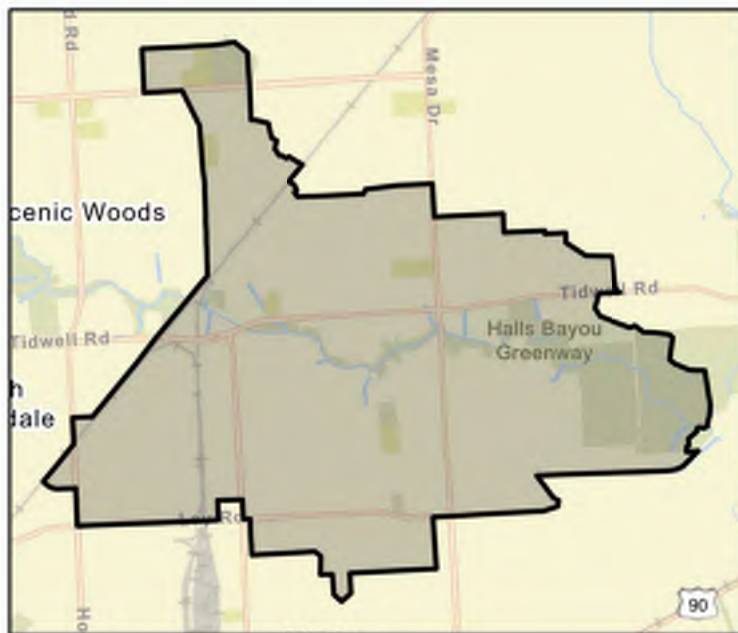
Estimated Cost and Funding Availability

Total Cost **\$30,000**

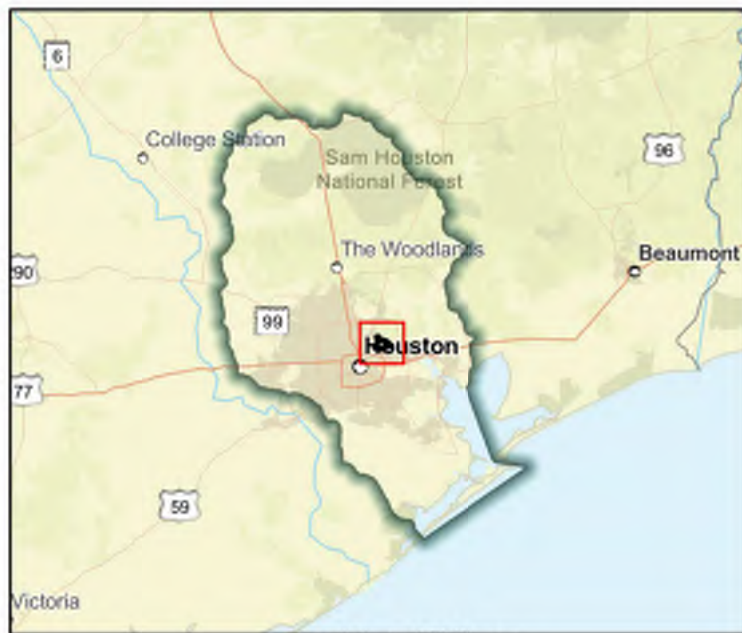
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00**

ID# **061000395**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 80+ structures, size of the floodplain by 30+ acres & frequency & duration of flooding of up to half a mile of roadway in an Atlas 14 1% event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **425**

of structures **260**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

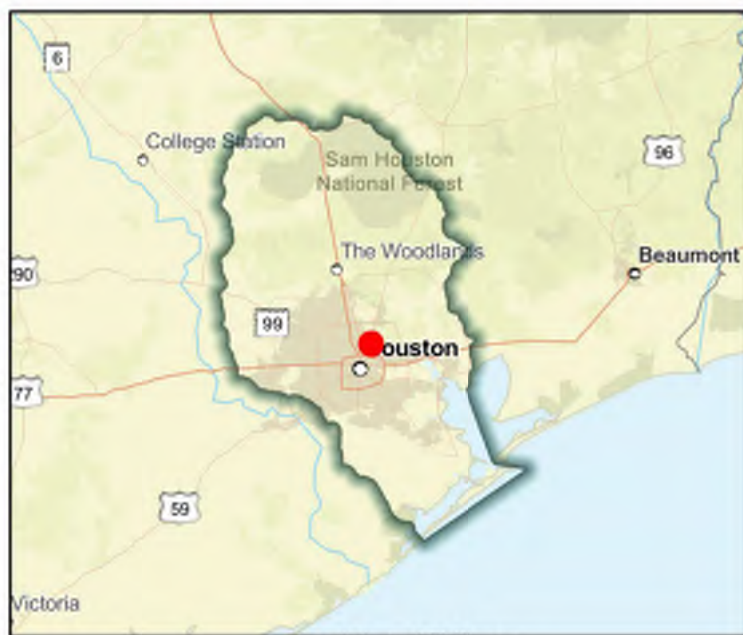
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00**

ID# **061000396**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **RFPG elevated FME to FMP under Task 12**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 60+ structures & floodplain by 40+ acres.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **10,521**

of structures **3,551**

Critical facilities **35**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **29**

Number of low water crossings **1**

Historical road closures **1**

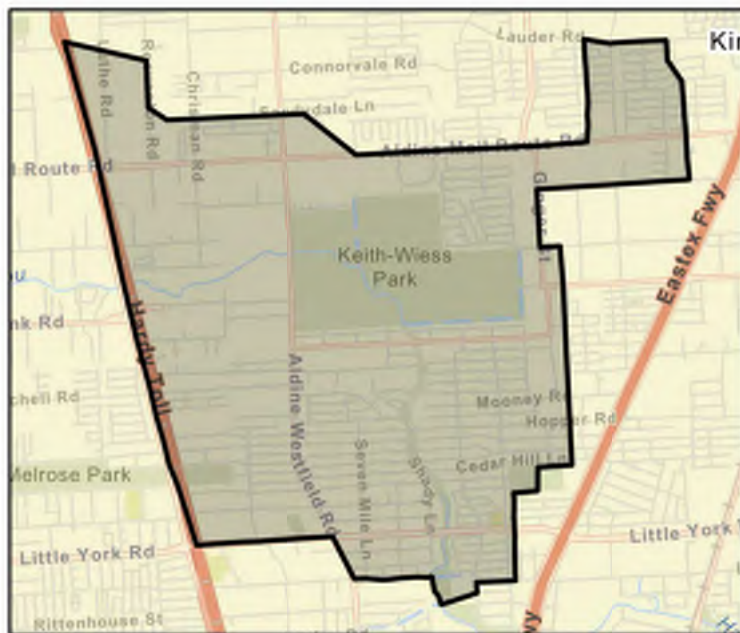
Estimated Cost and Funding Availability

Total Cost **\$30,000**

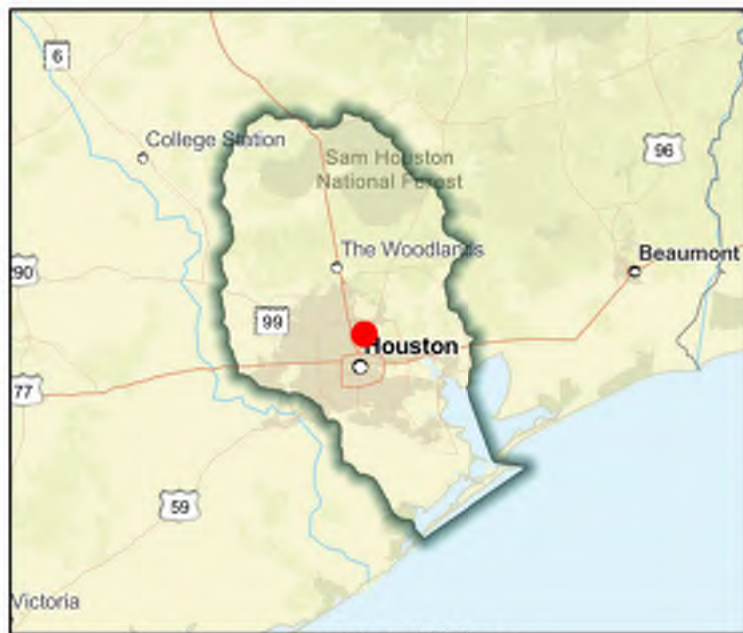
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02**

ID# **061000397**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **This project provides for the design and construction of flood mitigation improvements including detention basins along P118-23-00 and concrete lining P118-23-02. (2018 Bond Project C-26 & C-27)**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,495**

of structures **1,431**

Critical facilities **8**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **10**

Number of low water crossings **1**

Historical road closures **1**

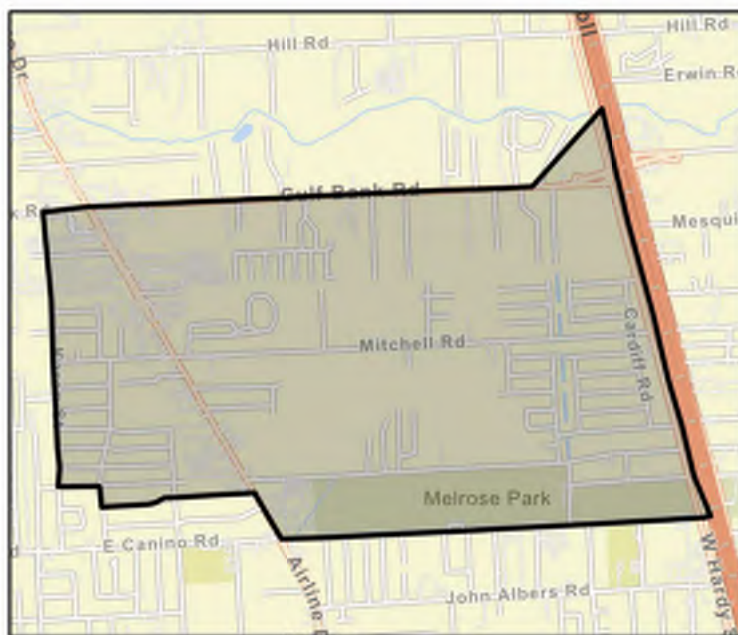
Estimated Cost and Funding Availability

Total Cost **\$30,000**

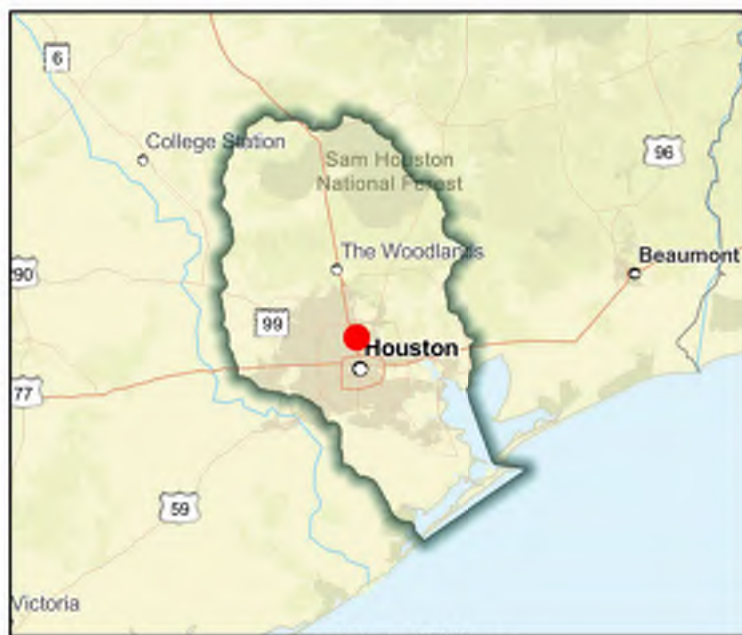
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01**

ID# **061000399**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this project to become a FMP. Would reduce flood risk for 600+ structures. Facilitates future drainage projects by more outfall depth.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,827**

of structures **3,186**

Critical facilities **13**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **32**

Number of low water crossings **1**

Historical road closures **1**

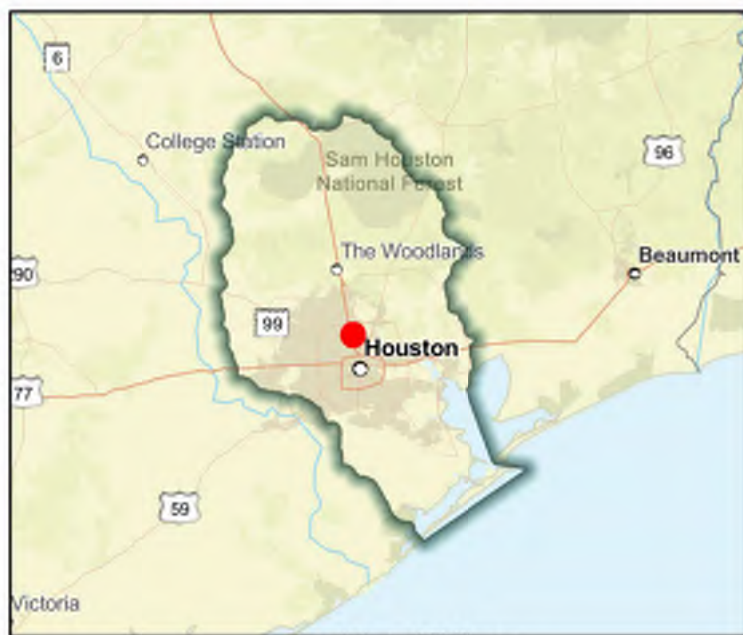
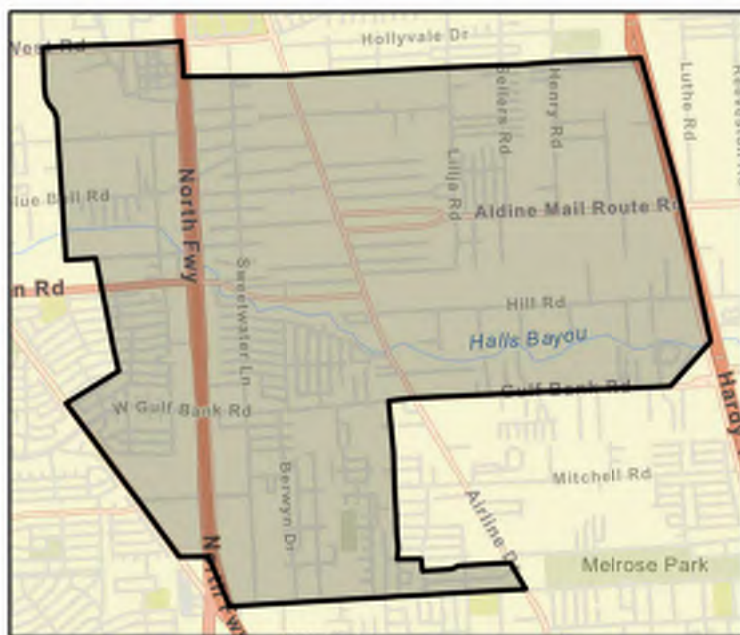
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00**

ID# **061000400**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **RFPG elevated FME to FMP under Task 12**

Study Details

Study type **Project Planning**

Study description **Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 150+ structures, size of the floodplain by 90+ acres, frequency & duration of flooding along 3+ miles of roadway in an Atlas 14 1% event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,827**

of structures **3,186**

Critical facilities **13**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **32**

Number of low water crossings **1**

Historical road closures **1**

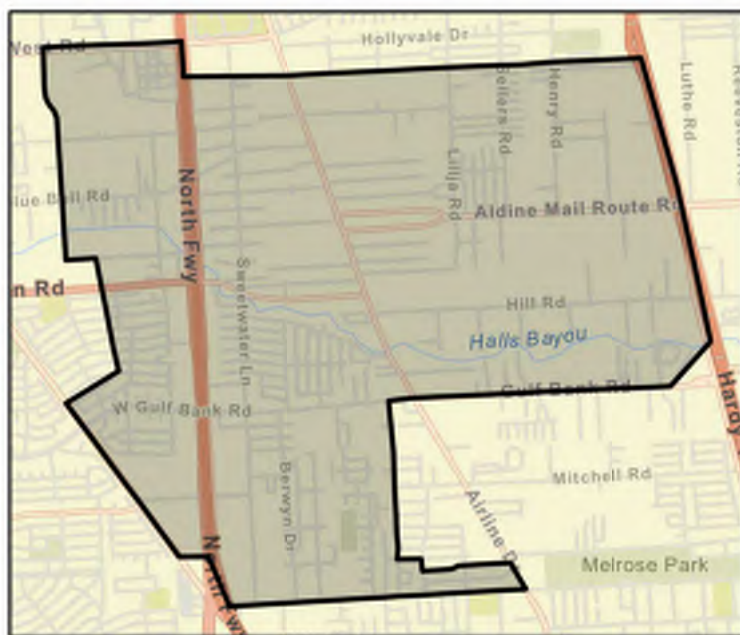
Estimated Cost and Funding Availability

Total Cost **\$30,000**

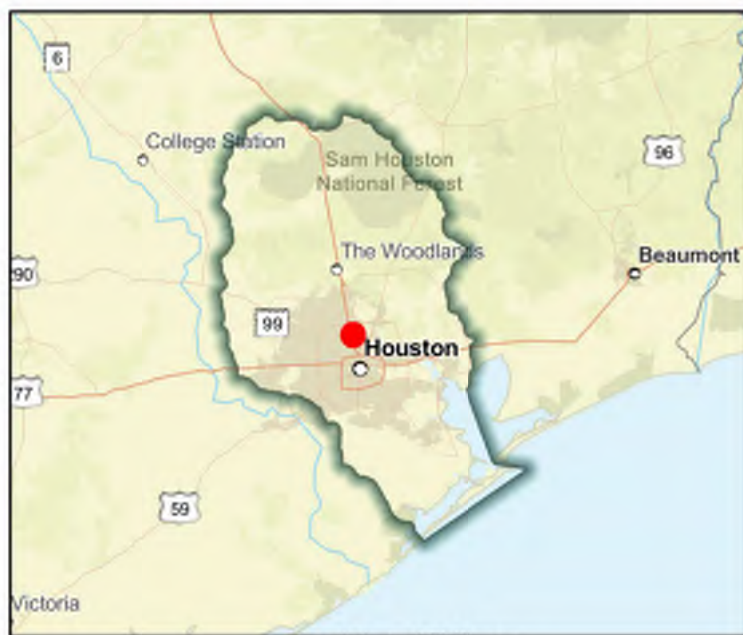
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou Drainage Project Bond C-01**

ID# **061000355**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,827**

of structures **3,186**

Critical facilities **13**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **32**

Number of low water crossings **1**

Historical road closures **1**

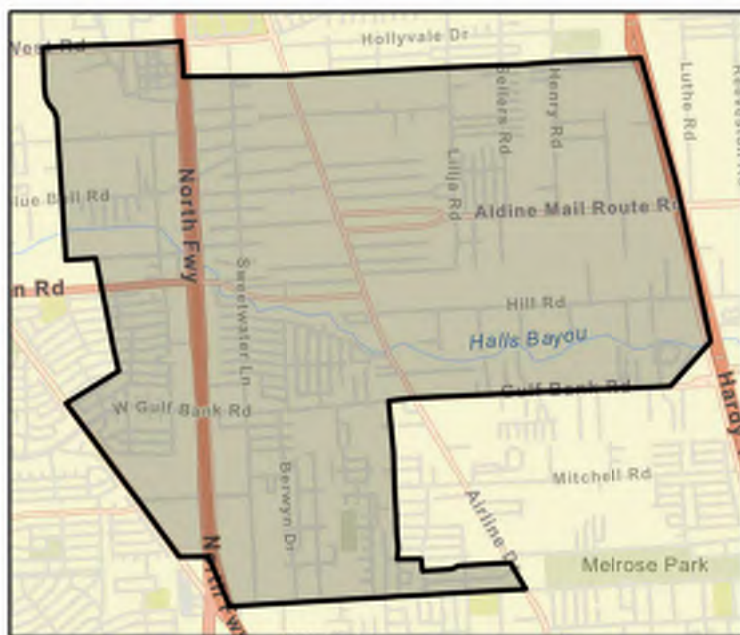
Estimated Cost and Funding Availability

Total Cost **\$30,000**

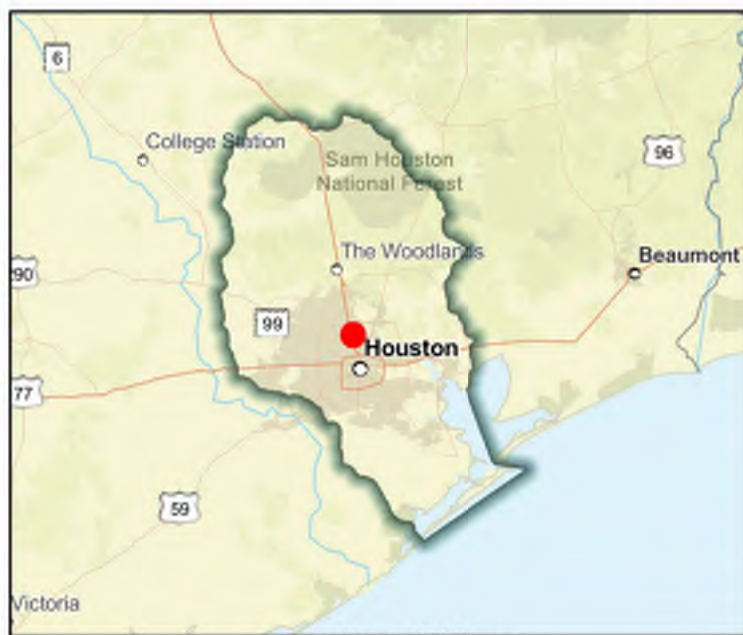
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Halls Bayou Drainage Project Bond C-26 & C-27**

ID# **061000354**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040601,120401040302,120401040604,120401040**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,495**

of structures **1,431**

Critical facilities **8**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **10**

Number of low water crossings **1**

Historical road closures **1**

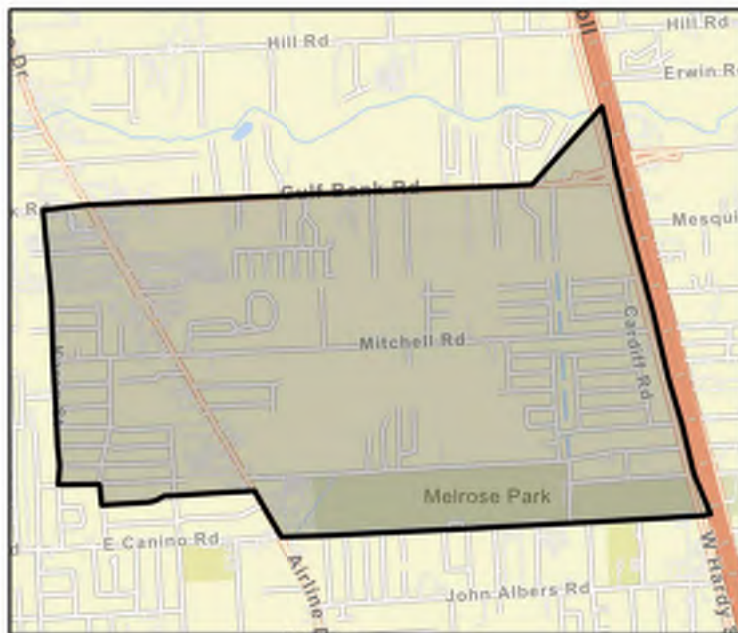
Estimated Cost and Funding Availability

Total Cost **\$30,000**

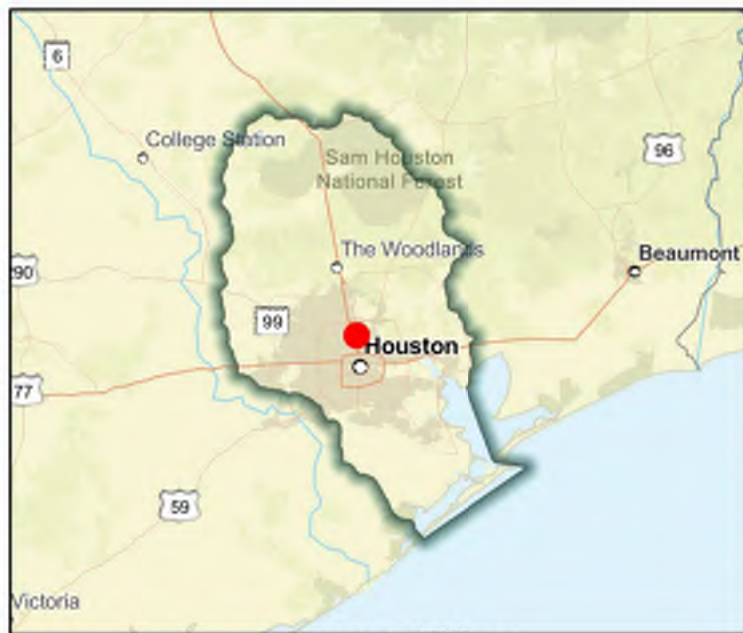
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Harris County Wide - Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins**

ID# **061000197**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study for design and construction of stormwater detention basins on various City of Houston properties could reduce the risk of flooding in the area.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020104,120401020106,120401040601,120401040305,120401040**

Drainage area (Square miles, est.) **1,771**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **590,942**

of structures **143,547**

Critical facilities **2,132**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5,993**

Roadway(s) impacted (length) **2,408**

Number of low water crossings **89**

Historical road closures **89**

Estimated Cost and Funding Availability

Total Cost **\$500,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title HCMUD365 Cole Crossing Stormwater Detention and Water Quality Improvement Project

ID# 061000555

Sponsor (name of entity, not person) Harris County MUD 365

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description PER to further study and design the incorporation of additional mitigation volume and SWQ features in the existing Cole Crossing detention pond along Cypress Creek.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020104, 120401020105, 120401020106, 120401020210,

Drainage area (Square miles, est.) 26

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,445

of structures 1,038

Critical facilities 17

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 31

Roadway(s) impacted (length) 16

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$100,000

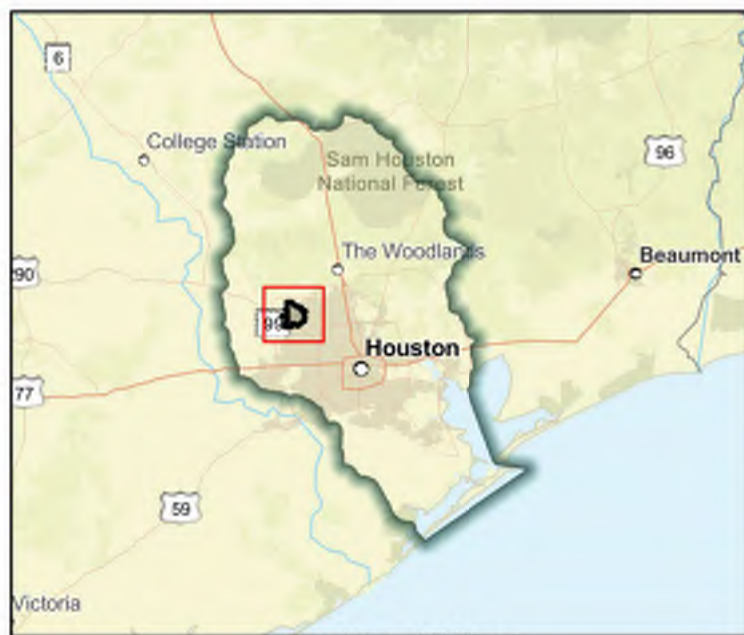
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hickory Slough (Upper Segment)**

ID# **061000057**

Sponsor (name of entity, not person) **Pearland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **915**

of structures **413**

Critical facilities **4**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **6**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

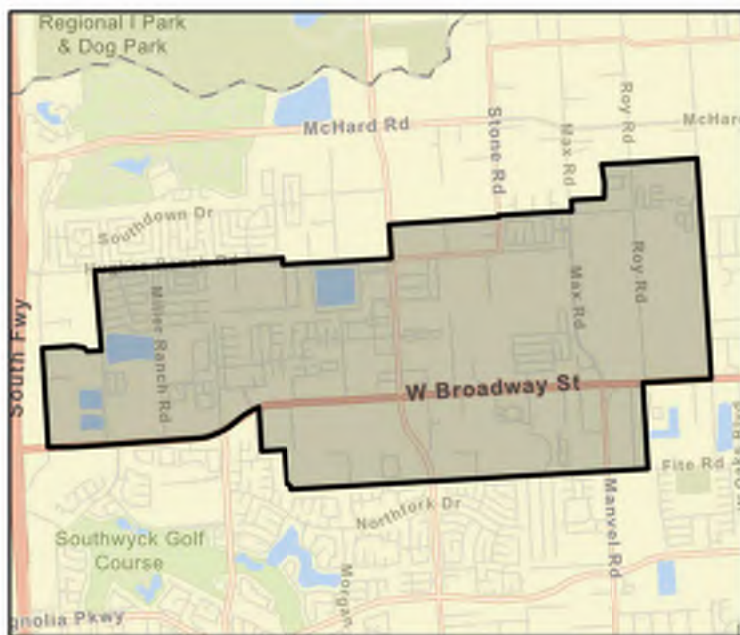
Estimated Cost and Funding Availability

Total Cost **\$1,136,000**

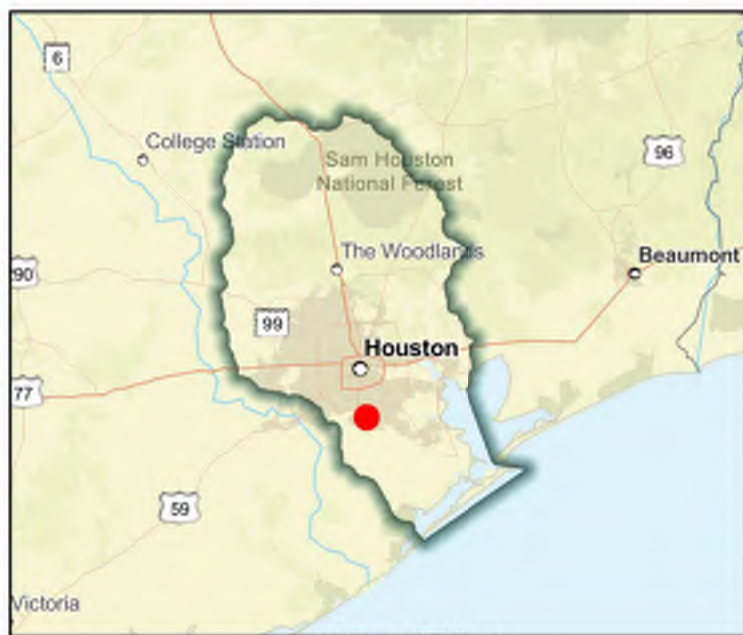
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **Other**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Hickory Slough Lower Segment

ID# 061000065

Sponsor (name of entity, not person) Pearland (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,097

of structures 424

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 5

Roadway(s) impacted (length) 6

Number of low water crossings 0

Historical road closures 0

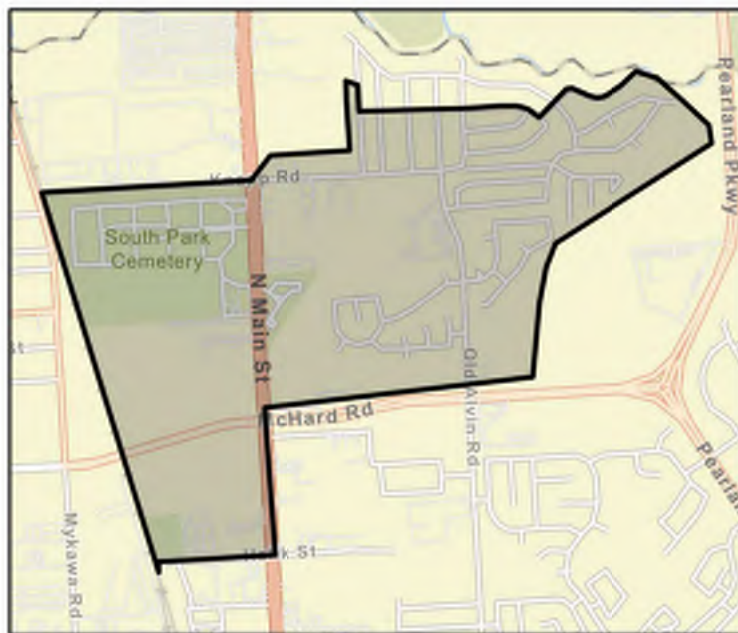
Estimated Cost and Funding Availability

Total Cost \$1,048,000

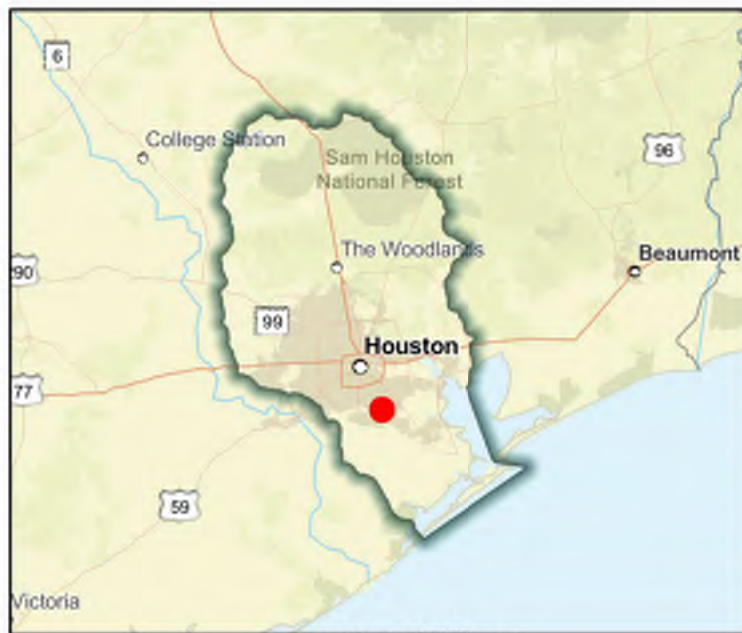
Amount of Available Funding -

Federal funding availability Yes

Funding source Other



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hickory Slough Middle Segment**

ID# **061000060**

Sponsor (name of entity, not person) **Pearland (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,275**

of structures **353**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **8**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

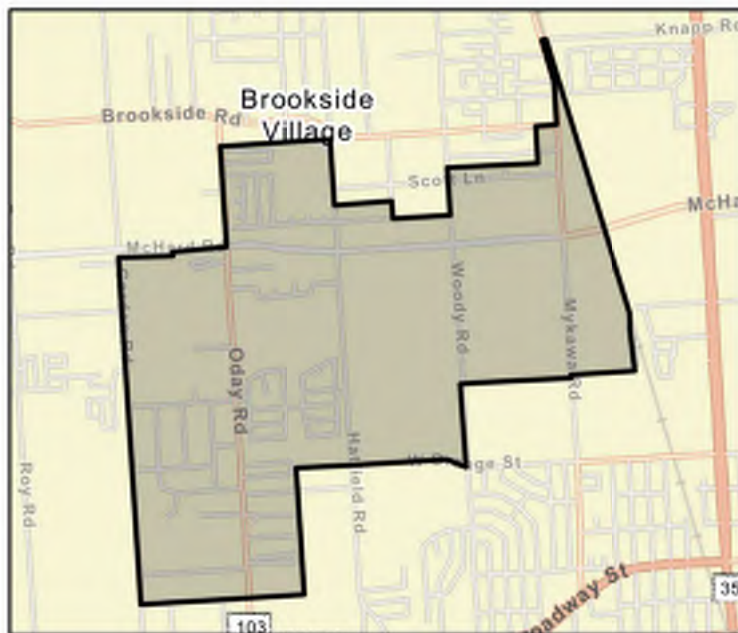
Estimated Cost and Funding Availability

Total Cost **\$864,000**

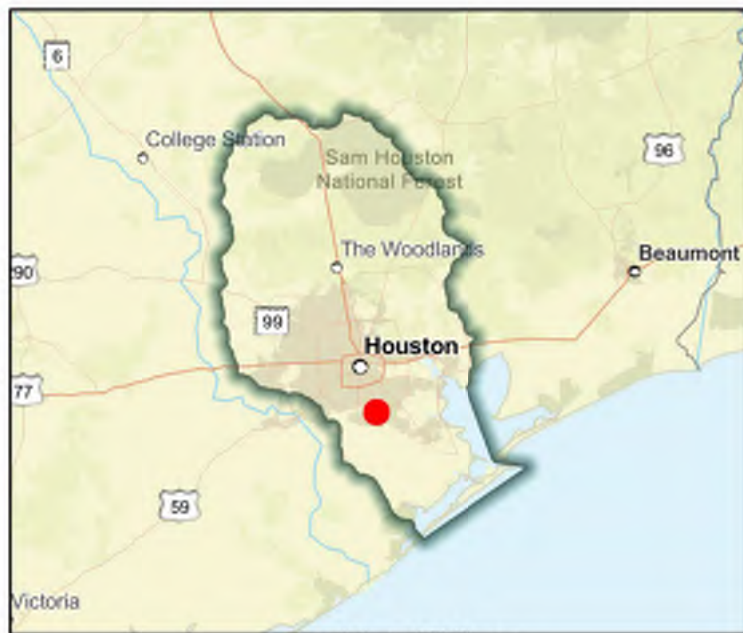
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **Other**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Highland Terrace and Wesley Drive Drainage Improvements

ID# 061000545

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Evaluation of an extension of the FM 518 & Wesley Drive Drainage Improvement project. Includes extending storm sewer improvements.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040100, 120402040200

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 503

of structures 29

Critical facilities 8

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 4

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$600,000

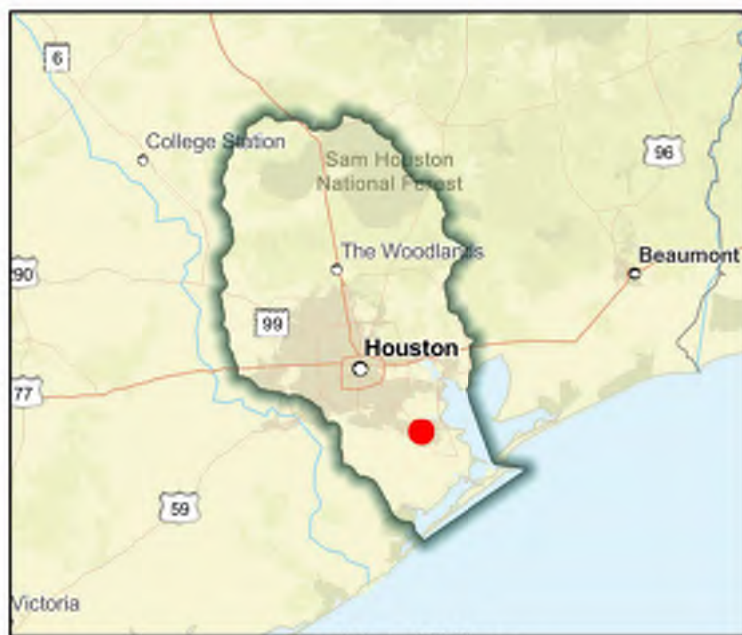
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Highland Terrace Drainage**

ID# **061000103**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of slope paving a portion of the drainage ditch north of FM 518, with probable wetland mitigation and lowering pavement section of Highland Terrace Drive.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **53**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **13,675**

of structures **5,251**

Critical facilities **25**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,308**

Roadway(s) impacted (length) **105**

Number of low water crossings **2**

Historical road closures **2**

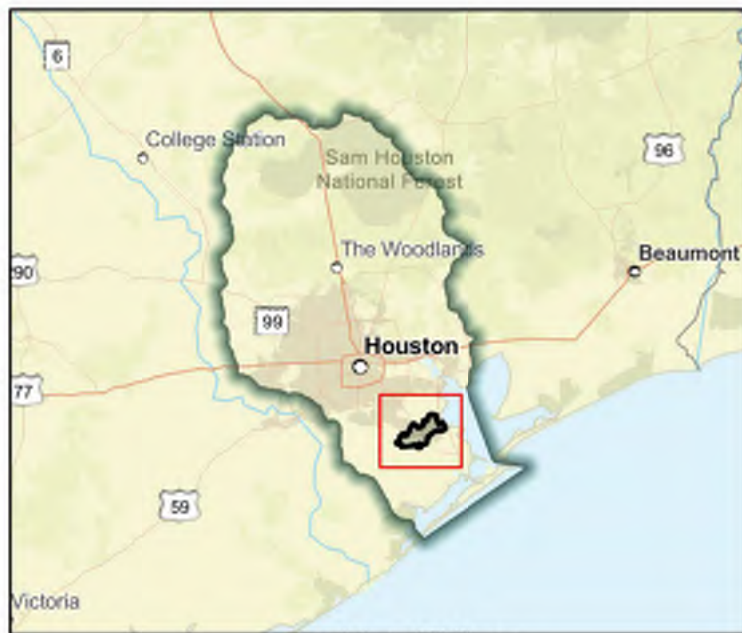
Estimated Cost and Funding Availability

Total Cost **\$190,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hostetter and Gourd Creek Bridges Elevation Evaluation**

ID# **061000130**

Sponsor (name of entity, not person) **Walker (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to elevate and install culverts on Hostetter and Gourd Creek roadways to prevent flooding and/or flood damage on roadway.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Montgomery, San Jacinto, Walker**

Watershed HUC# (if known) **120401010202, 120401010204, 120401030101, 120401030301, 120401030**

Drainage area (Square miles, est.) **76**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **1,882**

of structures **1,168**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **25**

Roadway(s) impacted (length) **10**

Number of low water crossings **2**

Historical road closures **2**

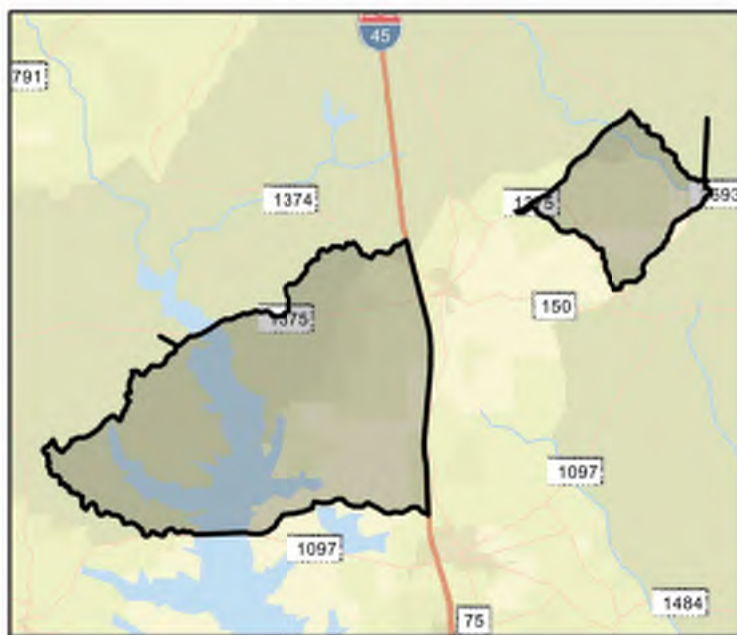
Estimated Cost and Funding Availability

Total Cost **\$130,000**

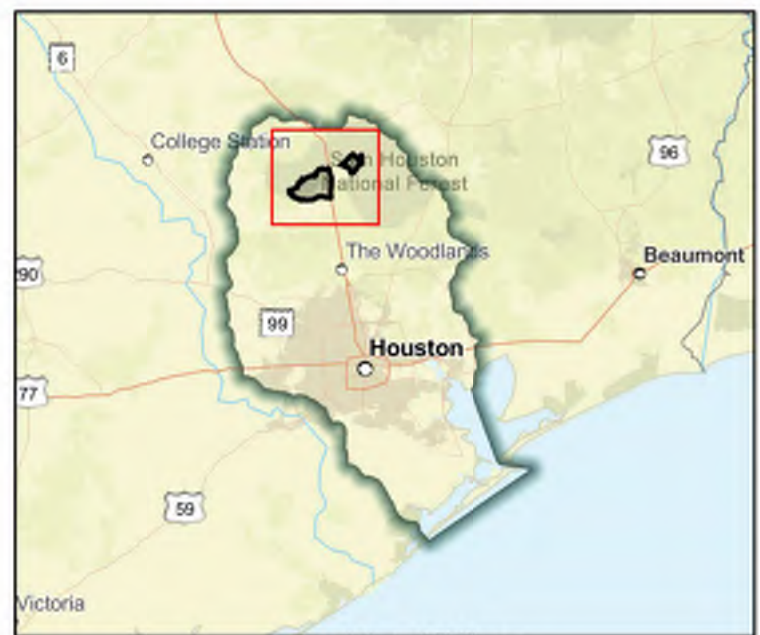
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Houston Braeburn Glen Area Flood Mitigation**

ID# **061000384**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of a proposed project that includes upsizing of the existing stormwater system with new pipes, inlets, and manholes. Lateral improvement will be completed on Mahoning Drive and Valley View Lane.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **96**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,328**

of structures **530**

Critical facilities **7**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

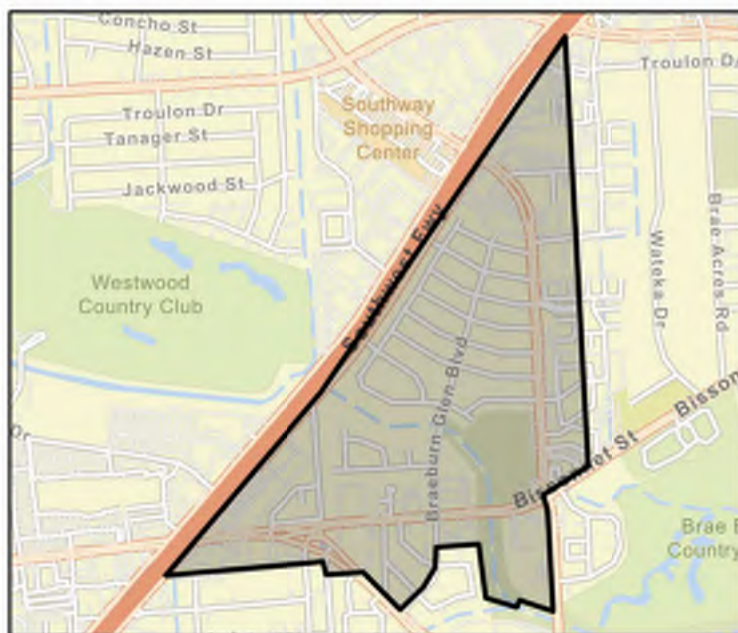
Estimated Cost and Funding Availability

Total Cost **\$30,000**

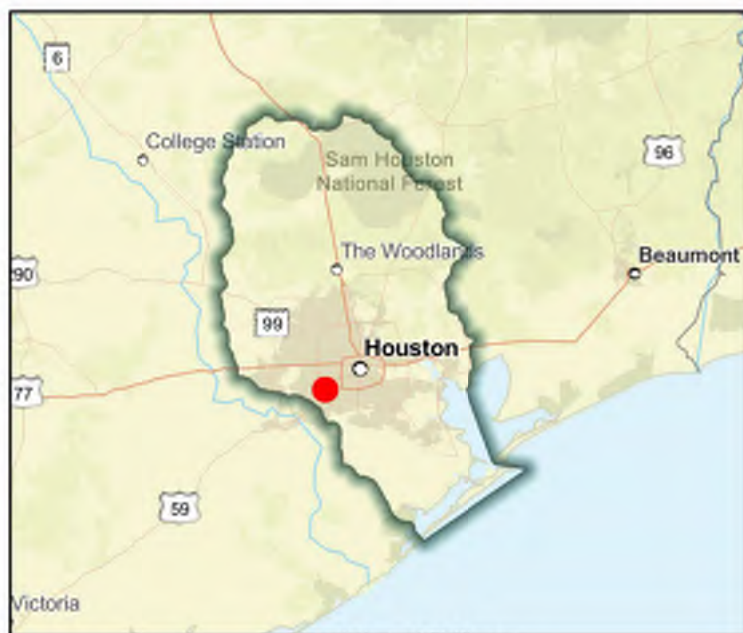
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Houston Fifth Area Flood Mitigation**

ID# **061000417**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **This unfunded CDBG-MIT application involves installing various storm sewer infrastructure in the Fifth Ward and Market Square areas within the City of Houston.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040701**

Drainage area (Square miles, est.) **41**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **24,012**

of structures **6,259**

Critical facilities **107**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **20**

Roadway(s) impacted (length) **101**

Number of low water crossings **6**

Historical road closures **6**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

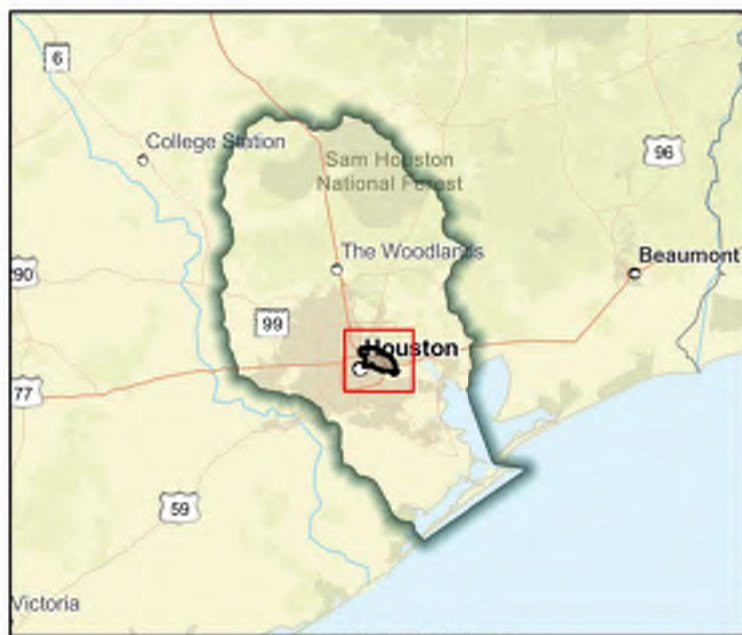
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Houston Huntington Village Area Flood Mitigation**

ID# **061000419**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to develop this project into a FMP. The project includes storm sewer improvements in the Huntington Village neighborhood to reduce structural flood loss.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **96**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **177,410**

of structures **32,098**

Critical facilities **402**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **42**

Roadway(s) impacted (length) **412**

Number of low water crossings **1**

Historical road closures **1**

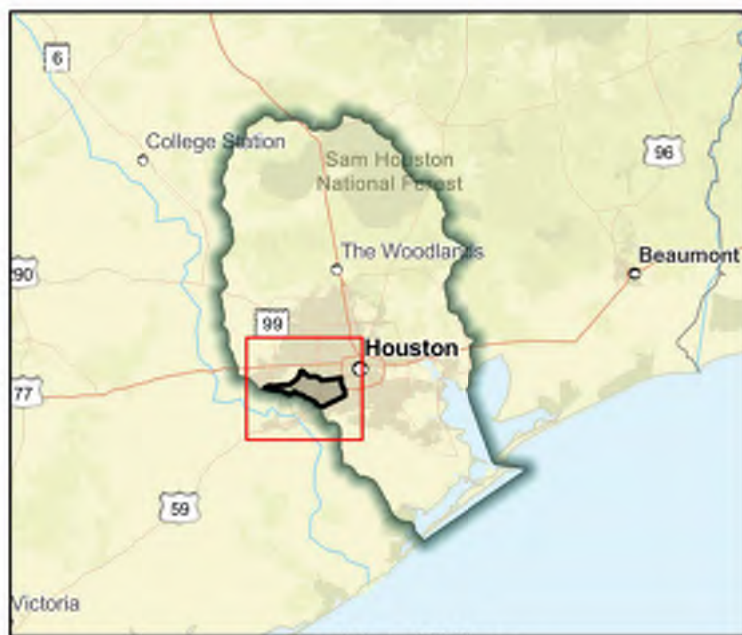
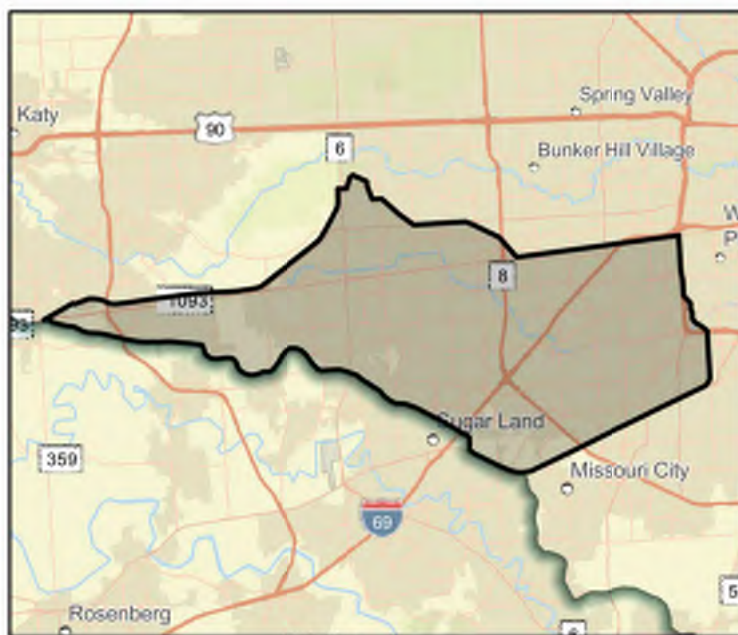
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Houston Kashmere Gardens Area Flood Mitigation**

ID# **061000434**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **The project includes improvements to storm sewer, roadside ditch systems, culverts, sewer inlets, and the construction of detention basins.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040703,120401040604,120401040606,120401040304,120401040**

Drainage area (Square miles, est.) **31**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **24,003**

of structures **6,241**

Critical facilities **93**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **21**

Roadway(s) impacted (length) **102**

Number of low water crossings **6**

Historical road closures **6**

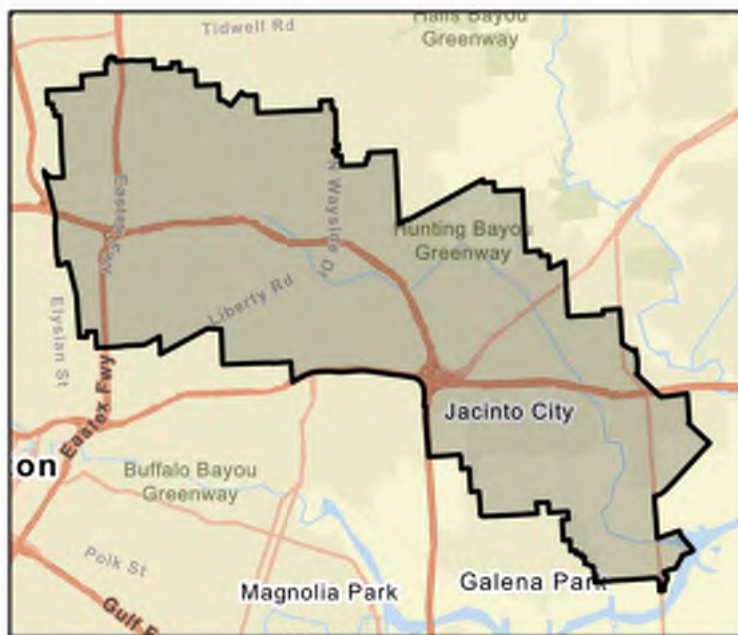
Estimated Cost and Funding Availability

Total Cost **\$30,000**

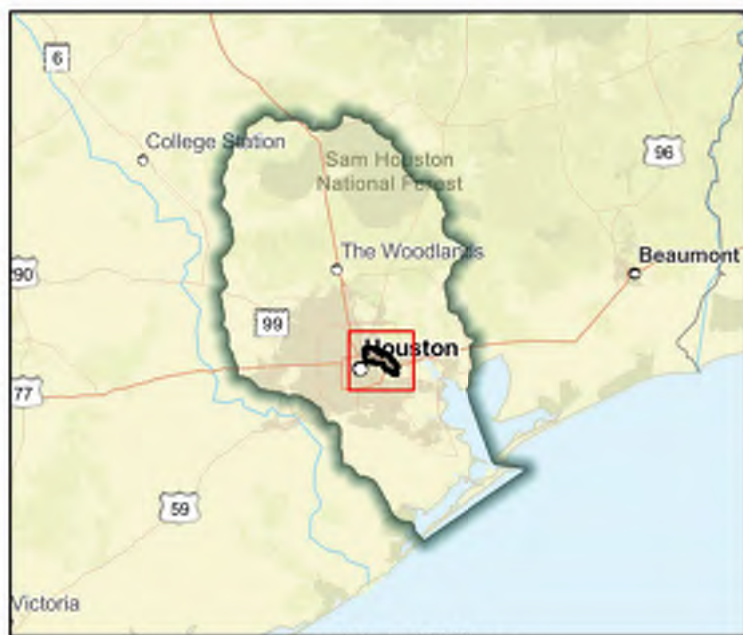
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Houston Port Area Flood Mitigation**

ID# **061000418**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type **Project Planning**

Study description **The project includes storm sewer improvements on nearly every street in the Pleasantville neighborhood to improve conveyance capacity and construction of a detention basin.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040701**

Drainage area (Square miles, est.) **41**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **24,012**

of structures **6,259**

Critical facilities **107**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **20**

Roadway(s) impacted (length) **101**

Number of low water crossings **6**

Historical road closures **6**

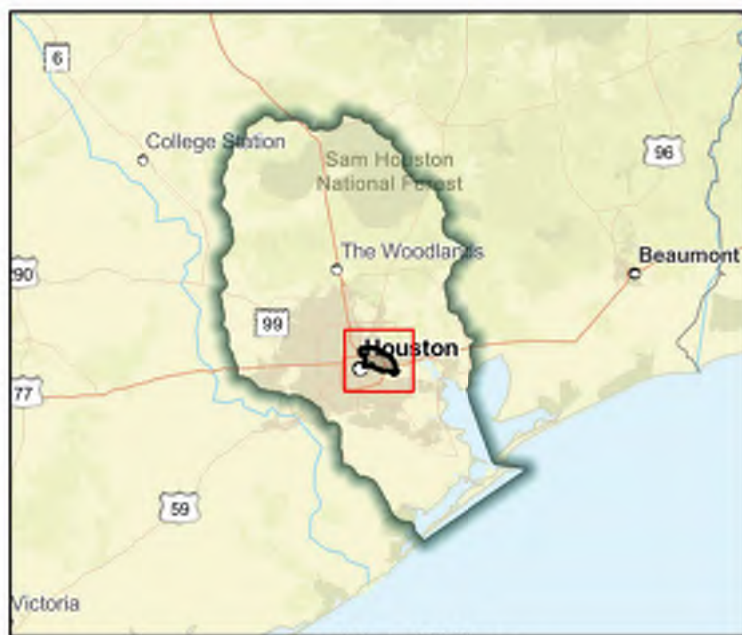
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Houston Sunnyside Area Flood Mitigation**

ID# **061000468**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

FME has been elevated to FMP and is recommended in Table 16.

Study Details

Study type **Project Planning**

Study description **Includes new storm sewer trunk systems on major thoroughfares & new or improved neighborhood storm sewer systems. Will also require construction of detention basins to mitigate the proposed improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040402,120401040502,120401040501,120402040100**

Drainage area (Square miles, est.) **24**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,717**

of structures **1,639**

Critical facilities **4**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **10**

Roadway(s) impacted (length) **22**

Number of low water crossings **0**

Historical road closures

0

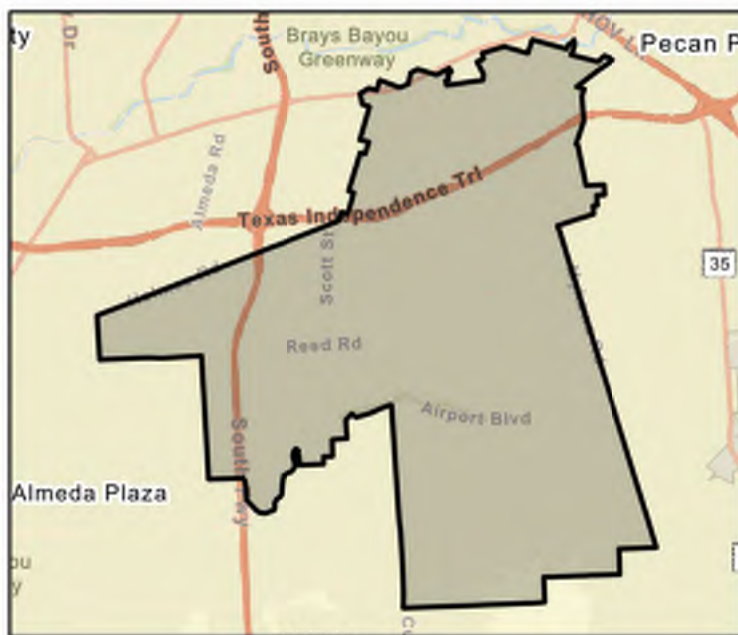
Estimated Cost and Funding Availability

Total Cost **\$30,000**

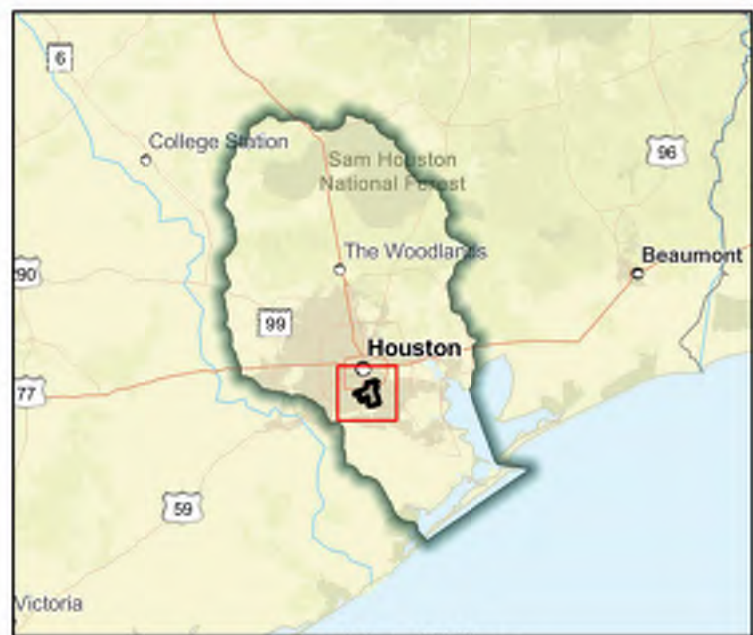
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hunnington - Stewarts Creek Watershed**

ID# **061000456**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010403,120401010401,120401010402,120401010**

Drainage area (Square miles, est.) **20**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,606**

of structures **374**

Critical facilities **6**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **7**

Roadway(s) impacted (length) **10**

Number of low water crossings **7**

Historical road closures **7**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

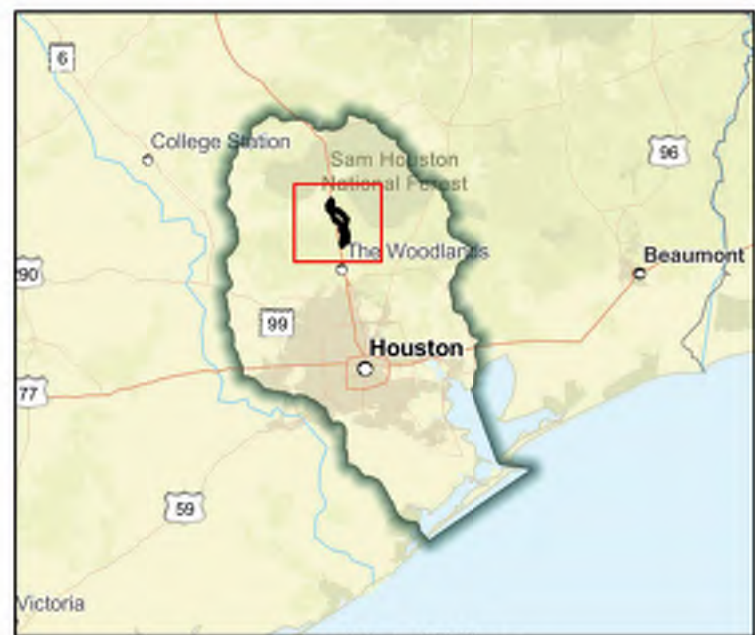
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hunting Bayou Wallisville Outfall (H103-00-00) - Denver Harbor**

ID# **061000406**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Denver Harbor drainage system improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040606,120401040701**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **9,520**

of structures **396**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **13**

Number of low water crossings **2**

Historical road closures **2**

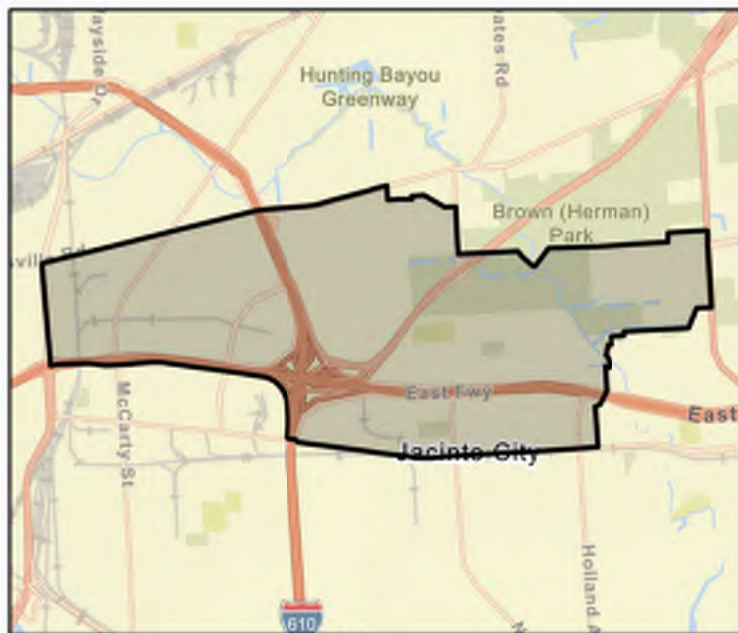
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Hunting Bayou Wallisville Outfall (H103-00-00) - Gellhorn Drive**

ID# **061000405**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Diversion channel expansion for Gellhorn Drive flood reductions.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040606,120401040701**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **9,520**

of structures **396**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **13**

Number of low water crossings **2**

Historical road closures **2**

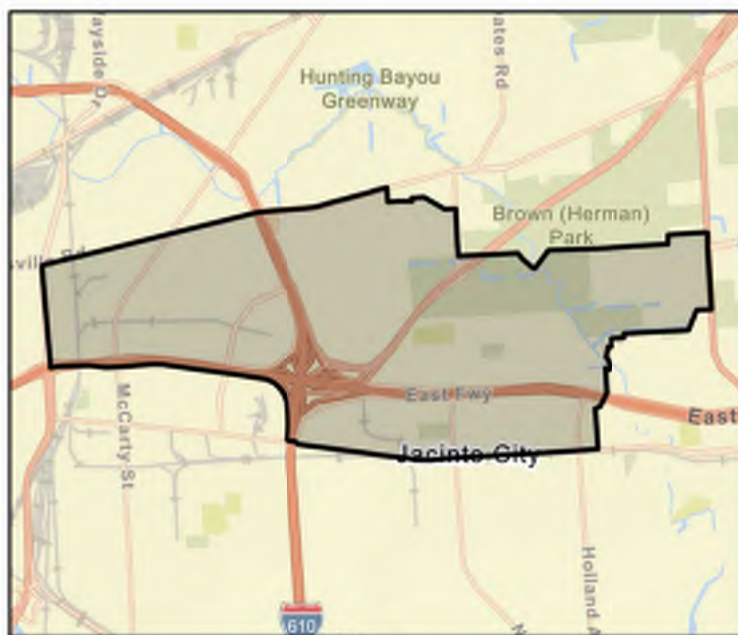
Estimated Cost and Funding Availability

Total Cost **\$30,000**

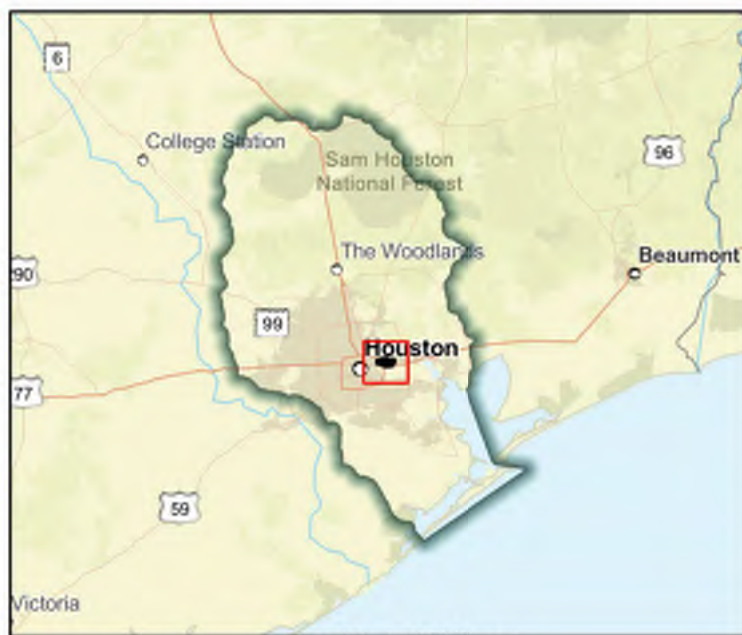
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Hunting Bayou Watershed Study**

ID# **061000182**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040703,120401040604,120401040606,120401040304,120401040**

Drainage area (Square miles, est.) **31**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **24,003**

of structures **6,241**

Critical facilities **93**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **21**

Roadway(s) impacted (length) **102**

Number of low water crossings **6**

Historical road closures **6**

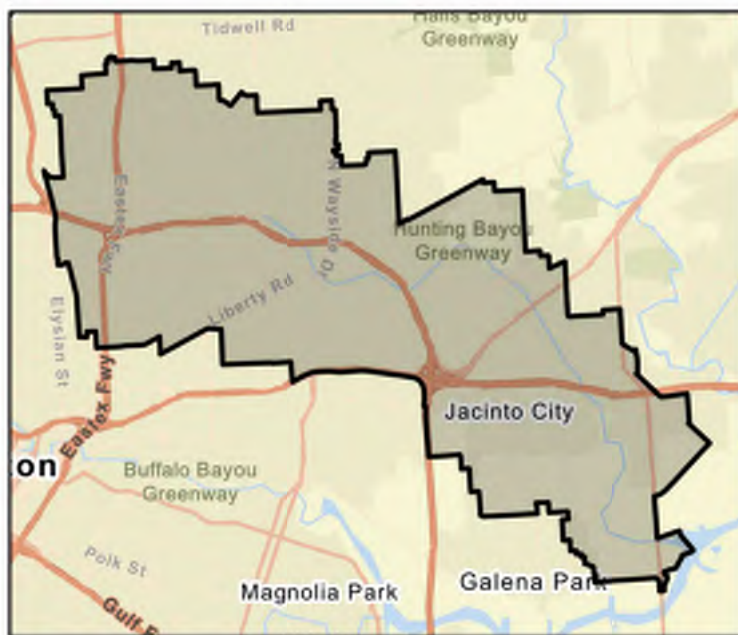
Estimated Cost and Funding Availability

Total Cost **\$500,000**

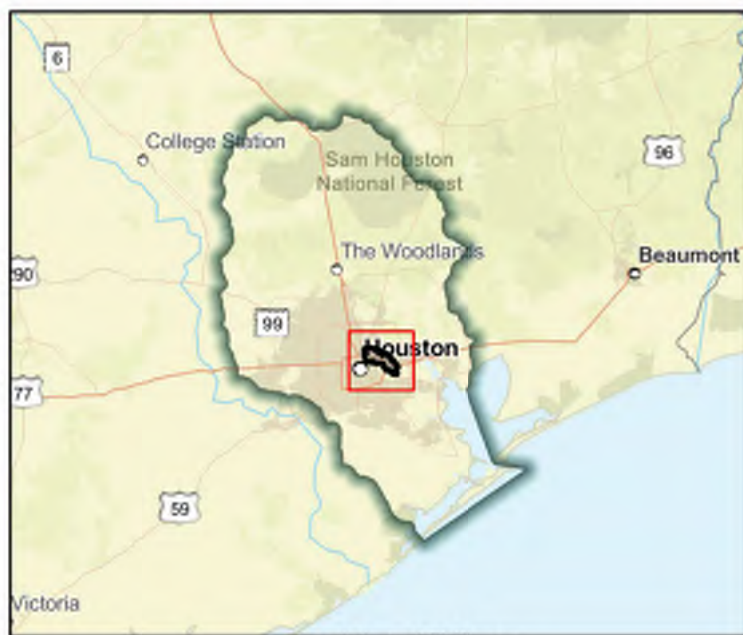
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title I100-WP01 Vince Bayou Watershed Planning Project Recommendation

ID# 061000326

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a BCR required for this project to become a FMP. Alt-6 Detention basin and channel widening near Strawberry Road on left bank of Vince Bayou.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040703,120402040100,120401040502

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,840

of structures 1,144

Critical facilities 11

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 19

Number of low water crossings 1

Historical road closures 1

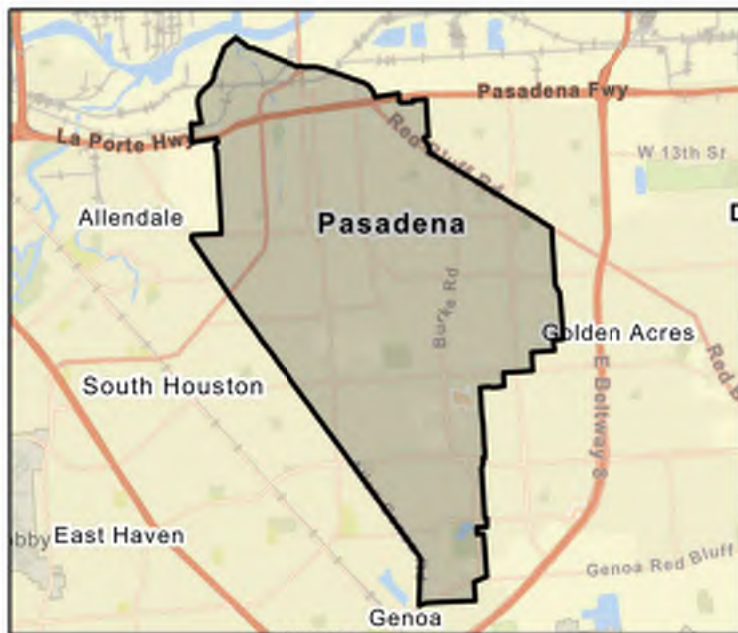
Estimated Cost and Funding Availability

Total Cost \$30,000

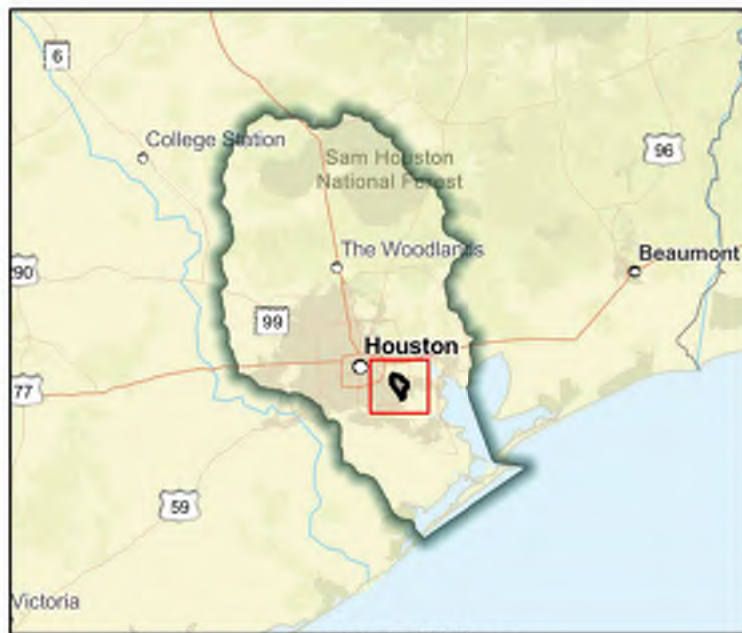
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title I100-WP06 for Vince Bayou Watershed Planning Project

ID# 061000329

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, design, and construction of a stormwater detention basin and channel widening near Strawberry Road and Young Street.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040703,120402040100,120401040502

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,840

of structures 1,144

Critical facilities 11

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 19

Number of low water crossings 1

Historical road closures 1

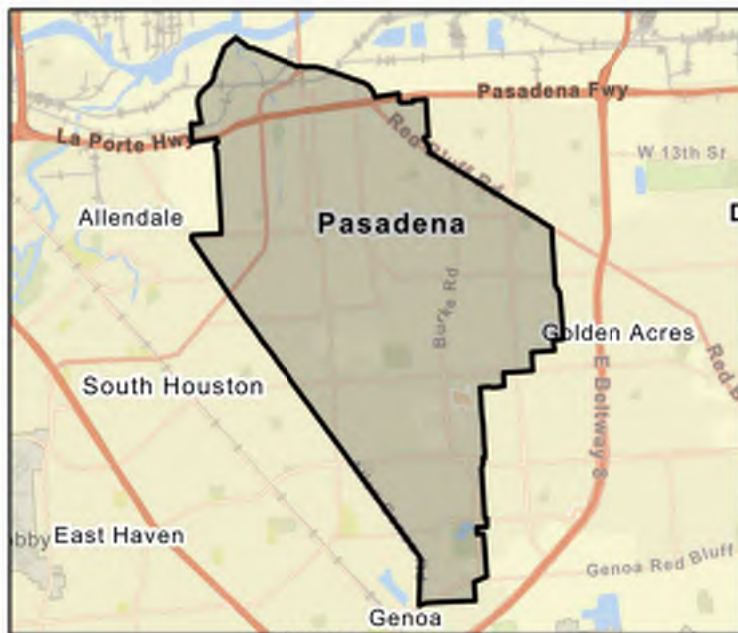
Estimated Cost and Funding Availability

Total Cost \$30,000

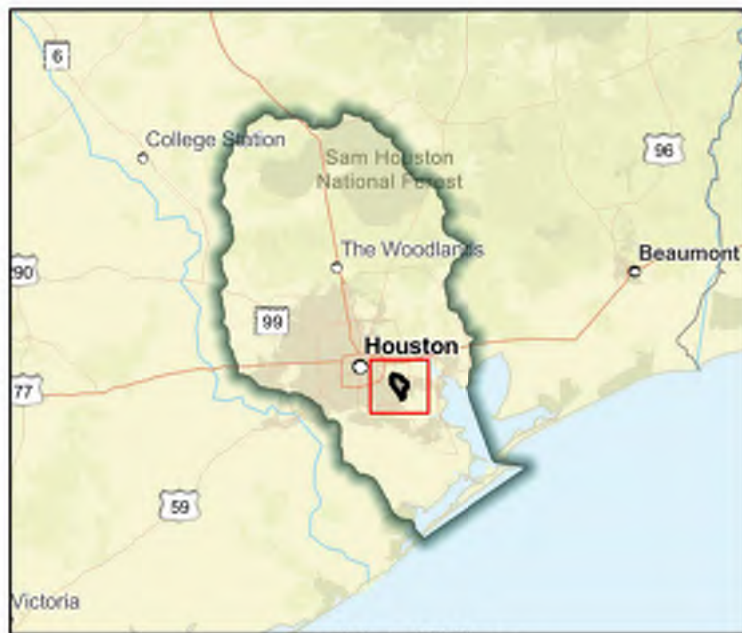
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **I100-WP07 for Vince Bayou Watershed Planning Project**

ID# **061000331**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR needed for this project to become a FMP. Pasadena (CIP) Street Lowering (Various). Right-of-way acquisition, Design, and Construction of Stormwaters Detention Basin and construction of Culverts near Pasadena Blvd..**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040703,120402040100,120401040502**

Drainage area (Square miles, est.) **15**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **4,840**

of structures **1,144**

Critical facilities **11**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **19**

Number of low water crossings **1**

Historical road closures **1**

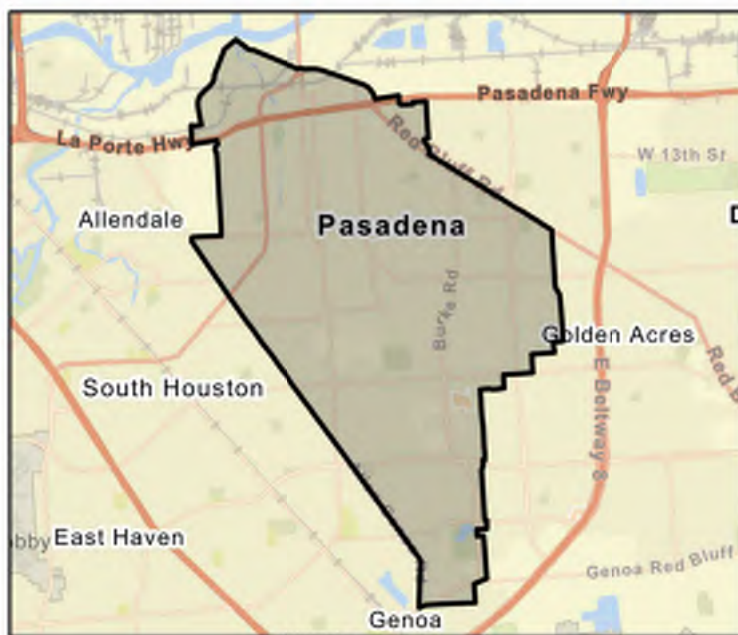
Estimated Cost and Funding Availability

Total Cost **\$30,000**

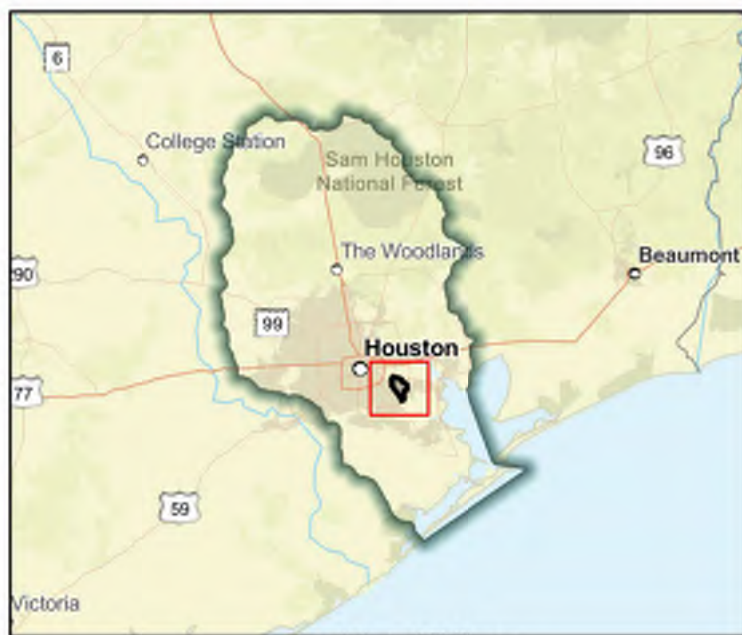
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title I100-WP10 for Vince Bayou Watershed Planning Project

ID# 061000330

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, Design, and Construction of Two Stormwater Detention Basins near Westside Dr. and Westside Ct.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040703,120402040100,120401040502

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,840

of structures 1,144

Critical facilities 11

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 19

Number of low water crossings 1

Historical road closures 1

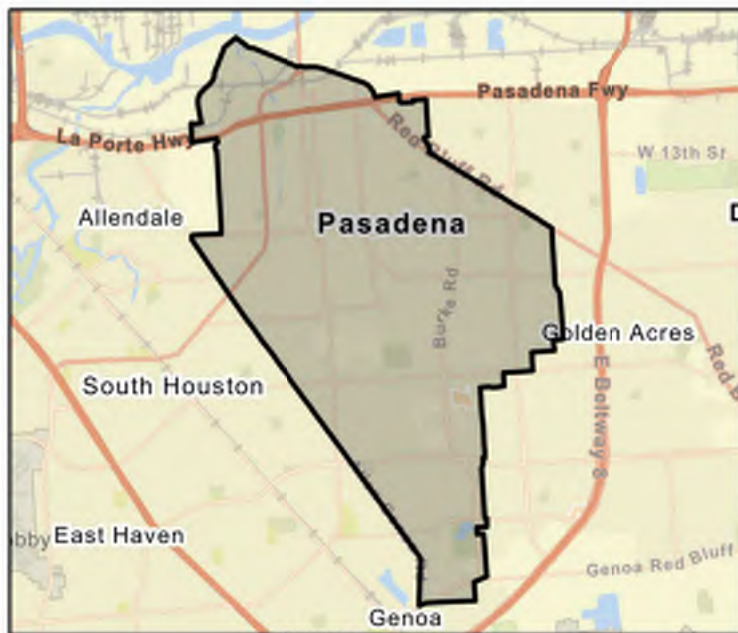
Estimated Cost and Funding Availability

Total Cost \$30,000

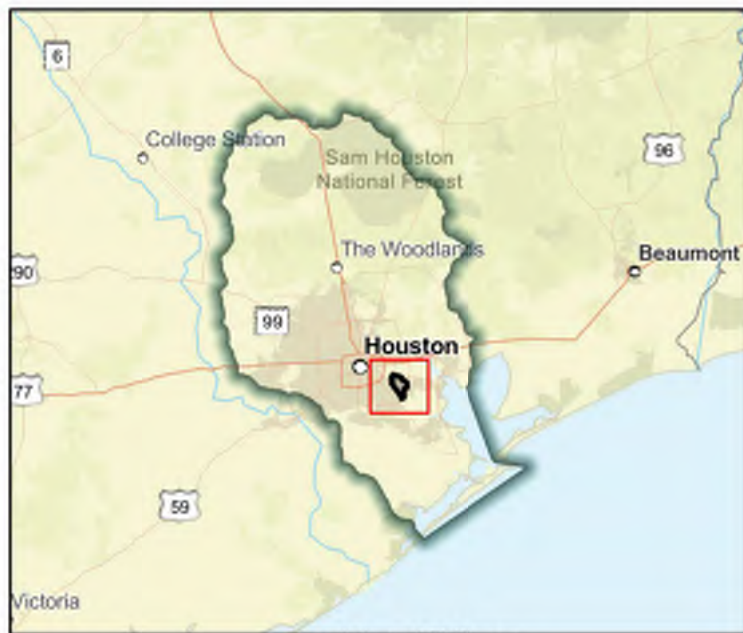
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title I100-WP11 for Vince Bayou Watershed Planning Project

ID# 061000332

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, Design, and Construction of Stormwater Detention Basins near Spencer Hwy. and Tulip Street.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040703,120402040100,120401040502

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,840

of structures 1,144

Critical facilities 11

Flood risk type: Riverine? Yes

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 19

Number of low water crossings 1

Historical road closures 1

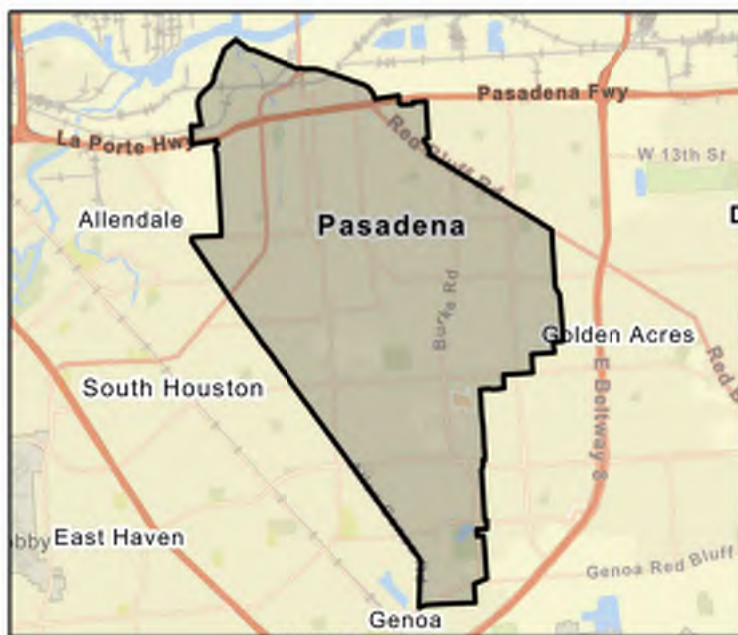
Estimated Cost and Funding Availability

Total Cost \$30,000

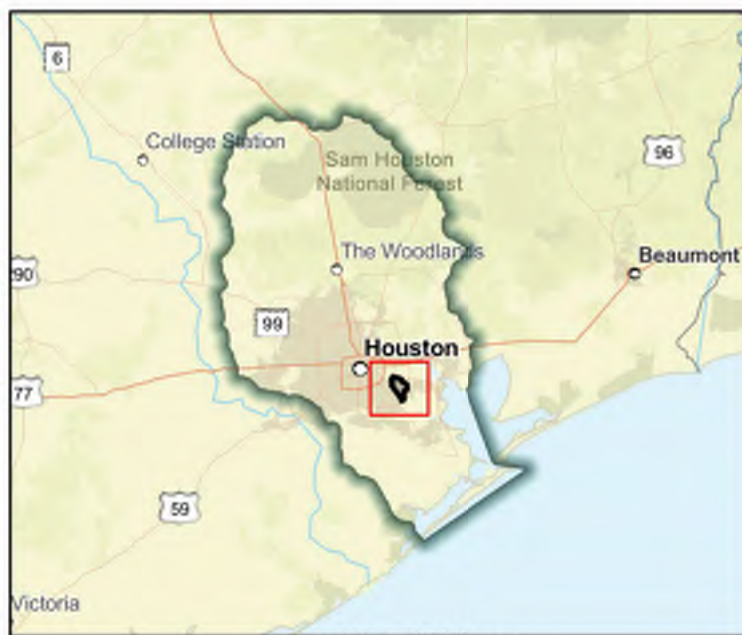
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Implement Drainage Improvements in City of La Marque**

ID# **061000147**

Sponsor (name of entity, not person) **La Marque (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **Implement drainage projects that support low maintenance and cleaning of drainage ditches.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **14**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,455**

of structures **829**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **38**

Roadway(s) impacted (length) **31**

Number of low water crossings **1**

Historical road closures **1**

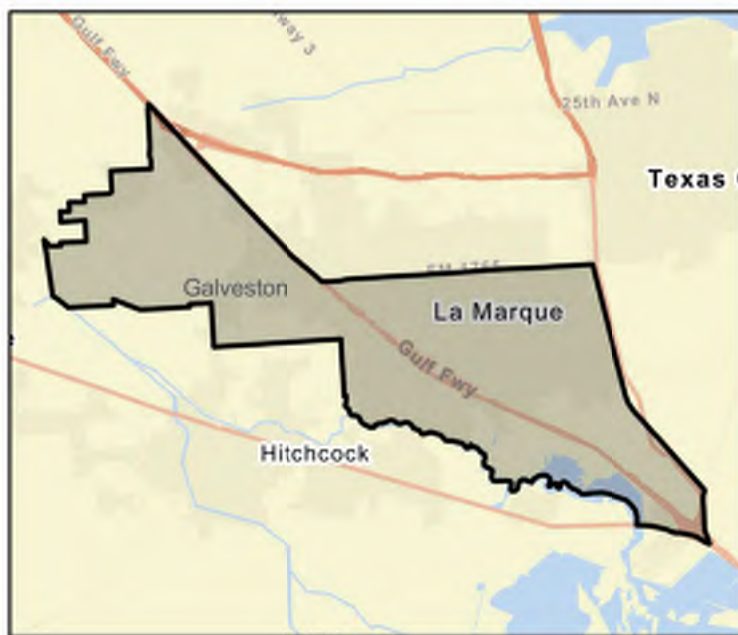
Estimated Cost and Funding Availability

Total Cost **\$360,000**

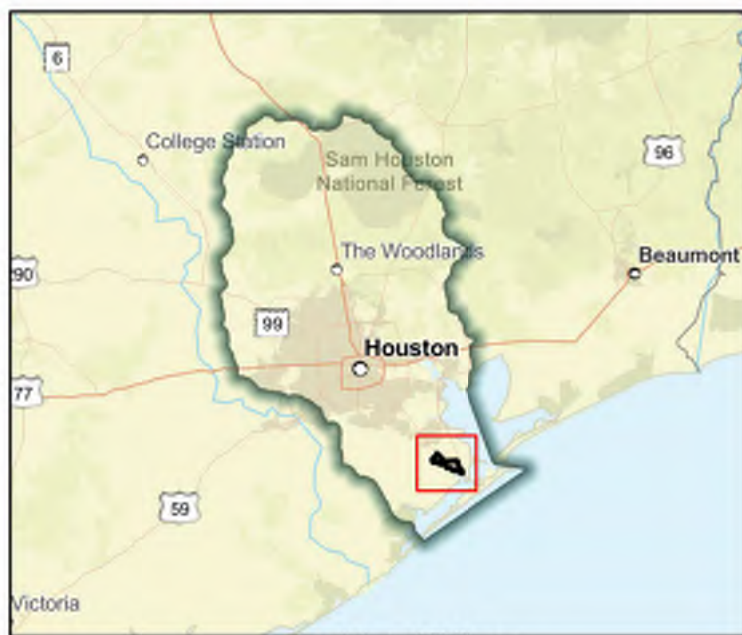
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Implementation Study of Storm Sewer System Re-engineering in City of Kemah**

ID# **061000131**

Sponsor (name of entity, not person) **Kemah (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study of storm sewer system re-engineering and follow-up construction project to mitigate flood related impacts.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston,Chambers**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **2,792**

of structures **562**

Critical facilities **7**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **12**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$190,000**

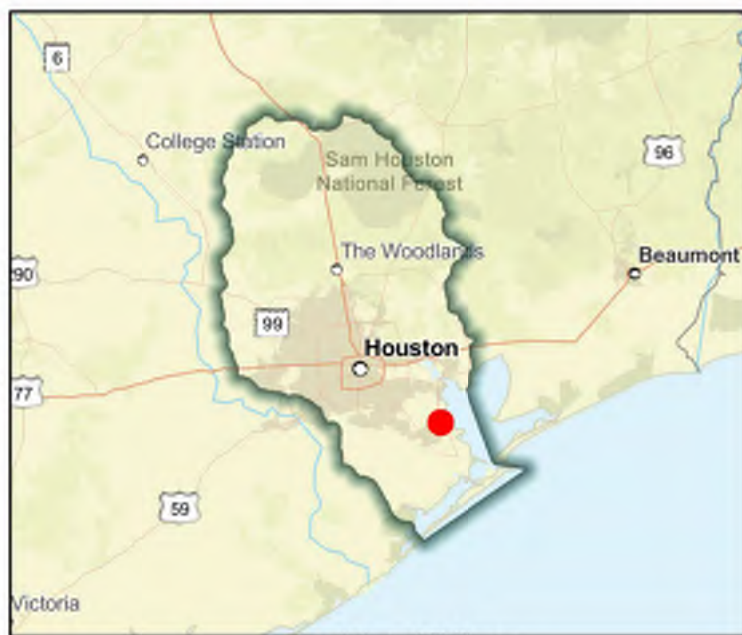
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Interurban Watershed Drainage Improvement Project

ID# 061000547

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project would widen Interurban Ditch by approximately 10' starting at FM 518 and extending upstream for approximately 2,000 linear feet. A 10 to 12 acre-feet detention pond downstream of FM 518 will need to be constructed to mitigate.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040100, 120402040200

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 31

of structures 6

Critical facilities 2

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

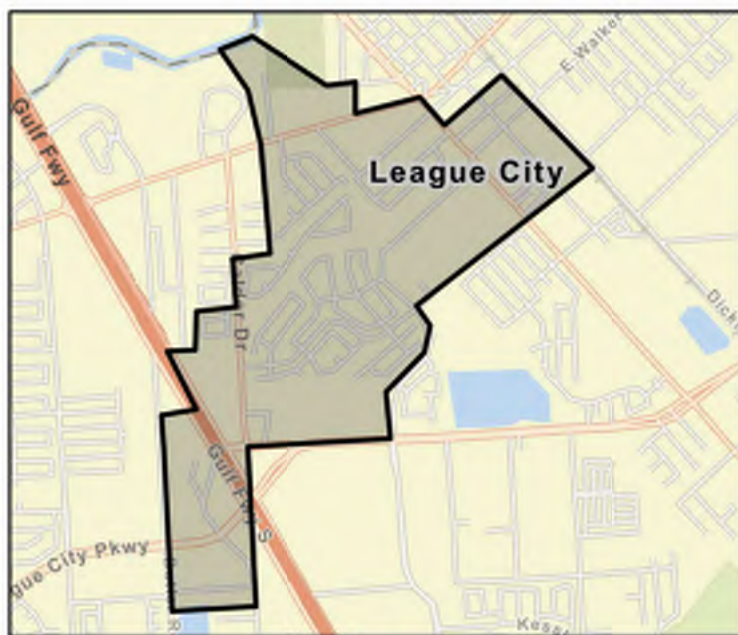
Estimated Cost and Funding Availability

Total Cost \$700,000

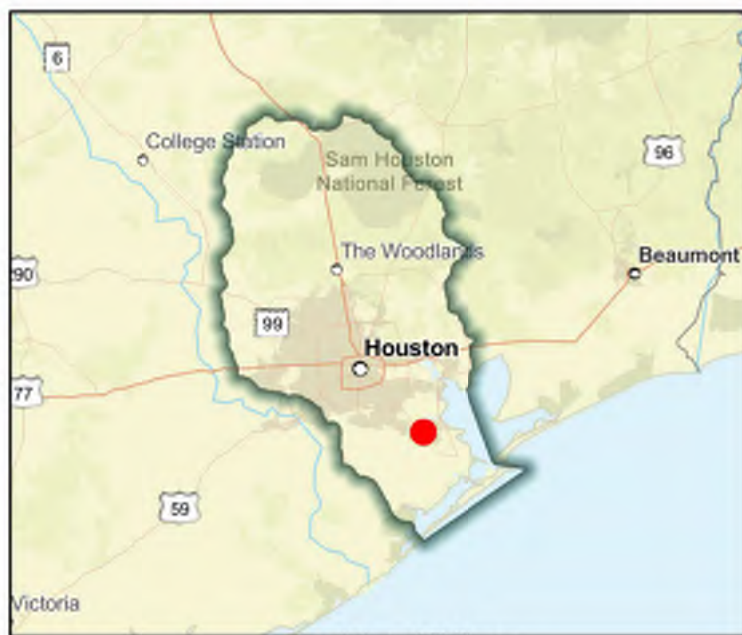
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Jackson Bayou Watershed Planning Project- Immediate: First Street Crossing Mitigation

ID# 061000322

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become a FMP. Priority ranking #1, 0.5 mile upstream along Jackson Bayou identified to fulfill mitigation efforts. Culvert upsizing recommended at First Street. Improvements produced need or 32.4 acre-feet of detention.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040704

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 495

of structures 111

Critical facilities 8

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

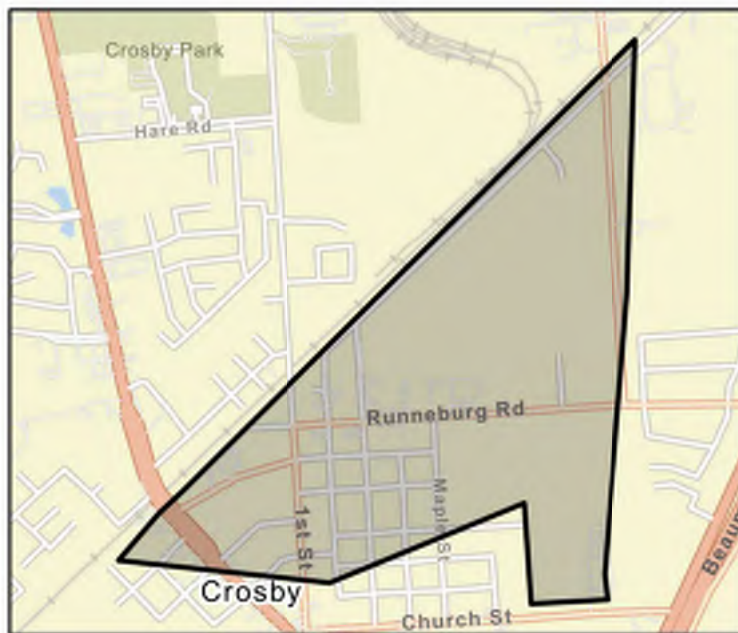
Estimated Cost and Funding Availability

Total Cost \$30,000

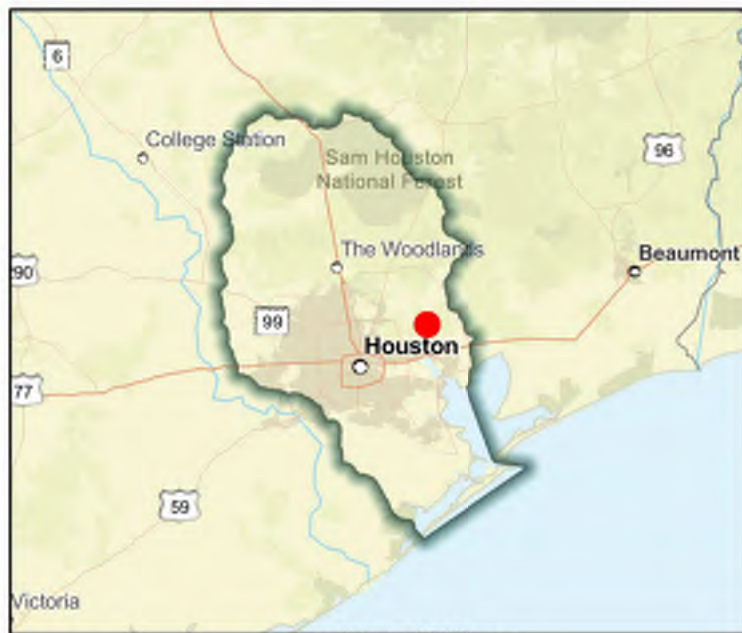
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Jamica Cove Rd. Survey**

ID# **061000145**

Sponsor (name of entity, not person) **Jamaica Beach (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Engineering assessment needed to determine if elevating the road would reduce future flooding impacts.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040300**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **275**

of structures **1,276**

Critical facilities **4**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **14**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$140,000**

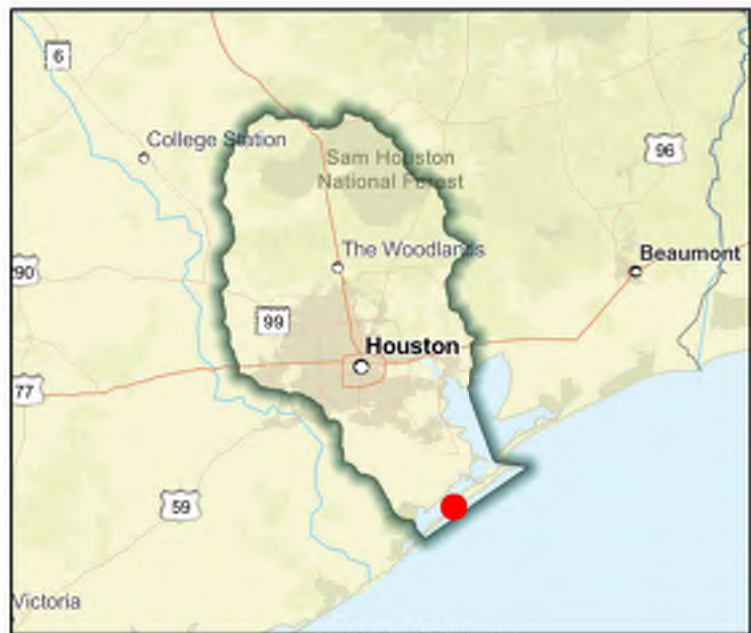
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Kansas Street Drainage Project, Phase 2**

ID# **061000542**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further analysis of propose drainage improvements within the City's Historic District.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **52**

Goal(s) **06000001,06000010**

100-Year Flood Risk Summary

Population at risk **13,944**

of structures **5,305**

Critical facilities **25**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,307**

Roadway(s) impacted (length) **105**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$580,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Kirkwood/Nottingham

ID# 061000481

Sponsor (name of entity, not person) Houston (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project provides for design and construction of storm drainage and paving improvements in the Nottingham and Yorkshire Areas. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040303

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? No

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

Estimated Cost and Funding Availability

Total Cost \$30,000

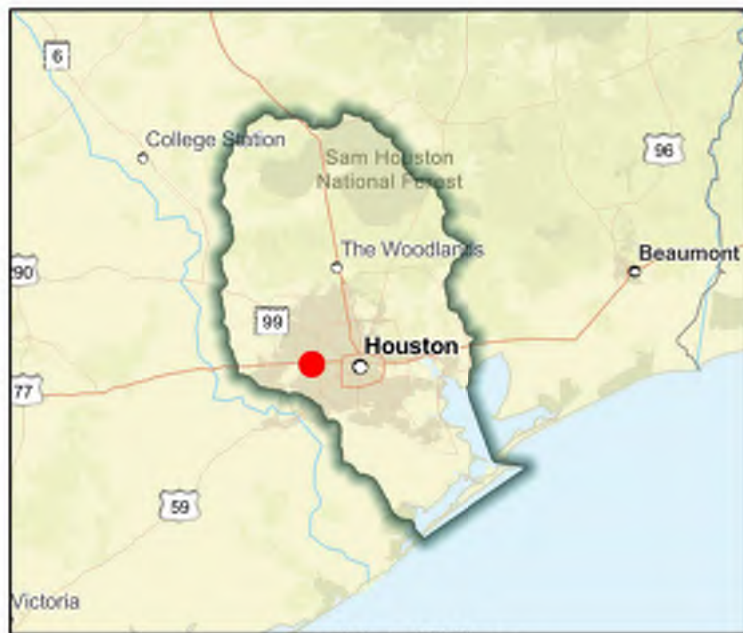
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Lake Shadows Subdivision Drainage Improvements**

ID# **061000027**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study and development of a FMP of recommended alternative 5 which includes installing the Foley trunk line downstream of the pipelines, upsizing and installing new outfalls, and installing the Belle Cote trunk line.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401040704**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **149**

of structures **41**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **-**

Number of low water crossings **0**

Historical road closures **0**

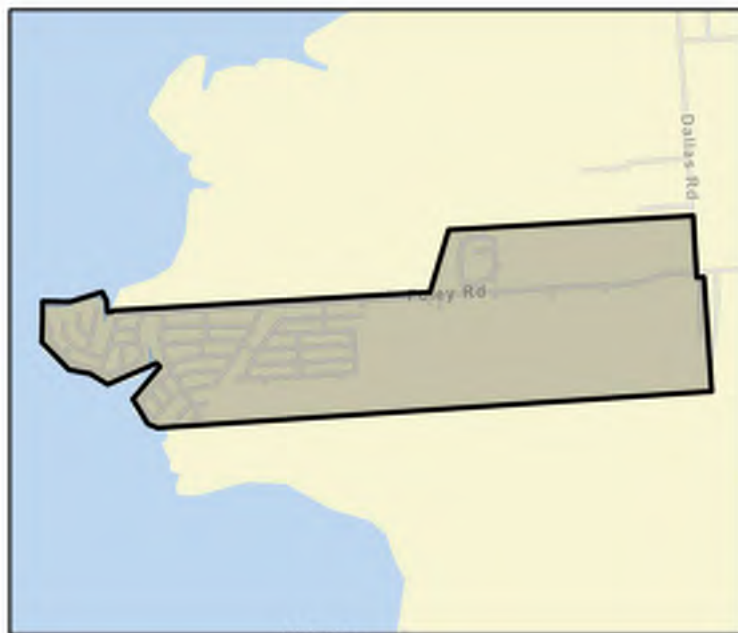
Estimated Cost and Funding Availability

Total Cost **\$280,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **League City - Stormwater Drainage Improvement- Interurban & Newport ditch**

ID# **061000097**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed slope paving (concrete lining) improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston,Harris**

Watershed HUC# (if known) **120402040200,120402040100**

Drainage area (Square miles, est.) **53**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **13,675**

of structures **5,251**

Critical facilities **25**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,308**

Roadway(s) impacted (length) **105**

Number of low water crossings **2**

Historical road closures **2**

Estimated Cost and Funding Availability

Total Cost **\$50,000**

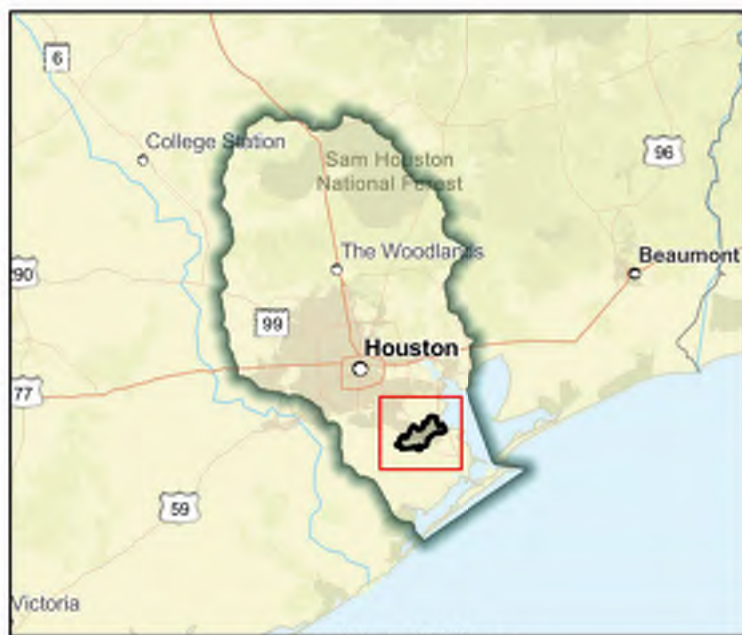
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Ledge Street Area Drainage and Paving**

ID# **061000470**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project provides for design and construction of storm water drainage and paving improvements, mitigation, and necessary utilities to serve the Ledge and Nathaniel areas east of Clearwood Drive to mitigate structural flooding risk.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401040502**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

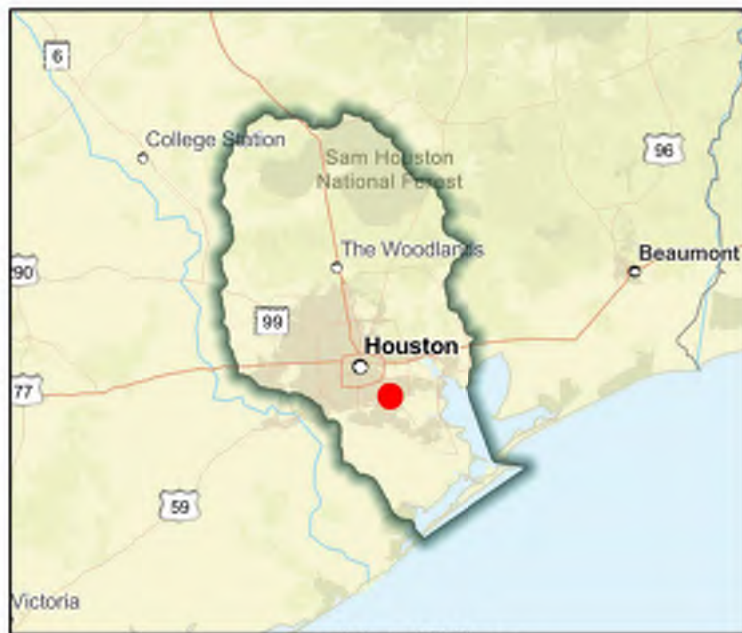
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Liberty County Culvert Replacement Project**

ID# **061000148**

Sponsor (name of entity, not person) **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Increase culvert size in identified flood hazard problem areas within Liberty County.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030201,120401030108,120401030109,120401030205,120401030**

Drainage area (Square miles, est.) **1,170**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,574**

of structures **3,614**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,379**

Roadway(s) impacted (length) **144**

Number of low water crossings **7**

Historical road closures **7**

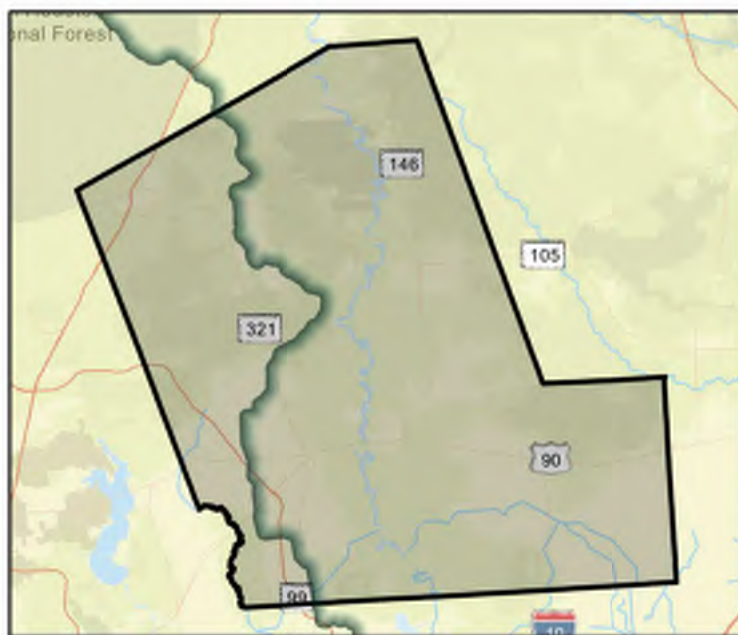
Estimated Cost and Funding Availability

Total Cost **\$120,000**

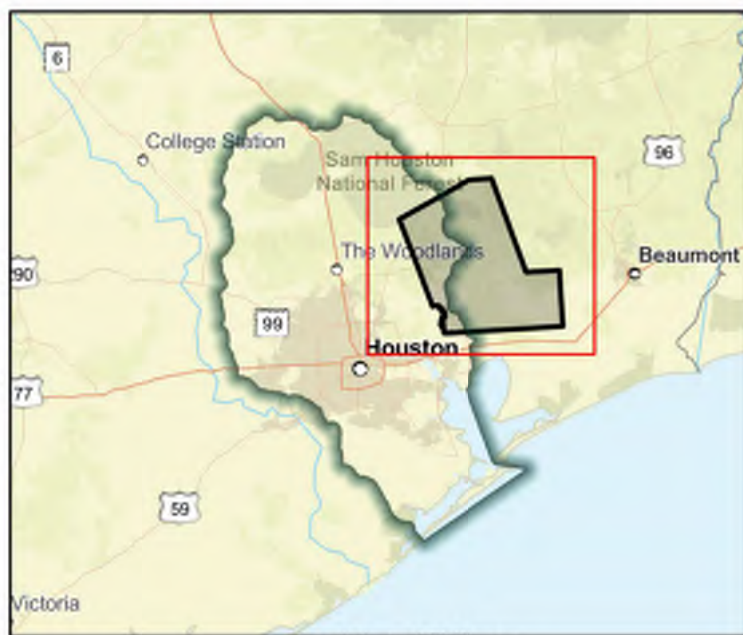
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Liberty County Drainage Projects**

ID# **061000083**

Sponsor (name of entity, not person) **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed drainage projects throughout the county- including adding ditches, detention ponds and detention basins in identified locations throughout the county in order to improve drainage.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030201,120401030108,120401030109,120401030205,120401030**

Drainage area (Square miles, est.) **1,170**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,574**

of structures **3,614**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,379**

Roadway(s) impacted (length) **144**

Number of low water crossings **7**

Historical road closures **7**

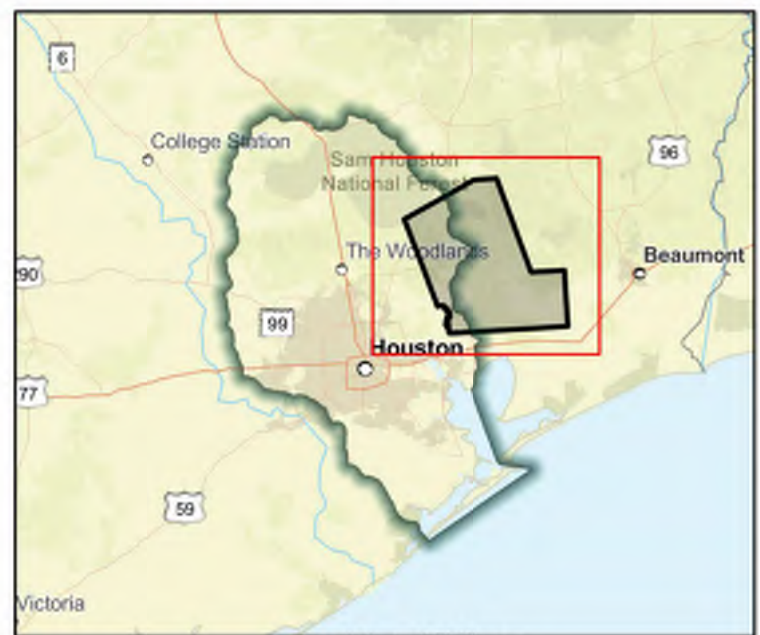
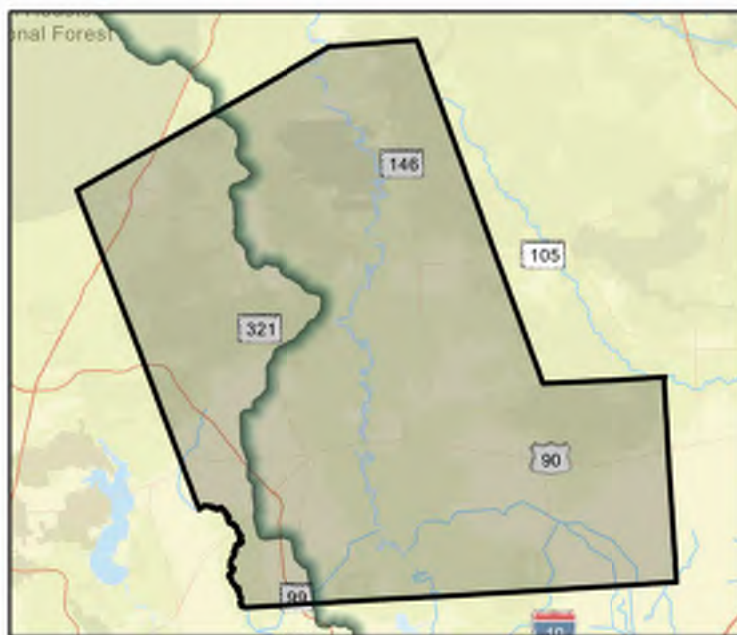
Estimated Cost and Funding Availability

Total Cost **\$2,000,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Liberty County Regional Flood Drainage Plan**

ID# **061000160**

Sponsor (name of entity, not person) **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Regional drainage study to establish a county wide drainage plan including atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030201,120401030108,120401030109,120401030205,120401030**

Drainage area (Square miles, est.) **1,170**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,574**

of structures **3,614**

Critical facilities **8**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,379**

Roadway(s) impacted (length) **144**

Number of low water crossings **7**

Historical road closures **7**

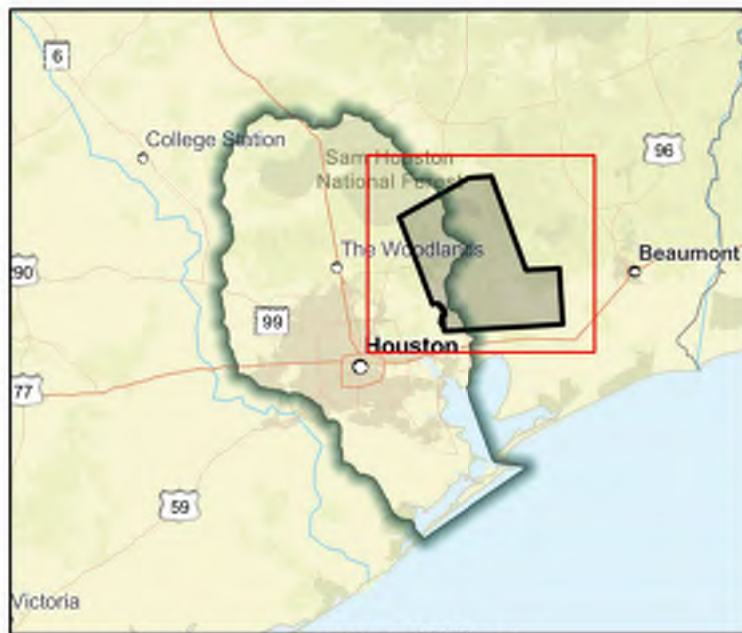
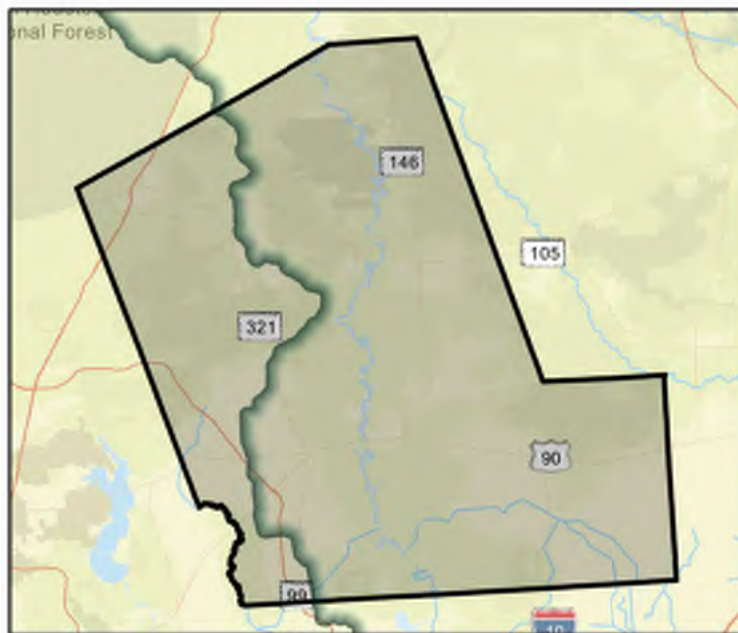
Estimated Cost and Funding Availability

Total Cost **\$486,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Lilly - Alligator Creek Watershed**

ID# **061000445**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,300**

of structures **516**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **10**

Number of low water crossings **9**

Historical road closures **9**

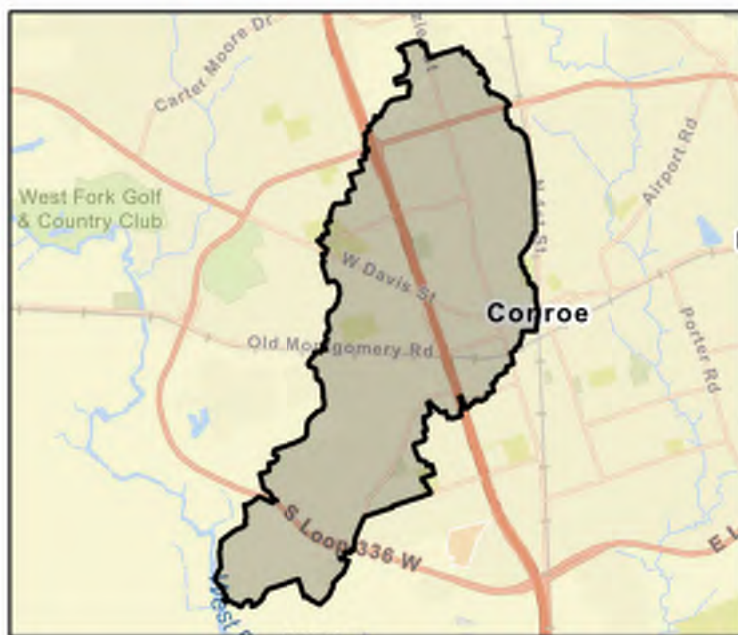
Estimated Cost and Funding Availability

Total Cost **\$30,000**

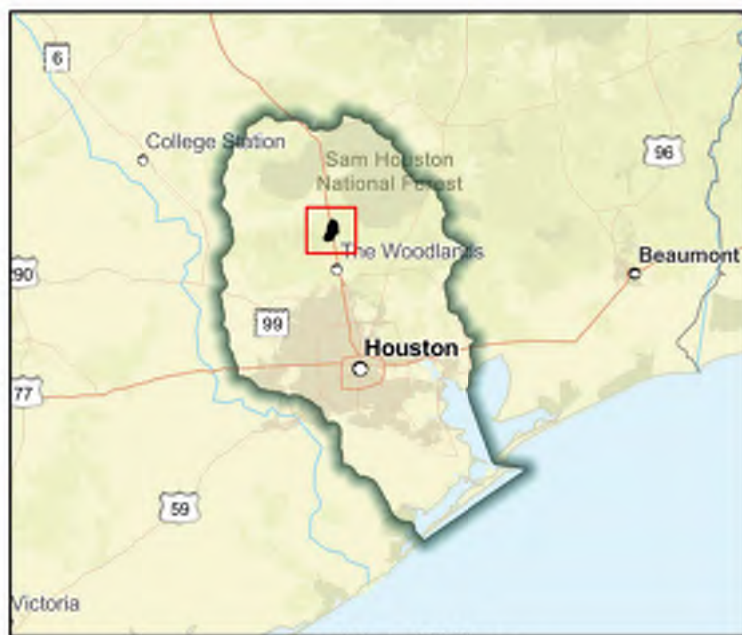
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Little Cypress Creek - L103-00-00

ID# 061000203

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for L103-00-00, L104-00-00, L105-00-00-00, and L122-00-00 through the HCFCO 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020104,120401020106,120401020105

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 241

of structures 116

Critical facilities 8

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 4

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

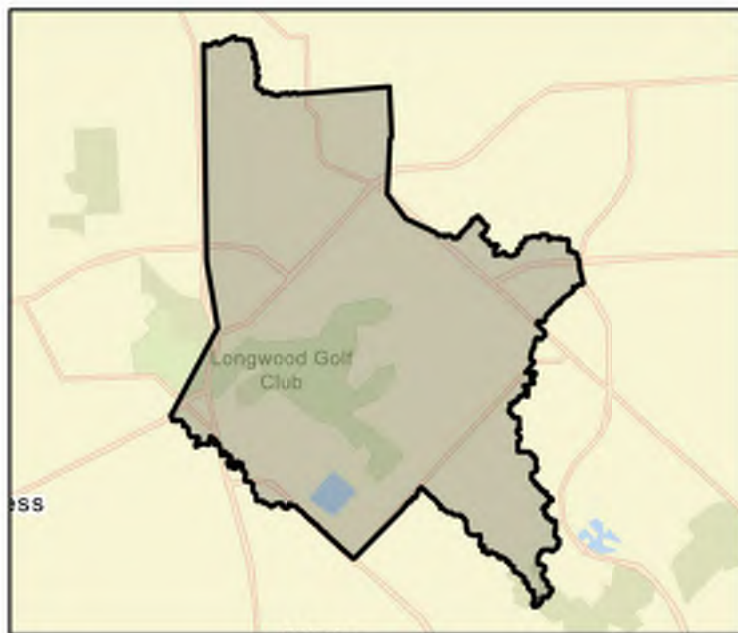
Estimated Cost and Funding Availability

Total Cost \$150,000

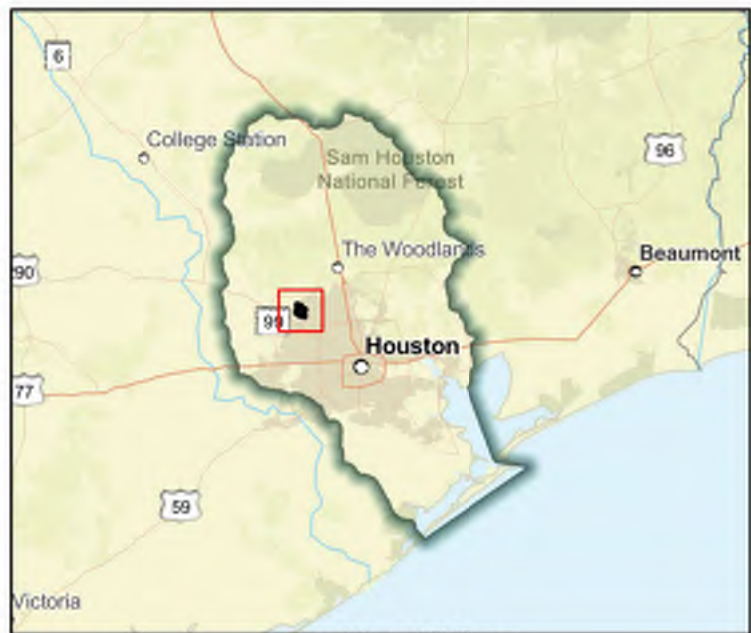
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Little Cypress Creek - L109-00-00

ID# 061000201

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for L109-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020104,120401020105,120401020210

Drainage area (Square miles, est.) 6

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 419

of structures 178

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 13

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$200,000

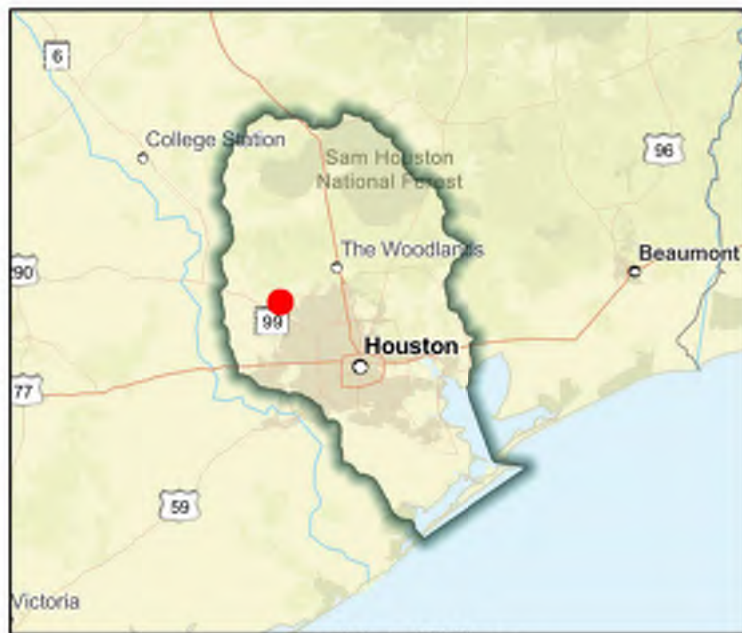
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Little Cypress Creek - L113-00-00

ID# 061000202

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for L113-00-00 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020104,120401020105,120401020205

Drainage area (Square miles, est.) 15

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 471

of structures 182

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 8

Roadway(s) impacted (length) 4

Number of low water crossings 3

Historical road closures 3

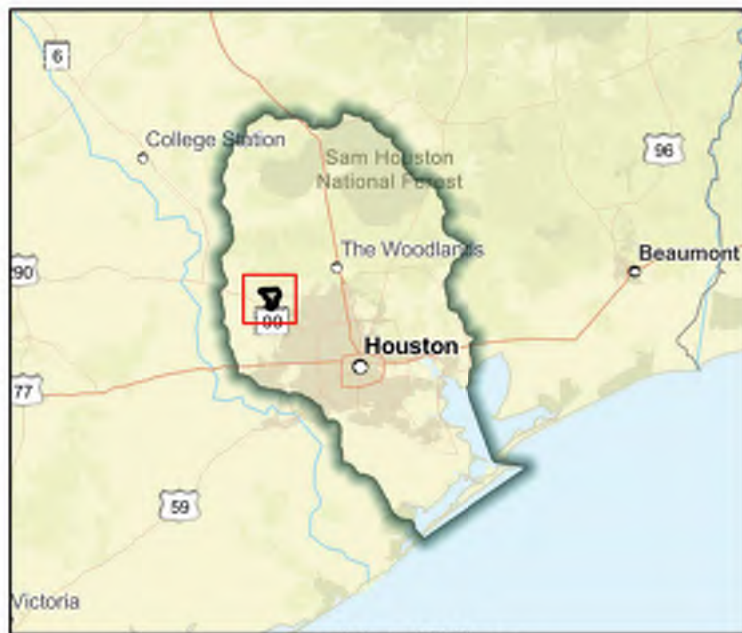
Estimated Cost and Funding Availability

Total Cost \$300,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Little Cypress Creek - Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program

ID# 061000358

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a BCR required for this to become a FMP. The Little Cypress Creek Frontier program will reduce the risk of flooding and include detention, sediment control, vegetation management and other flood risk management projects.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020103,120401020104,120401020106,120401020101,120401020

Drainage area (Square miles, est.) 52

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,734

of structures 1,213

Critical facilities 14

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 192

Roadway(s) impacted (length) 19

Number of low water crossings 4

Historical road closures

4

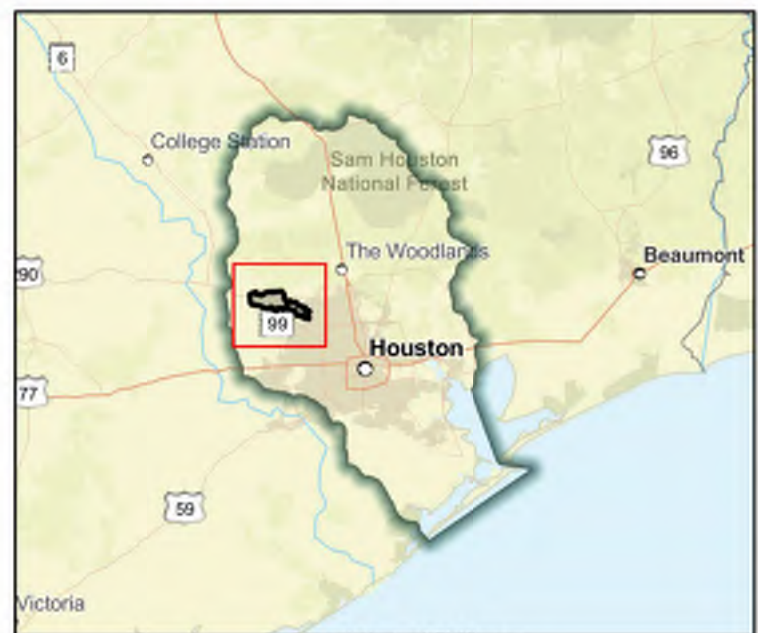
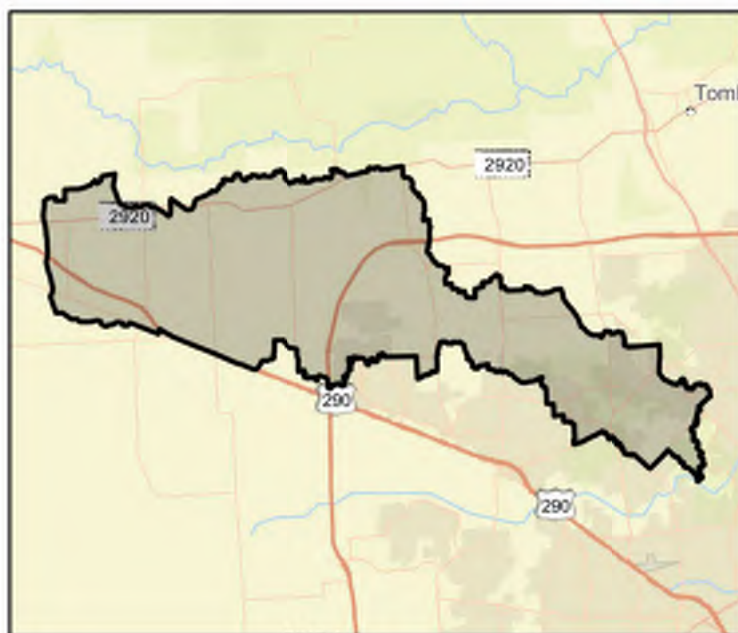
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Little Cypress Creek - Neighborhood Future Floodplain Analysis

ID# 061000510

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Little Cypress Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020101, 120401020103, 120401020104, 120401020105,

Drainage area (Square miles, est.) 52

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 2,734

of structures 1,213

Critical facilities 14

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 192

Roadway(s) impacted (length) 19

Number of low water crossings 4

Historical road closures

4

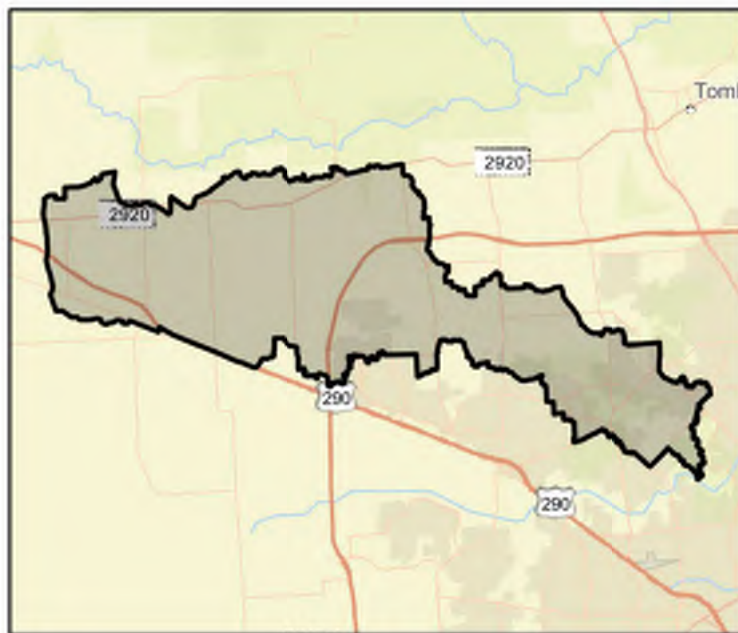
Estimated Cost and Funding Availability

Total Cost \$13,777,940

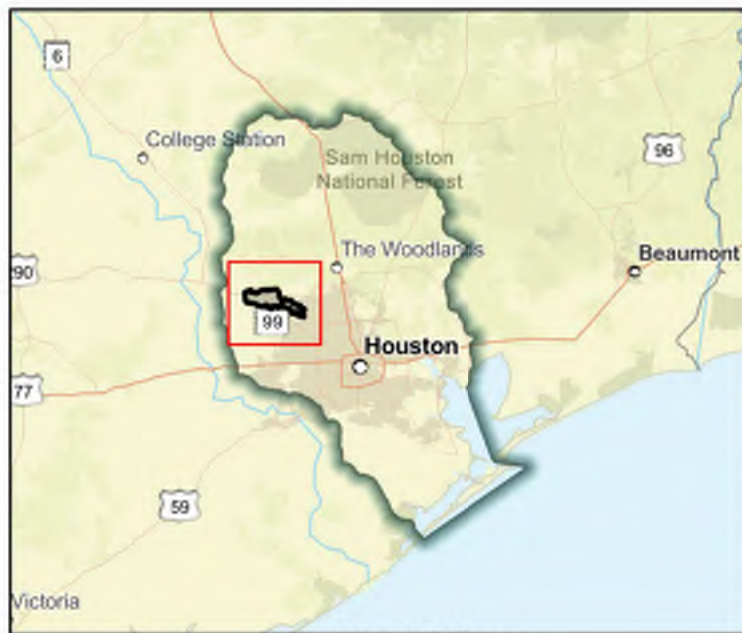
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Little Cypress Creek Local Drainage Study

ID# 061000528

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Little Cypress Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020101,120401020103,120401020104,120401020105,120401020

Drainage area (Square miles, est.) 52

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 2,734

of structures 1,213

Critical facilities 14

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 192

Roadway(s) impacted (length) 19

Number of low water crossings 4

Historical road closures

4

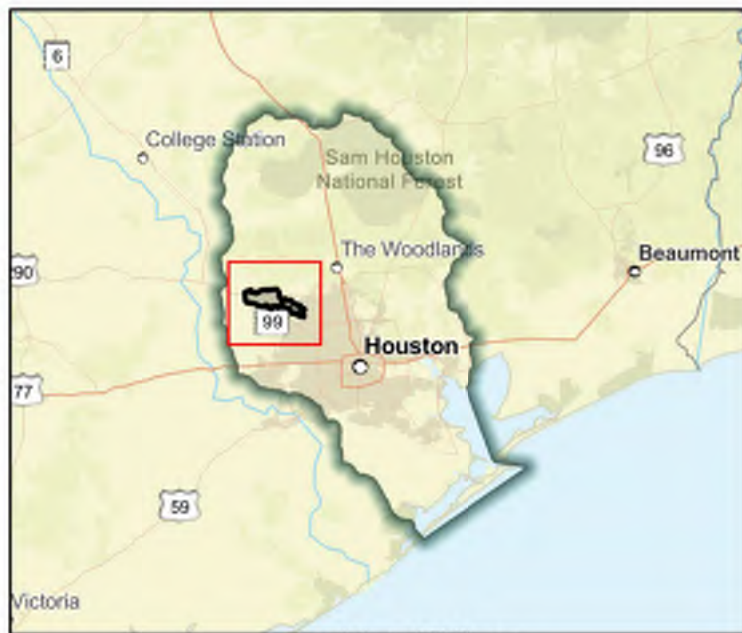
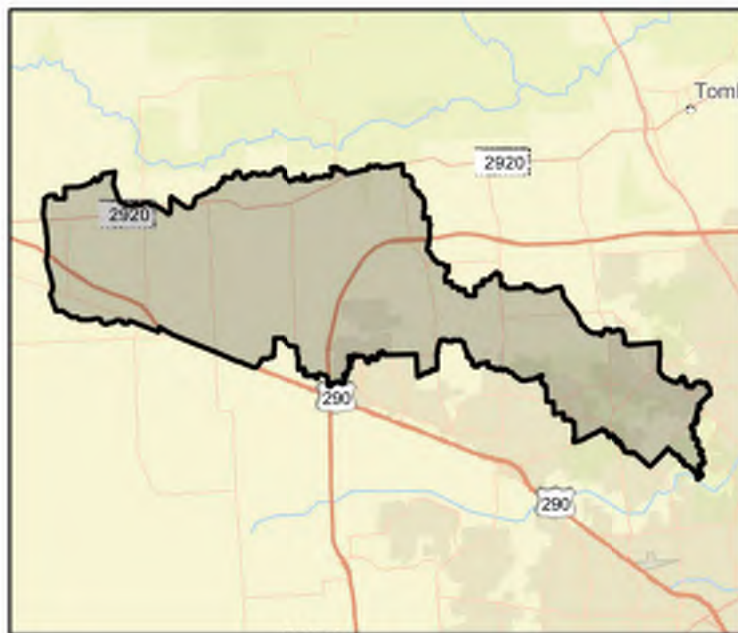
Estimated Cost and Funding Availability

Total Cost \$567,912

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Longmire and SH-105 - Live Oak Creek Watershed

ID# 061000462

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 343

of structures 99

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures

0

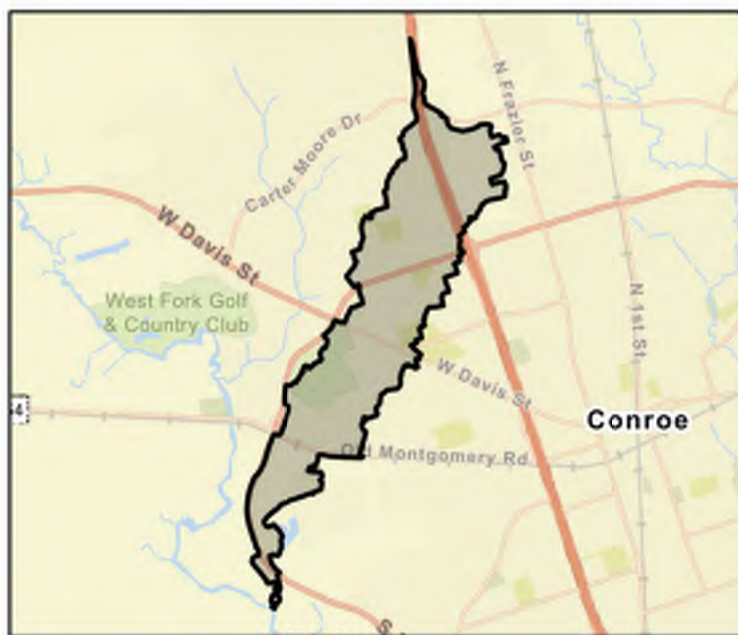
Estimated Cost and Funding Availability

Total Cost \$30,000

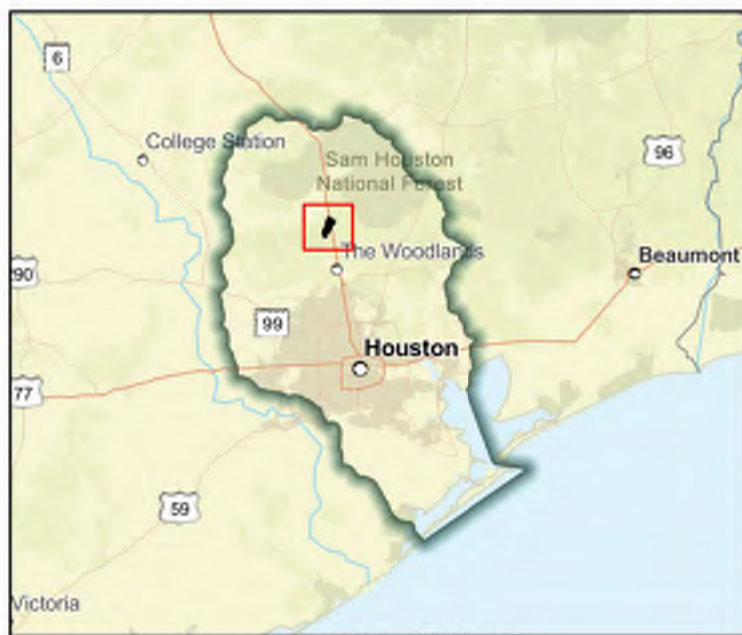
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Dickinson Bayou Alternative 2**

ID# **061000022**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further refine the DB Alt. 2 in the LCCDBFMP (2021), including alternative analysis to McFarland Detention Basin, W Cemetery Rd. Detention Basin, Hilton Detention Basin, Magnolia Bayou & Borden Gully Detention Basins, and Diversion Channel at Desel Dr..**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Brazoria, Galveston, Fort**

Watershed HUC# (if known) **120402040300, 120402040200, 120402040400, 120402040500, 120402040**

Drainage area (Square miles, est.) **86**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **89,177**

of structures **40,129**

Critical facilities **636**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2,683**

Roadway(s) impacted (length) **723**

Number of low water crossings **26**

Historical road closures **26**

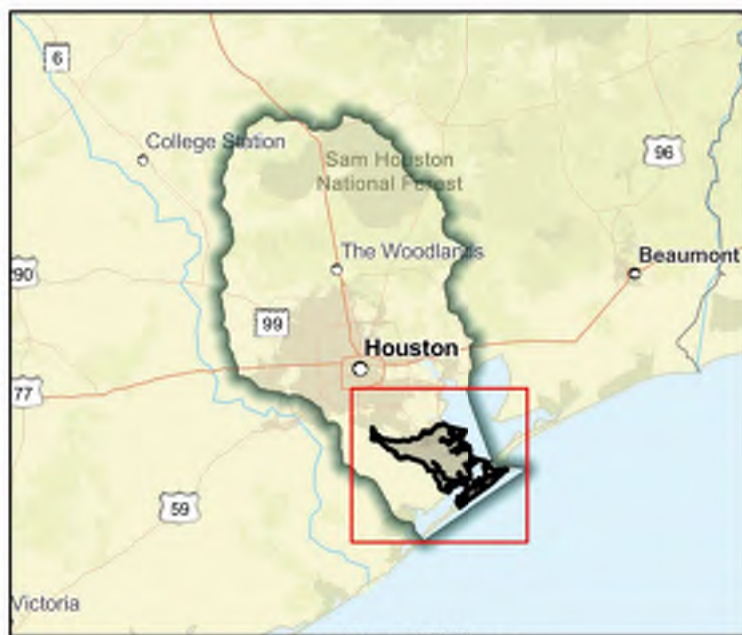
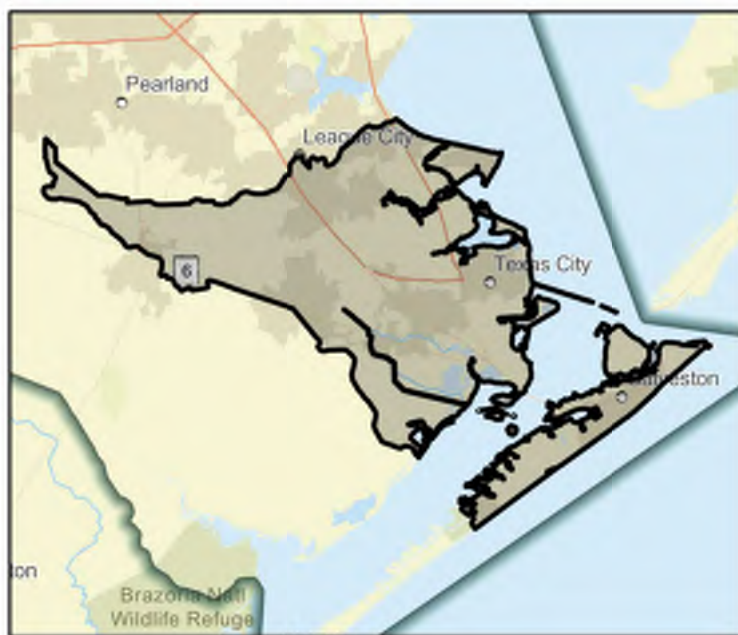
Estimated Cost and Funding Availability

Total Cost **\$1,090,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Lower Greens Feasibility Study

ID# 061000176

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Feasibility study will identify the existing causes of flooding and solutions to reduce the risk of flooding in the lower stretch of Greens Bayou. Potential solutions channel conveyance improvements, detention, or bridge adjustments or replacements.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401010502,120401010501,120401020106,120401020107,120401040

Drainage area (Square miles, est.) 27

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 16,913

of structures 5,926

Critical facilities 58

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 68

Number of low water crossings 3

Historical road closures 3

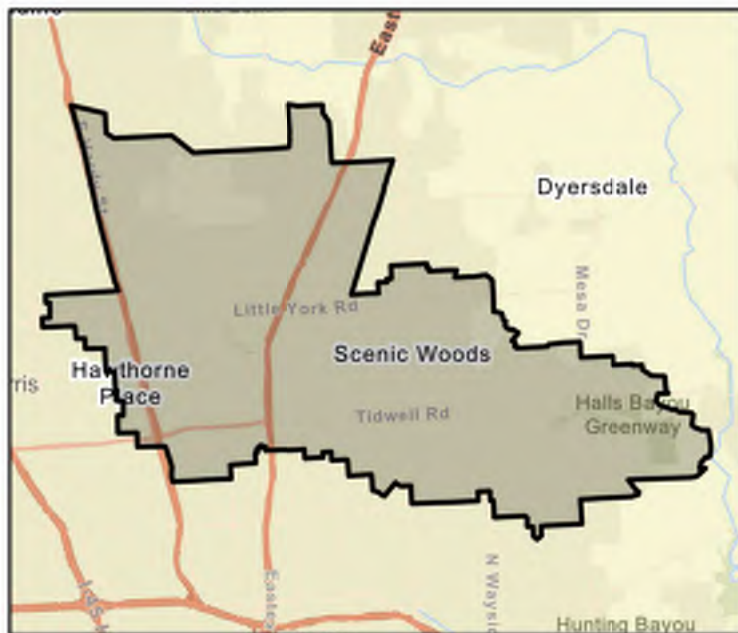
Estimated Cost and Funding Availability

Total Cost \$1,000,000

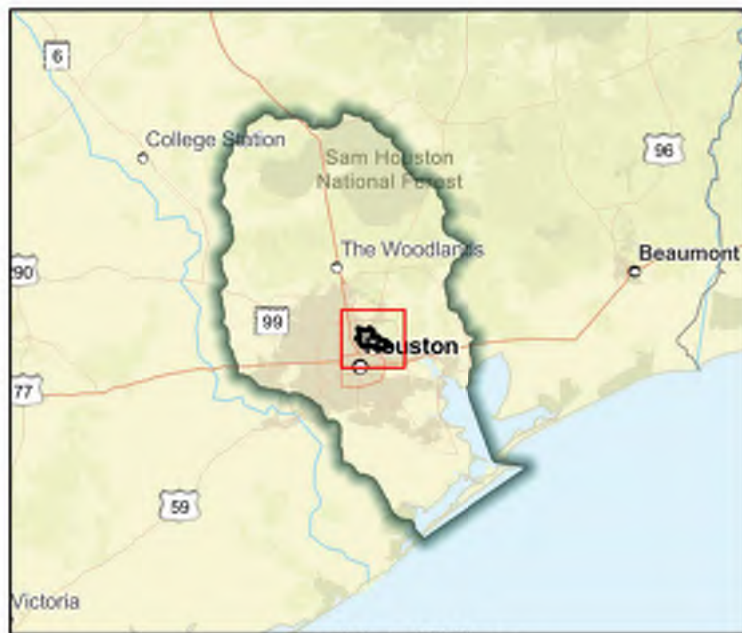
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Luce Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000511**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Luce Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Montgomery, Liberty**

Watershed HUC# (if known) **120401010501, 120401030203, 120401030204, 120401030205,**

Drainage area (Square miles, est.) **75**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **717**

of structures **772**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **191**

Roadway(s) impacted (length) **41**

Number of low water crossings **0**

Historical road closures **0**

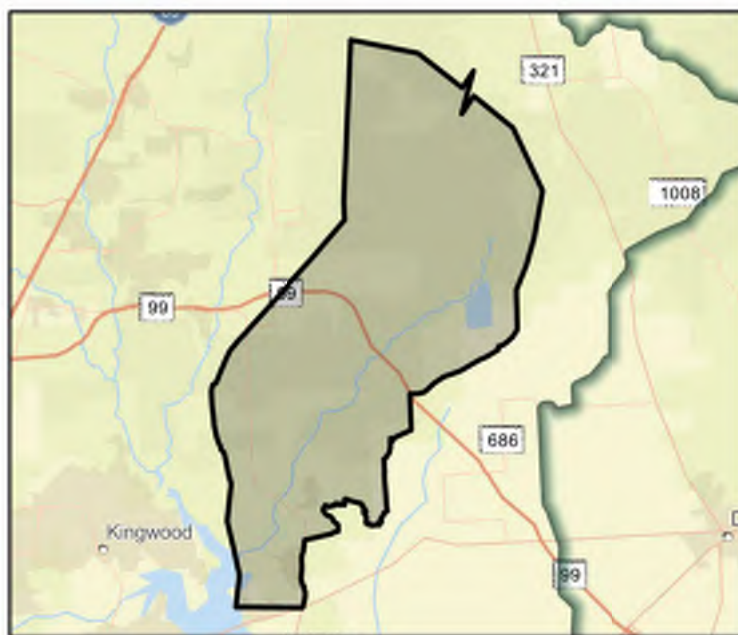
Estimated Cost and Funding Availability

Total Cost **\$2,611,954**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Luce Bayou (Z100-00-00-P026) Bypass Channel**

ID# **061000407**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel bypass to provide Luce main stem upstream and local overland flooding relief.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401010501,120401030205,120401030402,120401040**

Drainage area (Square miles, est.) **75**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **471**

of structures **351**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **83**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Luce Bayou (Z100-00-00-P026) Channelization**

ID# **061000412**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel improvements along Luce main stem.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401010501,120401030205,120401030402,120401040**

Drainage area (Square miles, est.) **75**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **471**

of structures **351**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **83**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

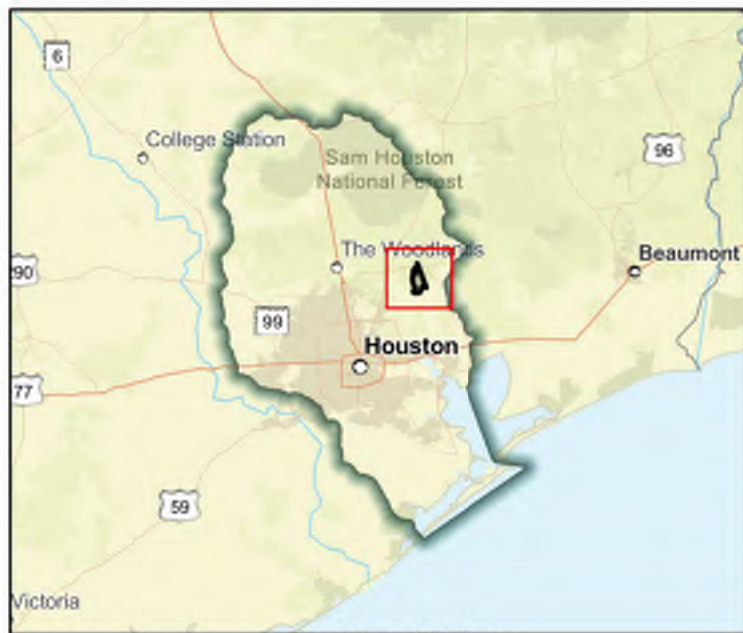
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Luce Bayou (Z100-00-00-P026) Upstream Detention**

ID# **061000413**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of regional detention upstream of Luce Bayou, including acquiring open land north of Harris County.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401010501,120401030205,120401030402,120401040**

Drainage area (Square miles, est.) **75**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **471**

of structures **351**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **83**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

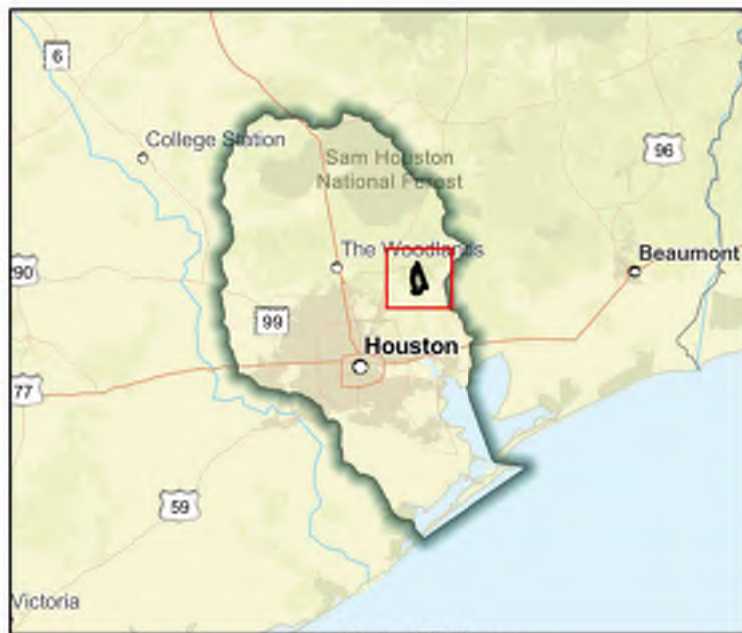
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Luce Bayou Local Drainage Study**

ID# **061000532**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Luce Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Liberty, Montgomery**

Watershed HUC# (if known) **120401010501, 120401030203, 120401030204, 120401030205,**

Drainage area (Square miles, est.) **75**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **717**

of structures **772**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **191**

Roadway(s) impacted (length) **41**

Number of low water crossings **0**

Historical road closures **0**

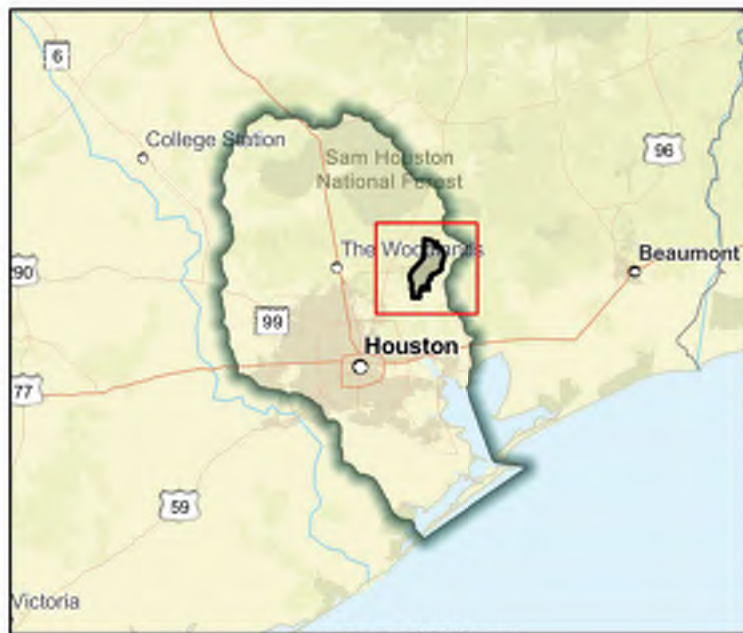
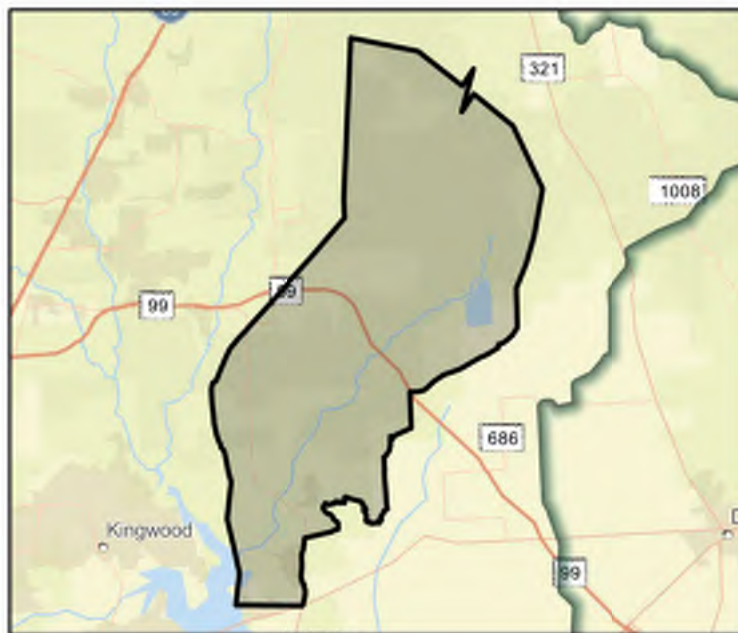
Estimated Cost and Funding Availability

Total Cost **\$327,375**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Magnolia Creek & Cedar Gully Clearing and Desnagging Project**

ID# **061000553**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project would look at Magnolia Creek and Cedar Gully downstream of FM 518 and all work would be above the ordinary high water mark. Scope of work includes the removal of vegetation and/or Desnagging of the channels.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,082**

of structures **335**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$150,000**

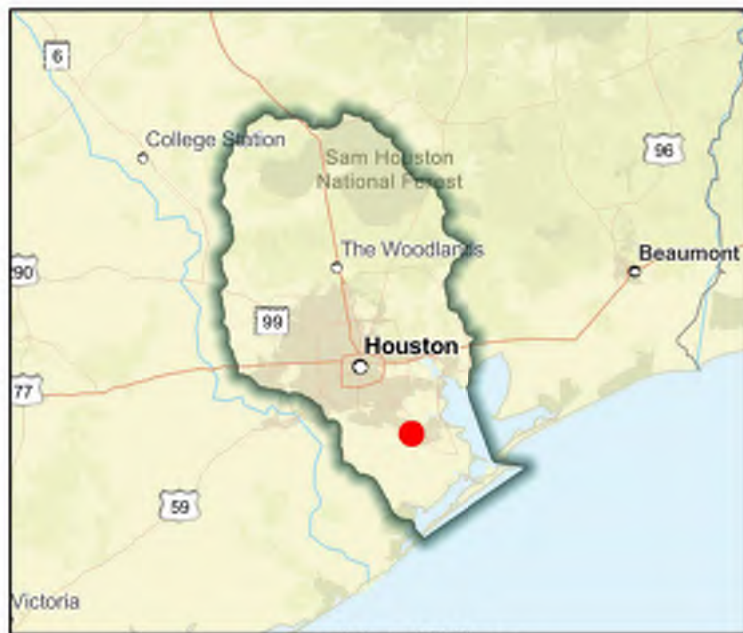
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Magnolia Creek & Cedar Gully Drainage Improvement Project**

ID# **061000544**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project would look at Magnolia Creek and Cedar Gully upstream of FM 518. Improvements would include modification of detention pond outlets and culvert crossings at Summer Place.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,076**

of structures **334**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

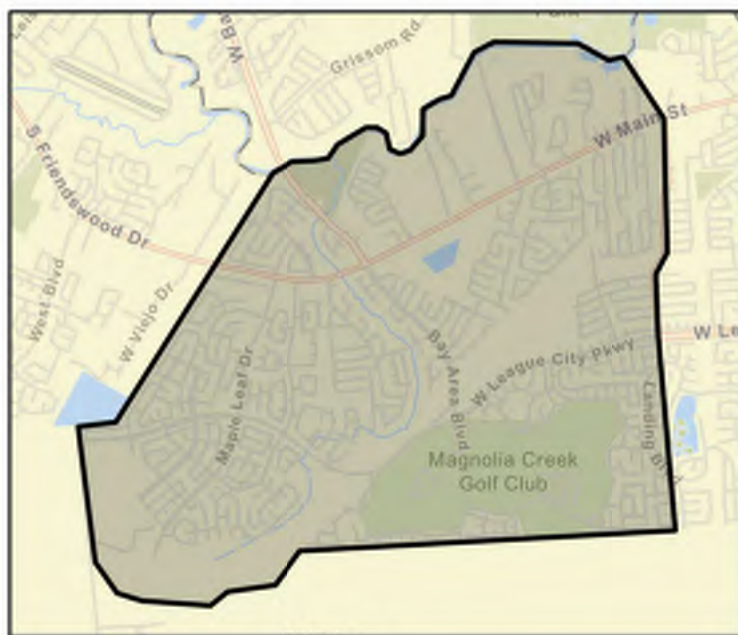
Estimated Cost and Funding Availability

Total Cost **\$750,000**

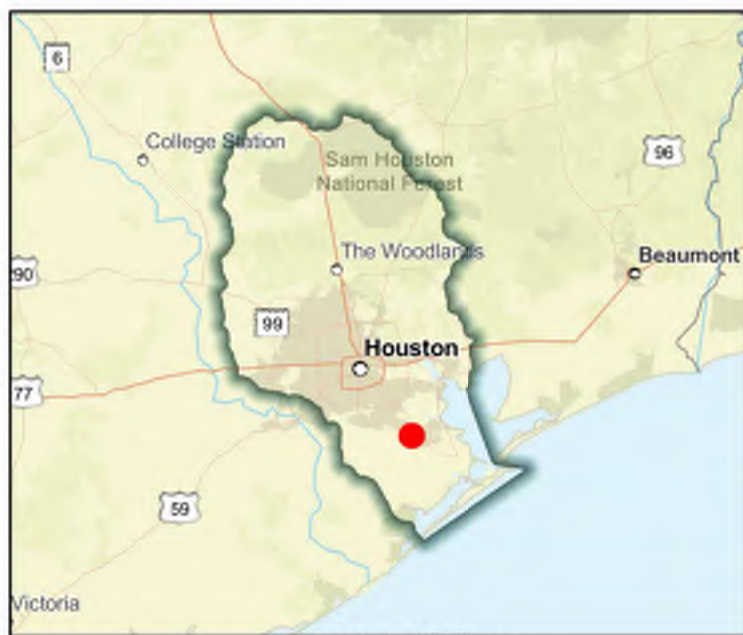
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Middle Armand Bayou Protection Project

ID# 061000467

Sponsor (name of entity, not person) Pasadena (Municipality)

RFPG recommend? No

Reason for Recommendation

The Sponsor is no longer pursuing this project.

Study Details

Study type Other

Study description Further study to develop this project into a FMP. FIF application information unavailable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120402040100

Drainage area (Square miles, est.) 262

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 12,826

of structures 2,960

Critical facilities 52

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 45

Roadway(s) impacted (length) 61

Number of low water crossings 4

Historical road closures

4

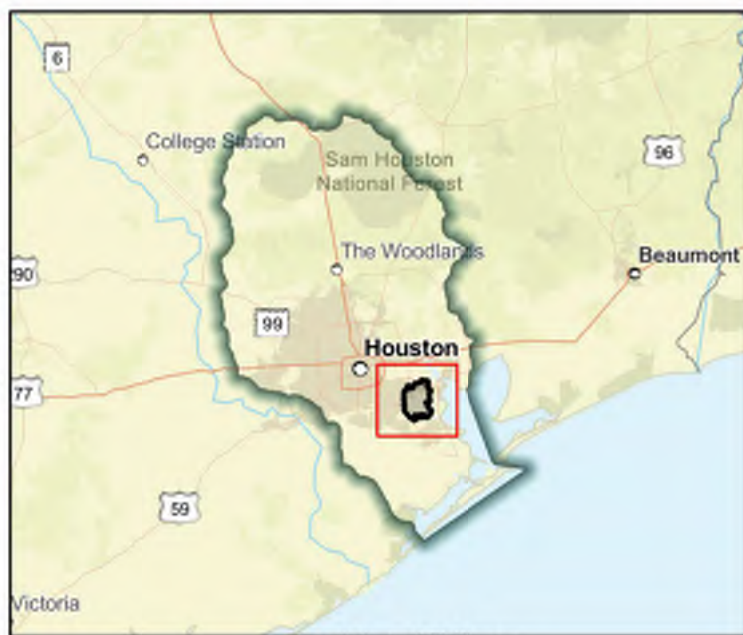
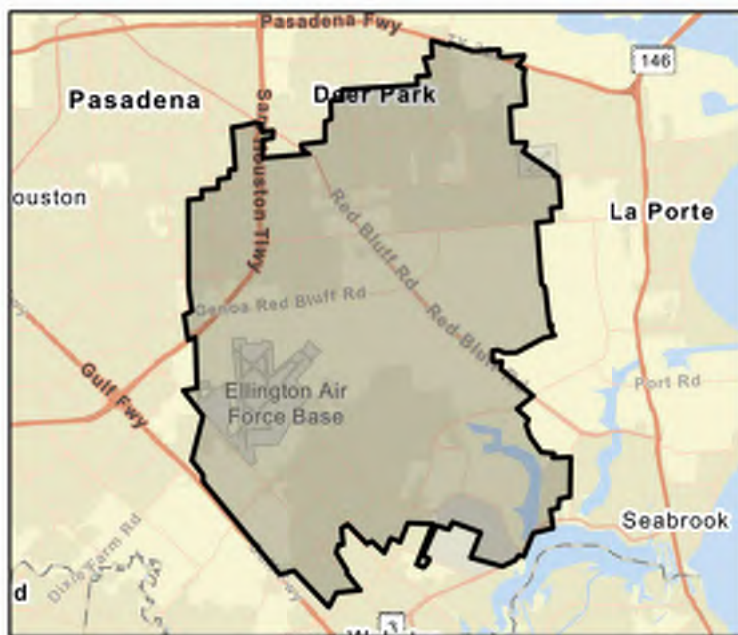
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Missouri City Estates Drainage Improvements

ID# 061000005

Sponsor (name of entity, not person) Stafford (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed flood risk reduction project that includes drainage improvements to Missouri City Estates.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Fort Bend,Harris

Watershed HUC# (if known) 120401040401

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures -

Critical facilities -

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

Estimated Cost and Funding Availability

Total Cost \$100,000

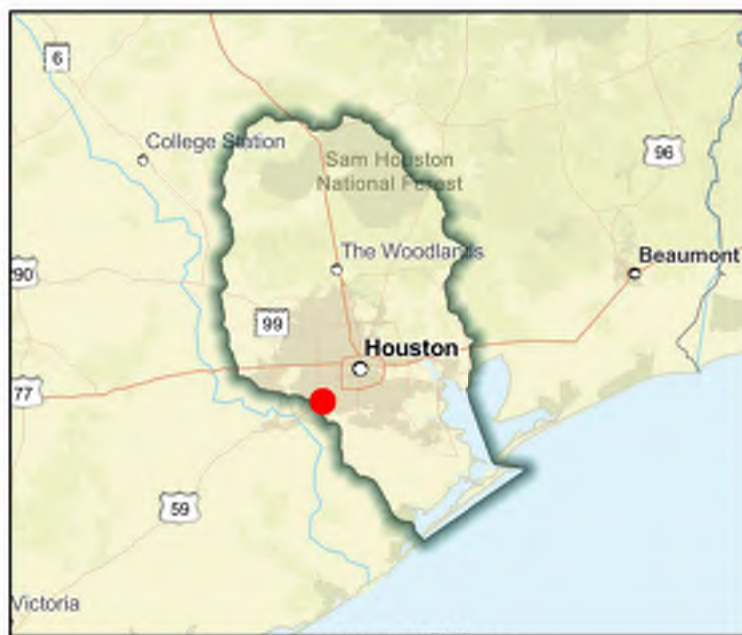
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Montgomery County MUDs 83,84 - Alternative 4 and 6B PER**

ID# **061000491**

Sponsor (name of entity, not person)

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **Further define Alternative 4 and 6B recommended in the Oakhurst Drainage System & Bentwood Diversion Channel Flood Reduction Study (March 2021) including performing a benefit cost analysis.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010501, 120401010404**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

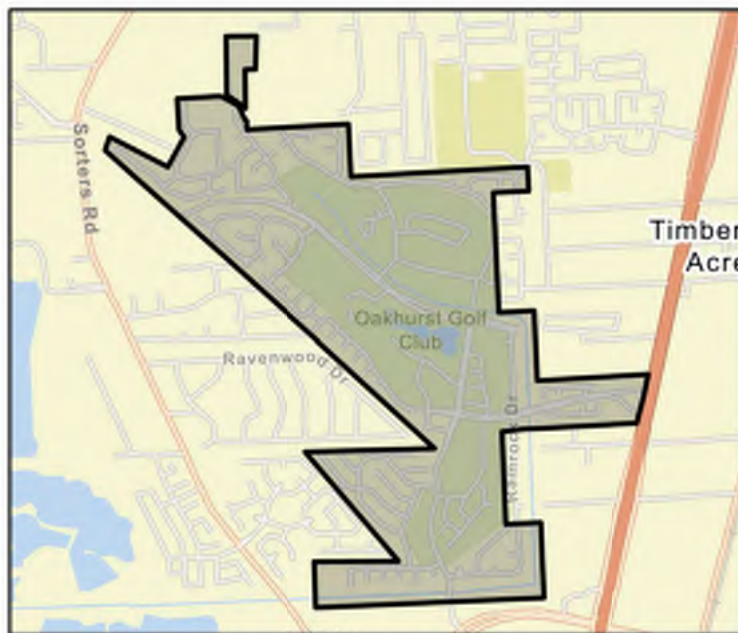
Estimated Cost and Funding Availability

Total Cost **\$100,000**

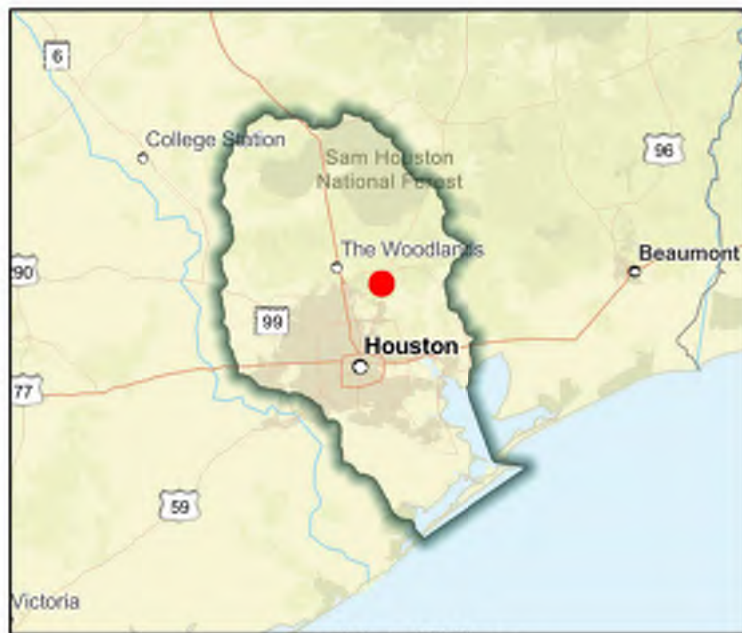
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Montgomery County MUDs 83,84 - Storm Sewer Improvements**

ID# **061000494**

Sponsor (name of entity, not person)

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **Further define storm sewer improvements recommended in the Oakhurst Drainage System & Bentwood Diversion Channel Flood Reduction Study (March 2021), evaluate and identify potential inlet improvements.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010501, 120401010404**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **20**

of structures **36**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

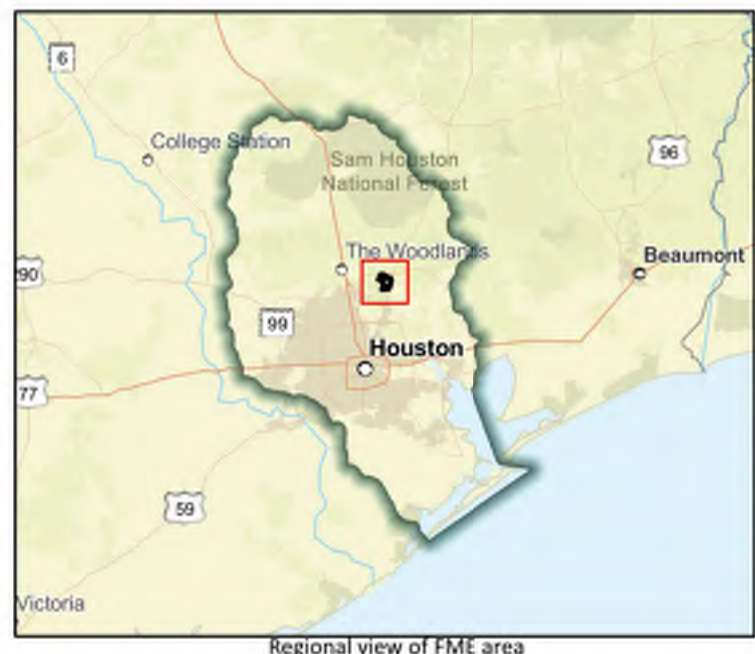
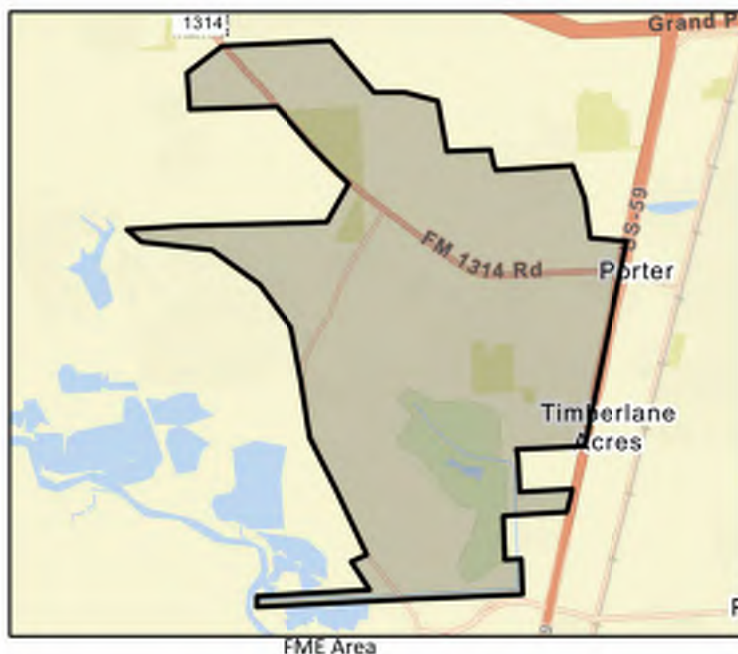
Estimated Cost and Funding Availability

Total Cost **\$650,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Montgomery Flood Mapping Updates**

ID# **061000307**

Sponsor (name of entity, not person) **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **County wide study to produce flood mapping updates including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401010101,120401010301,120401010302,120401010303,120401010**

Drainage area (Square miles, est.) **1,073**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **42,121**

of structures **21,175**

Critical facilities **116**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **852**

Roadway(s) impacted (length) **409**

Number of low water crossings **72**

Historical road closures **72**

Estimated Cost and Funding Availability

Total Cost **\$4,700,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Mustang Bayou Middle Segment

ID# 061000064

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria, Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 5

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,668

of structures 256

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 39

Roadway(s) impacted (length) 6

Number of low water crossings 0

Historical road closures 0

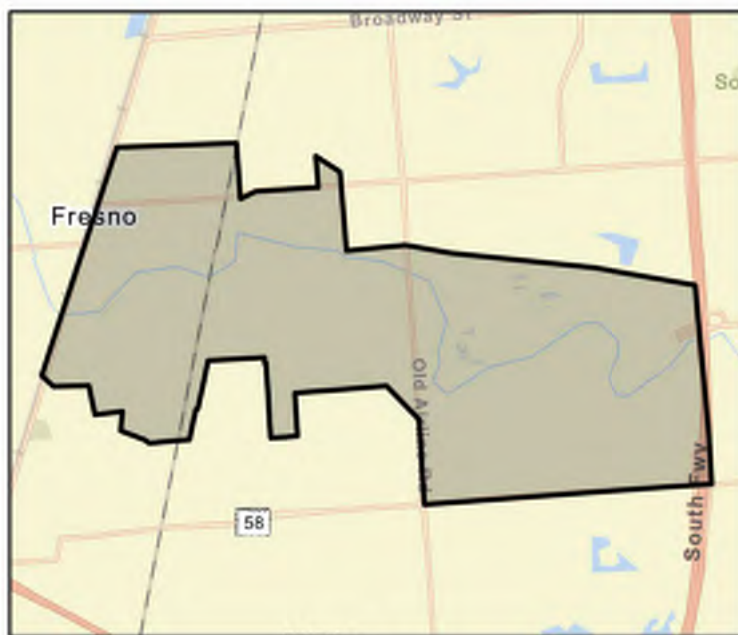
Estimated Cost and Funding Availability

Total Cost \$1,212,000

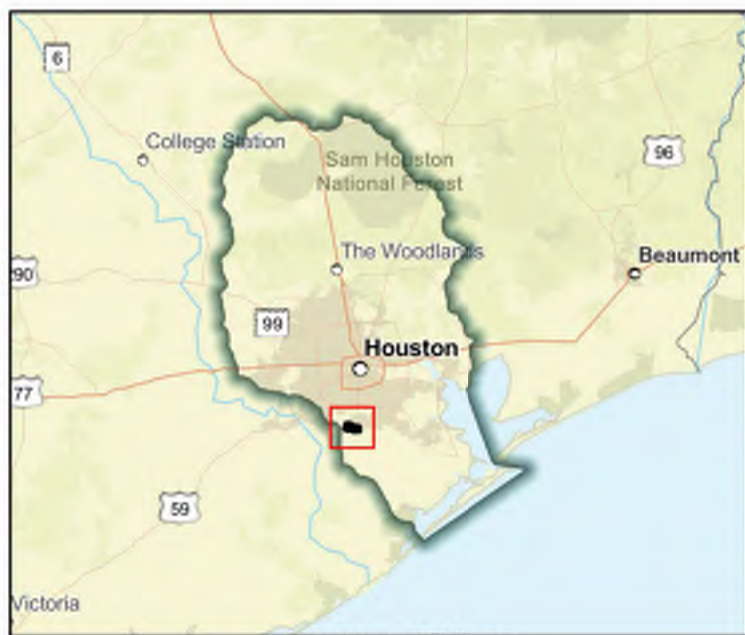
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Mustang Bayou Upper Segment

ID# 061000066

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Fort Bend

Watershed HUC# (if known) 120402040400,120402040100

Drainage area (Square miles, est.) 7

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 771

of structures 415

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 20

Roadway(s) impacted (length) 4

Number of low water crossings 3

Historical road closures 3

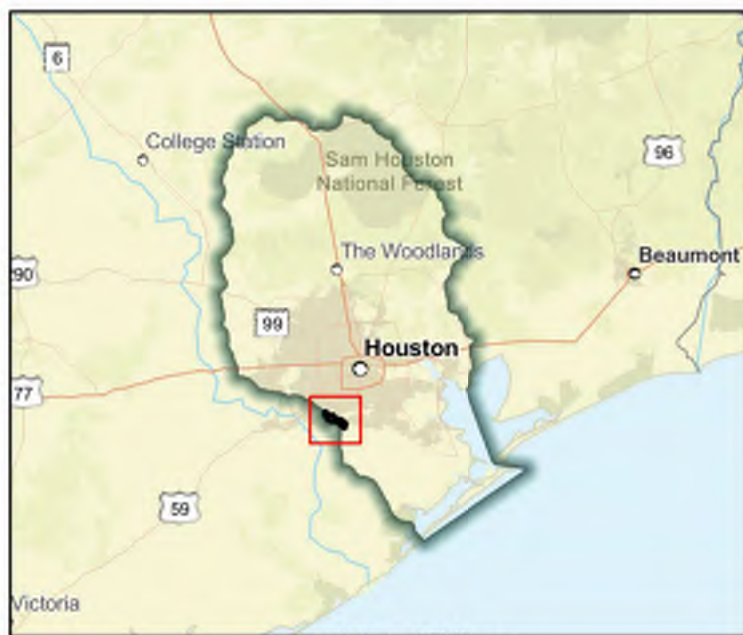
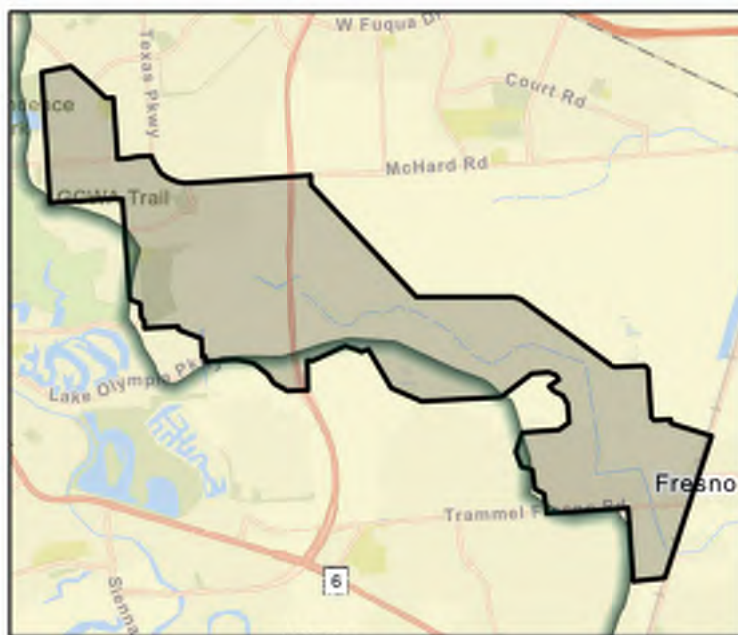
Estimated Cost and Funding Availability

Total Cost \$2,040,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **North Alexander**

ID# **061000536**

Sponsor (name of entity, not person) **Baytown (Municipality)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Project Planning**

Study description **Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120402030106**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000010**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

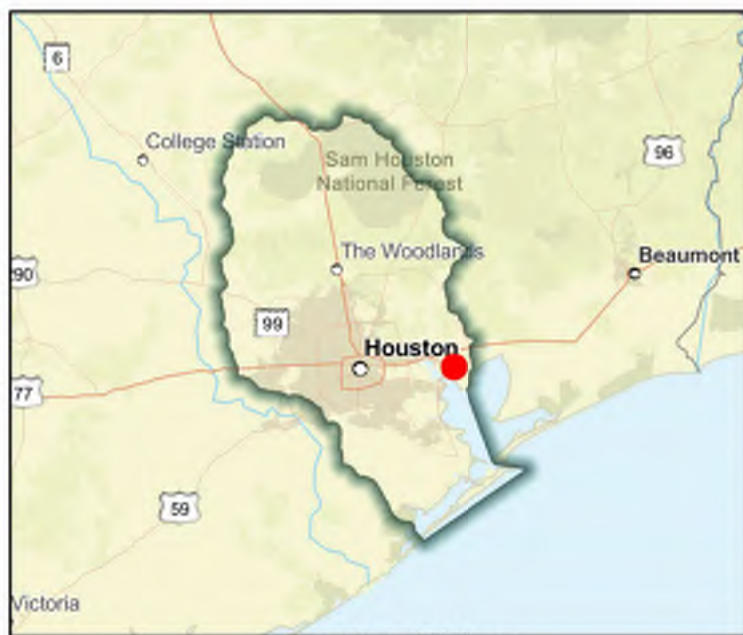
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **North Alexander Drainage Improvements**

ID# **061000423**

Sponsor (name of entity, not person) **Baytown (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to develop this project into a FMP. This CDBG-MIT application involves the installation and construction of various storm sewer and detention infrastructure.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Chambers,Harris**

Watershed HUC# (if known) **120402030106**

Drainage area (Square miles, est.) **48**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,514**

of structures **550**

Critical facilities **7**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **98**

Roadway(s) impacted (length) **14**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

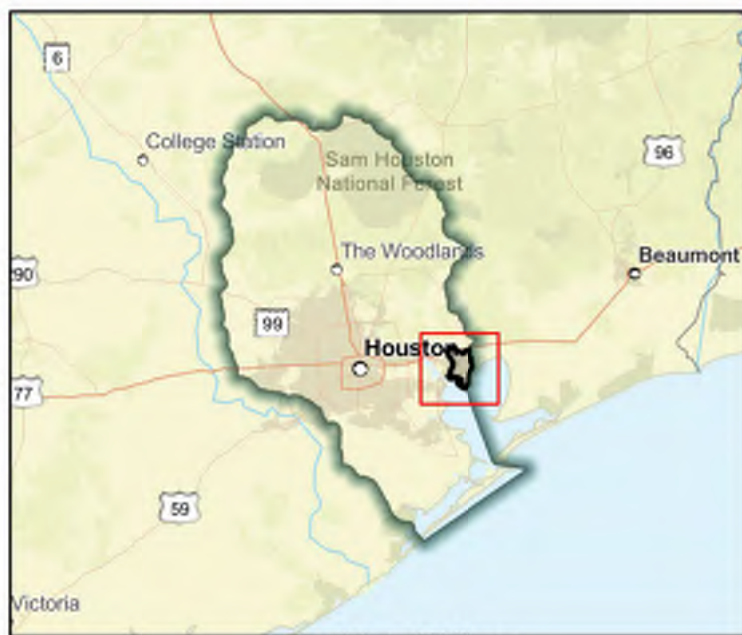
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Northfield Place Subdivision Drainage Improvements**

ID# **061000432**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040604,120401040304**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,827**

of structures **3,186**

Critical facilities **13**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **32**

Number of low water crossings **1**

Historical road closures **1**

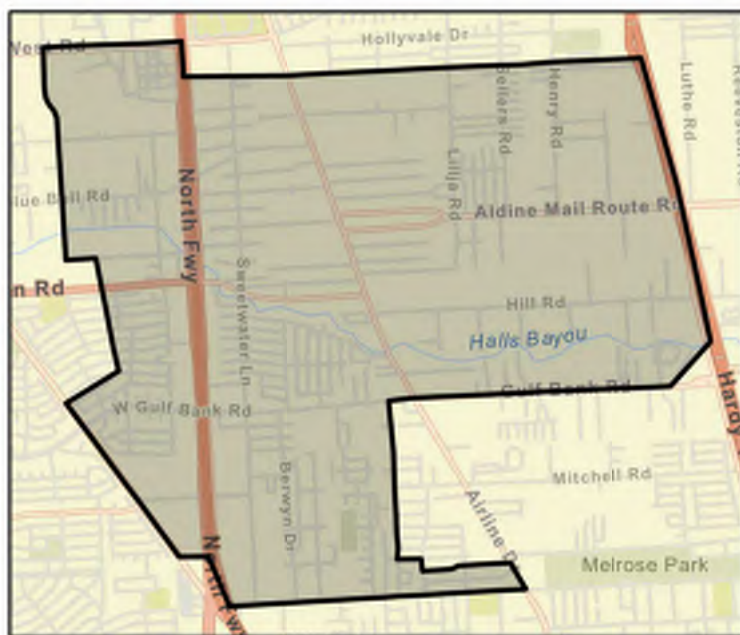
Estimated Cost and Funding Availability

Total Cost **\$30,000**

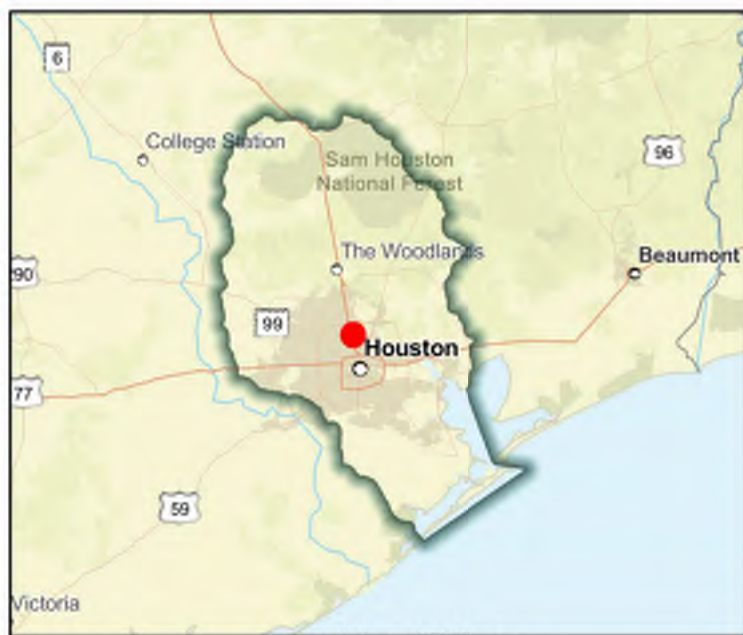
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Oak Glen Place Subdivision Drainage Improvements**

ID# **061000431**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040604,120401040304**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **7,827**

of structures **3,186**

Critical facilities **13**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **32**

Number of low water crossings **1**

Historical road closures **1**

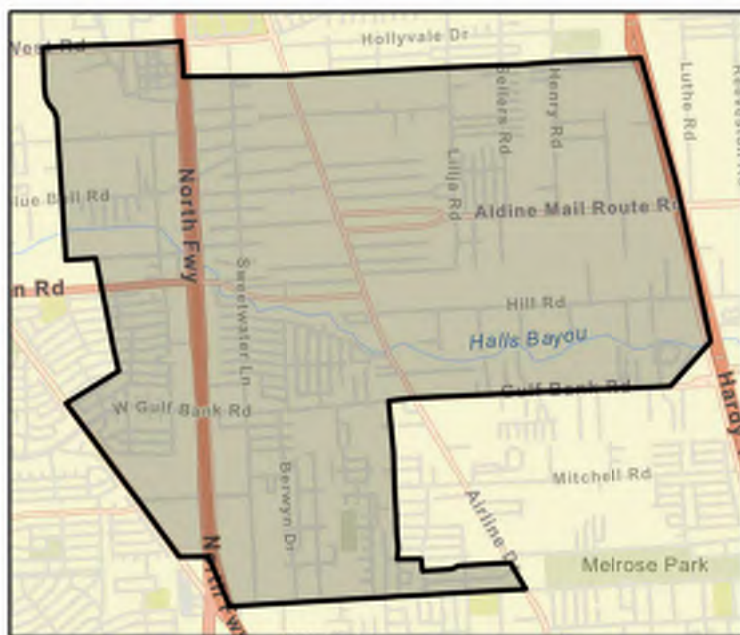
Estimated Cost and Funding Availability

Total Cost **\$30,000**

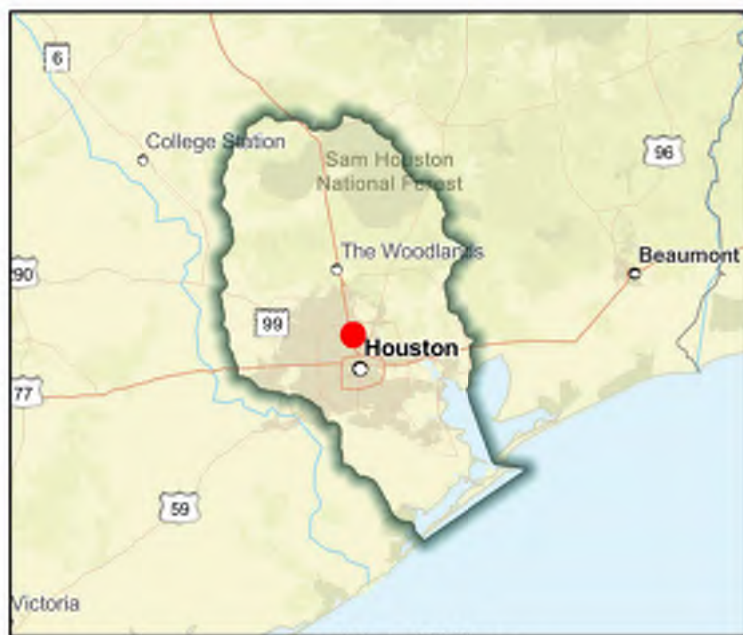
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Oak Hollow - Alligator Creek Watershed**

ID# **061000449**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,300**

of structures **516**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **10**

Number of low water crossings **9**

Historical road closures **9**

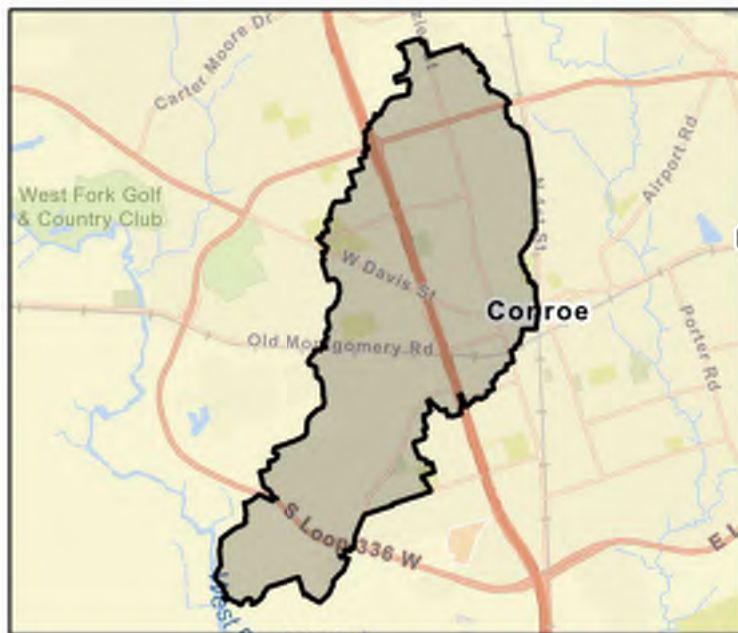
Estimated Cost and Funding Availability

Total Cost **\$30,000**

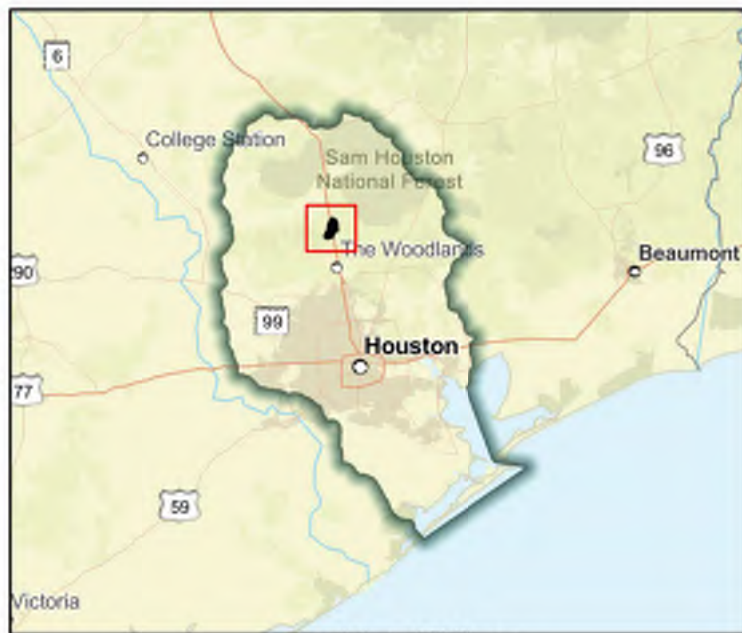
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title P518 Aldine West field

ID# 061000479

Sponsor (name of entity, not person) Houston (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Project for design and construction of detention pond in conjunction with TxDot. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040604

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 10,517

of structures 3,550

Critical facilities 35

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 29

Number of low water crossings 1

Historical road closures

1

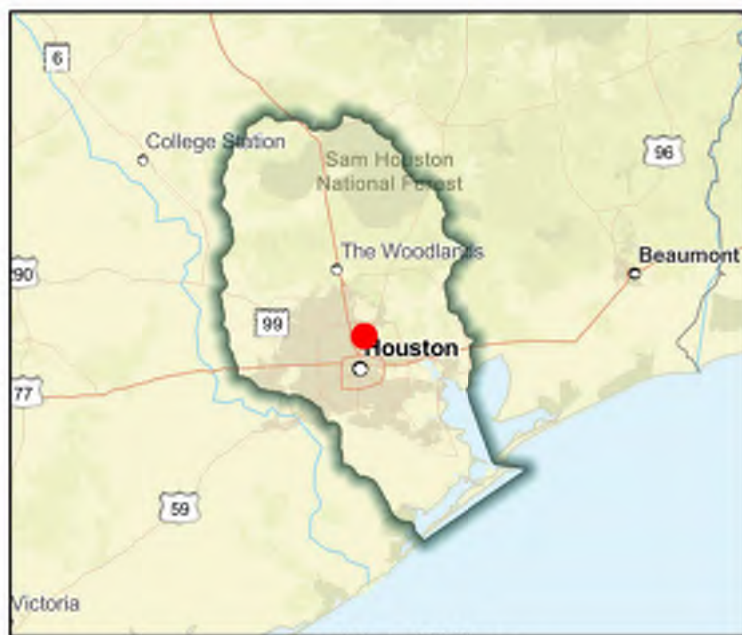
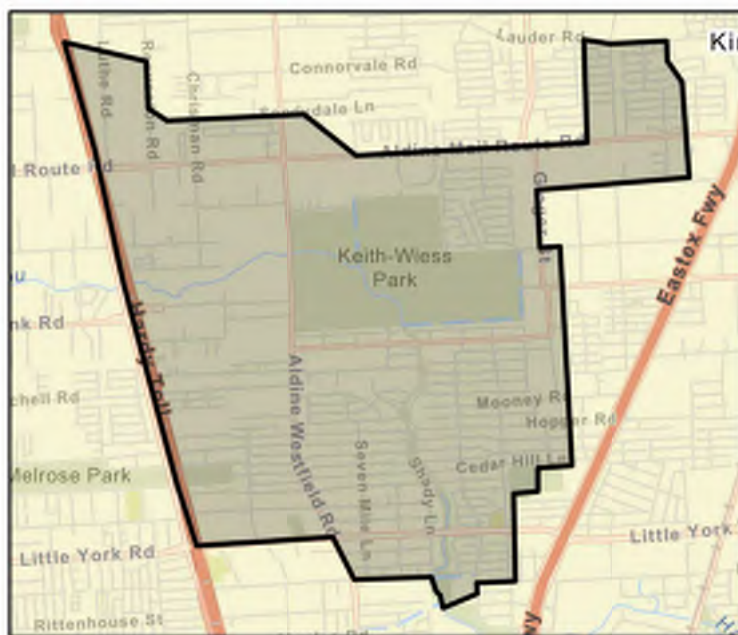
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Patton Subdivision Drainage Improvements Project**

ID# **061000548**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Evaluation of storm sewer improvements along Sanders St., West Wilkins St., and Interurban St. The storm sewer would discharge into an approximate 40 ac-ft new detention pond along W. Galveston/W. Wilkins before discharging into Interurban Ditch.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **31**

of structures **6**

Critical facilities **2**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

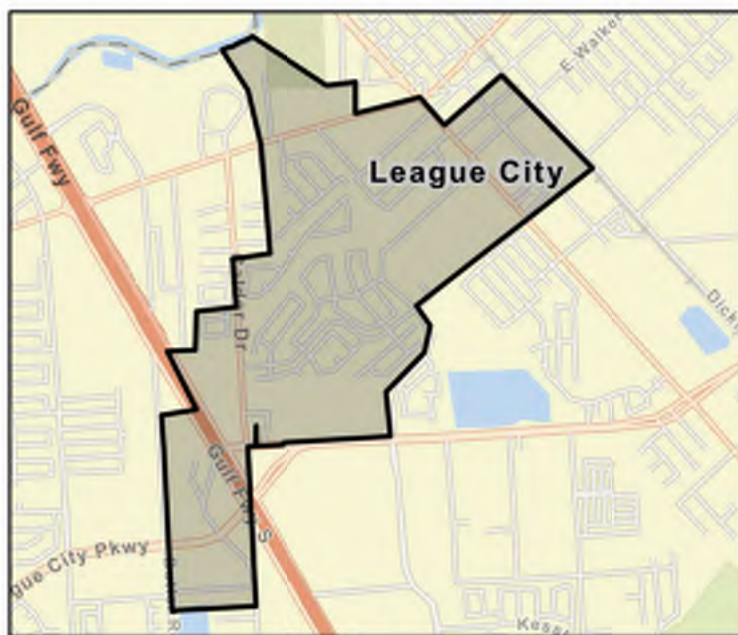
Estimated Cost and Funding Availability

Total Cost **\$700,000**

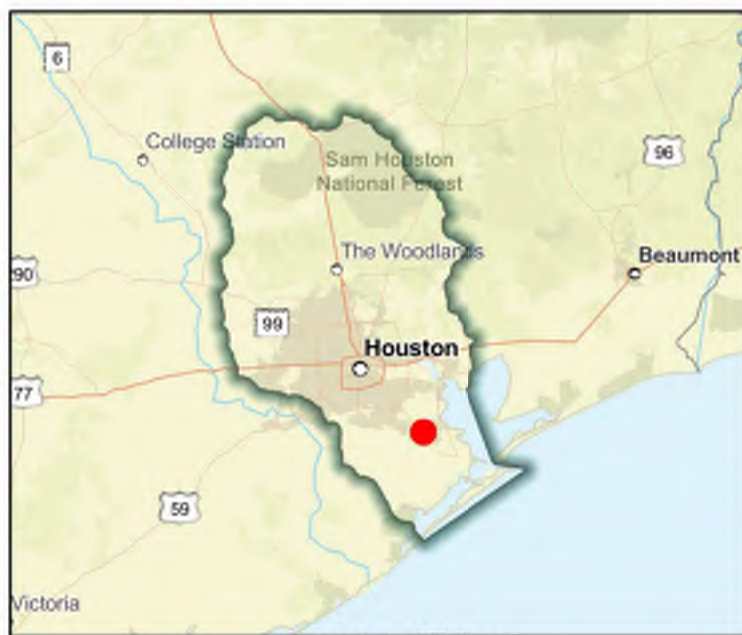
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Planning Phase Study Report for Fairgreen & Eastex Freeway Forest Subdivisions
Drainage Improvements 2019**

ID# **061000414**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No** Reason for Recommendation **Sponsor secured funding for FME**

Study Details

Study type **Project Planning**

Study description **Further study of Scenarios A, B and C recommended by the Fairgreen & Eastex Freeway Forest Subdivisions Drainage Report. Will develop Benefit Cost Analysis and other data required for a FMP designation.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040604,120401040603**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

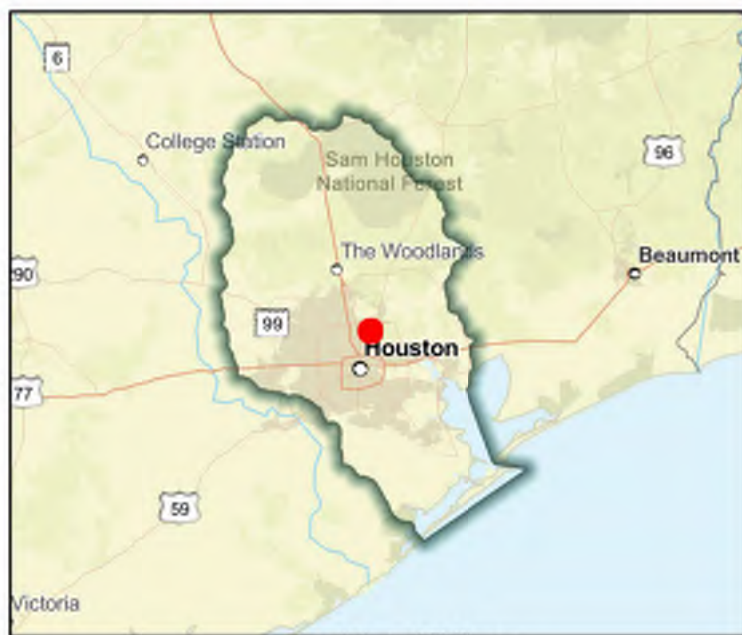
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Preliminary Drainage & Infrastructure Improvements Happy Hide A Way Subdivison**

ID# **061000025**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Additional analysis in the Jackson Bayou watershed, specifically along R102-00-00, is needed to determine the necessary improvements and provide a no impact solution.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040704**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

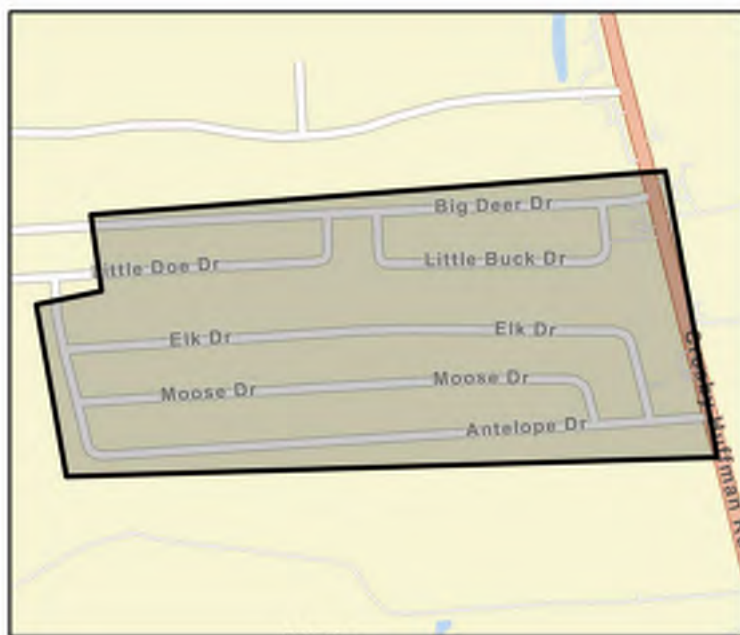
Estimated Cost and Funding Availability

Total Cost **\$110,000**

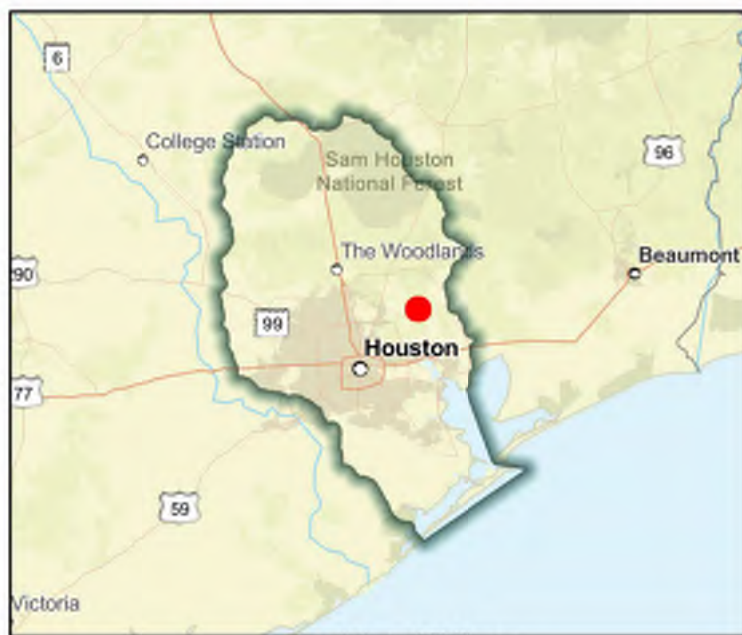
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Preliminary Engineering Design of Detention Pond & Conveyance System for Buddy Grass and Railroad Ditches**

ID# **061000495**

Sponsor (name of entity, not person) **Liberty County Water Control District 1**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to create detention pond & Ditch system for Buddy Grass and RR Ditches**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Harris**

Watershed HUC# (if known) **120402030102**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,677**

of structures **763**

Critical facilities **22**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,344**

Roadway(s) impacted (length) **21**

Number of low water crossings **0**

Historical road closures **0**

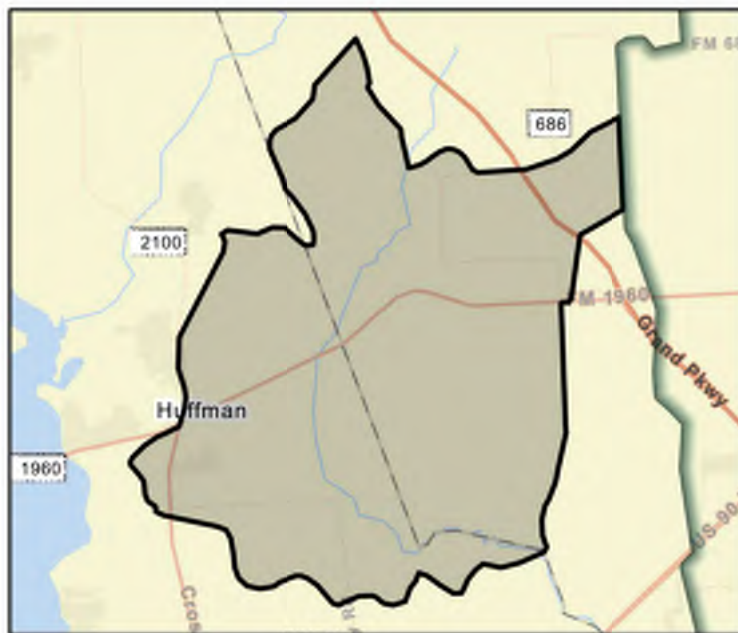
Estimated Cost and Funding Availability

Total Cost **\$5,000,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Preliminary Engineering Design of Detention Pond at Gier Road & Cedar Bayou

ID# 061000498

Sponsor (name of entity, not person) Liberty County Water Control District 1

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to create detention pond at Gier Road Ditch & Cedar Bayou Intersection

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120402030102

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,677

of structures 763

Critical facilities 22

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,344

Roadway(s) impacted (length) 21

Number of low water crossings 0

Historical road closures 0

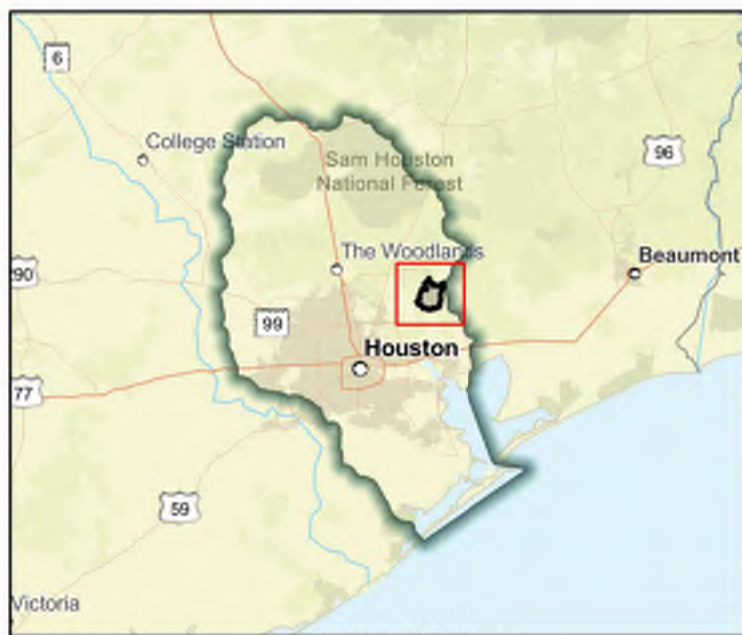
Estimated Cost and Funding Availability

Total Cost \$3,500,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Preliminary Engineering Design of Detention Pond at Hatcherville & Cedar Bayou Farm Ditches**

ID# **061000499**

Sponsor (name of entity, not person) **Liberty County Water Control District 1**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to create detention pond for Hatcherville & Cedar Bayou Farms Ditches**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120402030104**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **438**

of structures **356**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **702**

Roadway(s) impacted (length) **7**

Number of low water crossings **0**

Historical road closures **0**

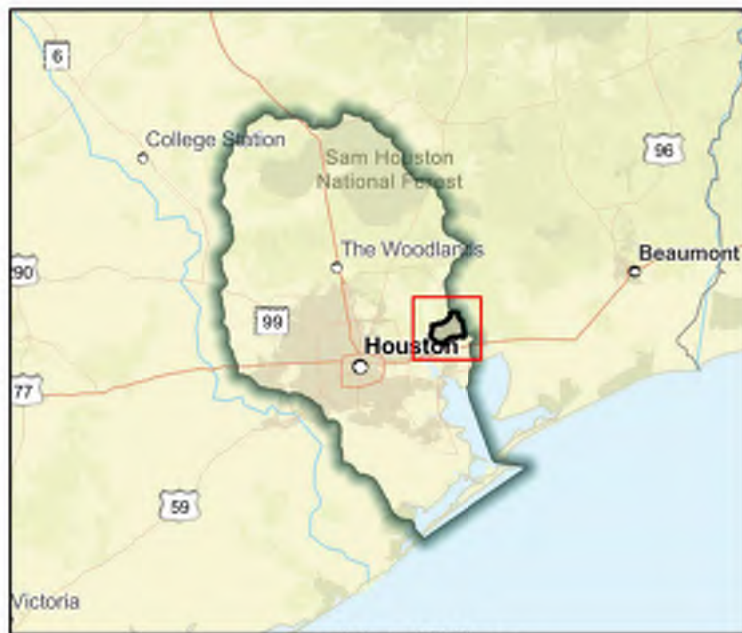
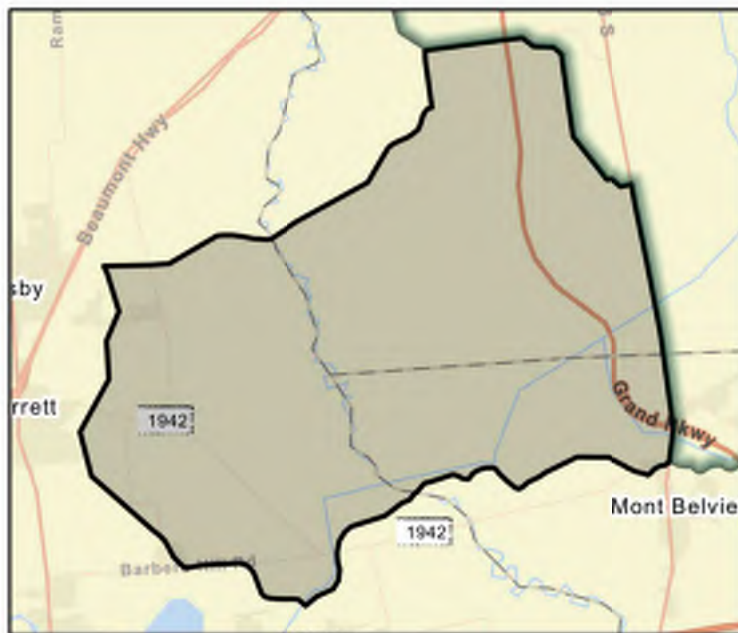
Estimated Cost and Funding Availability

Total Cost **\$3,500,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Preliminary Engineering Design of Detention Pond at intersection of HWY90 & Railroad near Cedar Bayou**

ID# **061000497**

Sponsor (name of entity, not person) **Liberty County Water Control District 1**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to create detention pond & Ditch system for Buddy Grass and RR Ditches**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty, Harris**

Watershed HUC# (if known) **120402030103**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **675**

of structures **553**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **783**

Roadway(s) impacted (length) **16**

Number of low water crossings **0**

Historical road closures **0**

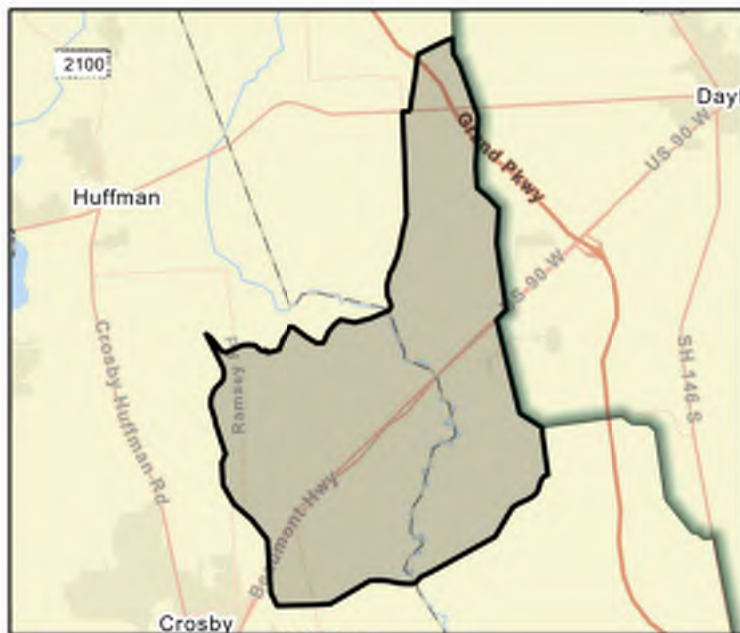
Estimated Cost and Funding Availability

Total Cost **\$3,000,000**

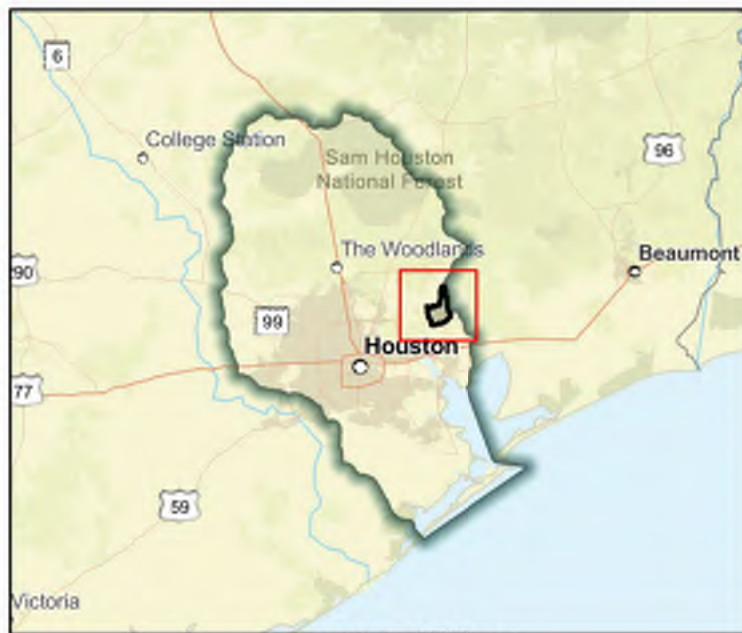
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Property Protection, Structural Project**

ID# **061000086**

Sponsor (name of entity, not person) **New Waverly (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Generate base flood elevation data for flood map revisions. Use floodplain study to identify future mitigation activities to improve water ways and flood carrying capacities. Area to include approximately 4 miles of floodway in New Waverly.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Walker**

Watershed HUC# (if known) **120401030101**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **19**

of structures **23**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$2,500,000**

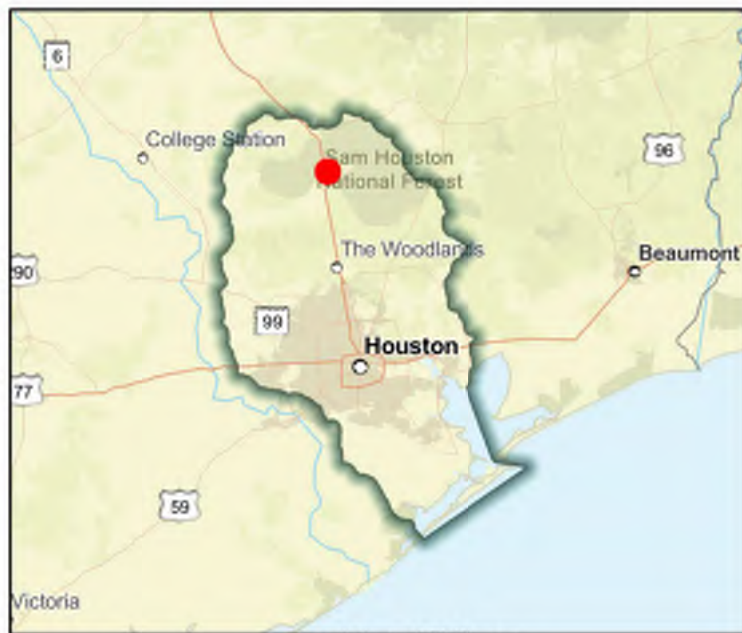
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Raise Road Surfaces in City of Plum Grove**

ID# **061000102**

Sponsor (name of entity, not person) **Plum Grove (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further evaluation of road surface elevation.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030402**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **484**

of structures **362**

Critical facilities **1**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **9**

Roadway(s) impacted (length) **9**

Number of low water crossings **0**

Historical road closures **0**

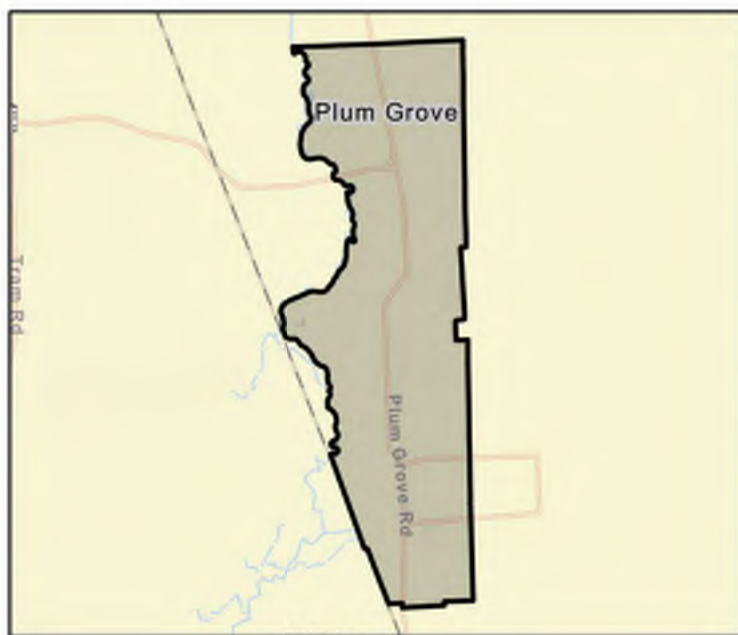
Estimated Cost and Funding Availability

Total Cost **\$35,000**

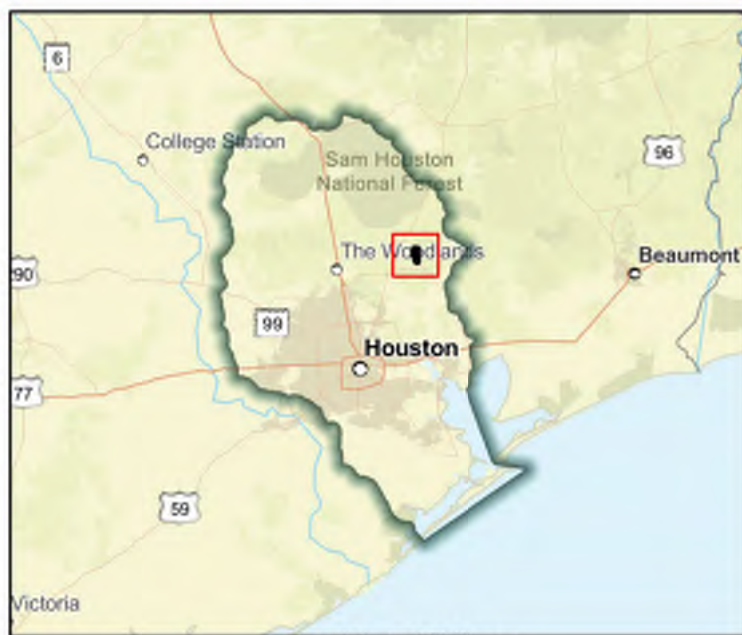
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Ralston Acres Subdivision Drainage Improvements**

ID# **061000466**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **No**

Reason for Recommendation

Current RRD project. No additional funding is needed.

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040605,120401040604,120401040606**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **191**

of structures **79**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **2**

Number of low water crossings **0**

Historical road closures **0**

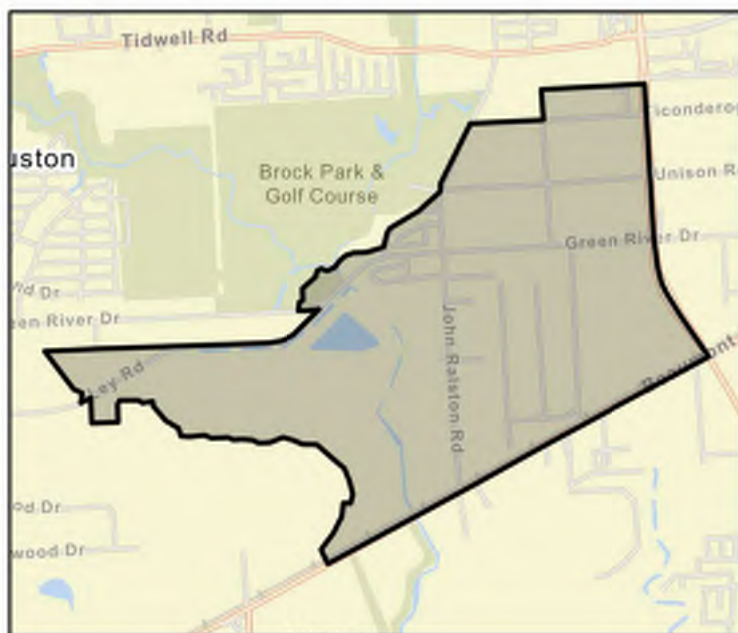
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Recanalization Feasibility Study**

ID# **061000135**

Sponsor (name of entity, not person) **Liberty (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Dechannelize existing feeder creeks that flow from north to south and improve drainage for storm water runoff.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Liberty**

Watershed HUC# (if known) **120401030201,120401030108,120401030109,120401030205,120401030**

Drainage area (Square miles, est.) **1,170**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,574**

of structures **3,614**

Critical facilities **8**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,379**

Roadway(s) impacted (length) **144**

Number of low water crossings **7**

Historical road closures **7**

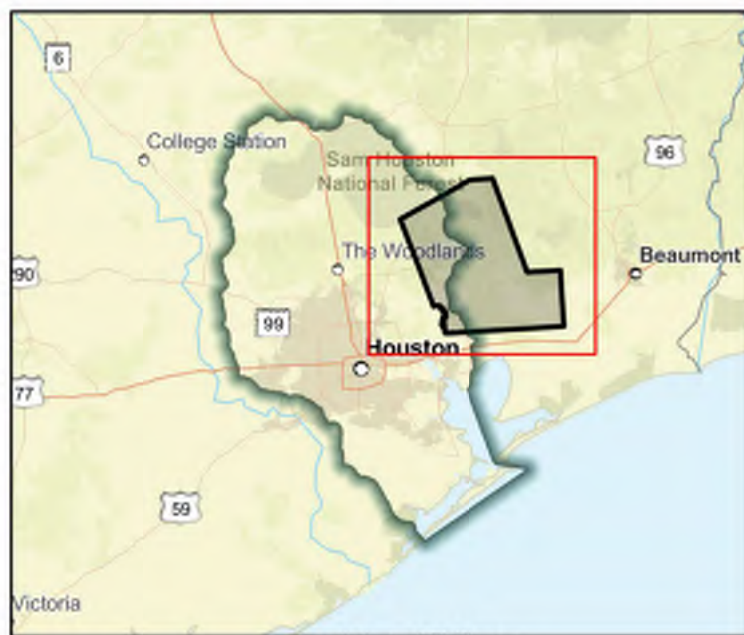
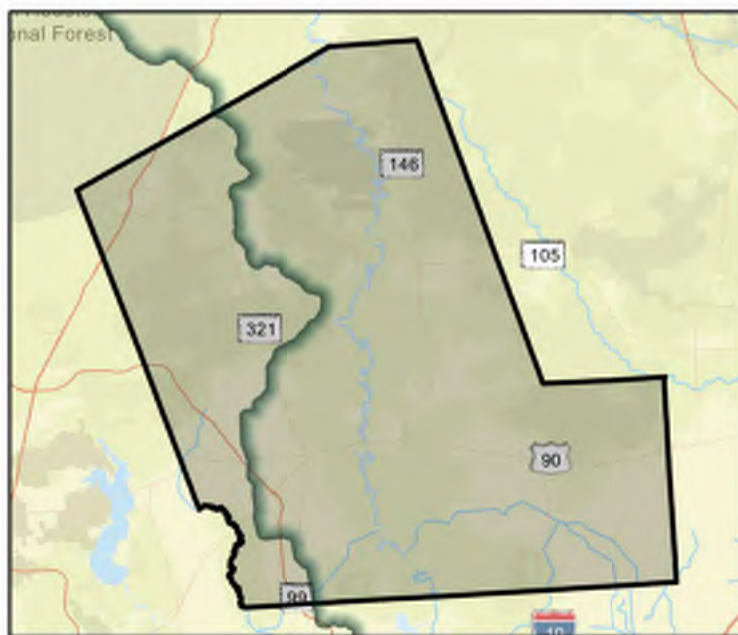
Estimated Cost and Funding Availability

Total Cost **\$486,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management**

ID# **061000175**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401040605,120401040703,120401040705,120401040**

Drainage area (Square miles, est.) **1,771**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **590,942**

of structures **143,547**

Critical facilities **2,132**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5,993**

Roadway(s) impacted (length) **2,408**

Number of low water crossings **89**

Historical road closures **89**

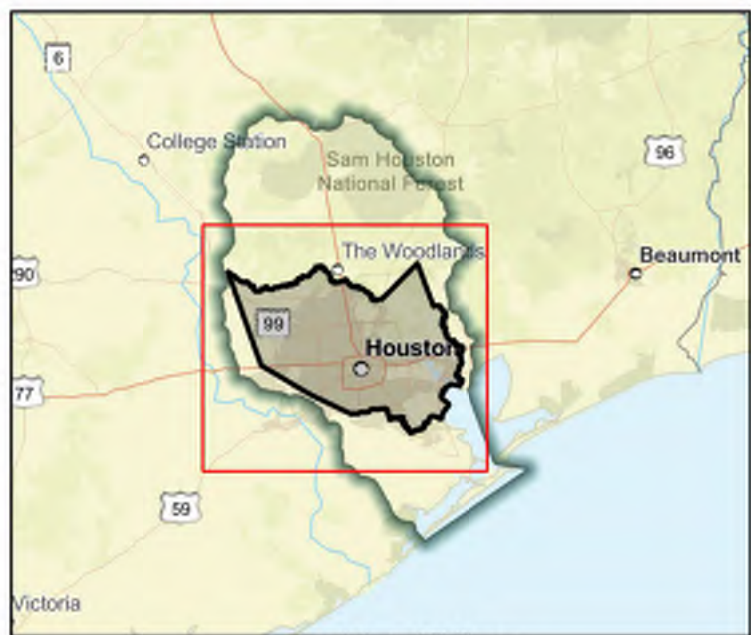
Estimated Cost and Funding Availability

Total Cost **\$20,000,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Remedy Data Deficiency in City of New Waverly

ID# 061000116

Sponsor (name of entity, not person) New Waverly (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Conduct a proper risk assessment of the dams residents suspect are causing upstream flooding, and determine all potential inundation areas.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Walker

Watershed HUC# (if known) 120401030101

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 19

of structures 23

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$100,000

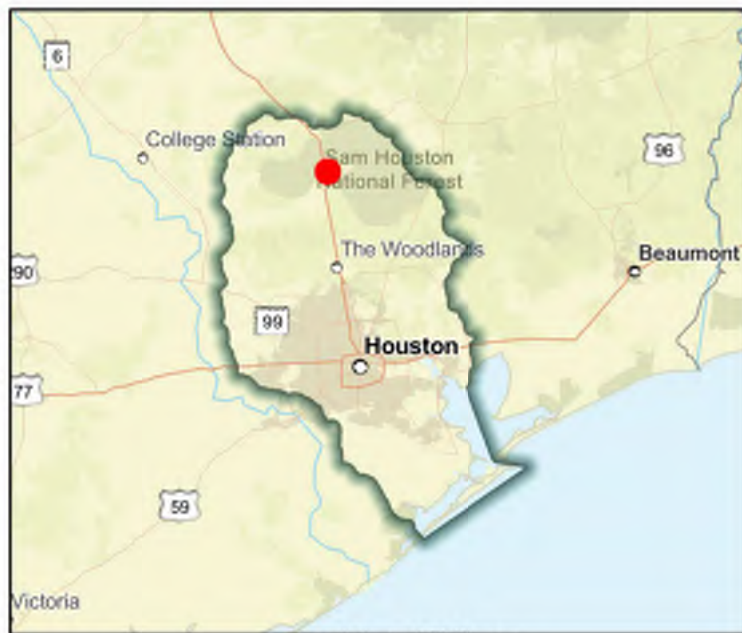
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Replace Existing Culverts in City of Arcola**

ID# **061000124**

Sponsor (name of entity, not person) **Arcola (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Evaluation of proposed culvert replacement.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Fort Bend**

Watershed HUC# (if known) **120402040400**

Drainage area (Square miles, est.) **3**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **39**

of structures **41**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

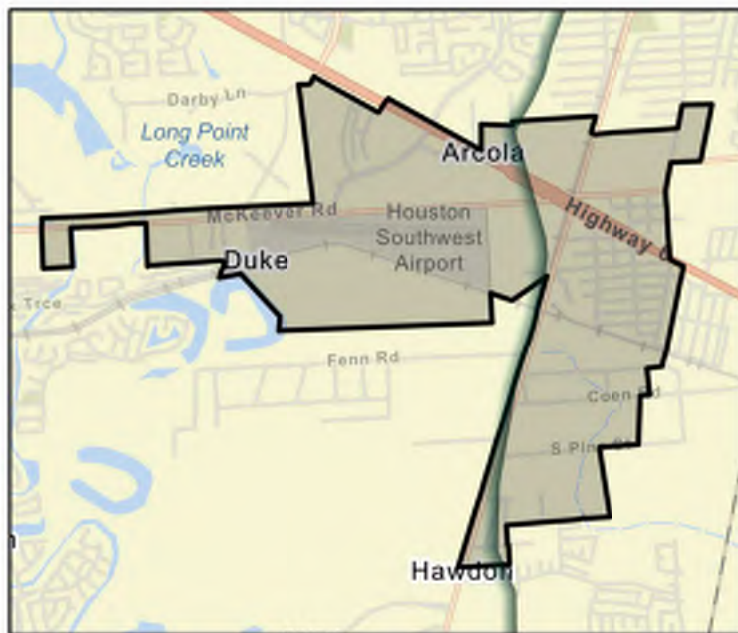
Estimated Cost and Funding Availability

Total Cost **\$200,000**

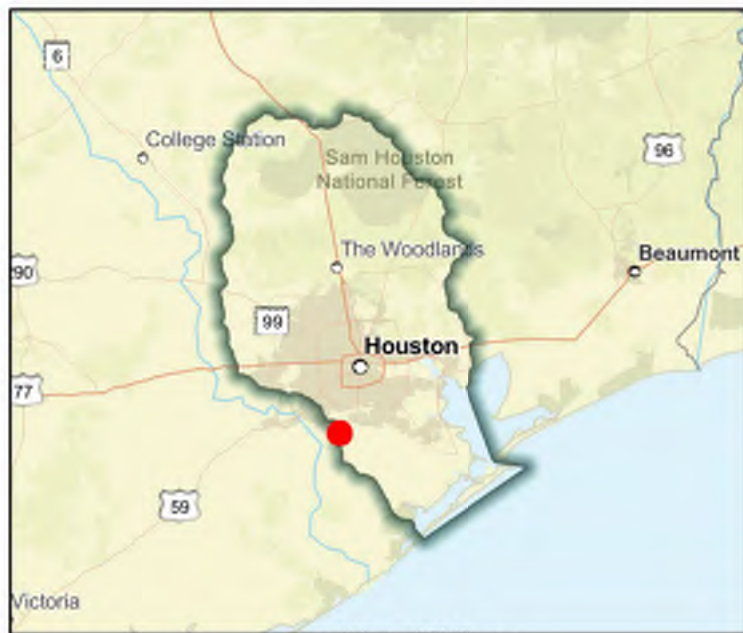
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Replace the Tiki Drive bridge with improved, hardened bridge to withstand storm surge and debris.**

ID# **061000080**

Sponsor (name of entity, not person) **Tiki Island (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of proposed Tiki Drive bridge modifications.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,681**

of structures **1,006**

Critical facilities **6**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **4**

Roadway(s) impacted (length) **10**

Number of low water crossings **0**

Historical road closures **0**

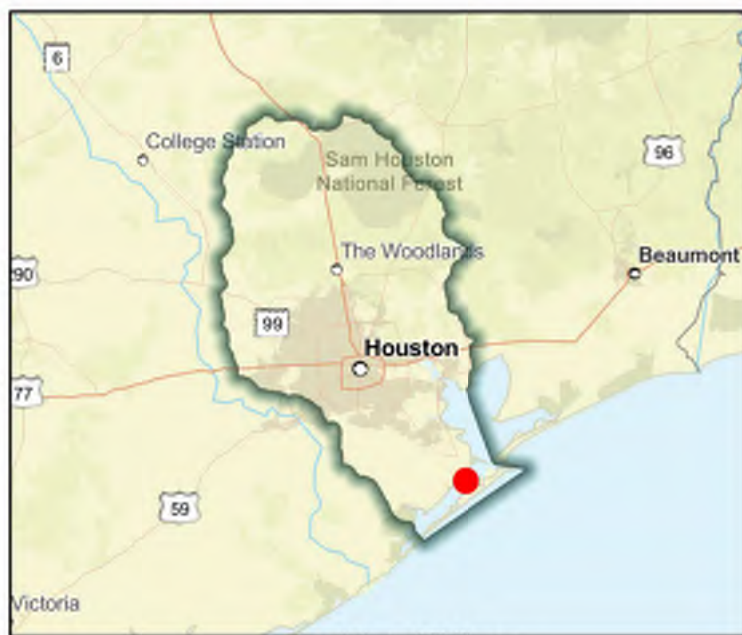
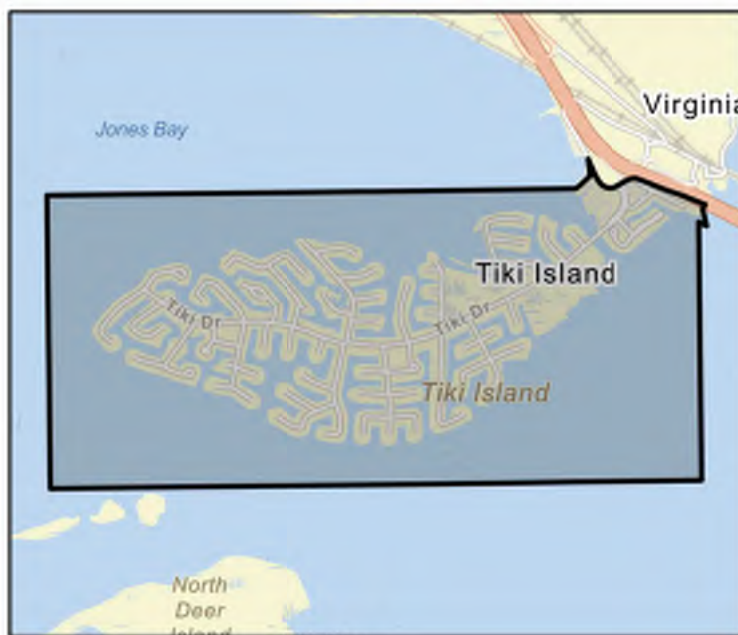
Estimated Cost and Funding Availability

Total Cost **\$220,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Richmond Plaza (South) Drainage and Paving Improvements (Chimney Rock -Burnett/Bayland Park)**

ID# **061000473**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements in the Richmond Plaza Area to reduce risk and structural flooding. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,570**

of structures **306**

Critical facilities **2**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **4**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

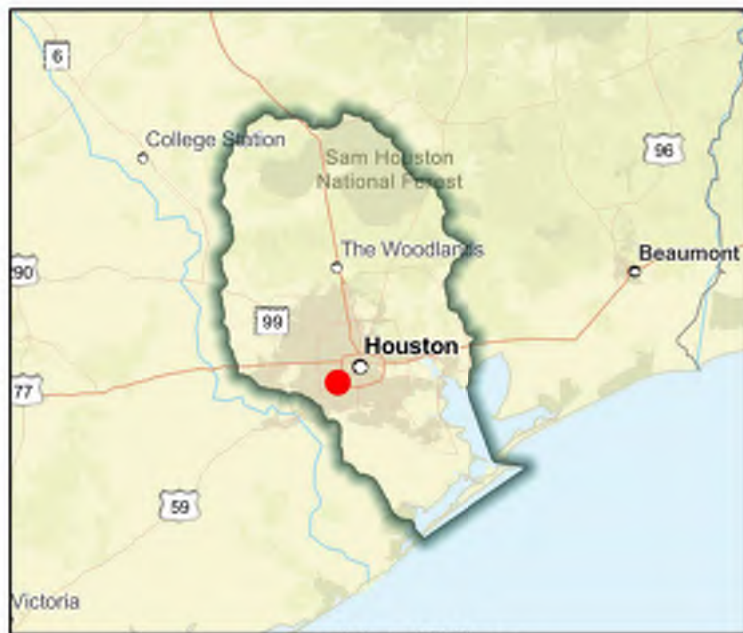
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Rivershire East - Grand Lake Creek Watershed**

ID# **061000452**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401**

Drainage area (Square miles, est.) **4**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,381**

of structures **365**

Critical facilities **5**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **3**

Roadway(s) impacted (length) **7**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

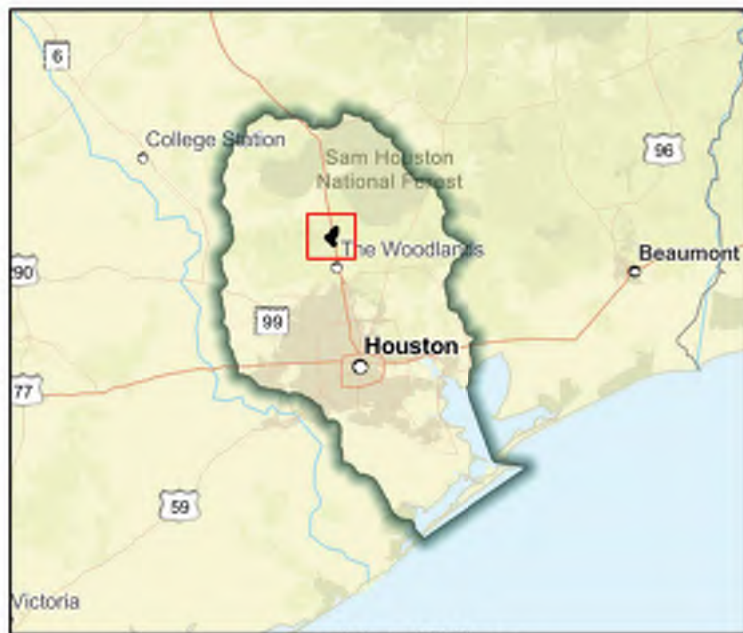
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Rollingbrook Garth and Main**

ID# **061000537**

Sponsor (name of entity, not person) **Baytown (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040706**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000010**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

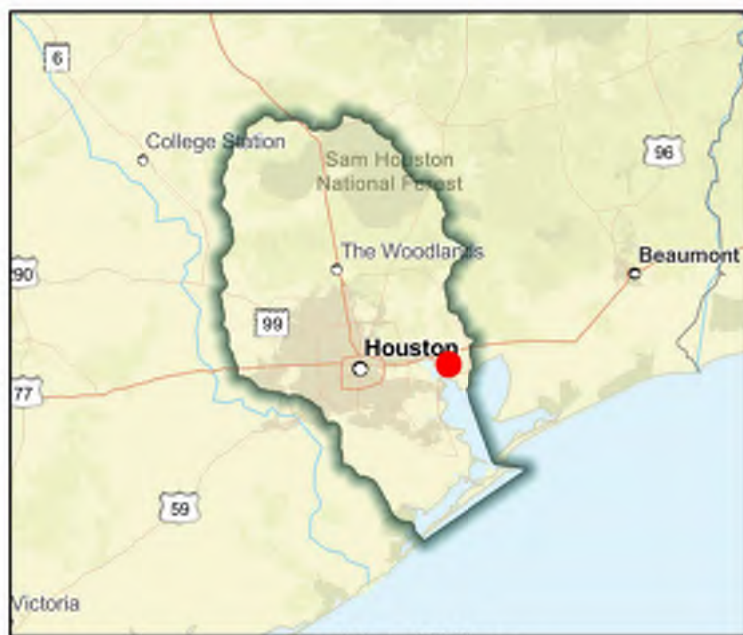
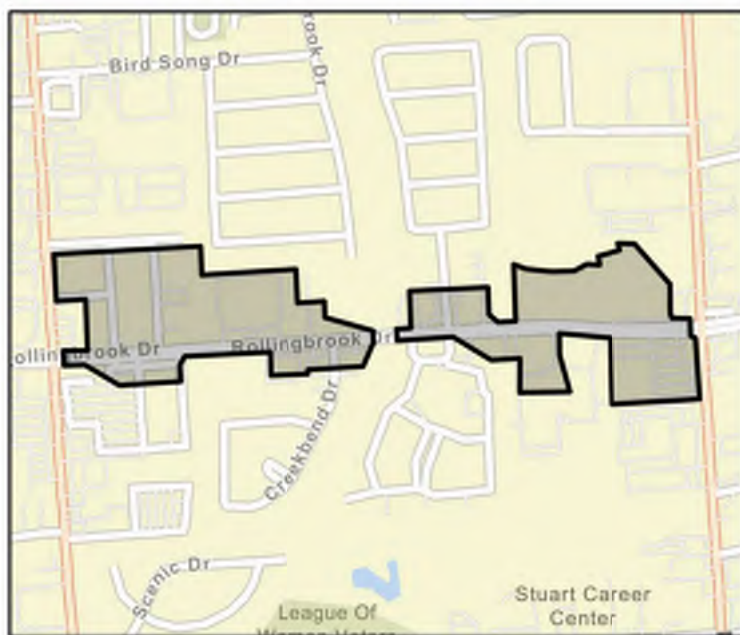
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Roman Forest Boulevard Bridge Elevation Project

ID# 061000388

Sponsor (name of entity, not person) Montgomery (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of this project involves the study, design, elevation, and replacement of the Roman Forest Boulevard Bridge to mitigate the risks associated with storms and riverine flooding for the approximate 15,000 citizens.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401030109,120401030402

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 253

of structures 86

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

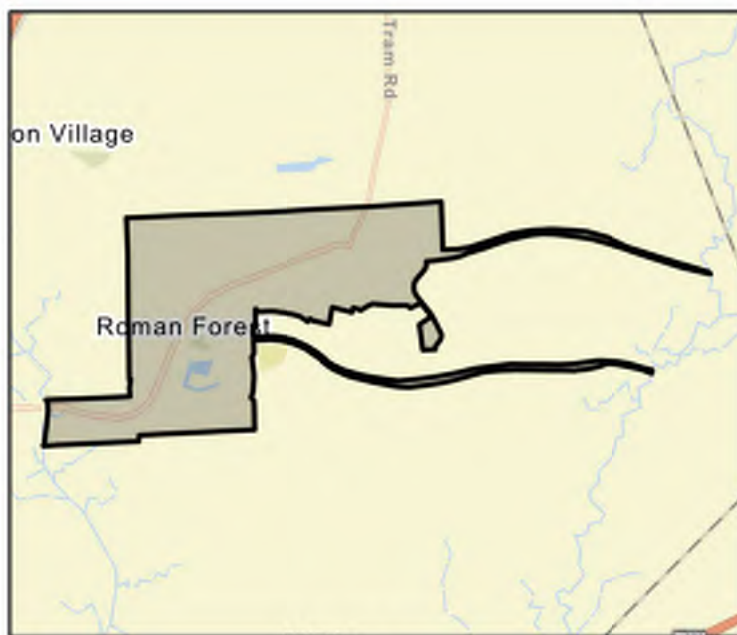
Estimated Cost and Funding Availability

Total Cost \$30,000

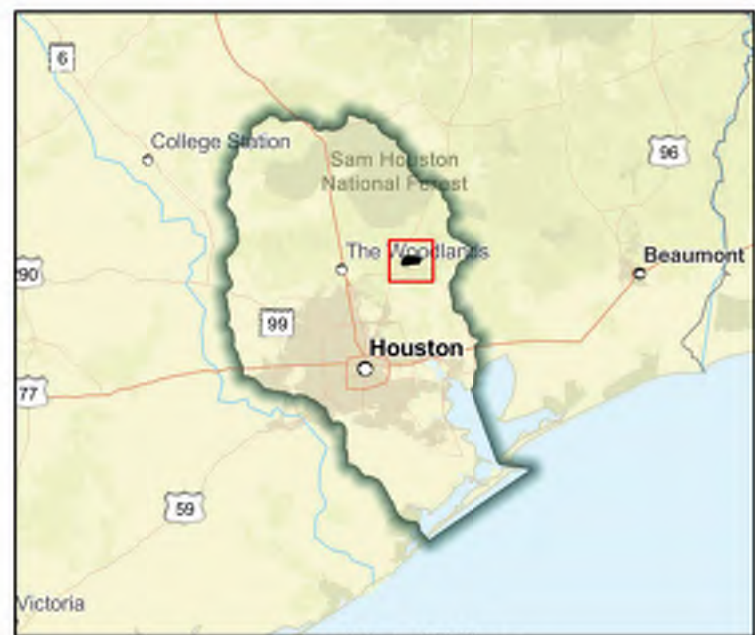
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Rush Creek Lake - Lake Conroe Estates Watershed

ID# 061000461

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010206

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 129

of structures 79

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 0

Number of low water crossings 1

Historical road closures

1

Estimated Cost and Funding Availability

Total Cost \$30,000

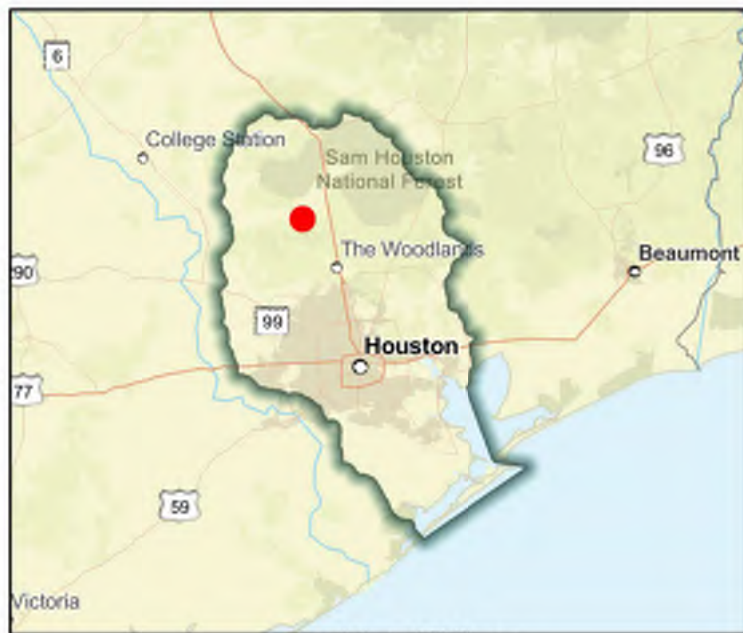
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title San Jacinto & Galveston Bay - Neighborhood Future Floodplain

ID# 061000512

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for San Jacinto & Galveston Bay watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040706, 120402040100

Drainage area (Square miles, est.) 19

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 8,623

of structures 3,301

Critical facilities 107

Flood risk type: Riverine? Yes

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 55

Number of low water crossings 0

Historical road closures

0

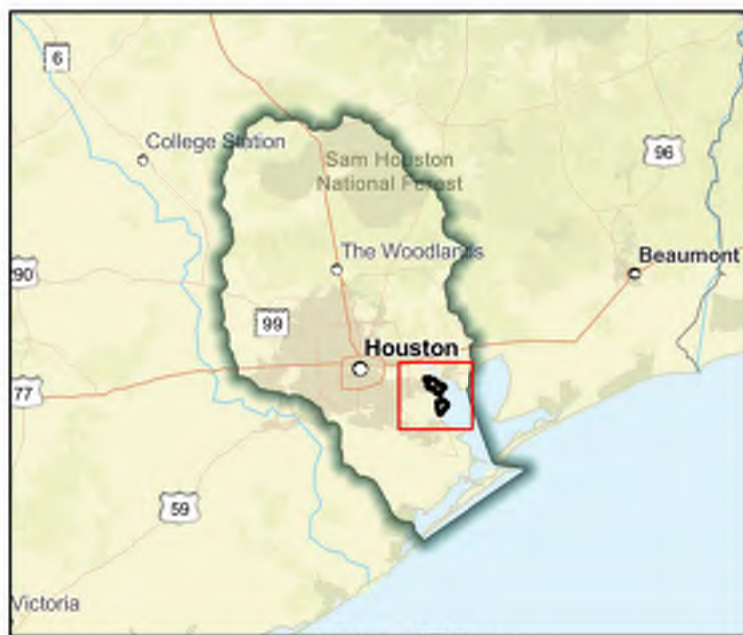
Estimated Cost and Funding Availability

Total Cost \$15,315,626

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title San Jacinto Flood Mapping Updates

ID# 061000308

Sponsor (name of entity, not person) San Jacinto (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description County wide study to produce flood mapping updates including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County San Jacinto

Watershed HUC# (if known) 120401030201,120401030108,120401030106,120401030107,120401030

Drainage area (Square miles, est.) 626

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 1,376

of structures 1,028

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 63

Roadway(s) impacted (length) 48

Number of low water crossings 1

Historical road closures 1

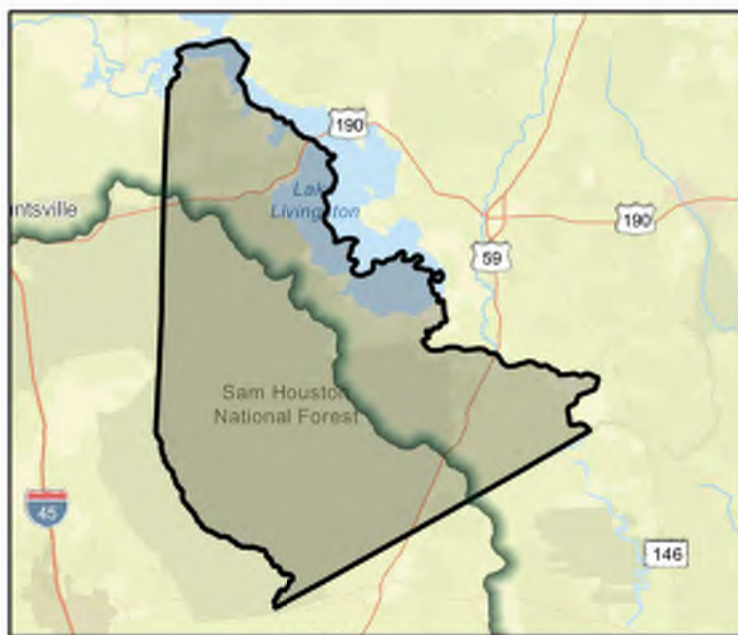
Estimated Cost and Funding Availability

Total Cost \$1,419,000

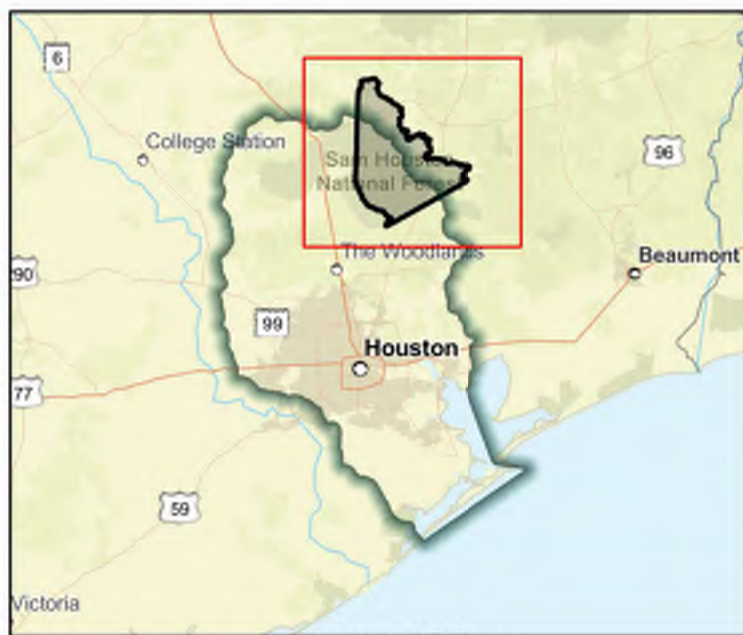
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title San Jacinto River - G103-33-04

ID# 061000208

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for G103-33-04 through the HCFCF 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401010501

Drainage area (Square miles, est.) 1

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,137

of structures 248

Critical facilities 1

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 4

Number of low water crossings 0

Historical road closures 0

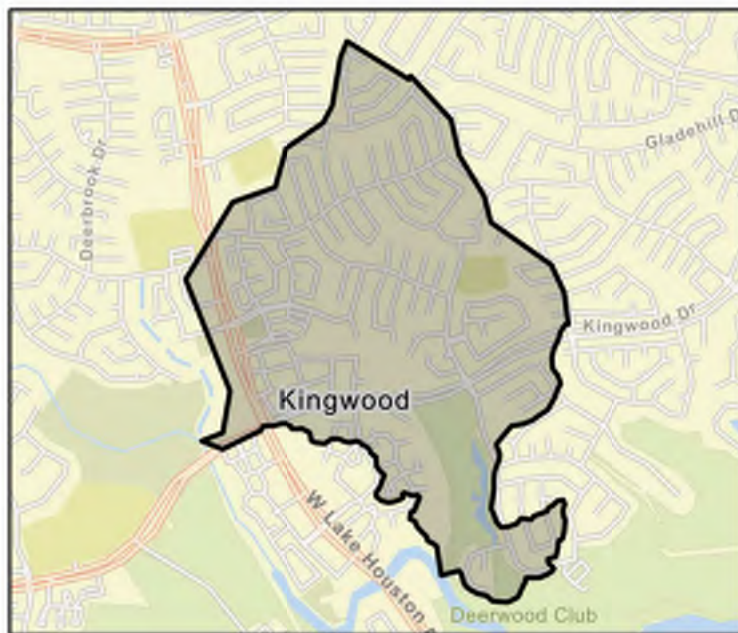
Estimated Cost and Funding Availability

Total Cost \$200,000

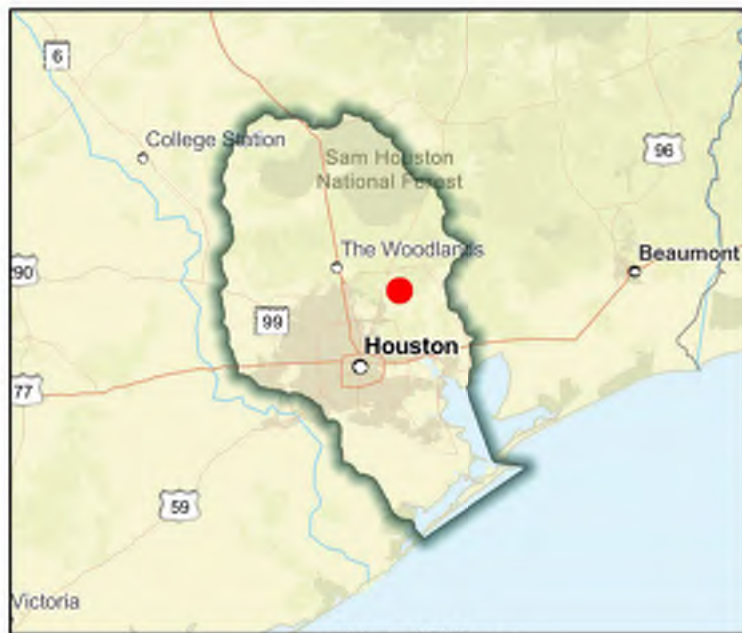
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title San Jacinto River - G103-36-00

ID# 061000209

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for G103-36-00 through the HCFCFD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance, evaluated using Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Montgomery

Watershed HUC# (if known) 120401010501

Drainage area (Square miles, est.) 59

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,868

of structures 1,711

Critical facilities 29

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 72

Roadway(s) impacted (length) 42

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$750,000

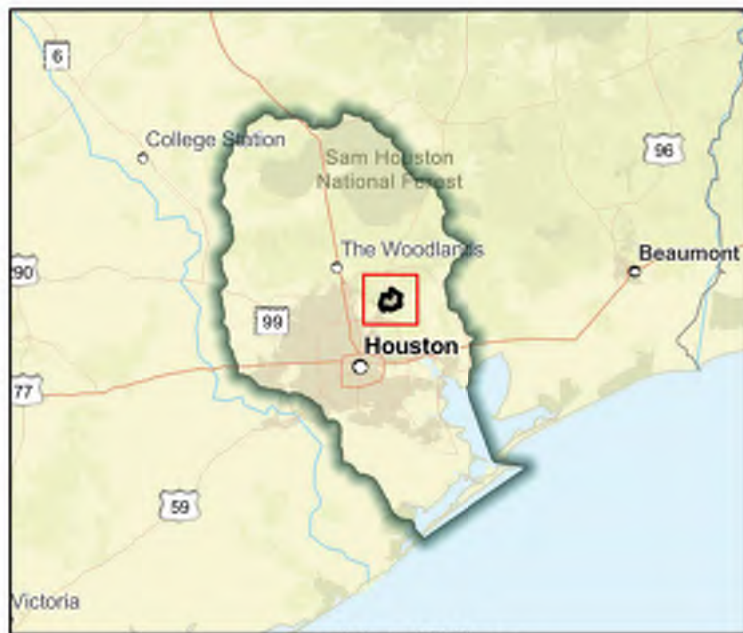
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title San Jacinto River - G103-46-00

ID# 061000207

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of Flood Risk Reduction need identified for G103-46-00 through the HCFCFD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Montgomery

Watershed HUC# (if known) 120401010501

Drainage area (Square miles, est.) 59

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 6,868

of structures 1,711

Critical facilities 29

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 72

Roadway(s) impacted (length) 42

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$200,000

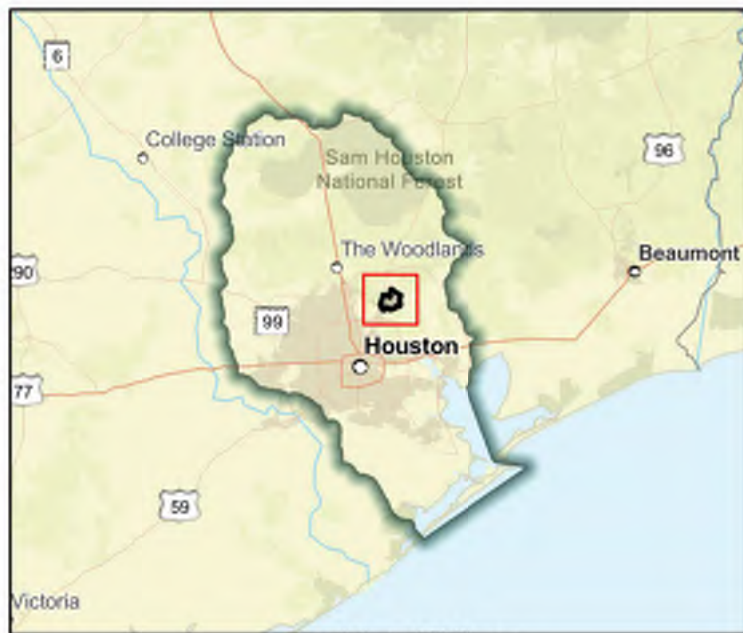
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **San Jacinto River - Neighborhood Future Floodplain Analysis**

ID# **061000513**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for San Jacinto River watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Montgomery**

Watershed HUC# (if known)

Drainage area (Square miles, est.) **473**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **41,105**

of structures **19,484**

Critical facilities **361**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **801**

Roadway(s) impacted (length) **446**

Number of low water crossings **15**

Historical road closures **15**

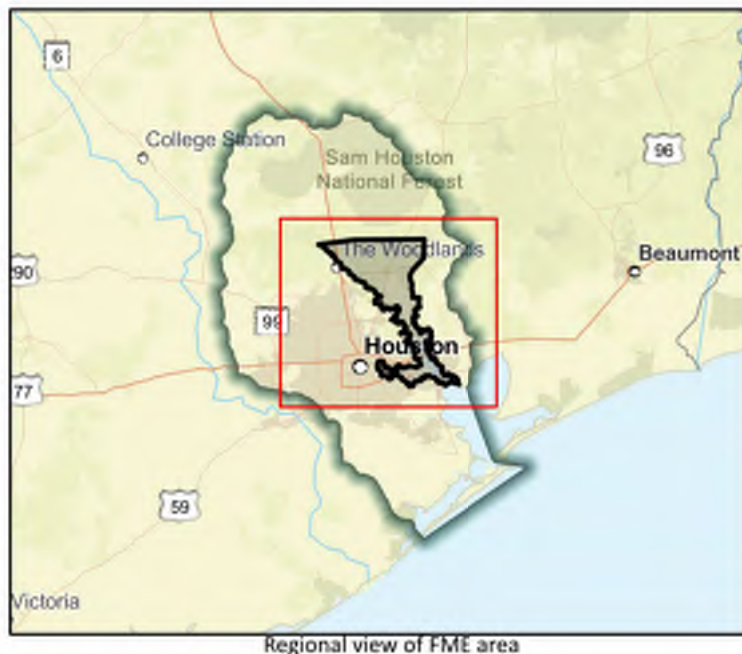
Estimated Cost and Funding Availability

Total Cost **\$52,735,932**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **San Jacinto River Watershed Local Drainage Study**

ID# **061000519**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in San Jacinto River watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Montgomery**

Watershed HUC# (if known)

Drainage area (Square miles, est.) **473**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **41,110**

of structures **19,490**

Critical facilities **361**

Flood risk type: Riverine? **Yes**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **801**

Roadway(s) impacted (length) **446**

Number of low water crossings **15**

Historical road closures **15**

Estimated Cost and Funding Availability

Total Cost **\$3,460,898**

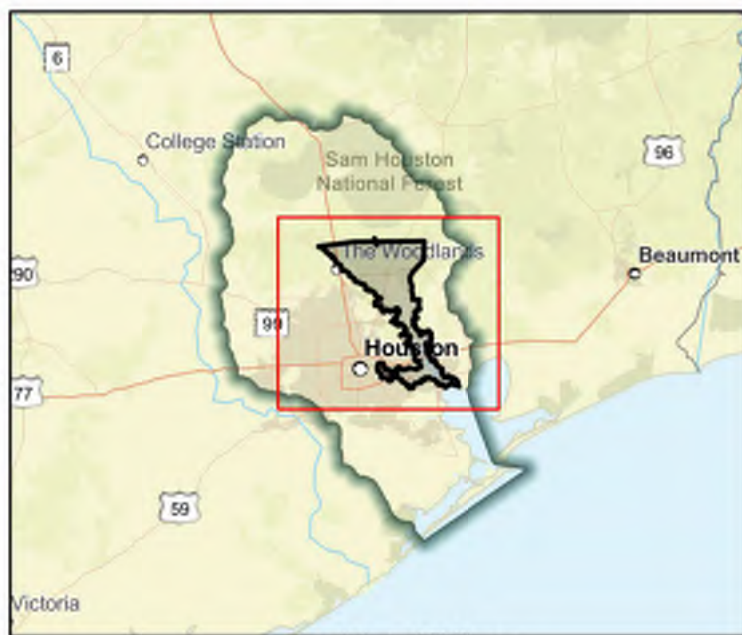
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County Project**

ID# **061000168**

Sponsor (name of entity, not person) **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Planning, H&H studies, design, environmental review, and barrier removal for the 98.6 miles of the San Jacinto Watershed and Tributary Barrier and Flood Mitigation-East County project area.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris,Liberty,Montgomery,San Jacinto**

Watershed HUC# (if known) **120401030402,120401030401**

Drainage area (Square miles, est.) **95**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **3,786**

of structures **3,496**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **71**

Roadway(s) impacted (length) **102**

Number of low water crossings **1**

Historical road closures **1**

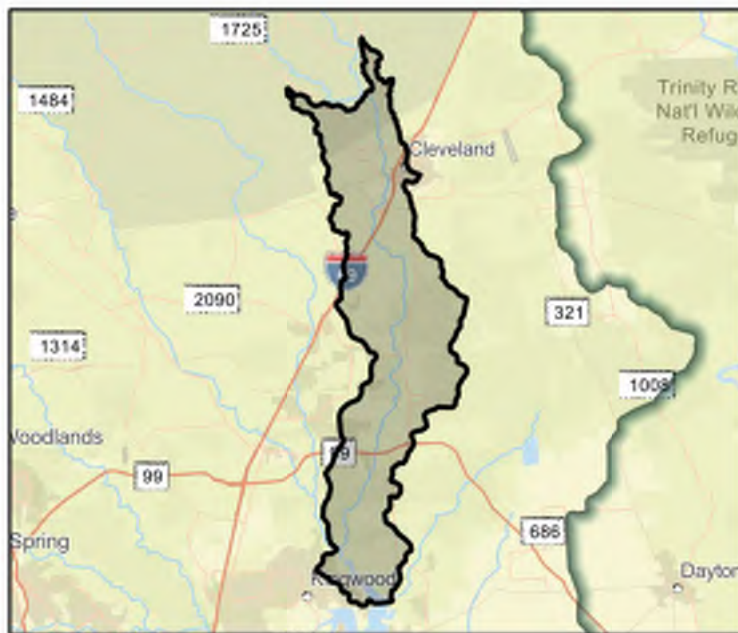
Estimated Cost and Funding Availability

Total Cost **\$1,160,000**

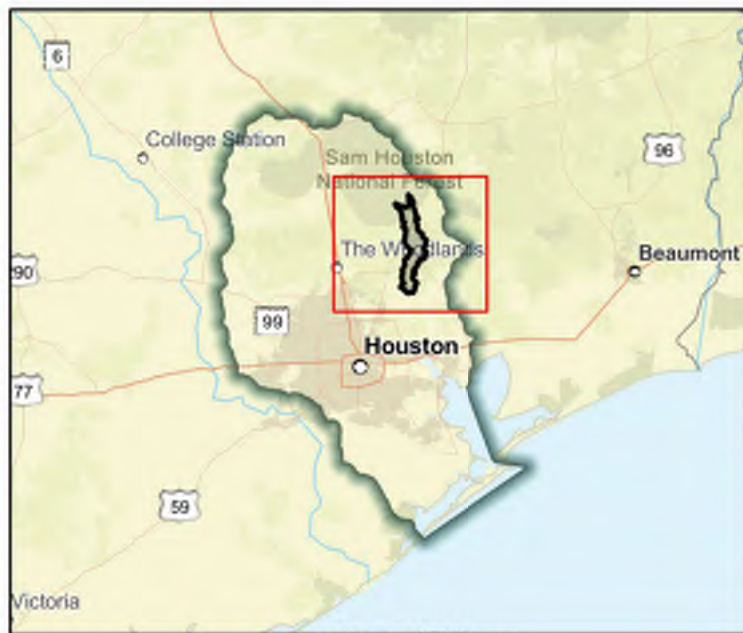
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **San Jacinto Watershed and Tributary Barrier and Flood Mitigation - West County Project**

ID# **061000169**

Sponsor (name of entity, not person) **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **H&H study, design, tributary barrier removal, and environmental assessments for the 96.2 miles of the San Jacinto Watershed and Tributary Barrier and Flood Mitigation-West County project area.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Montgomery**

Watershed HUC# (if known) **120401010401, 120401010402, 120401010404**

Drainage area (Square miles, est.) **122**

Goal(s) **06000001, 06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **9,188**

of structures **3,628**

Critical facilities **31**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **279**

Roadway(s) impacted (length) **89**

Number of low water crossings **8**

Historical road closures **8**

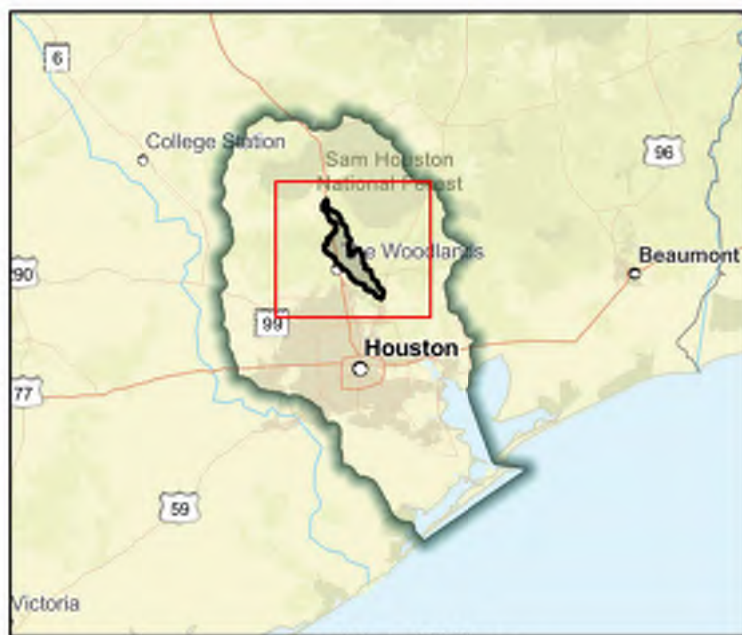
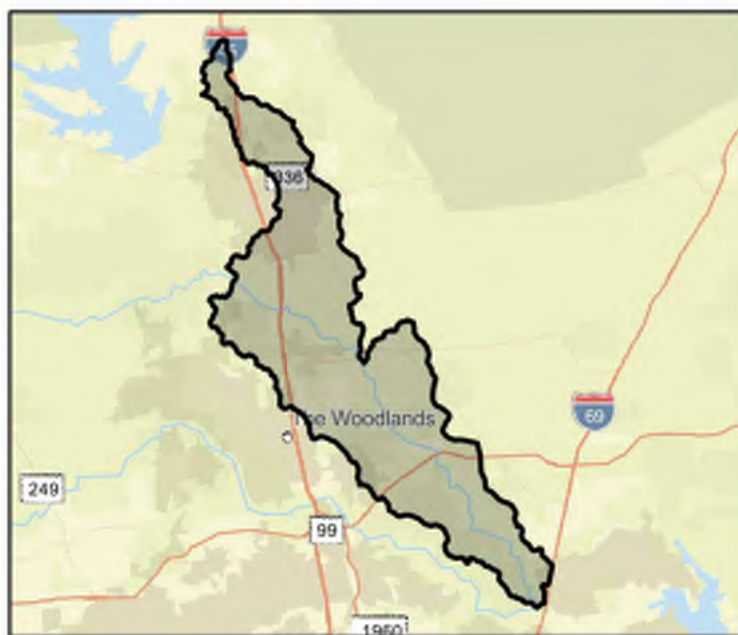
Estimated Cost and Funding Availability

Total Cost **\$1,110,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Sandpiper Village Subdivision Drainage Improvements

ID# 061000427

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? No

Reason for Recommendation

Sponsor secured funding for FME

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020107

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 453

of structures 196

Critical facilities 2

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 2

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

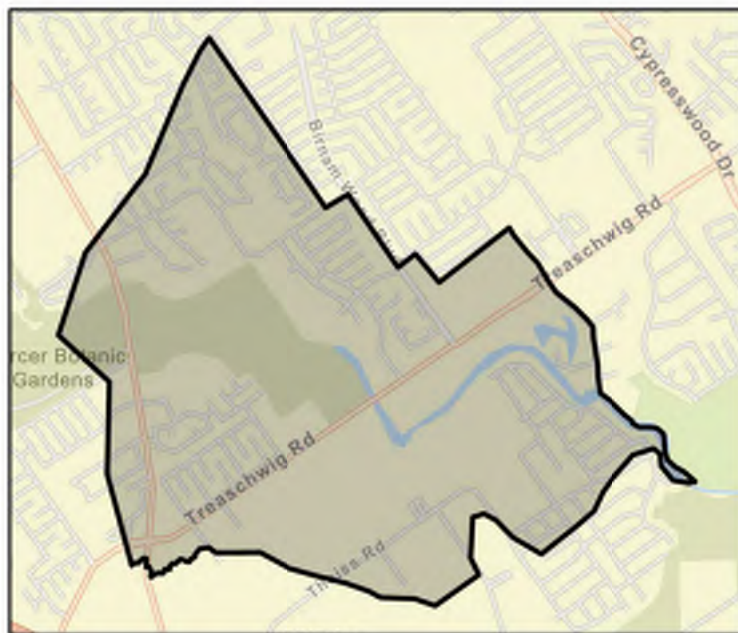
Estimated Cost and Funding Availability

Total Cost \$30,000

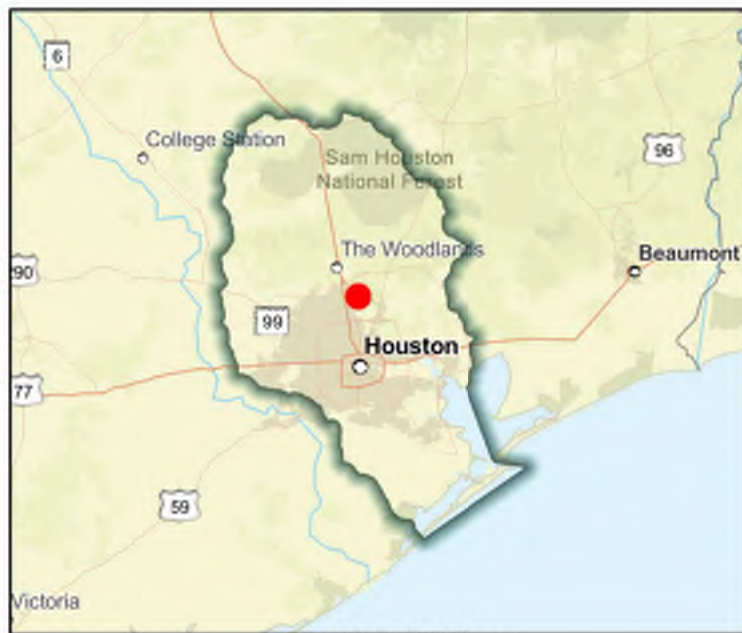
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Sawdust Road Bridge Elevation Project**

ID# **061000426**

Sponsor (name of entity, not person) **Montgomery (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of study, design, elevation, & replacement of the Sawdust Road Bridge to mitigate the risks associated with riverine flooding for the citizens residing in the Grogan's Point and Timberlakes - Timberridge Subdivisions.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris, Montgomery**

Watershed HUC# (if known) **120401010402,120401010404,120401020107,120401020210,120401020**

Drainage area (Square miles, est.) **33**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,432**

of structures **794**

Critical facilities **5**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **15**

Roadway(s) impacted (length) **18**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

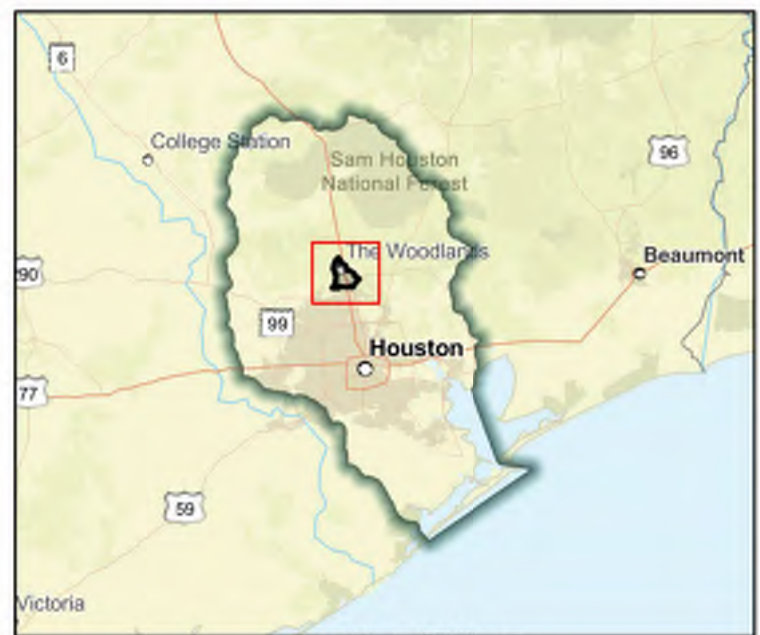
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Scott Street (OST to Brays Bayou) Area Drainage and Paving Improvements (remove southland from it)**

ID# **061000471**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements in the Scott Street Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040402**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

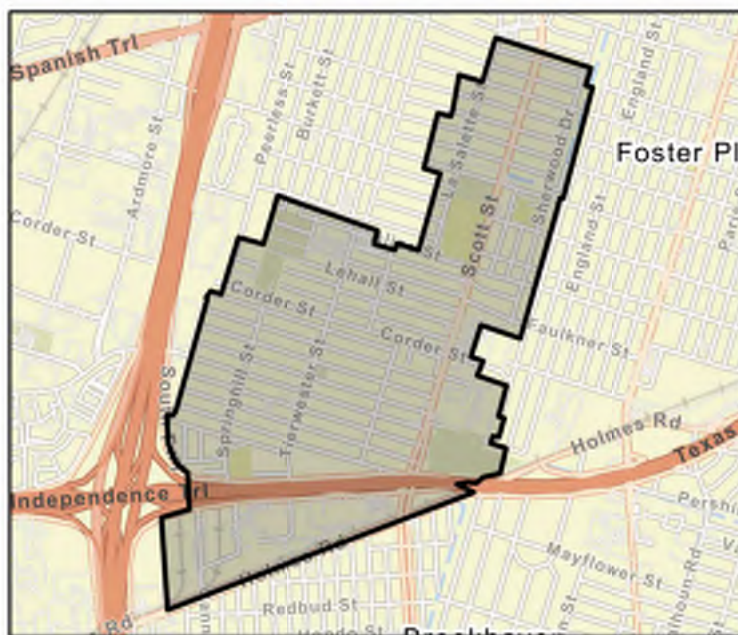
Estimated Cost and Funding Availability

Total Cost **\$30,000**

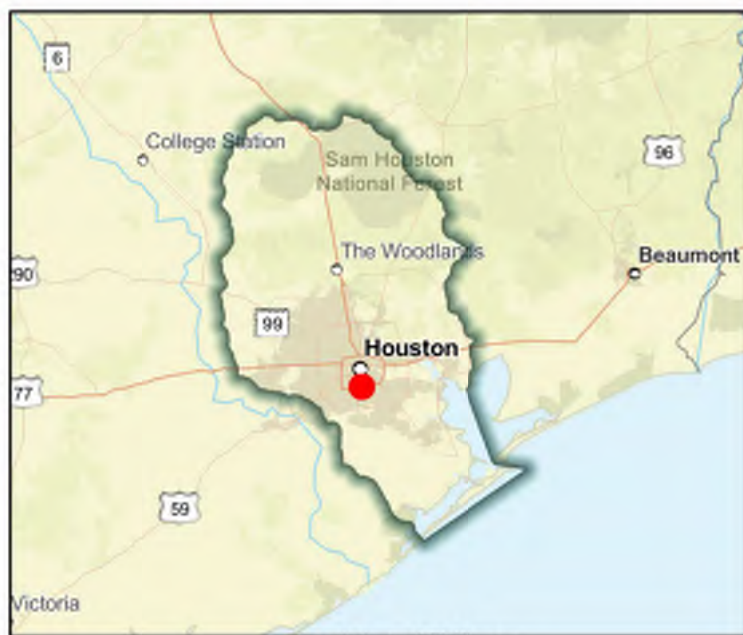
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Shadowbend Drainage Improvements Phase 2

ID# 061000142

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of component of 1993 master Drainage Plan Phase 1 to include Atlas 14 rainfall.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures 5

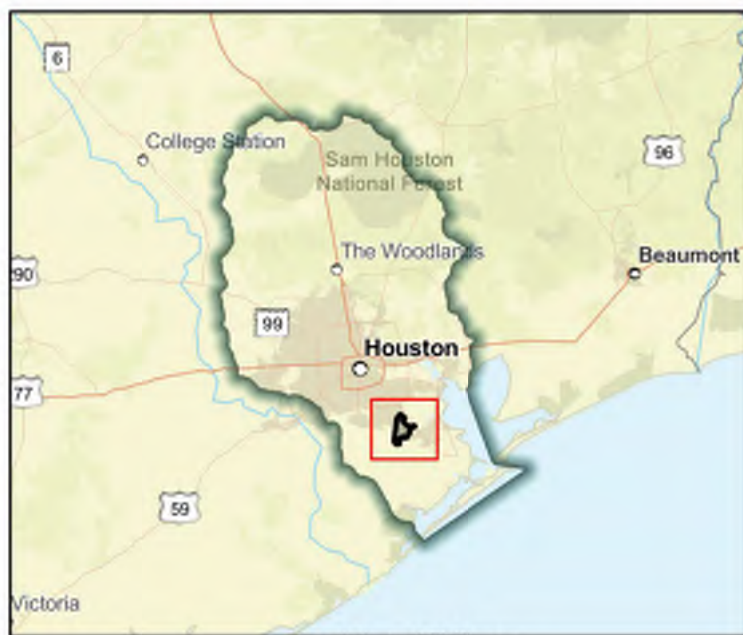
Estimated Cost and Funding Availability

Total Cost \$950,000

Amount of Available Funding -

Federal funding availability Yes

Funding source Entity/ Budget Funds



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Shellside Drainage Improvements

ID# 061000119

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed drainage improvements to Shellside.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 53

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 802

of structures 204

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1

Roadway(s) impacted (length) 3

Number of low water crossings 0

Historical road closures 0

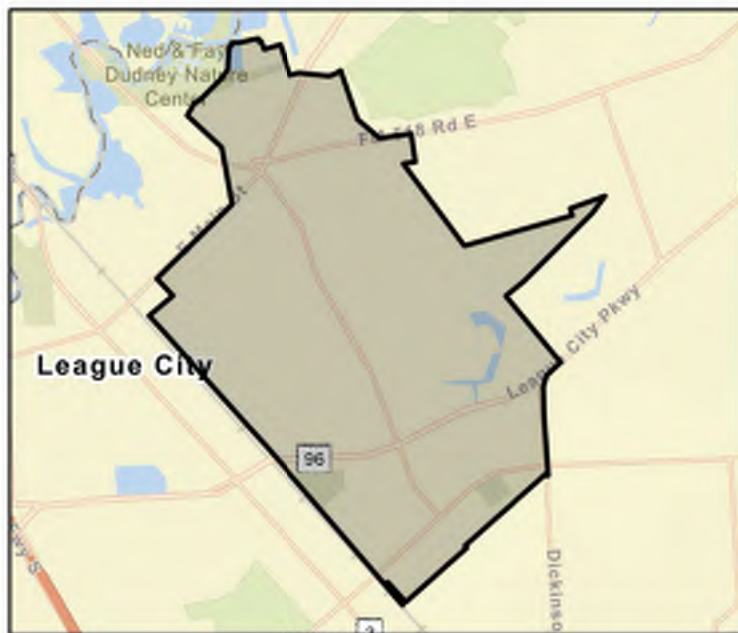
Estimated Cost and Funding Availability

Total Cost \$580,000

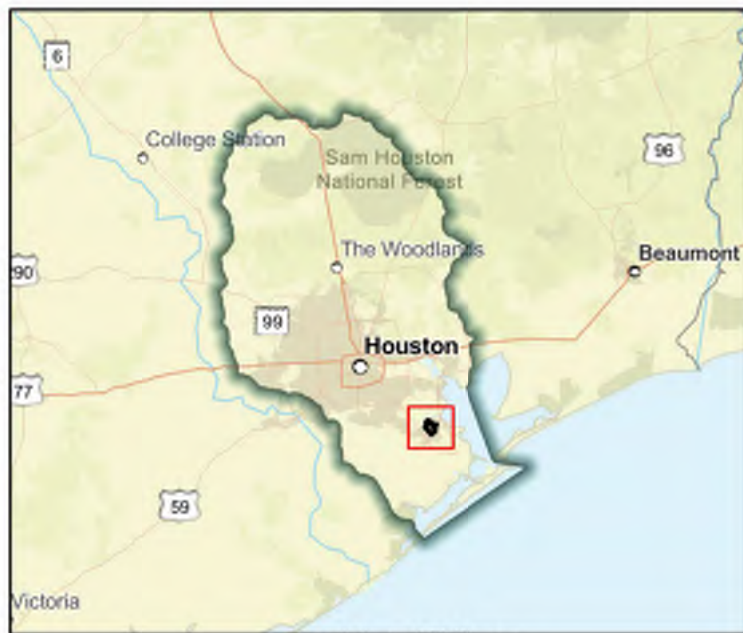
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Shoreacres Drainage Assessment**

ID# **061000031**

Sponsor (name of entity, not person) **Shoreacres (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further analysis necessary to determine downstream impacts and whether any additional volume in A104-11-00 would be available during a coincident event on Taylor Bayou.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Chambers,Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,148**

of structures **801**

Critical facilities **3**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **17**

Number of low water crossings **1**

Historical road closures **1**

Estimated Cost and Funding Availability

Total Cost **\$100,000**

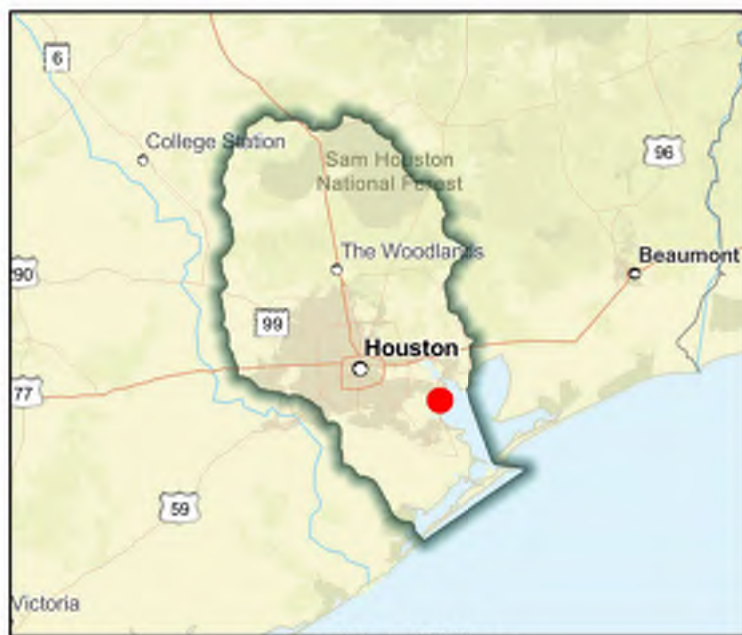
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Sims Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000514**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Sims Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Fort Bend**

Watershed HUC# (if known) **120401040401,120401040402,120401040501,120401040502,120401040**

Drainage area (Square miles, est.) **94**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **22,203**

of structures **5,854**

Critical facilities **73**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **51**

Roadway(s) impacted (length) **103**

Number of low water crossings **10**

Historical road closures **10**

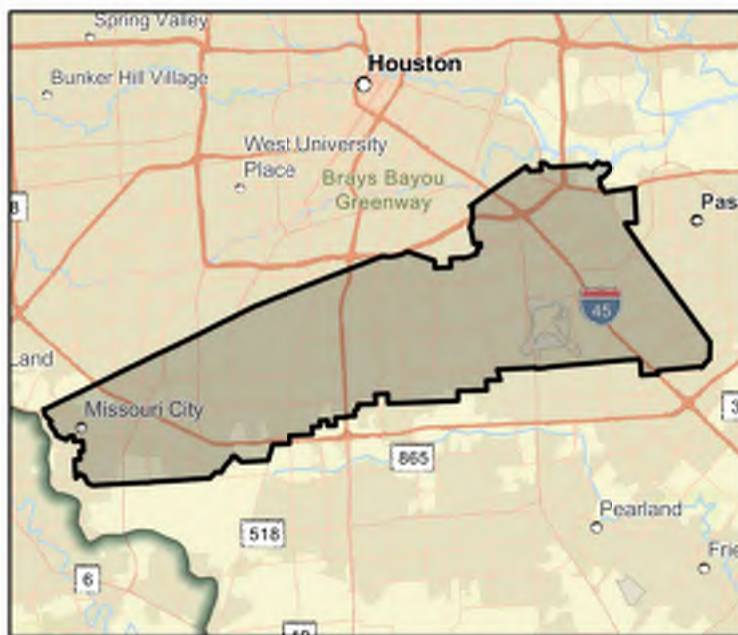
Estimated Cost and Funding Availability

Total Cost **\$1,598,321**

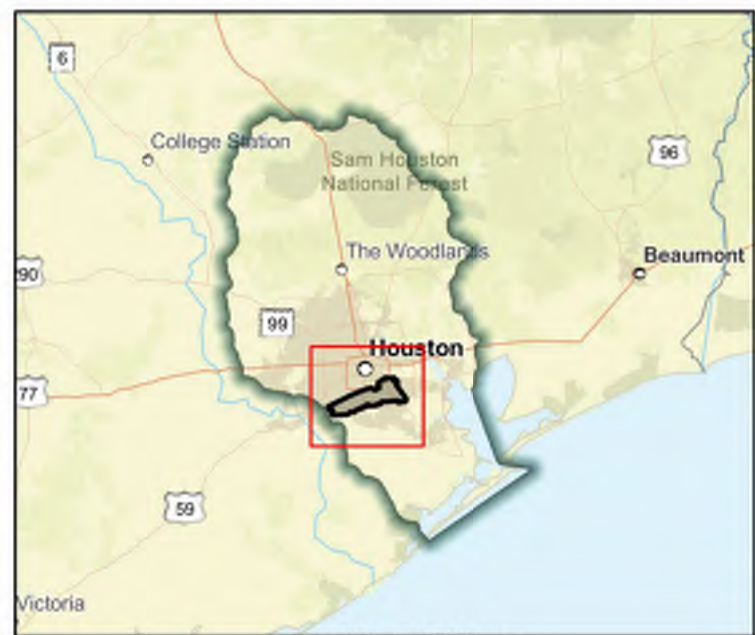
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Sims Bayou C116 Storm Sewer Improvement (C116-00-00-P001) From Mykawa Road to Telephone Road**

ID# **061000364**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this project to become a FMP. To increase the system C116 capacity, Alternative 1 adds capacity to the C116 system trunkline through an additional parallel trunkline, from Dixie Drive to Sims Bayou.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040502**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

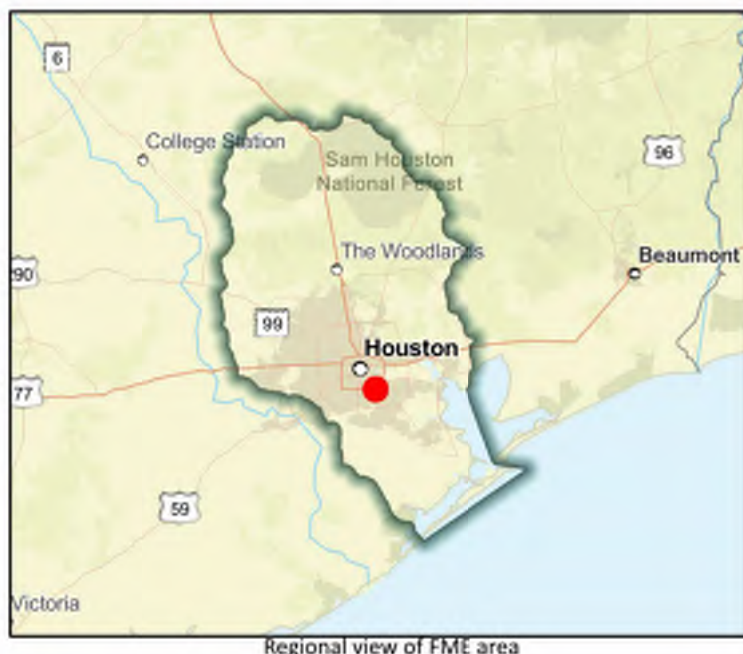
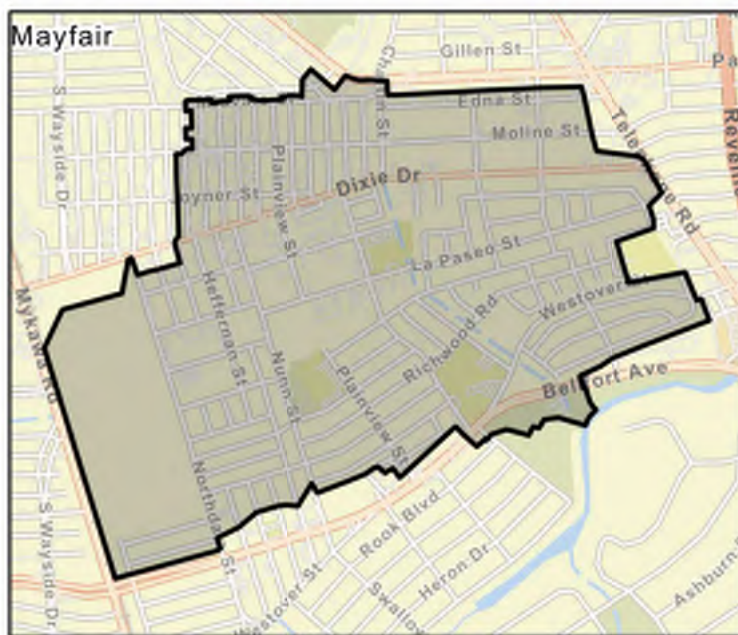
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **Sims Bayou Watershed Study**

ID# **061000183**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Fort Bend,Harris**

Watershed HUC# (if known) **120401040703,120401040402,120401040502,120401040501,120402040**

Drainage area (Square miles, est.) **93**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **22,203**

of structures **5,854**

Critical facilities **73**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **51**

Roadway(s) impacted (length) **103**

Number of low water crossings **10**

Historical road closures **10**

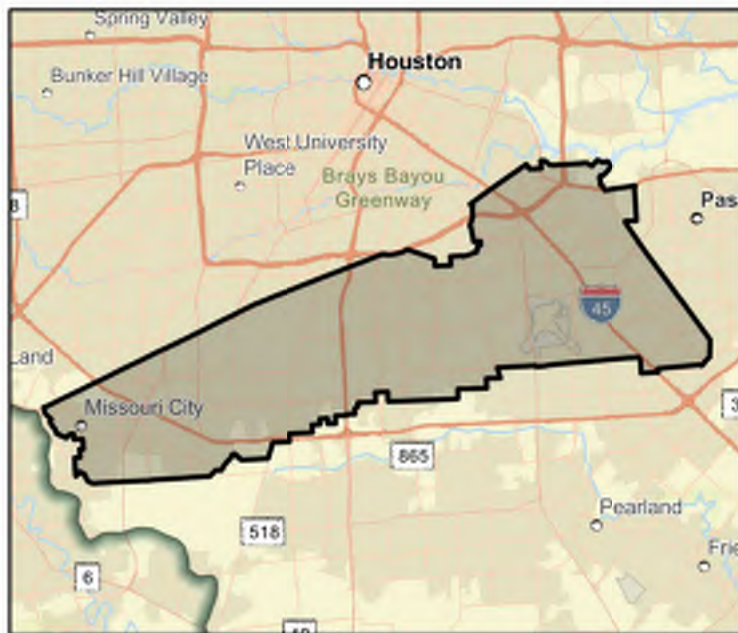
Estimated Cost and Funding Availability

Total Cost **\$470,000**

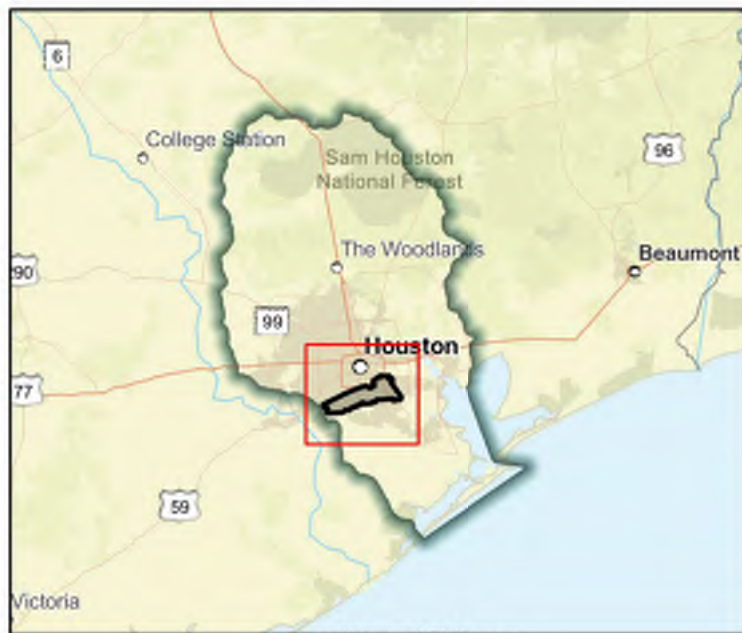
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title South 3rd - Stewarts Creek Watershed

ID# 061000458

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010403,120401010401,120401010402,120401010

Drainage area (Square miles, est.) 20

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,606

of structures 374

Critical facilities 6

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 10

Number of low water crossings 7

Historical road closures 7

Estimated Cost and Funding Availability

Total Cost \$30,000

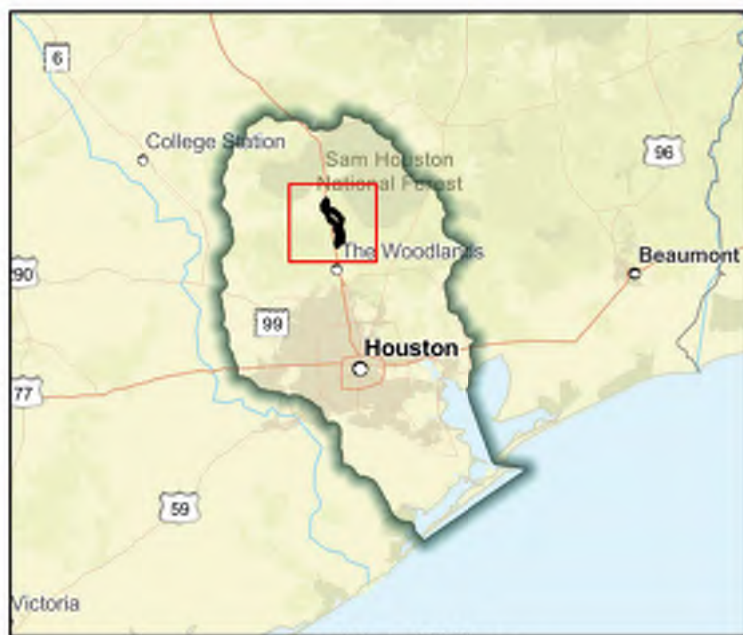
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title South Frazier - Grand Lake Creek Watershed

ID# 061000451

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010401

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,381

of structures 365

Critical facilities 5

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

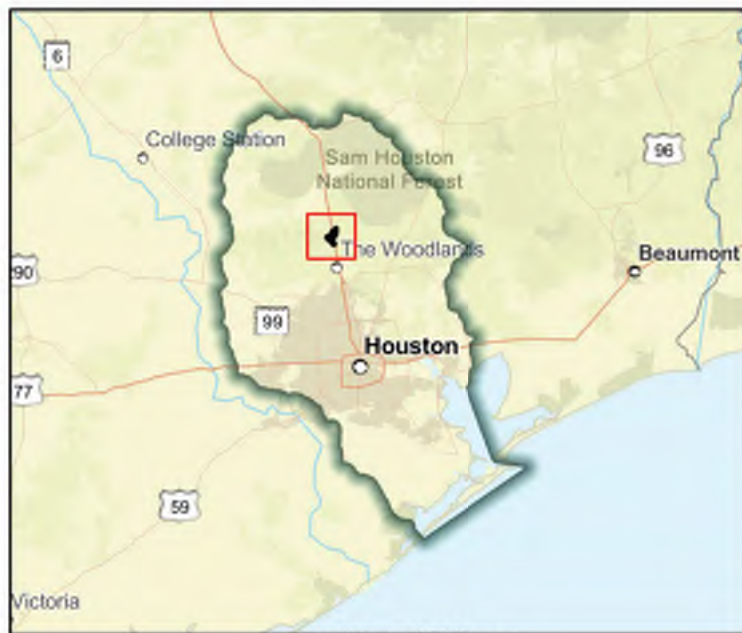
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **South Shore Drainage Pump Station**

ID# **061000540**

Sponsor (name of entity, not person) **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project includes analysis to bring the existing storm sewer into compliance with updated drainage criteria along with the evaluation and design of a pump station.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Galveston**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000010**

100-Year Flood Risk Summary

Population at risk **4,031**

of structures **1,718**

Critical facilities **14**

Flood risk type: Riverine? **No**

Coastal? **Yes**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **30**

Number of low water crossings **-**

Historical road closures **-**

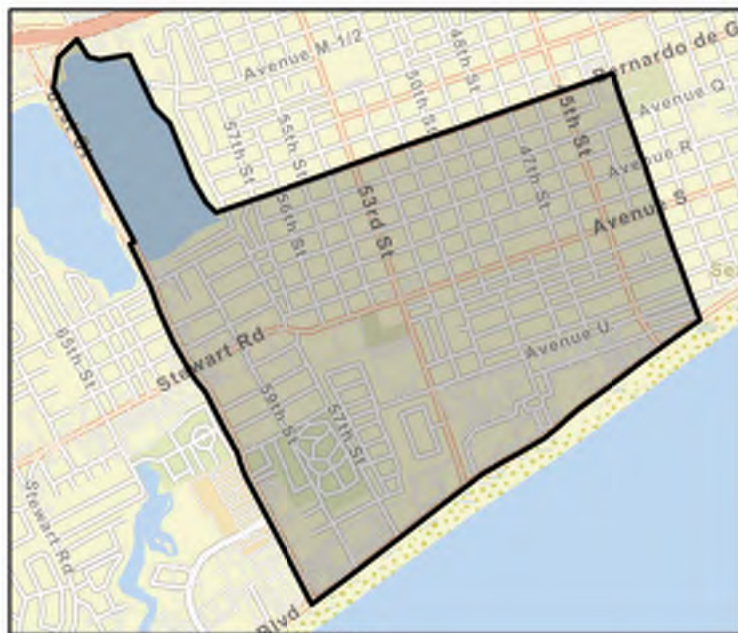
Estimated Cost and Funding Availability

Total Cost **\$5,000,000**

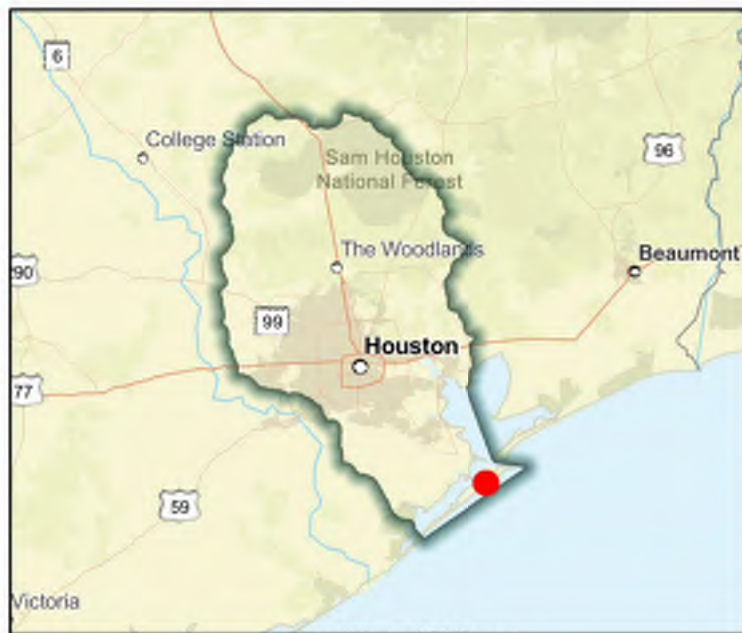
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Southeast Montgomery County Master Drainage Plan

ID# 061000463

Sponsor (name of entity, not person) Montgomery (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? No

Existing/Anticipated models in near term? No

County Montgomery

Watershed HUC# (if known) 120401010403,120401010401,120401010402,120401010501,120401010

Drainage area (Square miles, est.) 313

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 16,360

of structures 10,008

Critical facilities 37

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 297

Roadway(s) impacted (length) 213

Number of low water crossings 17

Historical road closures

17

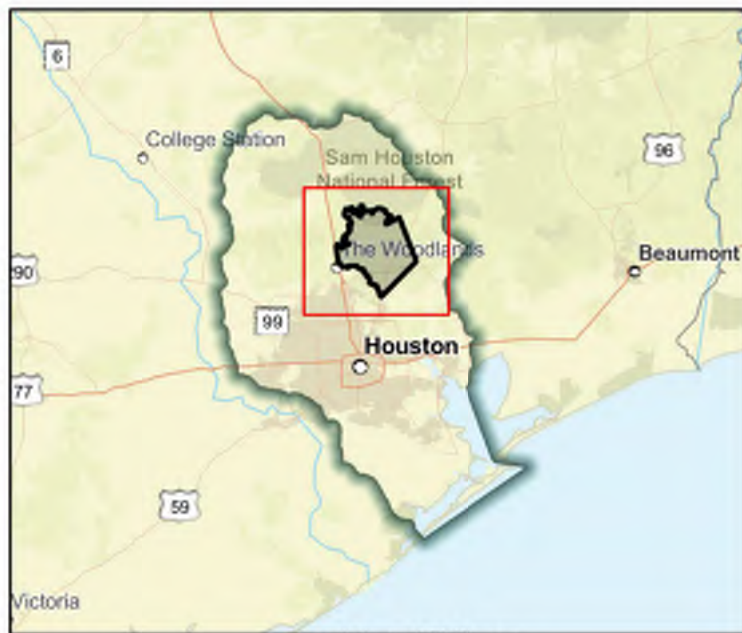
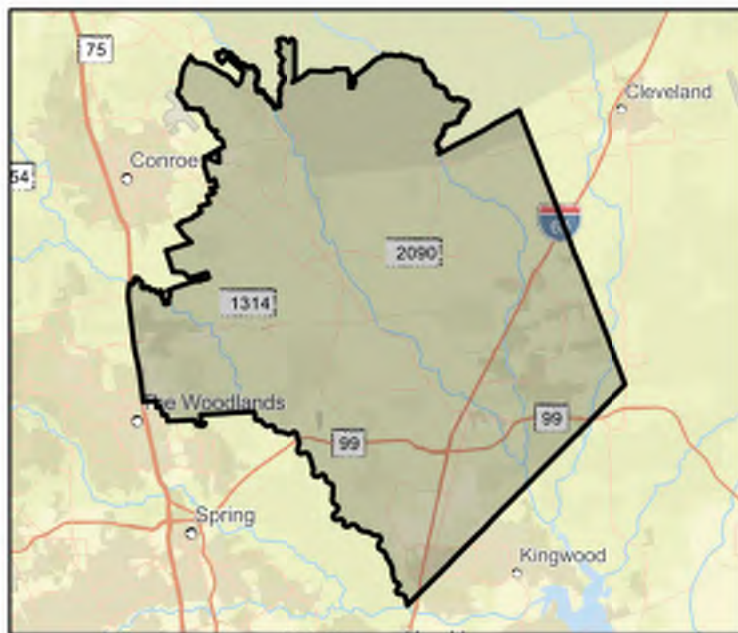
Estimated Cost and Funding Availability

Total Cost \$1,170,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Southern Oak - Little Laney Creek

ID# 061000460

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010403,120401010401,120401010402

Drainage area (Square miles, est.) 9

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 571

of structures 271

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 4

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures

0

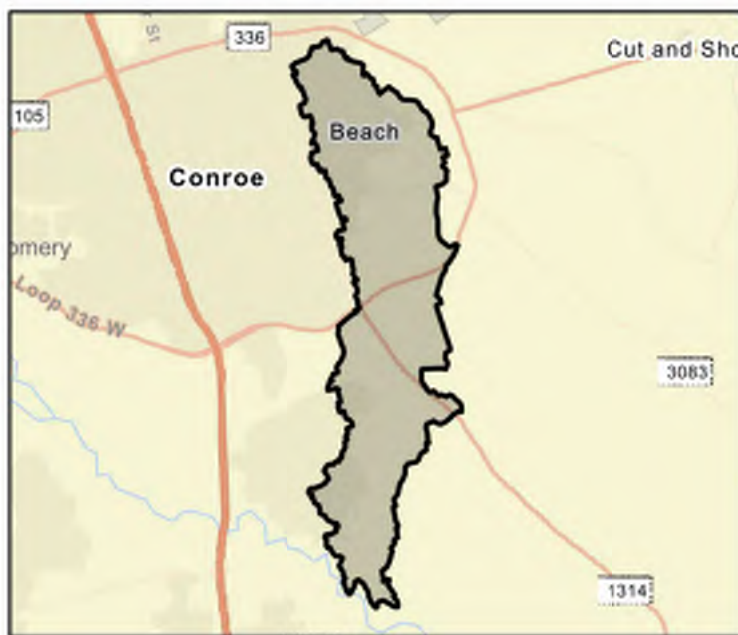
Estimated Cost and Funding Availability

Total Cost \$30,000

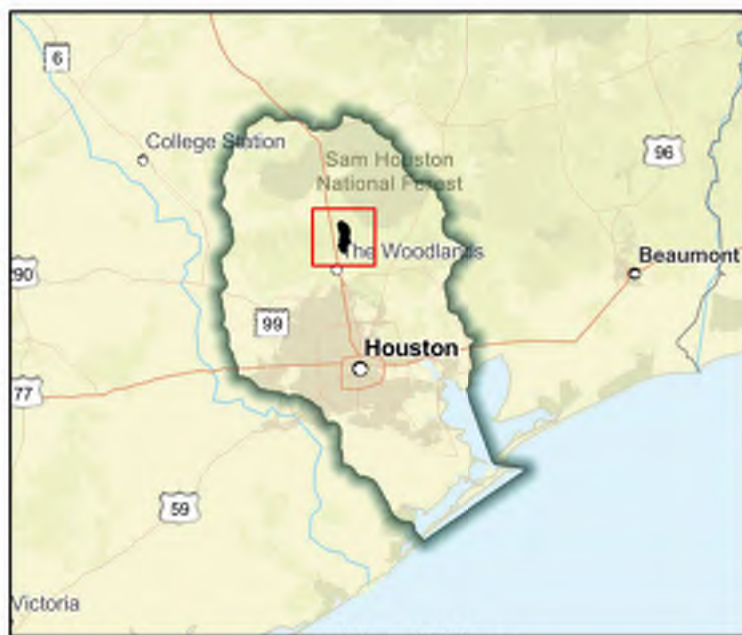
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Southland Area Drainage and Paving Improvements**

ID# **061000474**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements in the Southland Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040402**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

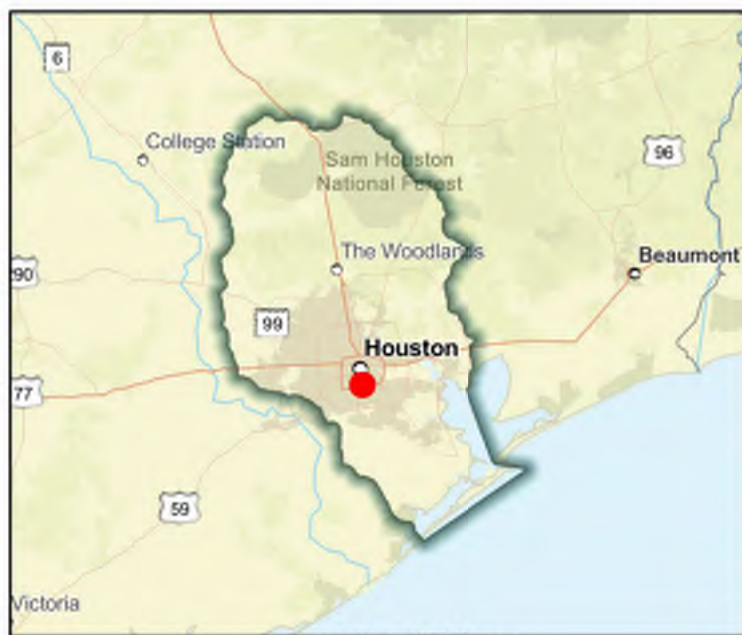
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Southwood Forest Subdivision and Forgotten Forest Subdivision Evaluation

ID# 061000141

Sponsor (name of entity, not person) Walker (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a community-wide drainage system in Southwood Forest Subdivision and Forgotten Forest Subdivision.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Walker

Watershed HUC# (if known) 120401010202

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5

of structures 13

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) -

Number of low water crossings -

Historical road closures -

Estimated Cost and Funding Availability

Total Cost \$110,000

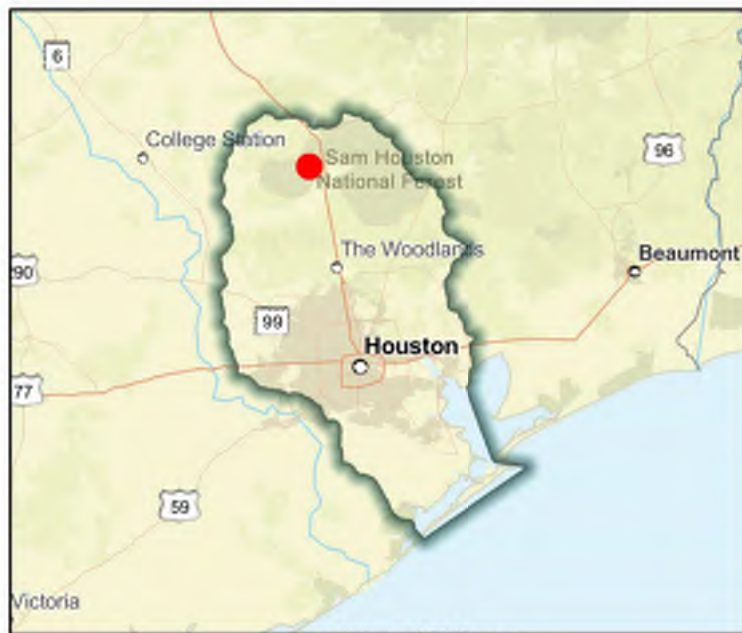
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spanish Cove Subdivision Drainage Assessment**

ID# **061000029**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Additional analysis needed to confirm no negative effects. It is expected the larger channel can safely convey the increase in flows, but this must be demonstrated during the project design phase.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401040704**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

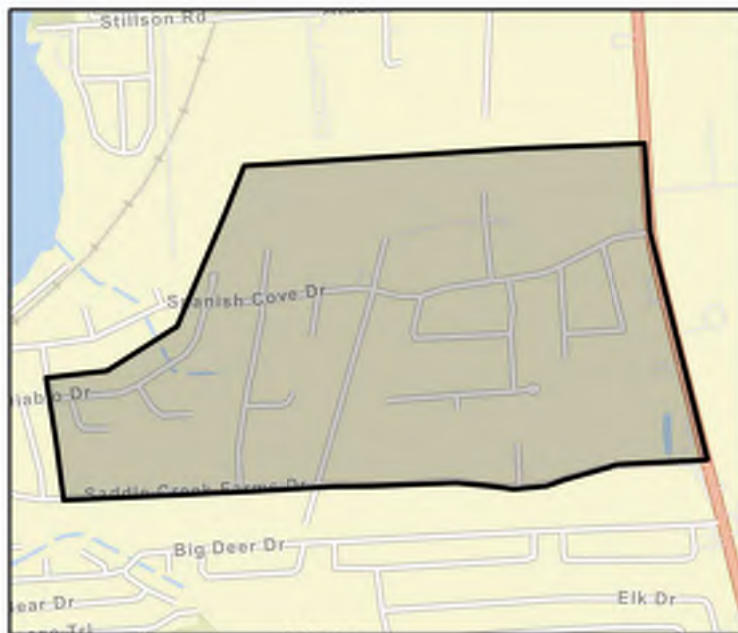
Estimated Cost and Funding Availability

Total Cost **\$150,000**

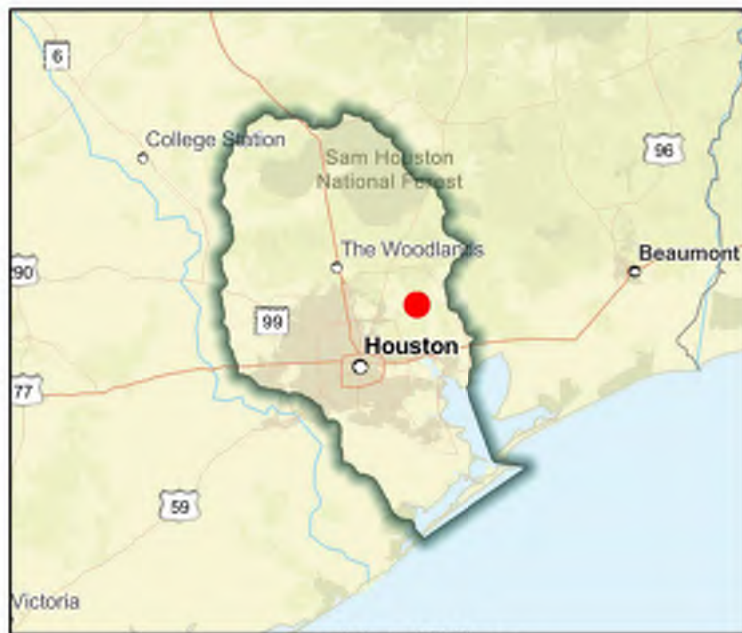
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Creek - Construction of a Reservoir along Spring Creek**

ID# **061000191**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study for design and construction of a future flood control dam and reservoir in the Spring Creek watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris,Waller,Montgomery,Grimes**

Watershed HUC# (if known) **120401040103,120401040104,120401040303,120401040401**

Drainage area (Square miles, est.) **384**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **17,055**

of structures **4,185**

Critical facilities **44**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **232**

Roadway(s) impacted (length) **106**

Number of low water crossings **27**

Historical road closures **27**

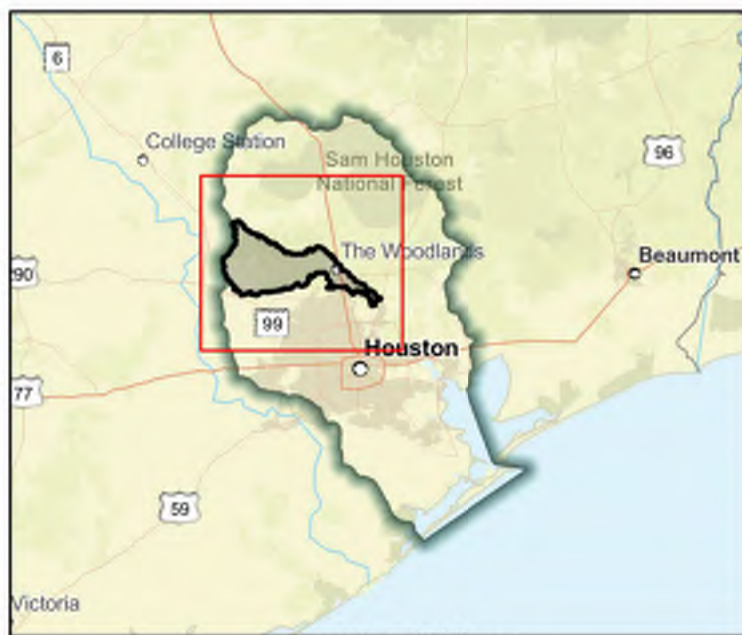
Estimated Cost and Funding Availability

Total Cost **\$870,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Creek - Neighborhood Future Floodplain Analysis**

ID# **061000515**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Spring Creek watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris, Waller, Montgomery, Grimes**

Watershed HUC# (if known)

Drainage area (Square miles, est.) **386**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **17,055**

of structures **4,185**

Critical facilities **44**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **232**

Roadway(s) impacted (length) **106**

Number of low water crossings **27**

Historical road closures **27**

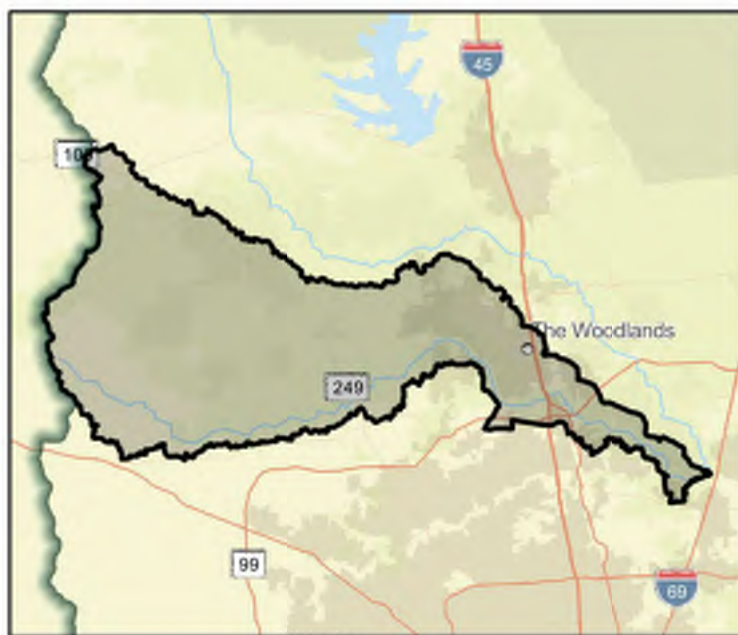
Estimated Cost and Funding Availability

Total Cost **\$7,218,157**

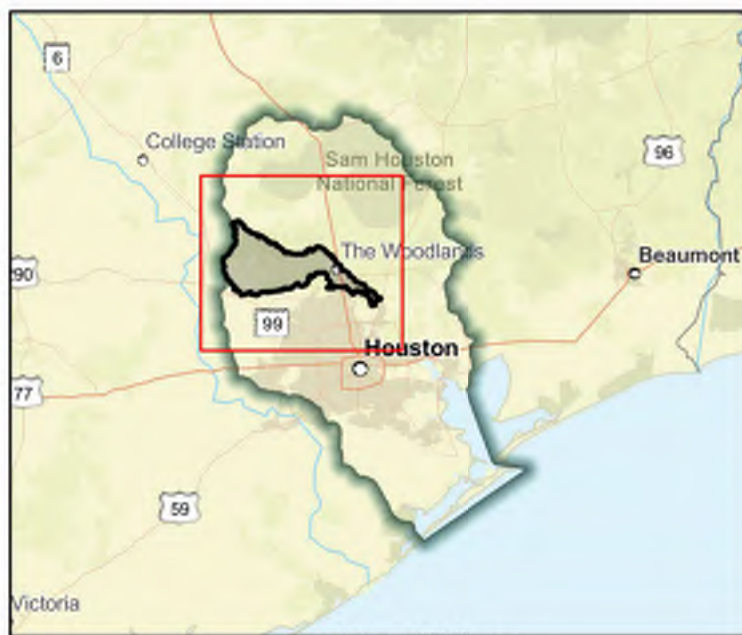
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Spring Creek Local Drainage Study

ID# 061000539

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Spring Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris, Montgomery, Waller, Grimes

Watershed HUC# (if known) -

Drainage area (Square miles, est.) 386

Goal(s) 06000001,06000010

100-Year Flood Risk Summary

Population at risk 17,055

of structures 4,185

Critical facilities 44

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 232

Roadway(s) impacted (length) 106

Number of low water crossings 27

Historical road closures

27

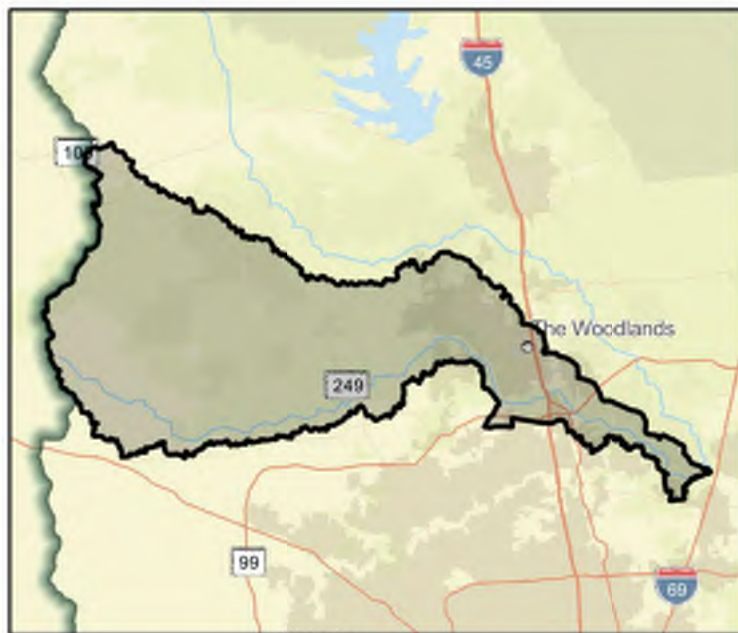
Estimated Cost and Funding Availability

Total Cost \$342,087

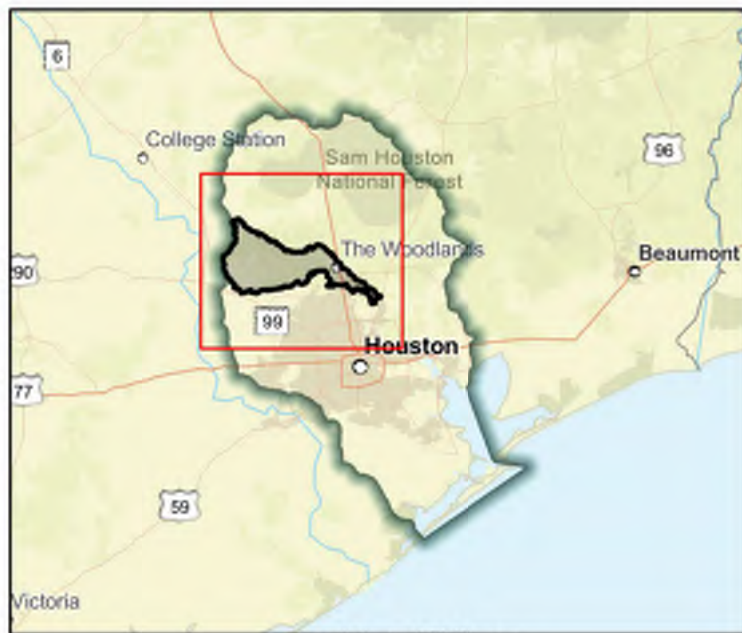
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Creek Watershed Plan- Recommended Alternative for PA-02: J131-01-00 Storm Sewer improvements & channel modification**

ID# **061000337**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this project to become a FMP. Channel modifications along J131-01 & storm sewer improvements under Zion Road, reduces sheetflow by providing positive drainage outfall for ~200 ac of land.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020209,120401020210,120401020205**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **25**

of structures **15**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **1**

Number of low water crossings **1**

Historical road closures **1**

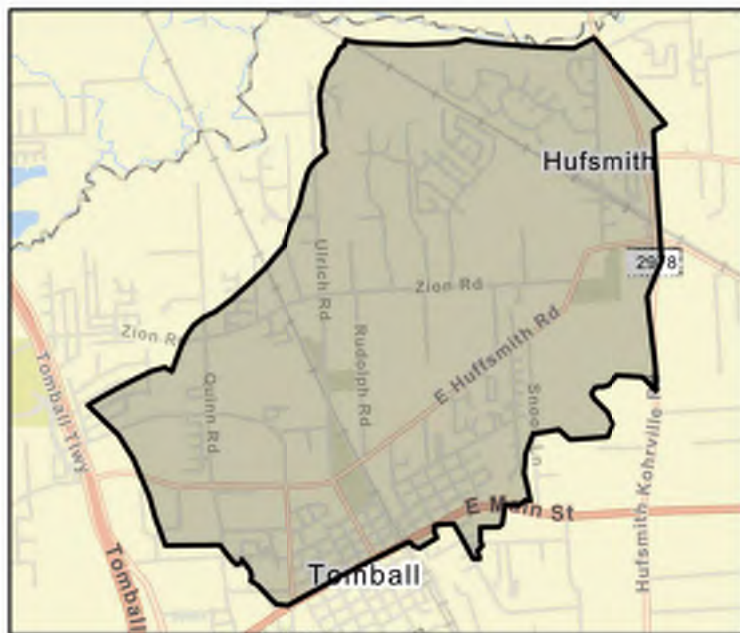
Estimated Cost and Funding Availability

Total Cost **\$30,000**

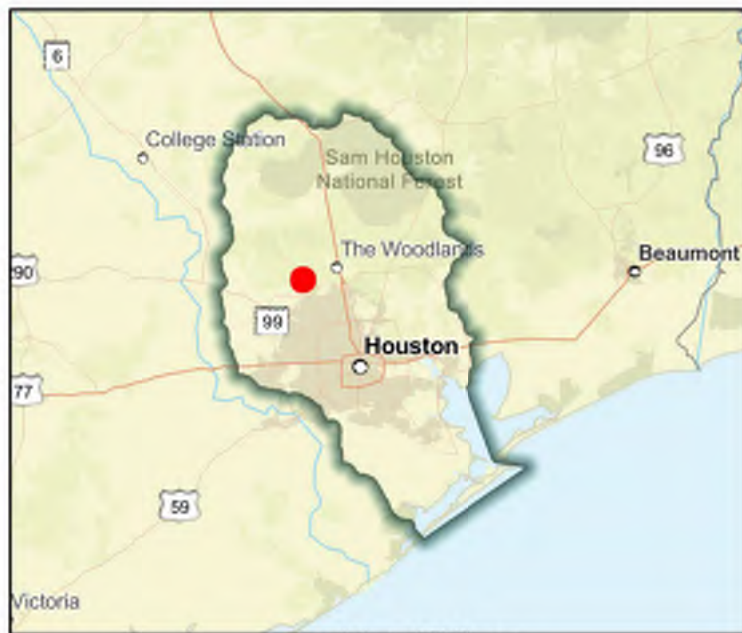
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Spring Gully & Goose Creek - Neighborhood Future Floodplain Analysis

ID# 061000530

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Spring Gully & Goose Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040704, 120401040705, 120401040706, 120402030104,

Drainage area (Square miles, est.) 35

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 5,995

of structures 1,882

Critical facilities 64

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 73

Roadway(s) impacted (length) 33

Number of low water crossings 1

Historical road closures 1

Estimated Cost and Funding Availability

Total Cost \$14,928,774

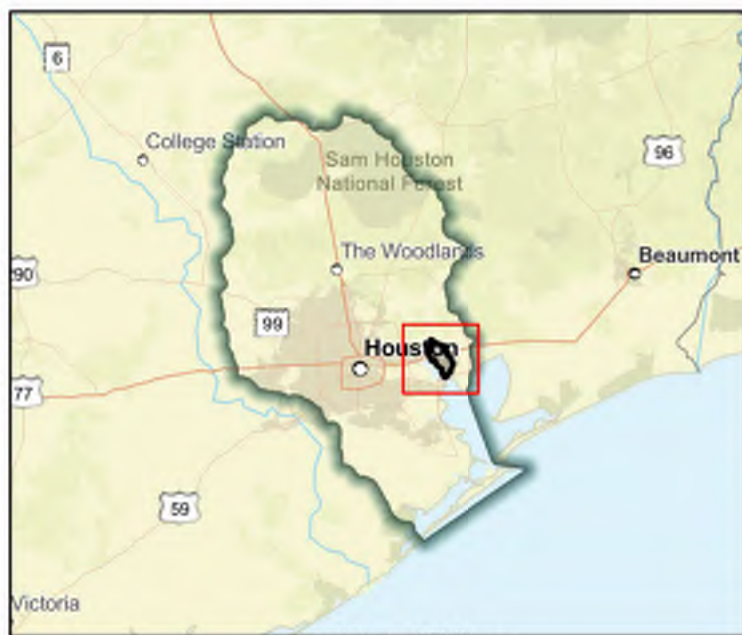
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Gully & Goose Creek Local Drainage Study**

ID# **061000525**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Spring Gully & Goose Creek watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known)

120401040704,120401040705,120401040706,120402030104,120402030

Drainage area (Square miles, est.) **35**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **5,995**

of structures **1,882**

Critical facilities **64**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **73**

Roadway(s) impacted (length)

33

Number of low water crossings **1**

Historical road closures

1

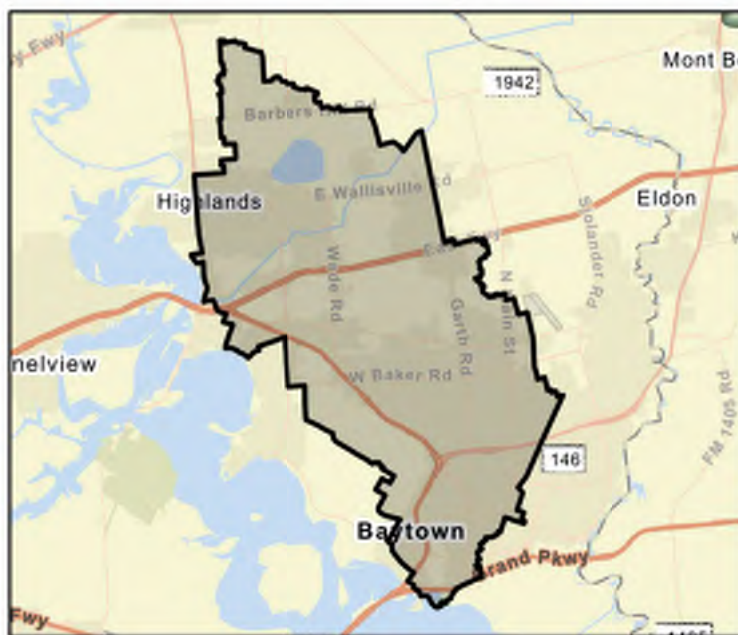
Estimated Cost and Funding Availability

Total Cost **\$3,590,459**

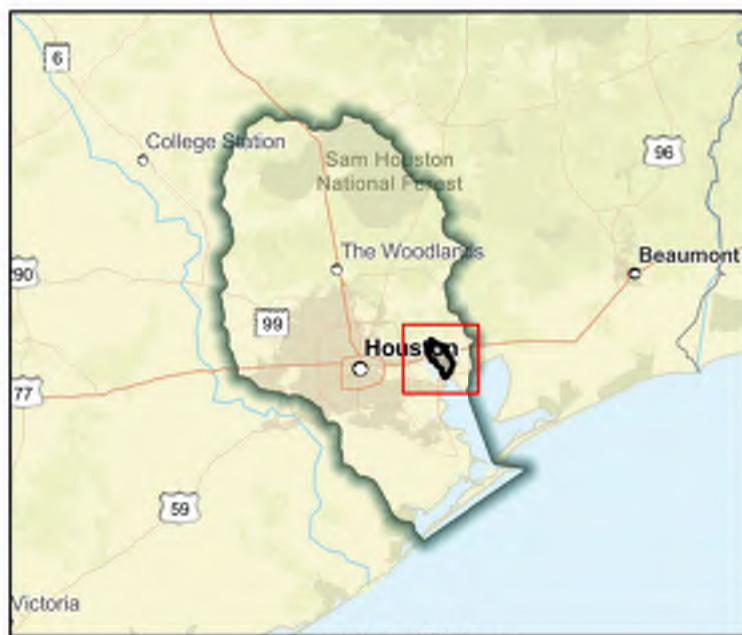
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project - Near-term planning project: PA05

ID# 061000172

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Planning-level study needed. A stormwater detention basin near confluence of O207-00-00 and O207-01-00 required to lower WSEI. Reduced flow rates only after relief channel in Phase III implemented.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040705,120401040706,120401040704,120402030105,120402030

Drainage area (Square miles, est.) 35

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5,995

of structures 1,882

Critical facilities 64

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 73

Roadway(s) impacted (length) 33

Number of low water crossings 1

Historical road closures 1

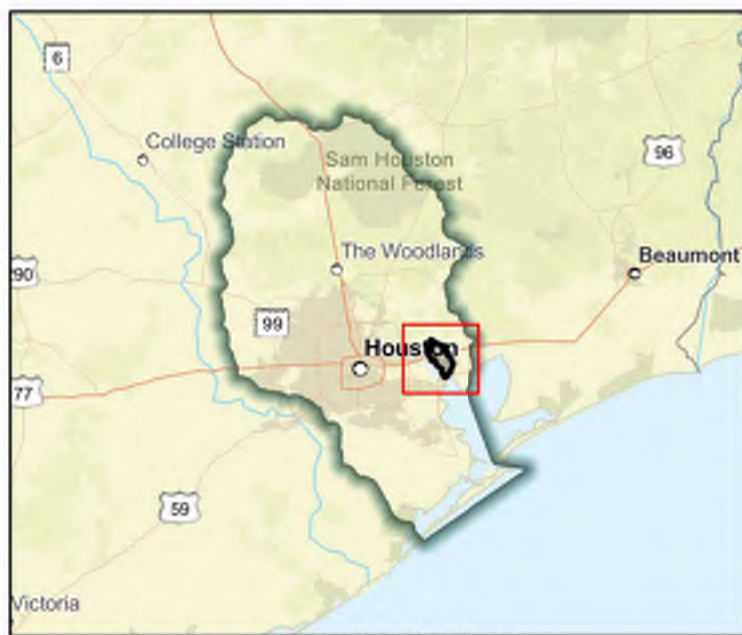
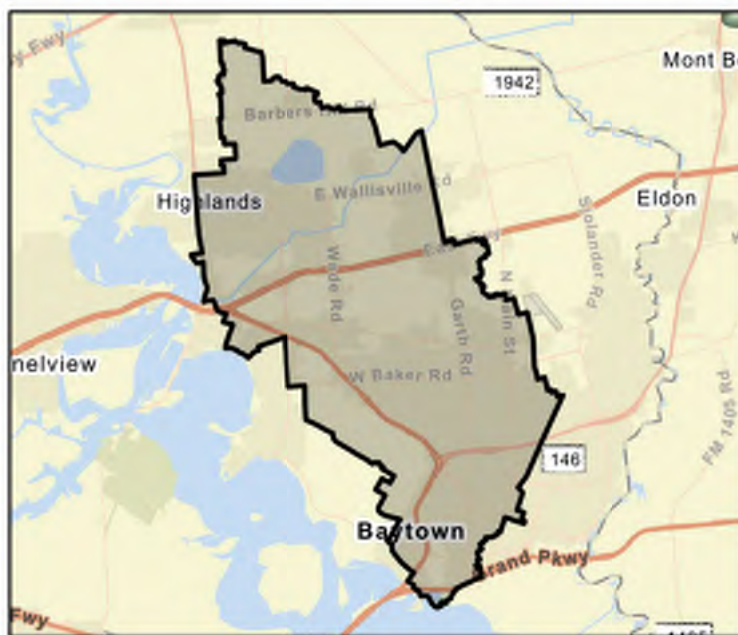
Estimated Cost and Funding Availability

Total Cost \$170,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project Near-Term Planning Project: PA03

ID# 061000170

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Planning-level study needed. PA03 warranted a near-term solution. Flooded structures centralized in a short reach along the main stem O200-00-00 which the best strategy for the area was buyouts.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040705,120401040706,120401040704,120402030105,120402030

Drainage area (Square miles, est.) 35

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5,995

of structures 1,882

Critical facilities 64

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 73

Roadway(s) impacted (length) 33

Number of low water crossings 1

Historical road closures 1

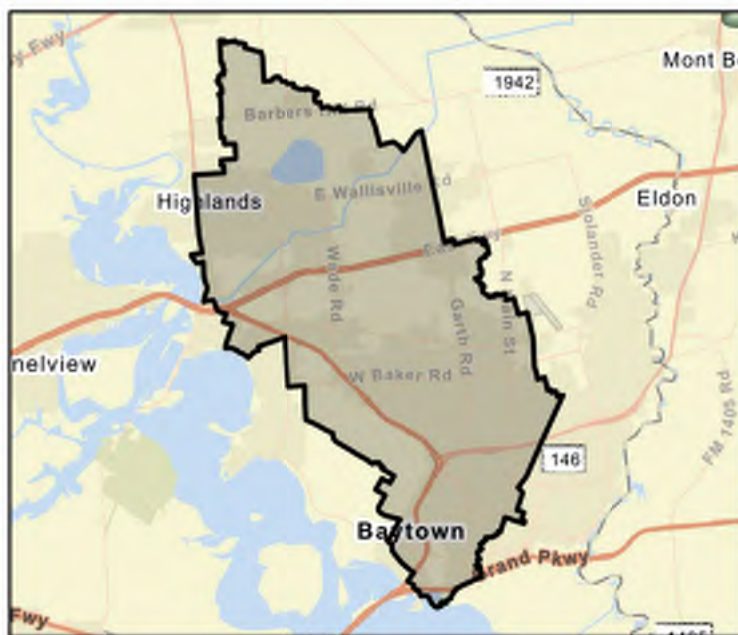
Estimated Cost and Funding Availability

Total Cost \$600,000

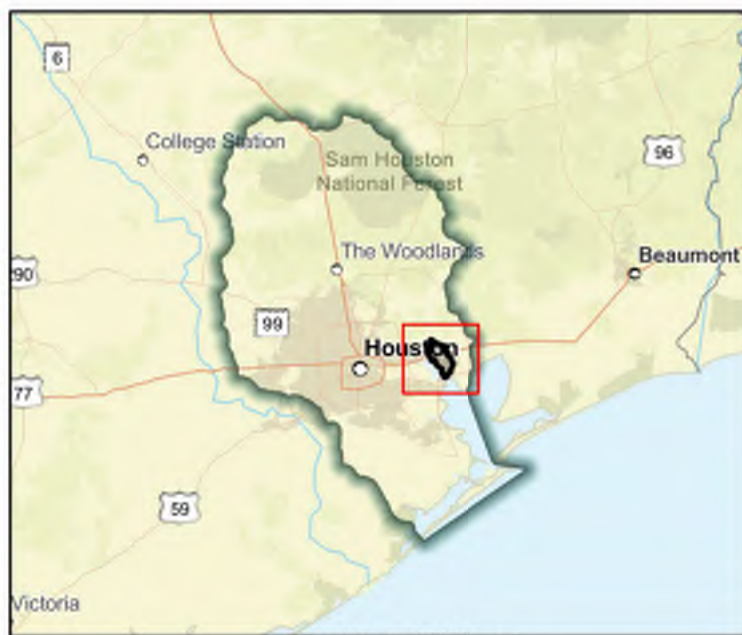
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project- Near-term Planning Project: PAD4

ID# 061000171

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Planning-level study. Lowering WSEL in O203-00-00 to around 29 feet MSL. Most benefit when O203-00-00 and Thompson Road Storm drain system upsized, but Thompson road storm drain design.

New Hydrologic or Hydraulic model? No Emergency Need? No Existing/Anticipated models in near term? Yes

County Harris Watershed HUC# (if known) 120401040705,120401040706,120401040704,120402030105,120402030

Drainage area (Square miles, est.) 35 Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 5,995 # of structures 1,882 Critical facilities 64

Flood risk type: Riverine? Yes Coastal? No Local? Yes Playa? No Other? No

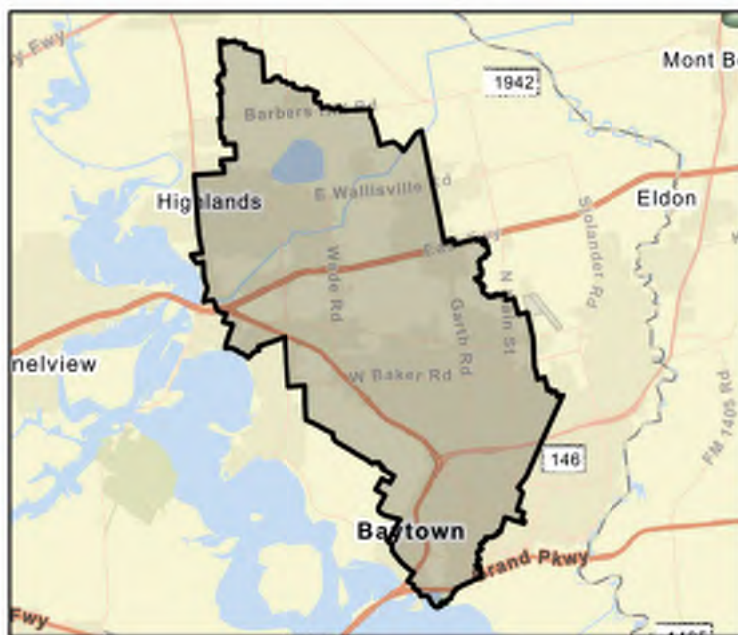
Farm/Ranch land impacted (acres) 73 Roadway(s) impacted (length) 33

Number of low water crossings 1 Historical road closures 1

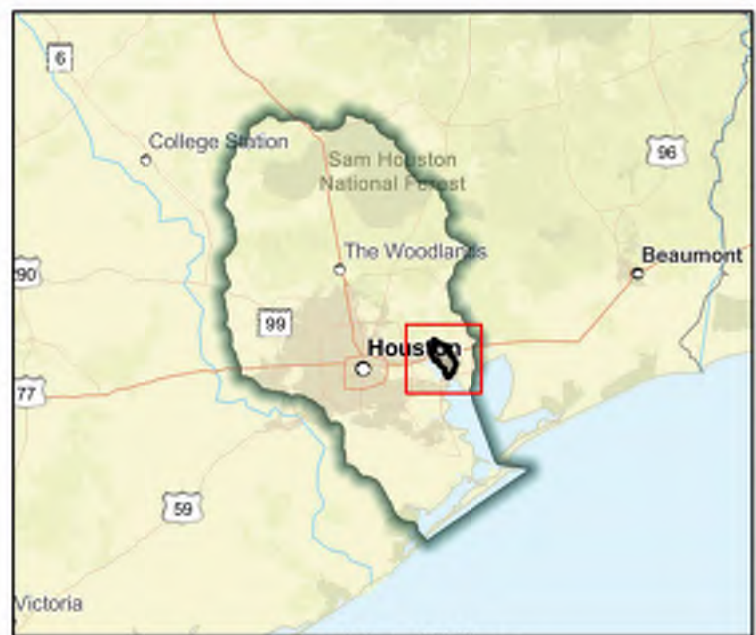
Estimated Cost and Funding Availability

Total Cost \$210,000 Amount of Available Funding - Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project- Project Phase I

ID# 061000345

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become FMP. 108 ac-ft of detention storage. Basin A w/ 95 ac-ft of storage, 10 ft depth, inlet & outlet structures consist of 2 culverts & weir. Basin B w/ 13 ac-ft of storage, 10.5 ft depth, inlet & outlet structures of culvert & weir.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040705

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 588

of structures 346

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project- Project Phase II

ID# 061000346

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop BCA to become a FMP. Independent of Phase I. Phase II includes addition of Stormwater Detention Basin C, with 80 acre-feet of detention storage w/ 9.5 ft depth & an inlet and outlet structure consisting of a culvert & a weir.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040705

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 588

of structures 346

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

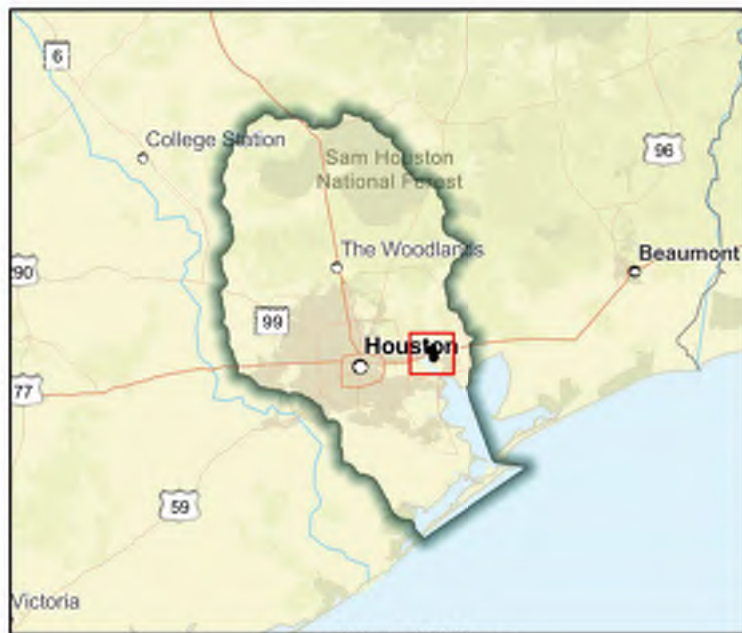
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Spring Gully Watershed Planning Project- Project Phase III

ID# 061000347

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Complete after phase 2. Relief channel intended to outfall into Stormwater Detention Basin C from Phase 2. Consists of trapezoidal 850-foot channel with cross culvert sized at Prairie Street. Upstream of the culvert crossing, the bottom width is 8 ft.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040705

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 588

of structures 346

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 2

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$30,000

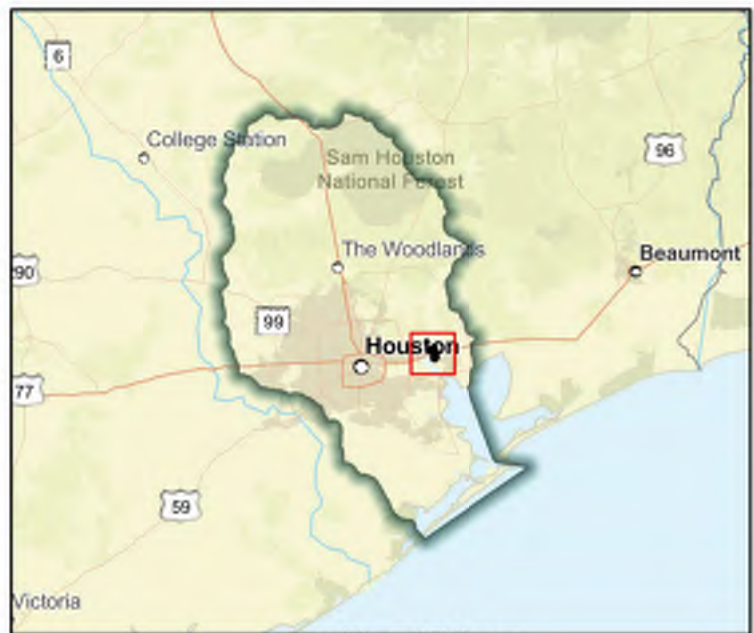
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Shadows North**

ID# **061000480**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements in the Spring Shadows Areas to mitigate structural flooding risk. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040302**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **-**

Critical facilities **-**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

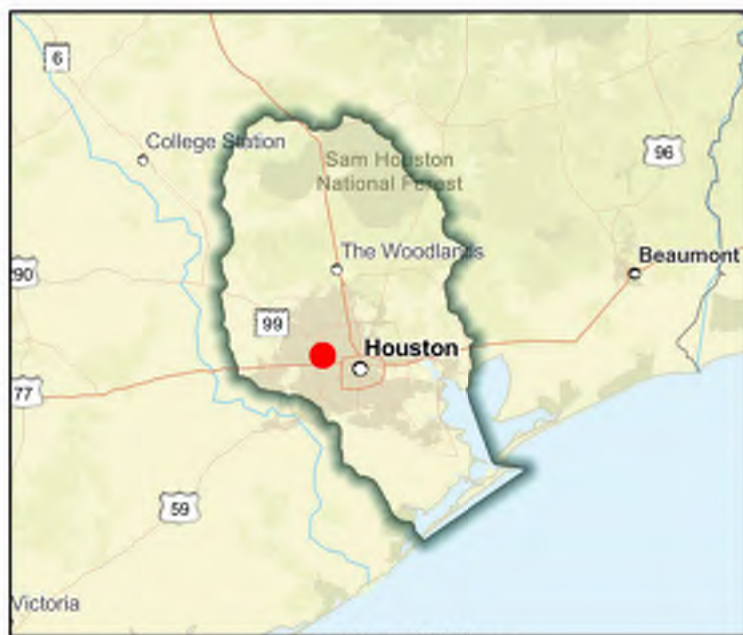
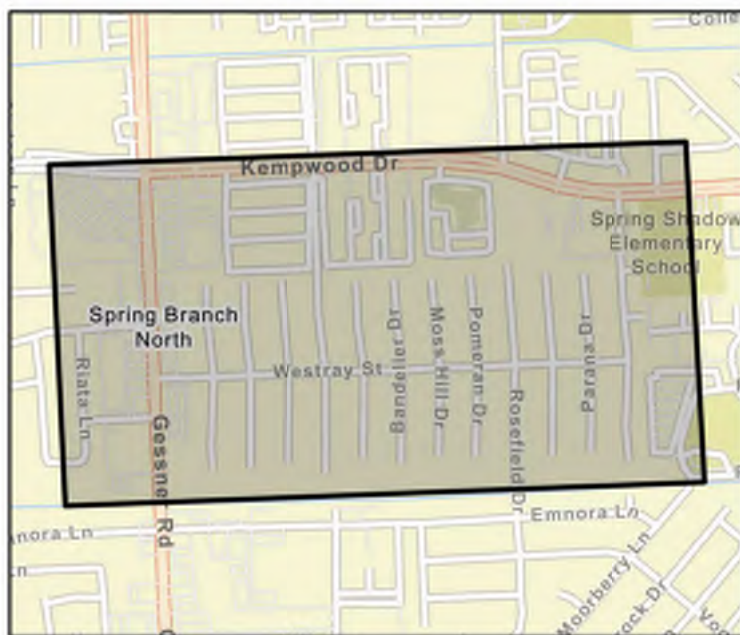
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Spring Shadows South**

ID# **061000433**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed to elevate project to a FMP. FIF application information unavailable.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040302,120401040303**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,805**

of structures **1,005**

Critical facilities **5**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **12**

Number of low water crossings **0**

Historical road closures **0**

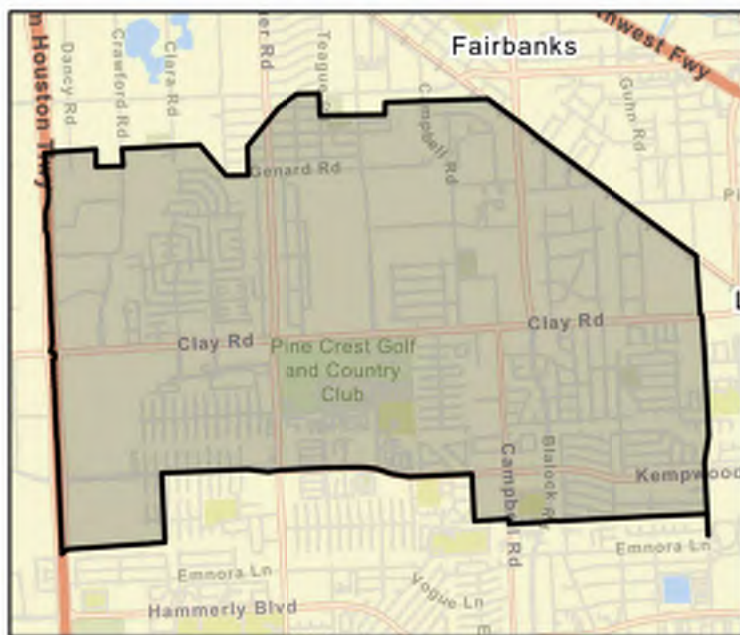
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **St. Charles Street Drainage Improvements Project**

ID# **061000551**

Sponsor (name of entity, not person) **League City (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further analysis of proposed storm sewer improvements to St Charles Street and evaluation of detention.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston**

Watershed HUC# (if known) **120402040100, 120402040200**

Drainage area (Square miles, est.) **5**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **1,168**

of structures **240**

Critical facilities **2**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

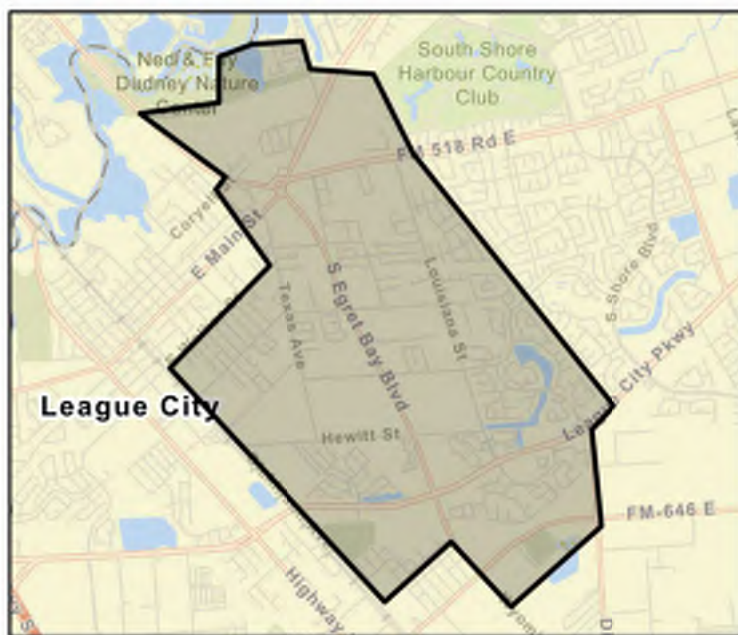
Estimated Cost and Funding Availability

Total Cost **\$50,000**

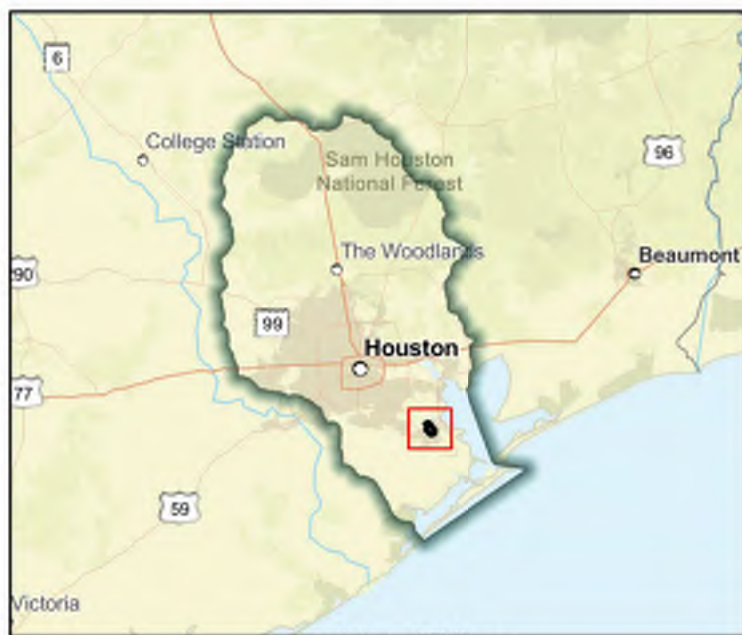
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Storm water detention ponds & Widening of drainage systems feasibility study

ID# 061000107

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study of area to identify problem areas and recommend flood mitigation alternatives that consider detention ponds & widening drainage systems.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 665

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 102,745

of structures 48,545

Critical facilities 667

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,412

Roadway(s) impacted (length) 910

Number of low water crossings 30

Historical road closures

30

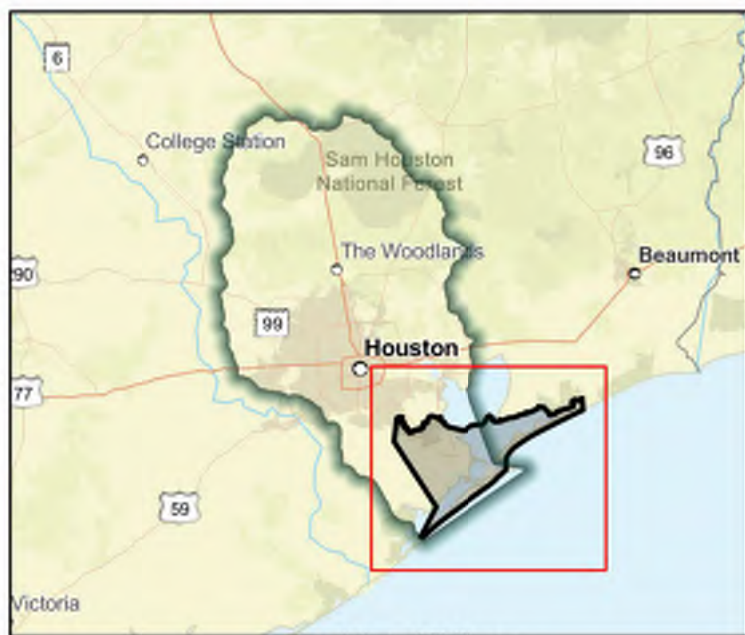
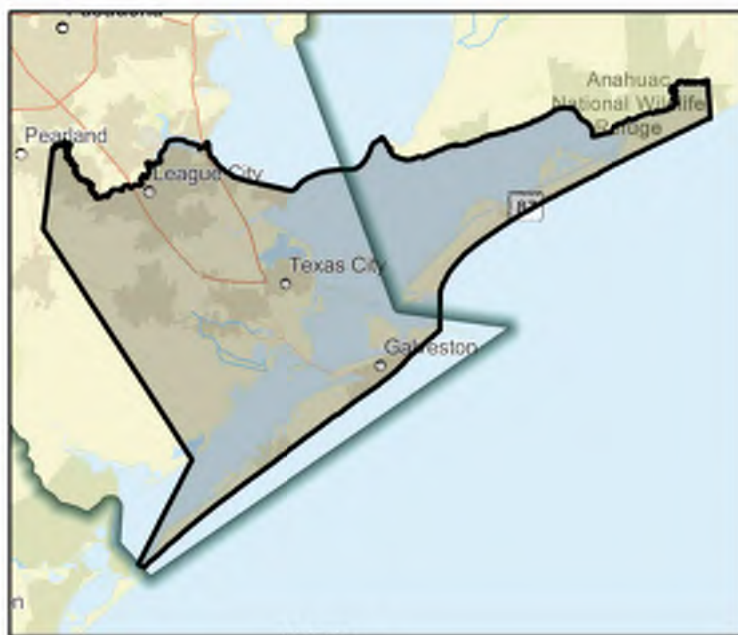
Estimated Cost and Funding Availability

Total Cost \$11,000,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Storm Water Detention Ponds Evaluation in the City of Santa Fe

ID# 061000164

Sponsor (name of entity, not person) Santa Fe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study to determine detention ponds/basin could be solution for addressing flood impacts.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston

Watershed HUC# (if known) 120402040300,120402040200

Drainage area (Square miles, est.) 17

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 748

of structures 399

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 12

Roadway(s) impacted (length) 4

Number of low water crossings 9

Historical road closures 9

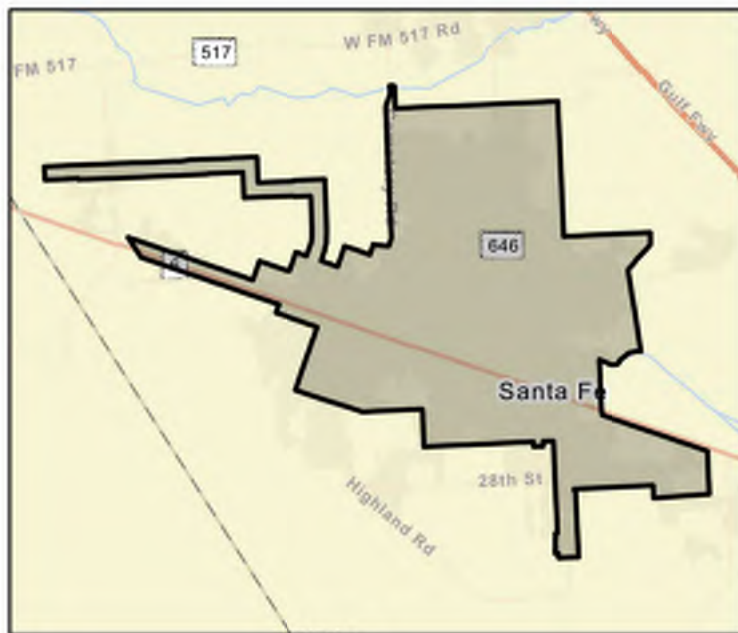
Estimated Cost and Funding Availability

Total Cost \$380,000

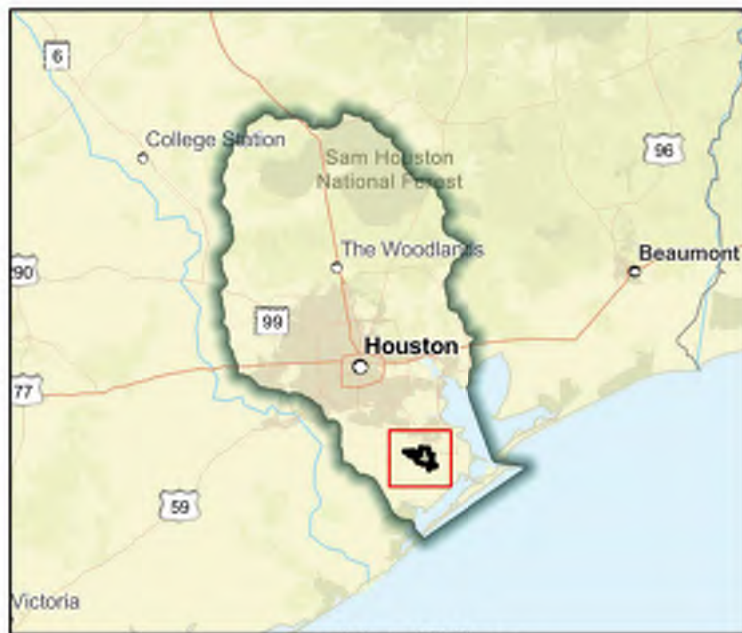
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Stormwater Drainage Improvement- Bradshaw Rd

ID# 061000118

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed slope paving (concrete lining) improvements. Southwest from SH 3 to the north line of CCISD's Elem. School #25. Pending Funding.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 53

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 13,675

of structures 5,251

Critical facilities 25

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,308

Roadway(s) impacted (length) 105

Number of low water crossings 2

Historical road closures

2

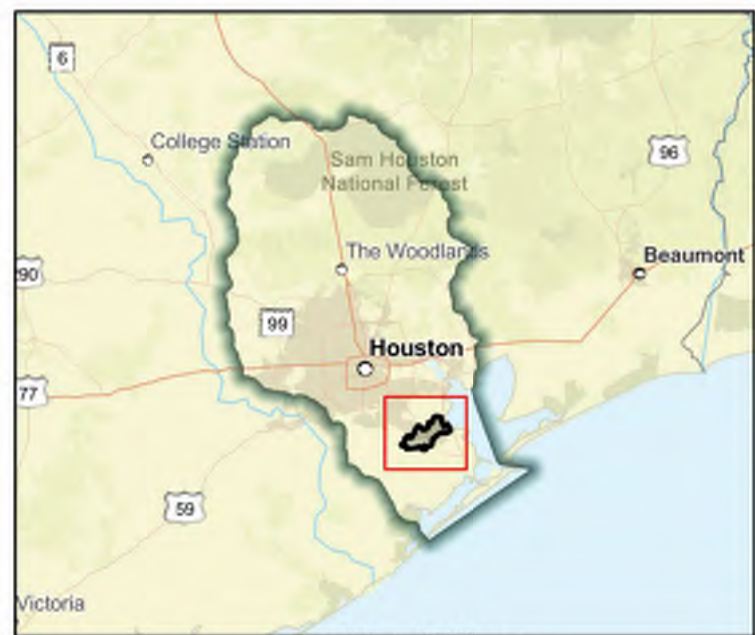
Estimated Cost and Funding Availability

Total Cost \$50,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Stormwater Drainage Improvement- Nottingham ditch

ID# 061000115

Sponsor (name of entity, not person) League City (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed slope paving (concrete lining) improvements. Still in planning, consultant hired. Design complete and pending construction funding.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 53

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 13,675

of structures 5,251

Critical facilities 25

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,308

Roadway(s) impacted (length) 105

Number of low water crossings 2

Historical road closures

2

Estimated Cost and Funding Availability

Total Cost \$50,000

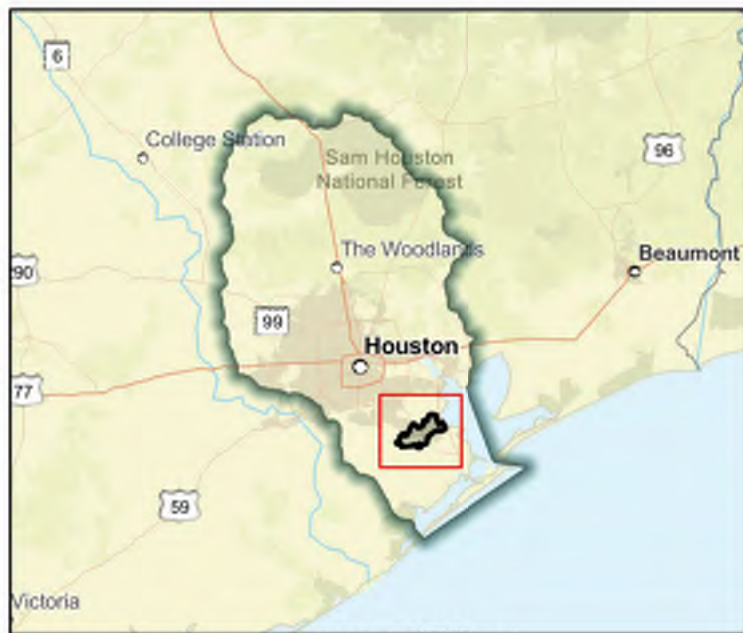
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Stream and River Flood Program**

ID# **061000082**

Sponsor (name of entity, not person) **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Preparedness**

Study description **Conduct a flood mitigation outreach program using information from the river and stream flood study to increase awareness of specific riverine flooding problems and provide guidance on mitigation in affected communities.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Waller**

Watershed HUC# (if known) **120401020102,120401020103,120401020204,120401020101,120401020**

Drainage area (Square miles, est.) **516**

Goal(s) **06000001,06000007,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **1,858**

of structures **1,064**

Critical facilities **6**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,357**

Roadway(s) impacted (length) **41**

Number of low water crossings **19**

Historical road closures **19**

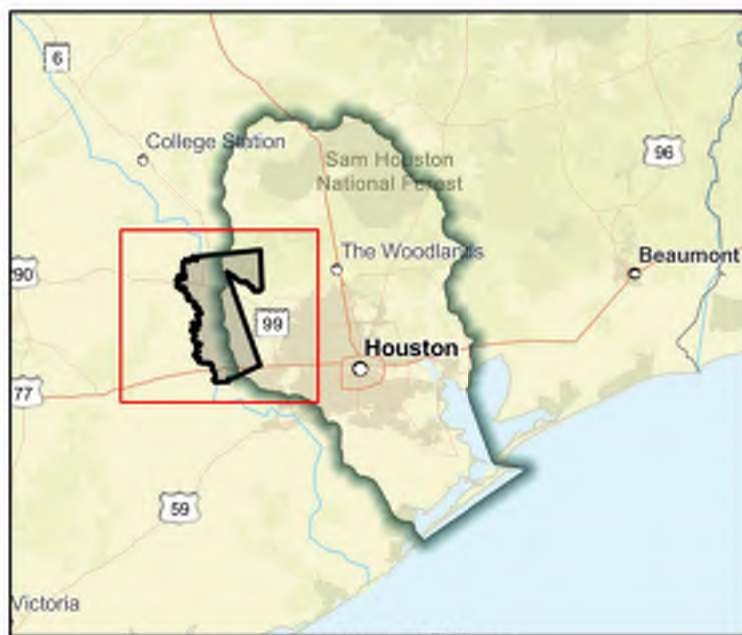
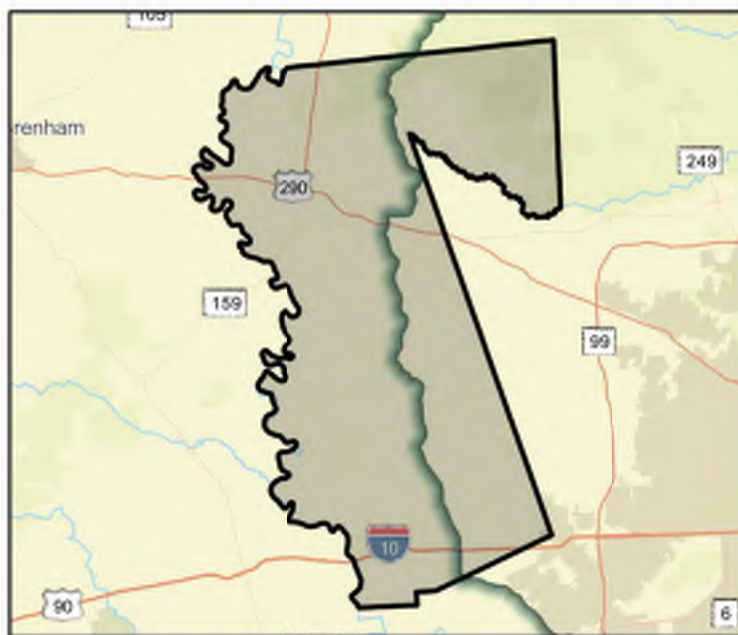
Estimated Cost and Funding Availability

Total Cost **\$20,000**

Amount of Available Funding **10000**

Federal funding availability **Yes**

Funding source **General Revenue**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Study of Texas City Hurricane Flood Protection Project

ID# 061000098

Sponsor (name of entity, not person) Galveston (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Corp of Engineers study of the Texas City Hurricane Flood Protection Project to improve the current levee system to provide protection from category 5 storm.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Galveston

Watershed HUC# (if known) 120402040300,120402040200,120402040400,120402040100

Drainage area (Square miles, est.) 665

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 102,745

of structures 48,545

Critical facilities 667

Flood risk type: Riverine? No

Coastal? Yes

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3,412

Roadway(s) impacted (length) 910

Number of low water crossings 30

Historical road closures

30

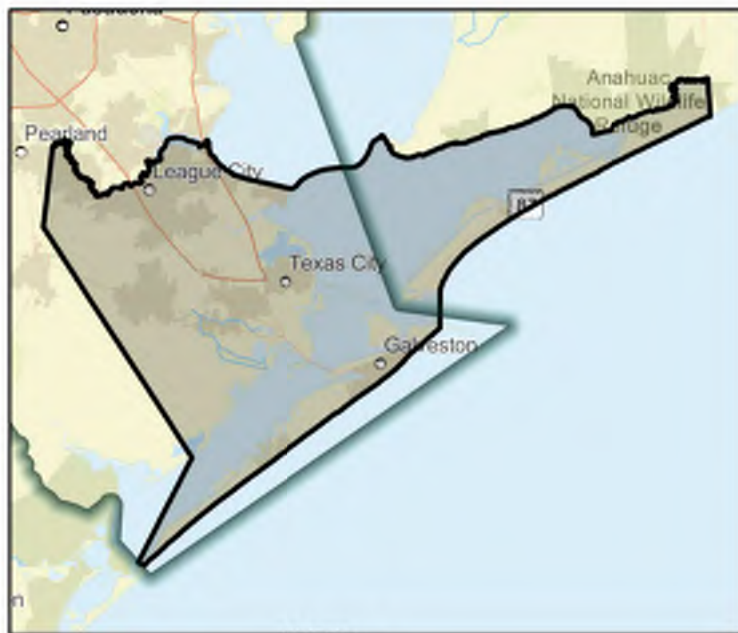
Estimated Cost and Funding Availability

Total Cost \$1,590,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Sunmeadow Drainage Improvements Phase 2

ID# 061000104

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of component of 1993 master Drainage Plan Phase 1. Initial phase of project completed in 2005. Upsizing storm sewer system to reduce potential flooding. Include Atlas 14 rainfalls.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120401030402

Drainage area (Square miles, est.) 4

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 484

of structures 362

Critical facilities 1

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 9

Roadway(s) impacted (length) 9

Number of low water crossings 0

Historical road closures 0

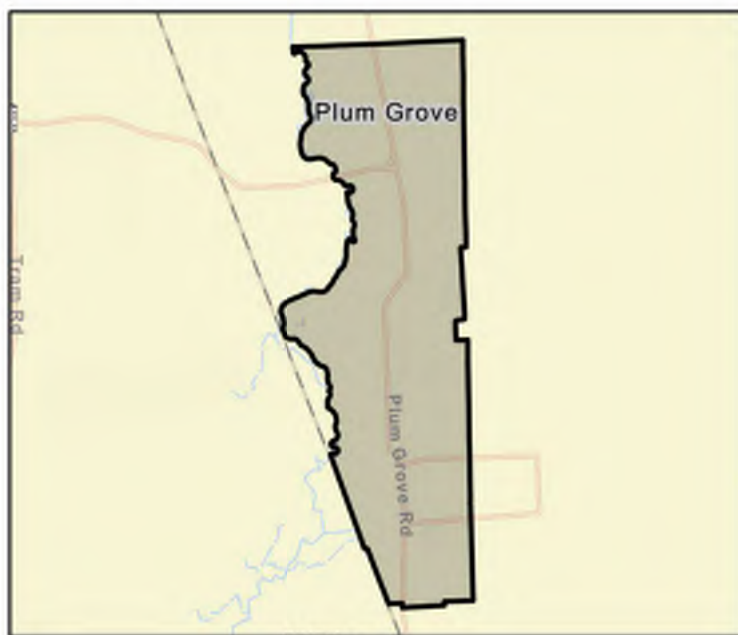
Estimated Cost and Funding Availability

Total Cost \$160,000

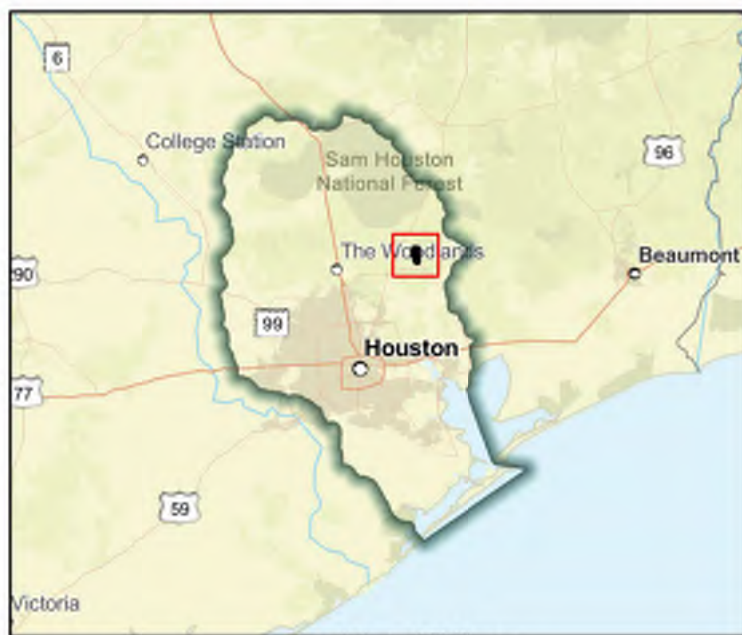
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title TC Jester Detention Basin

ID# 061000353

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of a 25 acre stormwater detention basin. Estimated construction cost is \$10,047,910. This application is requesting \$10,000,000.00 of these funds.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020106,120401020107,120401020210,120401020212,120401020

Drainage area (Square miles, est.) 93

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 11,450

of structures 2,993

Critical facilities 51

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 44

Roadway(s) impacted (length) 60

Number of low water crossings 4

Historical road closures 4

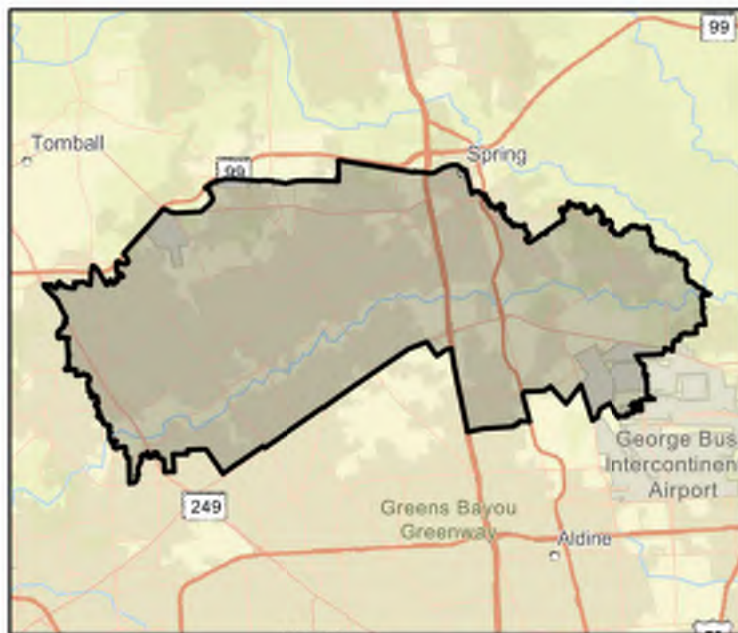
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Texas Avenue-Magnolia-MedicalCenterBlvd-Hwy3 Drainage Improvement Study**

ID# **061000554**

Sponsor (name of entity, not person) **Webster (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Evaluate existing flood risk in a portion of the city bounded by Magnolia St, Texas Avenue, Hwy3, and Medical Center Blvd. Identify solutions to mitigate flood risk in this area.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000010**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **0**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$100,000**

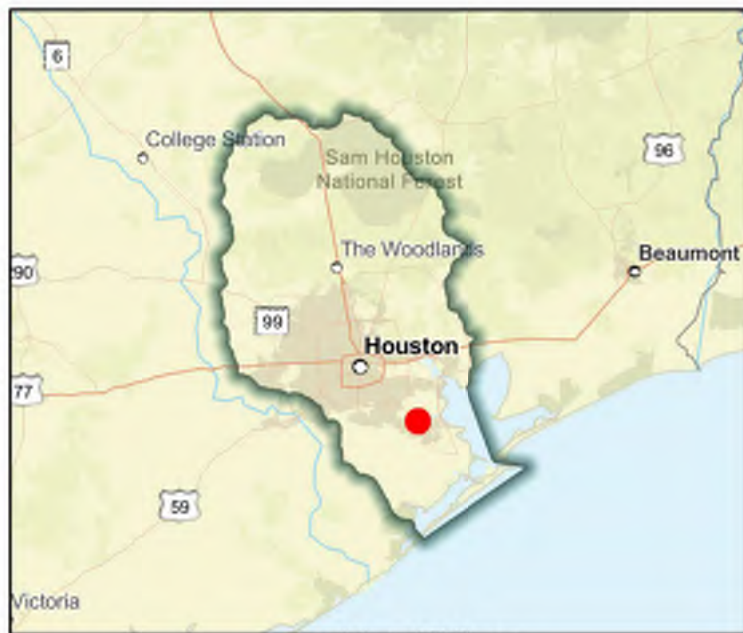
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **TIRZ17 Memorial City Area Detention Basin**

ID# **061000478**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Provides for right-of-way acquisition, design and construction of detention basins to mitigate impacts in the Memorial City Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040303**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **156**

of structures **43**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **0**

Number of low water crossings **0**

Historical road closures **0**

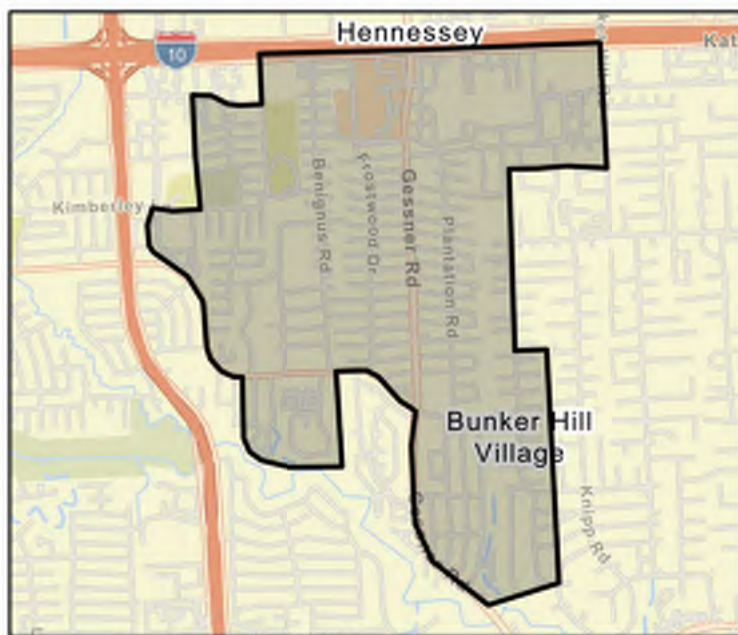
Estimated Cost and Funding Availability

Total Cost **\$30,000**

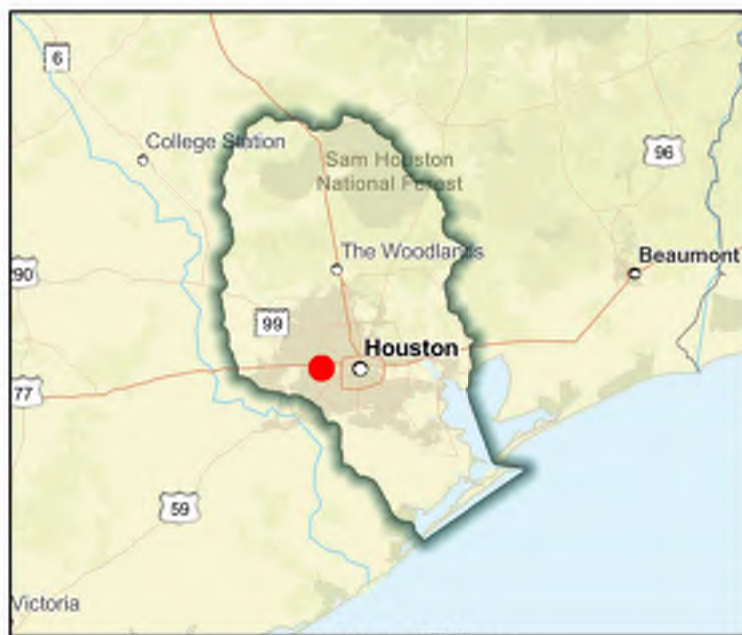
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Toby - Little Caney Creek Watershed

ID# 061000459

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010403,120401010401,120401010402

Drainage area (Square miles, est.) 9

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 571

of structures 271

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 4

Roadway(s) impacted (length) 7

Number of low water crossings 0

Historical road closures 0

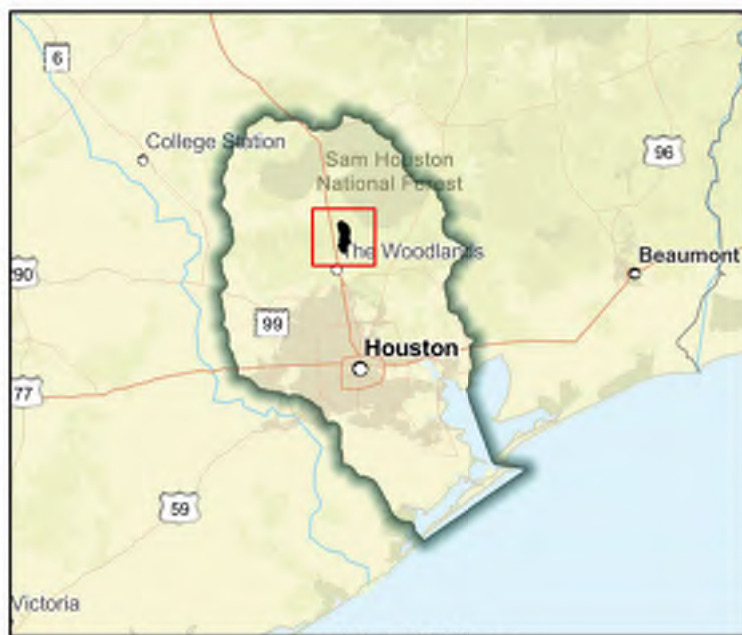
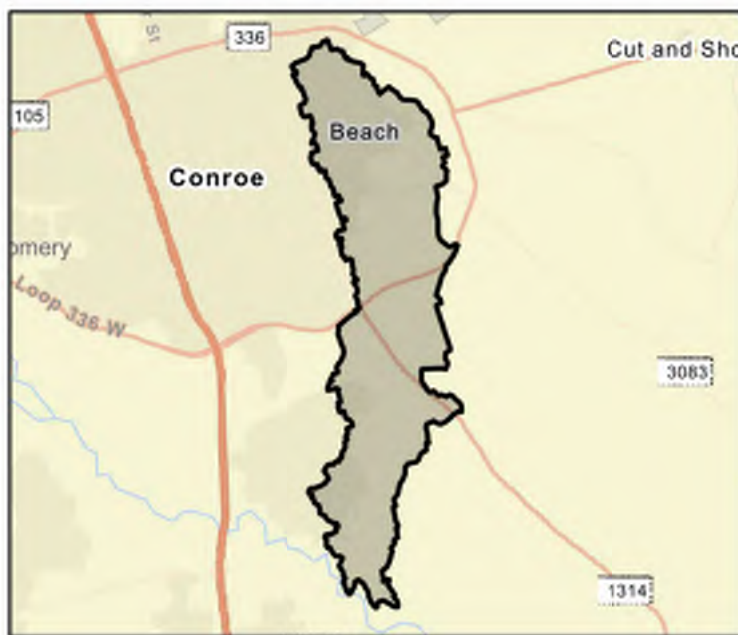
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Town of Woodloch Master Drainage Plan**

ID# **061000300**

Sponsor (name of entity, not person) **Woodloch (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Montgomery**

Watershed HUC# (if known) **120401010402**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **233**

of structures **85**

Critical facilities **0**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$50,000**

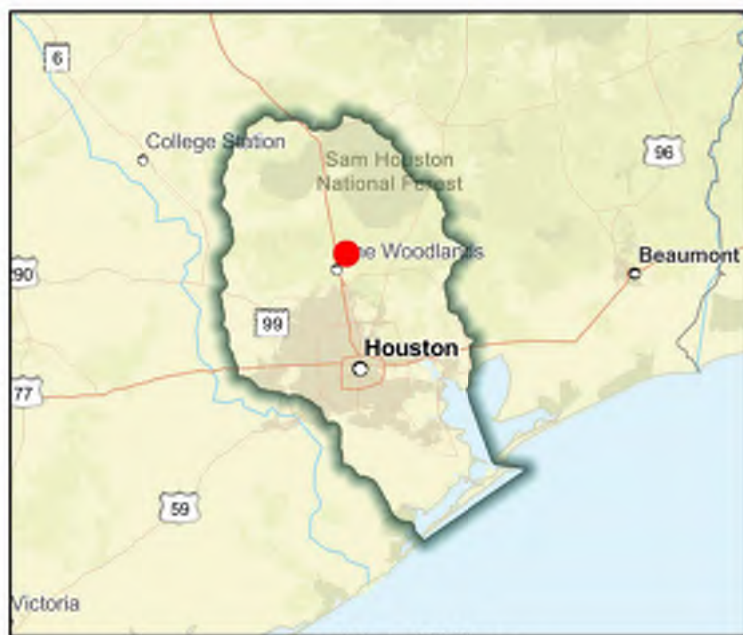
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Turkey Gully**

ID# **061000483**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **This study will analyze the local drainage systems in the Shady Acres area to divert stormwater flow from Turkey Gully to White Oak Bayou. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040304**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **983**

of structures **544**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **4**

Number of low water crossings **0**

Historical road closures **0**

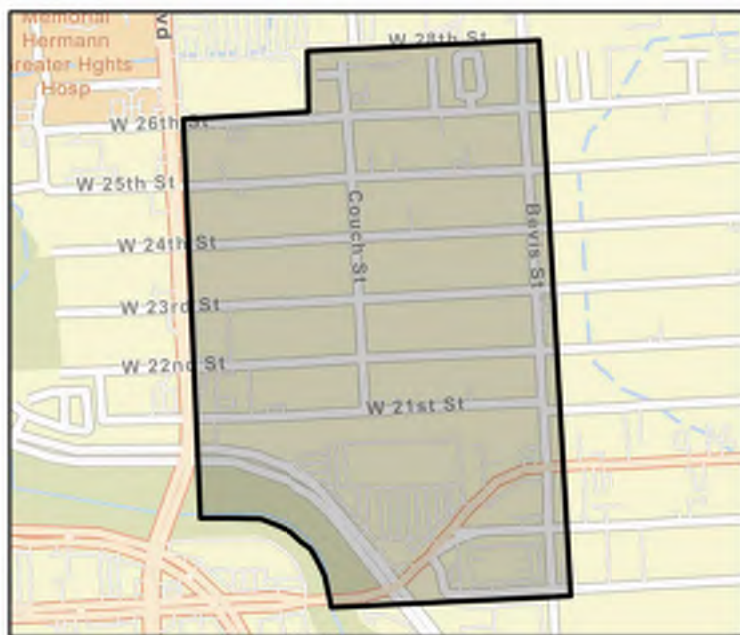
Estimated Cost and Funding Availability

Total Cost **\$30,000**

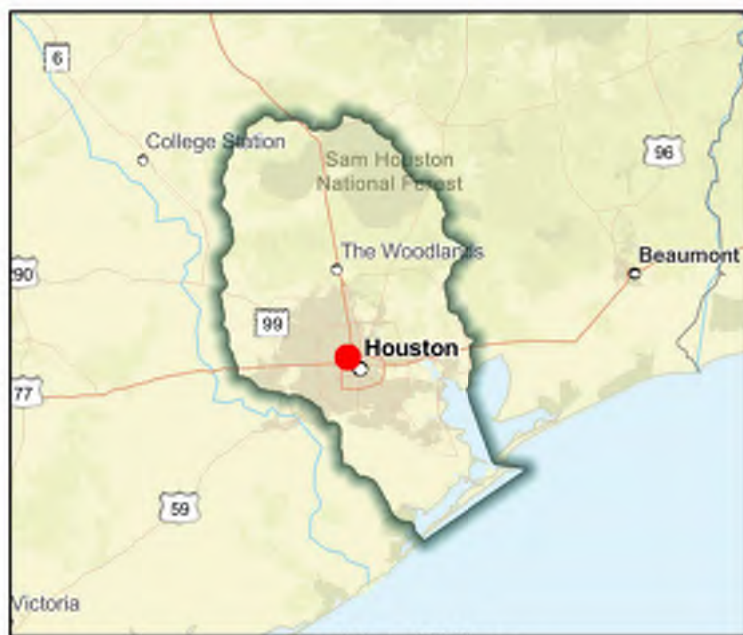
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Unincorporated Areas of Bacliff and San Leon Roadside Ditches & Driveway Culverts Improvements**

ID# **061000436**

Sponsor (name of entity, not person) **Galveston (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of this unfunded CDBG-MIT project consists of various areas of roadside ditch and driveway culvert improvements in Bacliff and San Leon.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston,Chambers**

Watershed HUC# (if known) **120402040200**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **5,550**

of structures **3,330**

Critical facilities **5**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **49**

Roadway(s) impacted (length) **50**

Number of low water crossings **0**

Historical road closures **0**

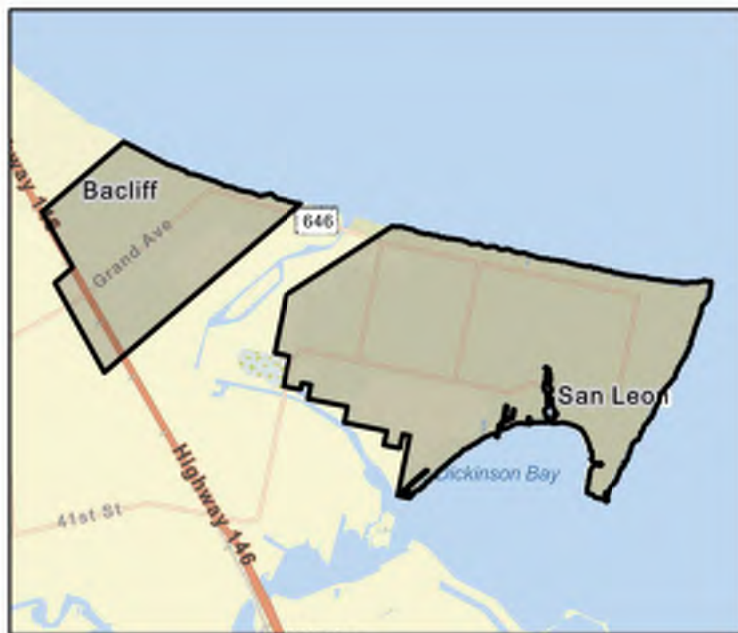
Estimated Cost and Funding Availability

Total Cost **\$30,000**

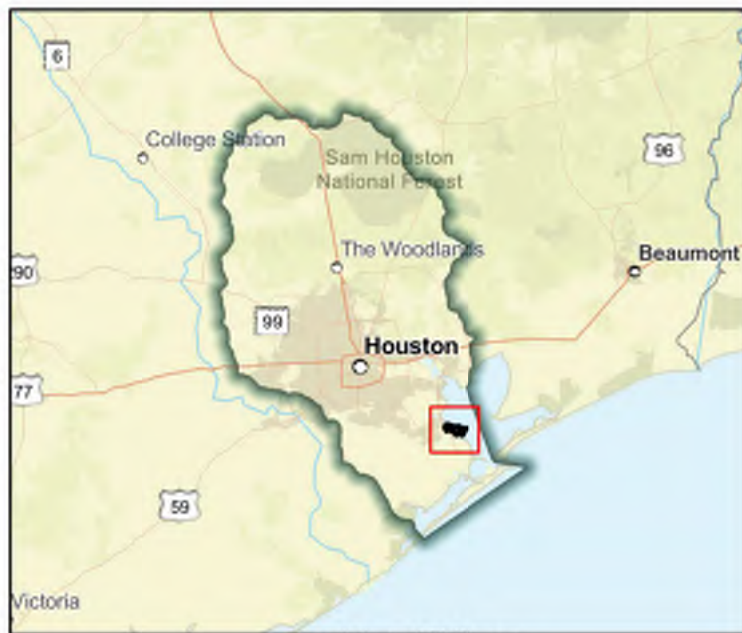
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions

ID# 061000089

Sponsor (name of entity, not person) Friendswood (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study to update city storm surge maps based upon the NWS predicted storm surge and projected track for landfall. The new maps may more accurately display water depth in areas within the city.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Galveston,Harris

Watershed HUC# (if known) 120402040200,120402040100

Drainage area (Square miles, est.) 21

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 4,640

of structures 1,680

Critical facilities 1

Flood risk type: Riverine? No

Coastal? Yes

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 18

Roadway(s) impacted (length) 38

Number of low water crossings 5

Historical road closures

5

Estimated Cost and Funding Availability

Total Cost \$140,000

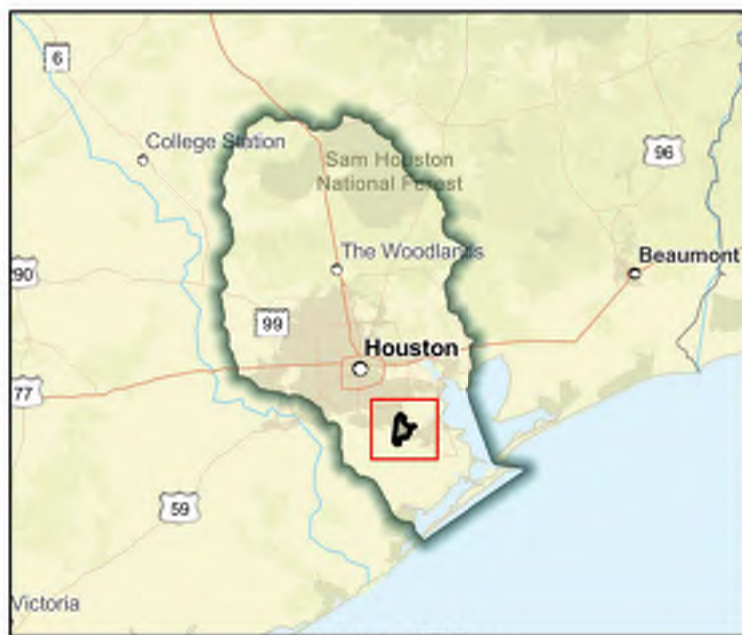
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Update Liberty County FIRMs to Include Bench Marks

ID# 061000173

Sponsor (name of entity, not person) Liberty (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Add bench marks to updated Flood Insurance Rate Maps.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Liberty

Watershed HUC# (if known) 120401030201,120401030108,120401030109,120401030205,120401030

Drainage area (Square miles, est.) 1,170

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 3,574

of structures 3,614

Critical facilities 8

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,379

Roadway(s) impacted (length) 144

Number of low water crossings 7

Historical road closures 7

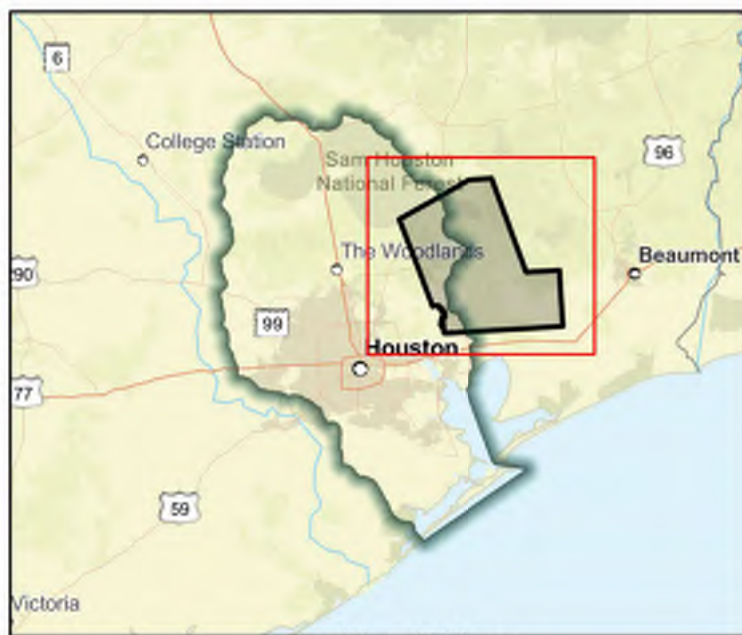
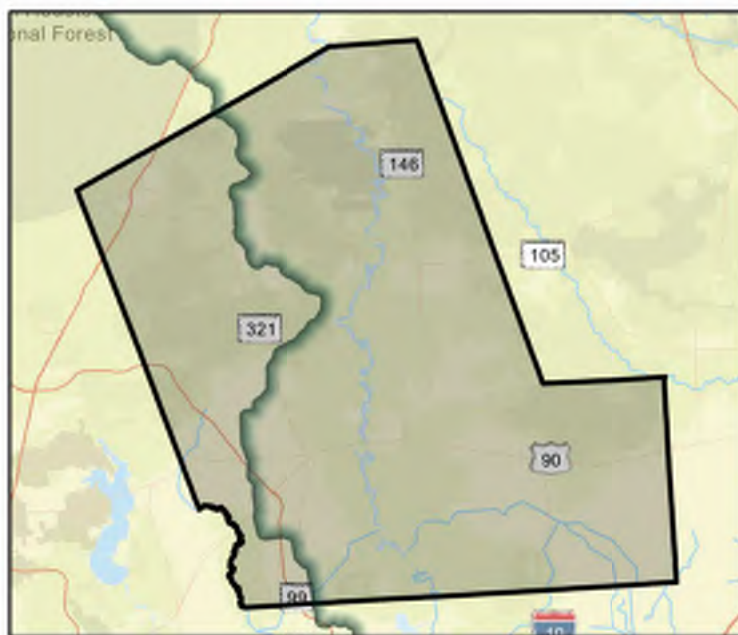
Estimated Cost and Funding Availability

Total Cost \$50,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Update Liberty County Floodplain Maps

ID# 061000125

Sponsor (name of entity, not person) Liberty (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Study by participating jurisdictions to update floodway maps throughout the county, including Atlas 14 rainfalls.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Chambers,Harris,Liberty,Montgomery,San

Watershed HUC# (if known) 120401030108,120401030109,120401030201,120401030202,120401030

Drainage area (Square miles, est.) 1,170

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 3,574

of structures 3,614

Critical facilities 8

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 1,379

Roadway(s) impacted (length) 144

Number of low water crossings 7

Historical road closures

7

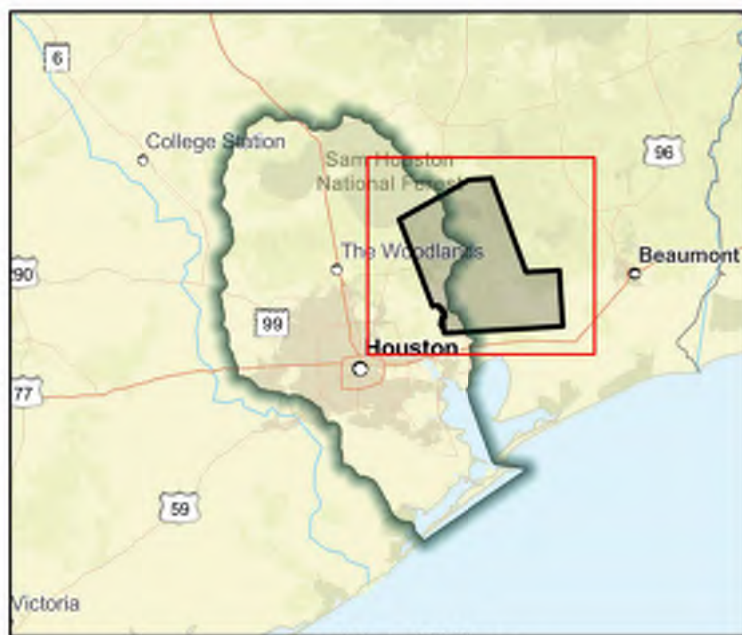
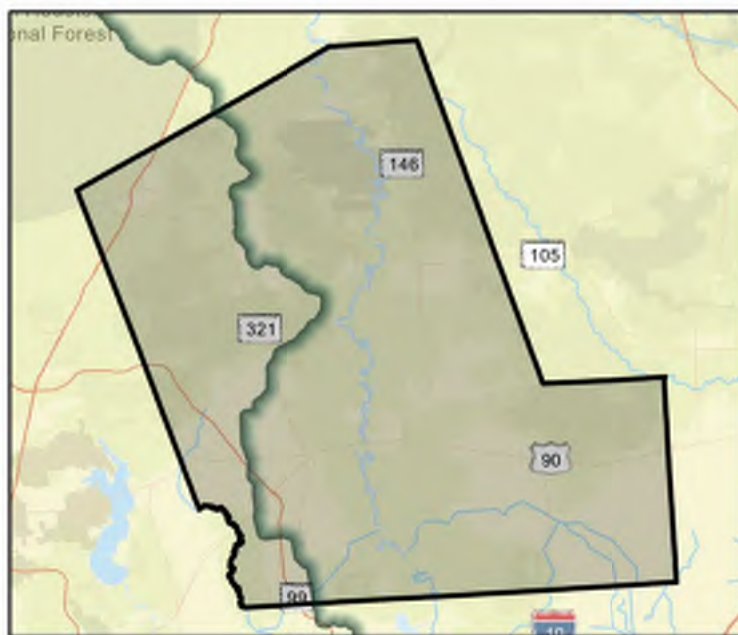
Estimated Cost and Funding Availability

Total Cost \$1,243,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Upper Greens Bayou Watershed Study**

ID# **061000185**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401010502,120401010501,120401020106,120401020107,120401040**

Drainage area (Square miles, est.) **201**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **94,337**

of structures **24,220**

Critical facilities **287**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **161**

Roadway(s) impacted (length) **320**

Number of low water crossings **17**

Historical road closures **17**

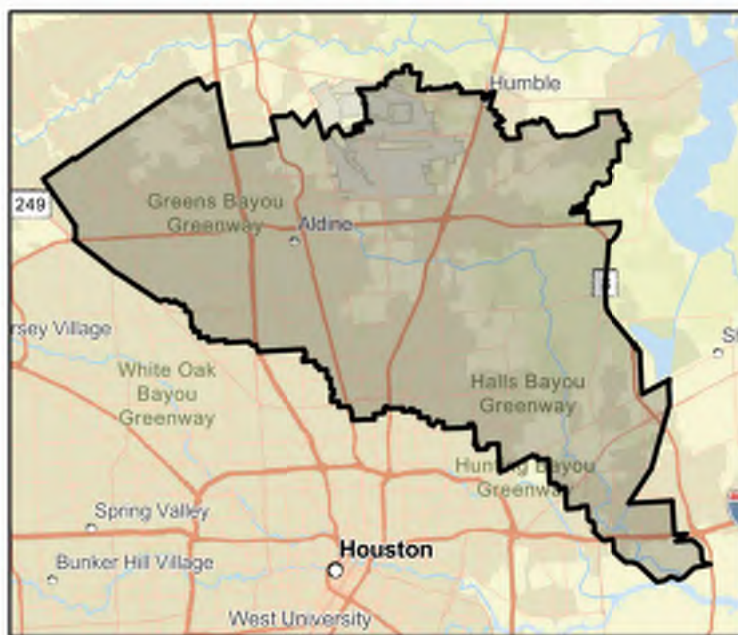
Estimated Cost and Funding Availability

Total Cost **\$980,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Valley - Stewarts Creek Watershed

ID# 061000455

Sponsor (name of entity, not person) Conroe (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Montgomery

Watershed HUC# (if known) 120401010207,120401010403,120401010401,120401010402,120401010

Drainage area (Square miles, est.) 20

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,606

of structures 374

Critical facilities 6

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 10

Number of low water crossings 7

Historical road closures

7

Estimated Cost and Funding Availability

Total Cost \$30,000

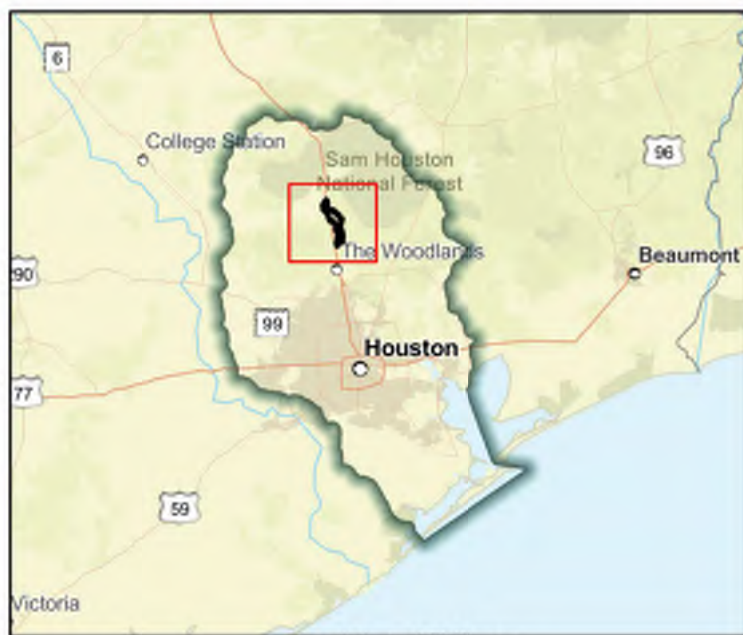
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Walker Flood Mapping Updates

ID# 061000309

Sponsor (name of entity, not person) Walker (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description County wide study to produce flood mapping updates including Atlas 14 rainfall.

New Hydrologic or Hydraulic model? Yes

Emergency Need? Yes

Existing/Anticipated models in near term? No

County Walker

Watershed HUC# (if known) 120401010104,120401010101,120401010102,120401010103,120401010

Drainage area (Square miles, est.) 798

Goal(s) 06000001,06000010,06000015

100-Year Flood Risk Summary

Population at risk 545

of structures 505

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 180

Roadway(s) impacted (length) 25

Number of low water crossings 2

Historical road closures

2

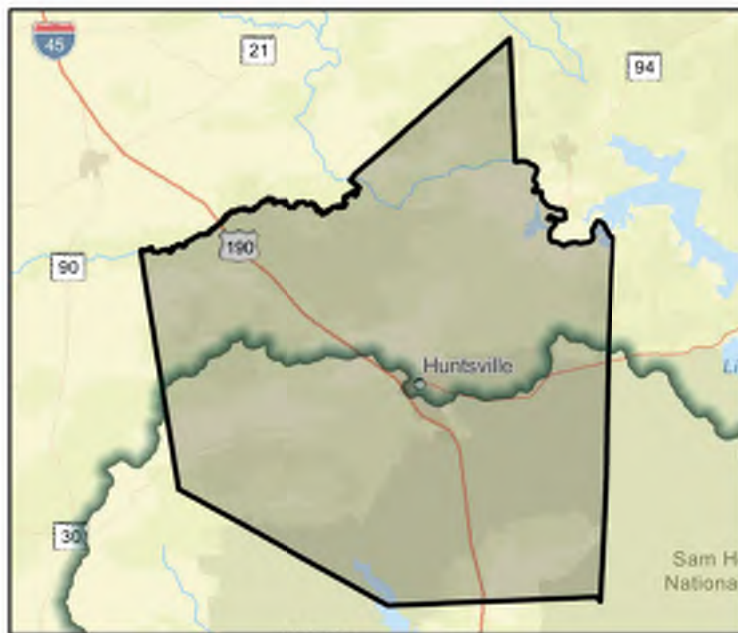
Estimated Cost and Funding Availability

Total Cost \$1,747,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Waller County Flood Damage Prevention Planning**

ID# **061000129**

Sponsor (name of entity, not person) **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Establish watershed-based planning and studies to address flood hazards with neighboring and constituent communities.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Waller**

Watershed HUC# (if known) **120401020102,120401020103,120401020204,120401020101,120401020**

Drainage area (Square miles, est.) **516**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **1,858**

of structures **1,064**

Critical facilities **6**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,357**

Roadway(s) impacted (length) **41**

Number of low water crossings **19**

Historical road closures **19**

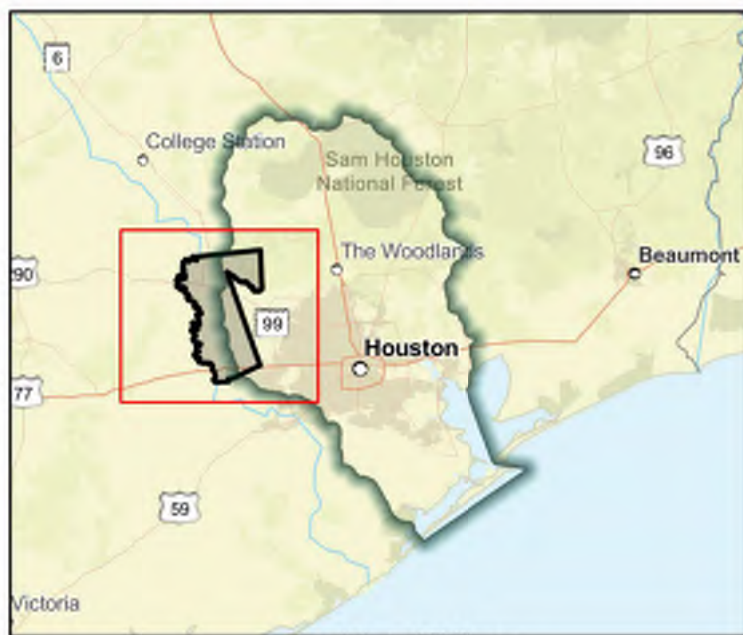
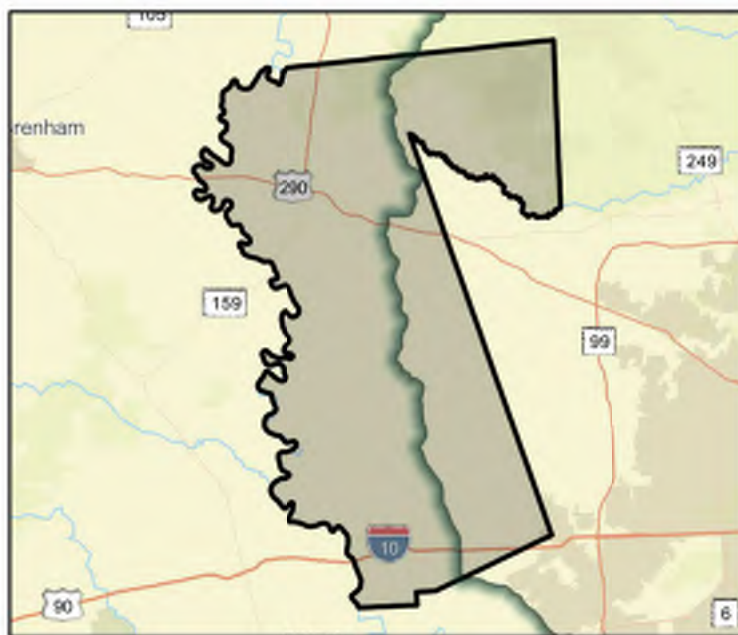
Estimated Cost and Funding Availability

Total Cost **\$1,160,000**

Amount of Available Funding **290000**

Federal funding availability **Yes**

Funding source **General Revenue**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Waller Flood Mapping Updates**

ID# **061000310**

Sponsor (name of entity, not person) **Waller (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **County wide study to produce flood mapping updates including Atlas 14 rainfall.**

New Hydrologic or Hydraulic model? **Yes**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **No**

County **Waller**

Watershed HUC# (if known) **120401020102,120401020103,120401020204,120401020101,120401020**

Drainage area (Square miles, est.) **516**

Goal(s) **06000001,06000010,06000015**

100-Year Flood Risk Summary

Population at risk **1,858**

of structures **1,064**

Critical facilities **6**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1,357**

Roadway(s) impacted (length) **41**

Number of low water crossings **19**

Historical road closures **19**

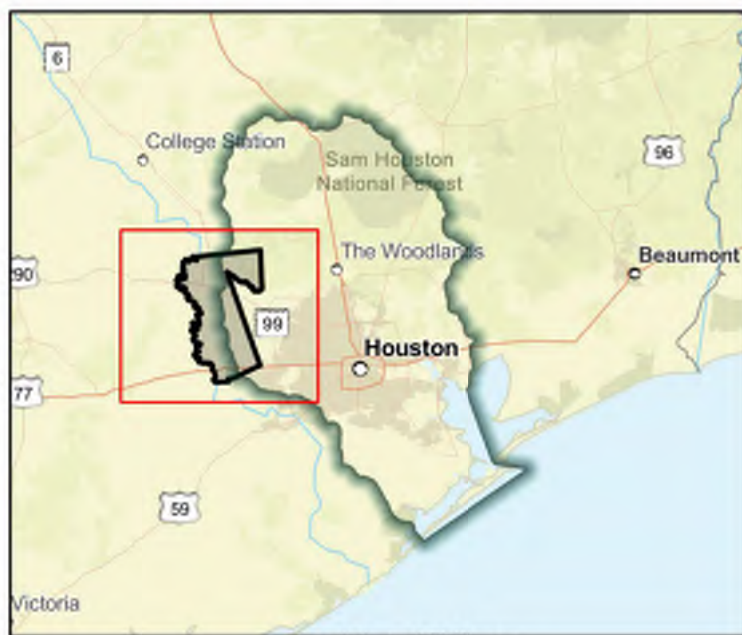
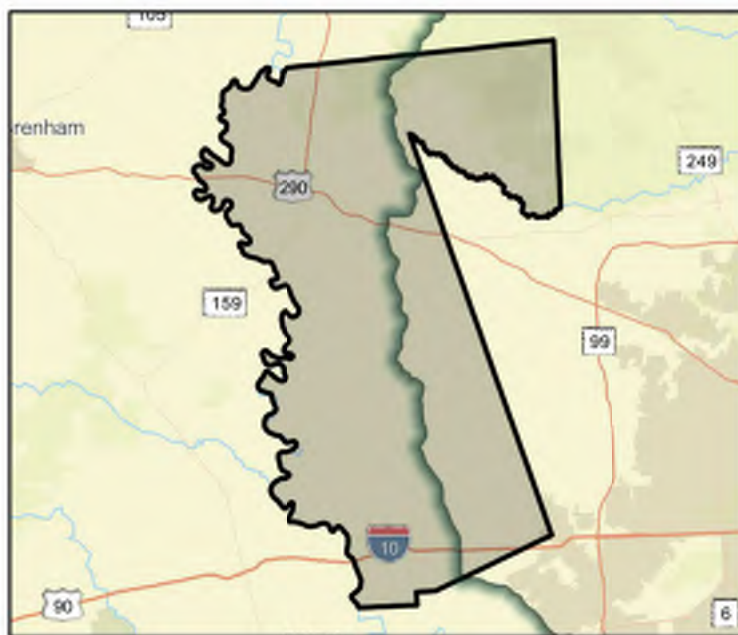
Estimated Cost and Funding Availability

Total Cost **\$2,300,000**

Amount of Available Funding **230000**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Warren Lake and Dam Retrofit**

ID# **061000320**

Sponsor (name of entity, not person) **Coastal Prairie Conservancy**

RFPG recommend? **No**

Reason for Recommendation

Elevated from an FME to an FMP by the sponsor

Study Details

Study type **Project Planning**

Study description **Further study of Retrofit dam to improve detention of flood & storm water runoff, new 137.3 ac wetlands complex added of storage capacity & conversion of fields to tallgrass prairies to add approximately 856 ac-ft of total storage during rainfall events.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Harris**

Watershed HUC# (if known) **120401020103**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **0**

of structures **0**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **183**

Roadway(s) impacted (length) **-**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$30,000**

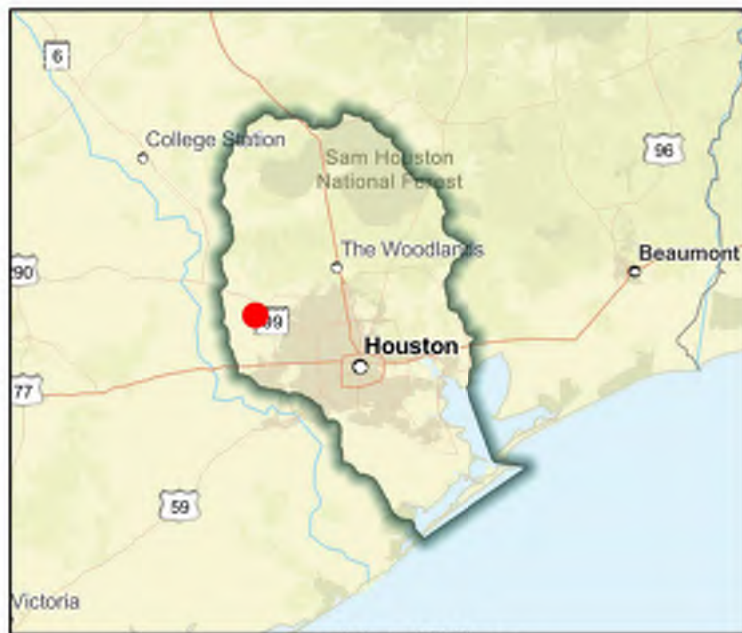
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title West Baytown Phase 2

ID# 061000538

Sponsor (name of entity, not person) Baytown (Municipality)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401040706

Drainage area (Square miles, est.) 0

Goal(s) 06000001,06000010

100-Year Flood Risk Summary

Population at risk 302

of structures 81

Critical facilities 0

Flood risk type: Riverine? No

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) -

Roadway(s) impacted (length) 2

Number of low water crossings -

Historical road closures -

Estimated Cost and Funding Availability

Total Cost \$30,000

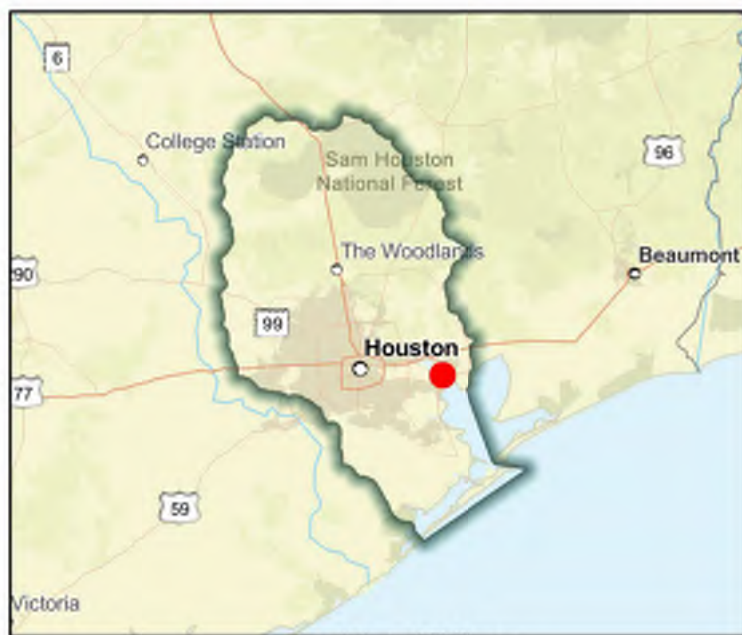
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **West Branch - Alligator Creek Watershed**

ID# **061000448**

Sponsor (name of entity, not person) **Conroe (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Montgomery**

Watershed HUC# (if known) **120401010207,120401010401**

Drainage area (Square miles, est.) **6**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,300**

of structures **516**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **10**

Number of low water crossings **9**

Historical road closures **9**

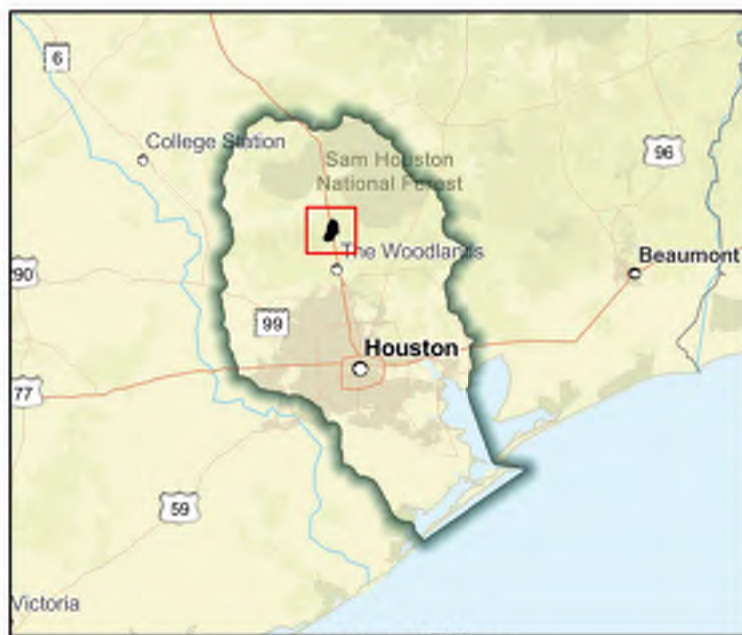
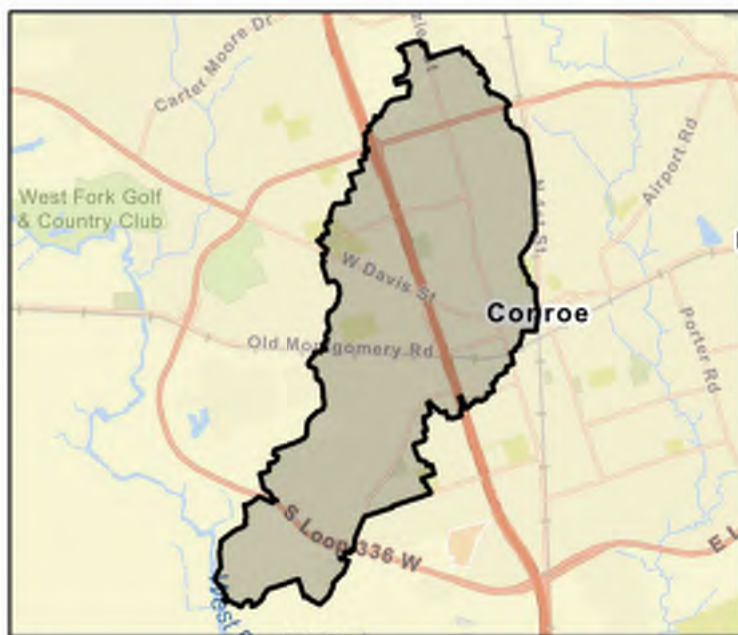
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title West Chocolate Bayou (CR 383 Ditch)

ID# 061000050

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria, Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 3

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 0

of structures 0

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 0

Number of low water crossings 0

Historical road closures 0

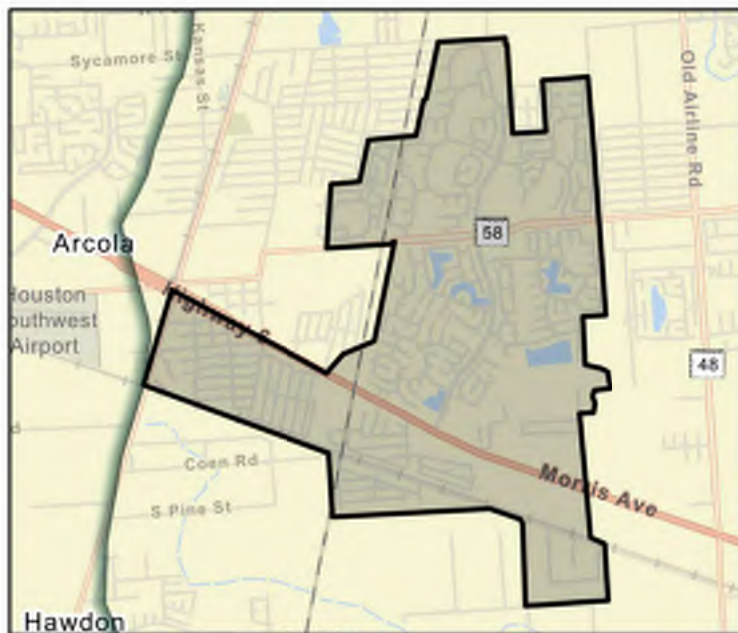
Estimated Cost and Funding Availability

Total Cost \$252,400

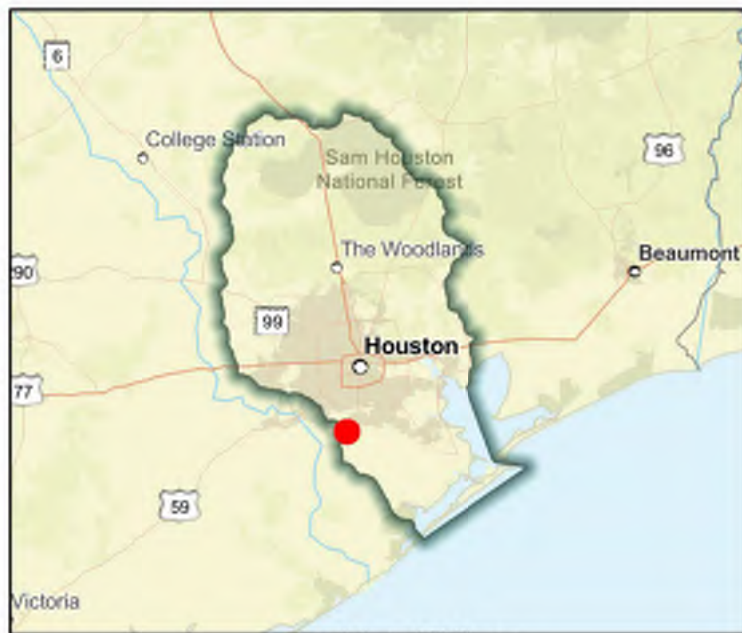
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title West Fork Chocolate (Cold River Ranch Ditch)

ID# 061000051

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of proposed channel modifications to Cold River Ranch Ditch included in the City of Pearland master drainage plan to include Atlas 14 rainfall.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 56

of structures 60

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 0

Roadway(s) impacted (length) 1

Number of low water crossings -

Historical road closures -

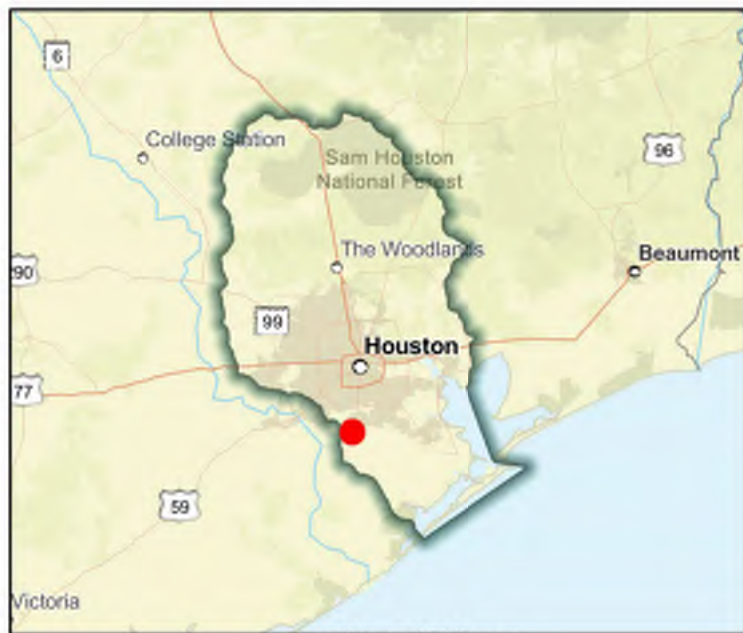
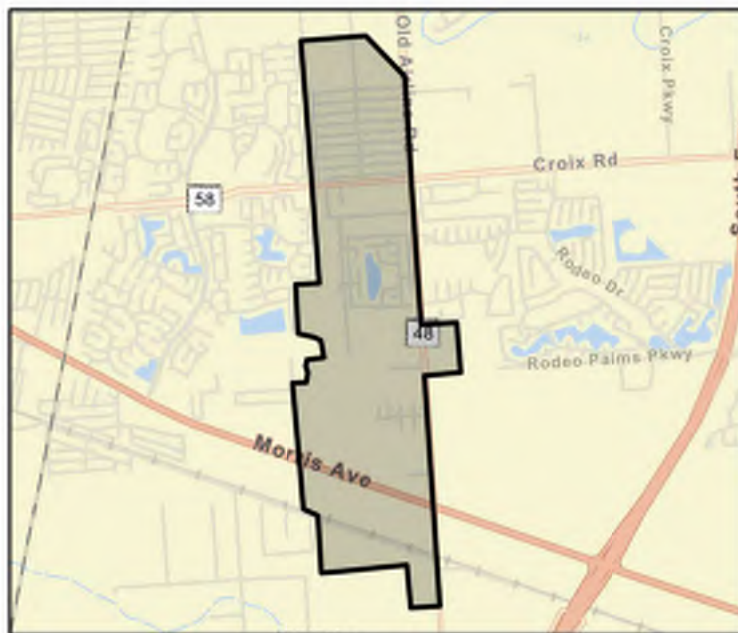
Estimated Cost and Funding Availability

Total Cost \$200,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title West Fork Chocolate Bayou

ID# 061000052

Sponsor (name of entity, not person) Brazoria Drainage District 4

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Brazoria, Fort Bend

Watershed HUC# (if known) 120402040400

Drainage area (Square miles, est.) 14

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 393

of structures 295

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 157

Roadway(s) impacted (length) 6

Number of low water crossings 0

Historical road closures 0

Estimated Cost and Funding Availability

Total Cost \$2,072,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Westador Stormwater Detention Basin**

ID# **061000356**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCR required for this project to become a FMP. The Westador Detention Basin is a proposed detention mitigation project within the Cypress Creek Watershed and located south of Cypress Creek and east and west of K141-00-00.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020106,120401020107,120401020210,120401020212,120401020**

Drainage area (Square miles, est.) **93**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **11,450**

of structures **2,993**

Critical facilities **51**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **44**

Roadway(s) impacted (length) **60**

Number of low water crossings **4**

Historical road closures **4**

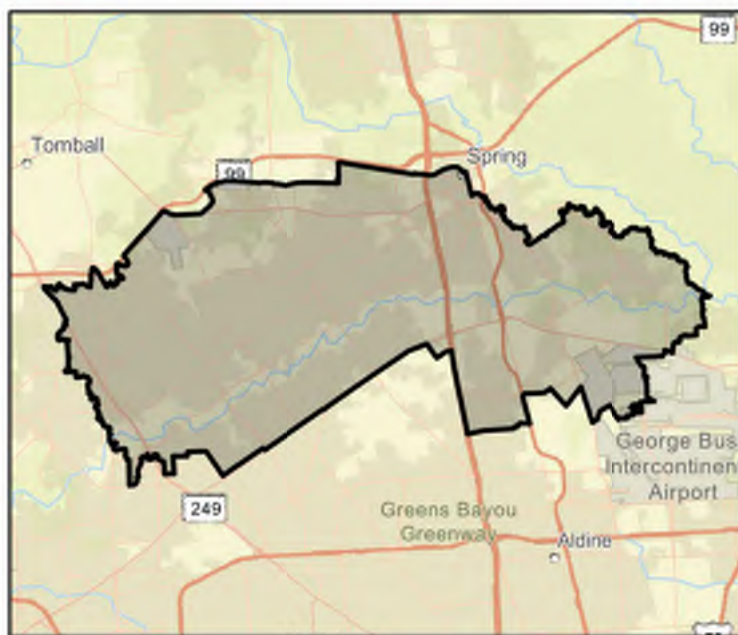
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Westbury Area Drainage and Paving Improvements Subproject 1 (+30%) -include entire Westbury**

ID# **061000475**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Project for design and construction of storm drainage and paving improvements including a surface detention basin in the Westbury Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040401**

Drainage area (Square miles, est.) **0**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **469**

of structures **104**

Critical facilities **1**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **1**

Number of low water crossings **0**

Historical road closures **0**

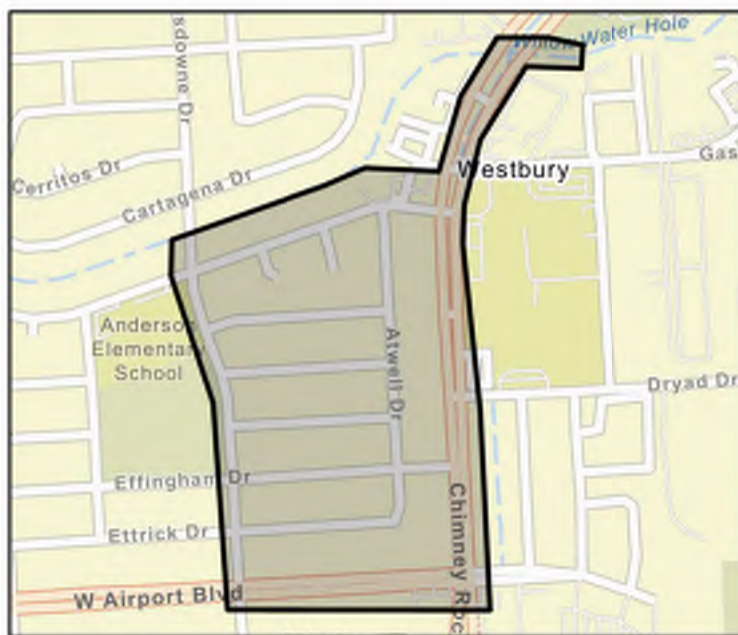
Estimated Cost and Funding Availability

Total Cost **\$30,000**

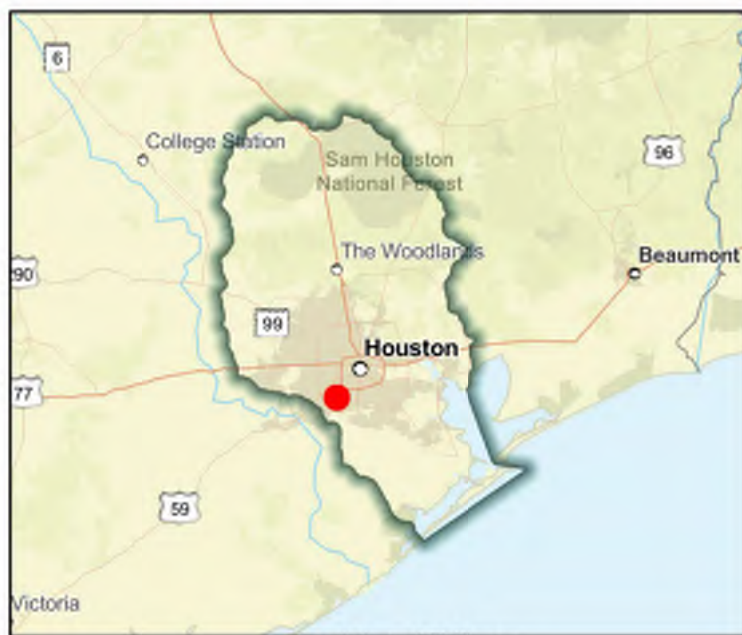
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak - SPT and E116 (E116-00-00) Improvements : PA01 thru PA-05**

ID# **061000389**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **RFPG elevated FME to FMP under Task 12**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for these projects to become a FMP. The "E116-00-00 Flood Reduction Feasibility Study" was completed in March 2022 and provides a decrease riverine and urban flood risk in the area.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040302,120401040304**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **3,836**

of structures **1,174**

Critical facilities **7**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **5**

Roadway(s) impacted (length) **15**

Number of low water crossings **0**

Historical road closures **0**

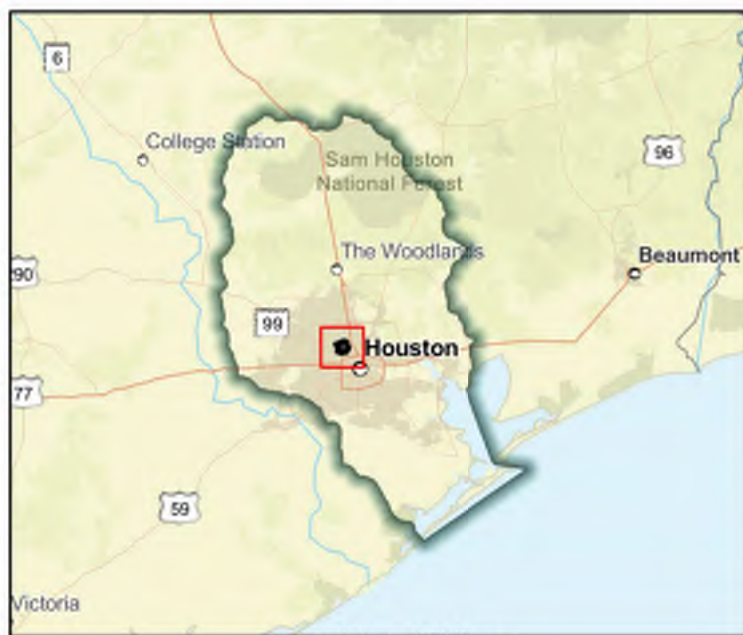
Estimated Cost and Funding Availability

Total Cost **\$30,000**

Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin**

ID# **061000344**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **No** Reason for Recommendation **This FME has been elevated to an FMP as part of the Task 12 Effort.**

Study Details

Study type **Project Planning**

Study description **Study to develop a BCA to become FMP. This stormwater detention basin compliments the federal project on White Oak Bayou which will reduce the risk of flooding for 1,800 structures in an Atlas 14 1% rainfall event.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020104,120401020106,120401040601,120401040302,120401040**

Drainage area (Square miles, est.) **79**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **60,414**

of structures **11,091**

Critical facilities **86**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **24**

Roadway(s) impacted (length) **164**

Number of low water crossings **0**

Historical road closures **0**

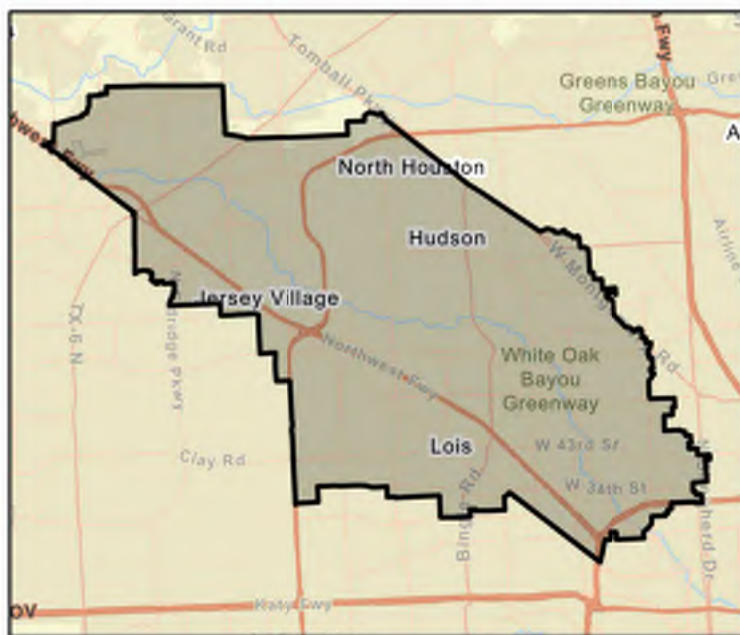
Estimated Cost and Funding Availability

Total Cost **\$30,000**

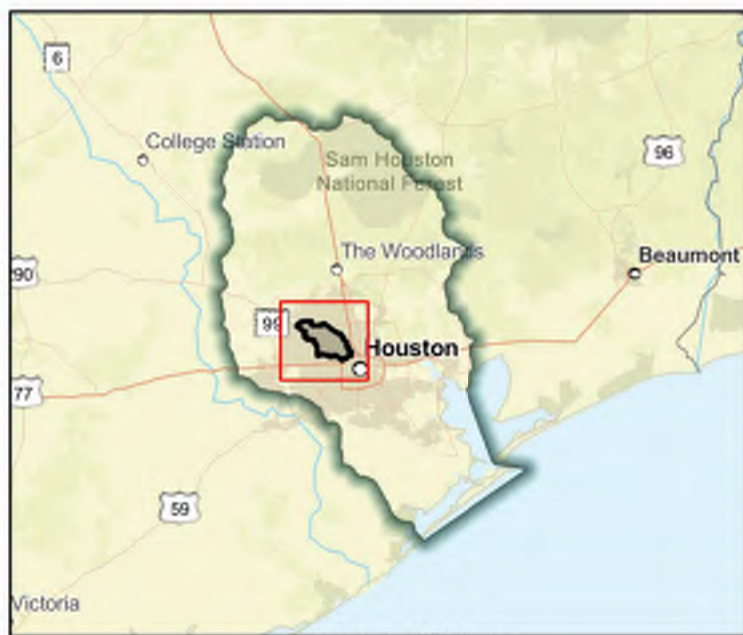
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak Bayou - E127-00-00 Fork**

ID# **061000192**

Sponsor (name of entity, not person) **Jersey Village (Municipality)**

RFPG recommend? **No**

Reason for Recommendation

Sponsor secured funding for FME.

Study Details

Study type **Project Planning**

Study description **Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040302,120401040301**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **941**

of structures **393**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **6**

Number of low water crossings **0**

Historical road closures **0**

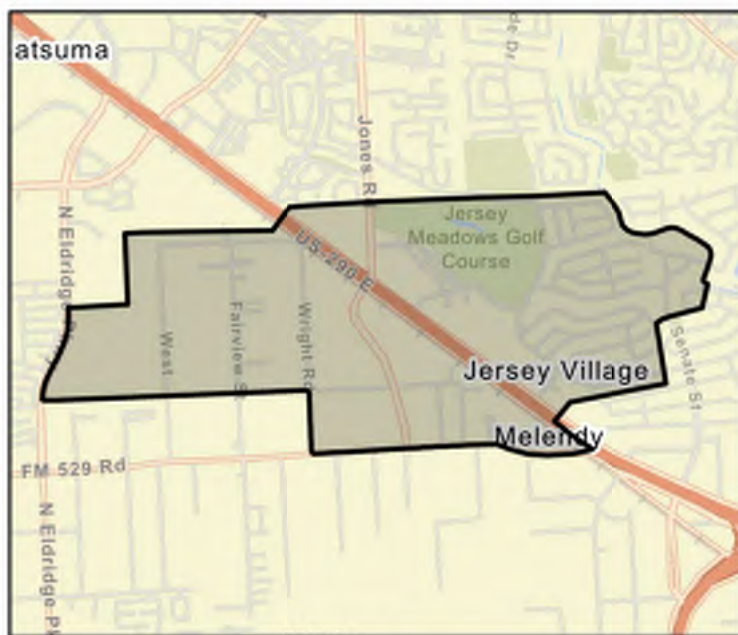
Estimated Cost and Funding Availability

Total Cost **\$150,000**

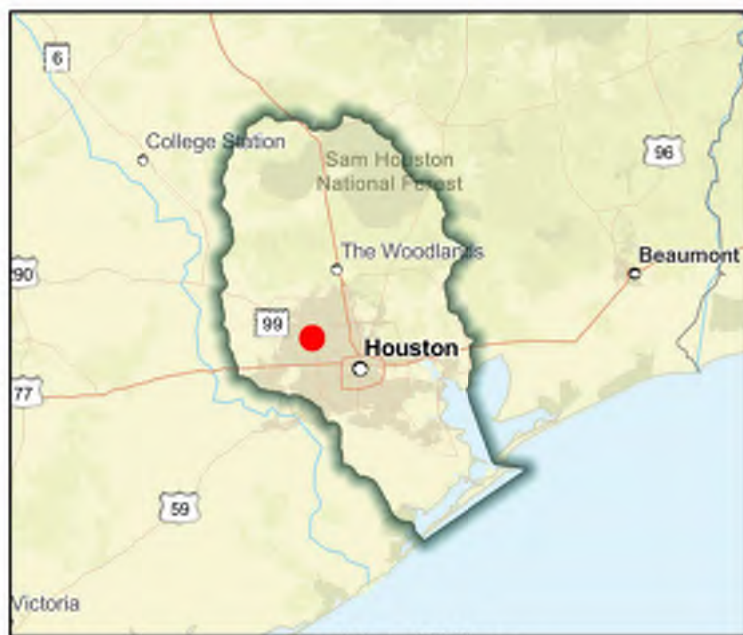
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak Bayou - General Drainage Improvements along E105-00-00**

ID# **061000196**

Sponsor (name of entity, not person) **Houston (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040304**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **411**

of structures **160**

Critical facilities **0**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **3**

Number of low water crossings **0**

Historical road closures **0**

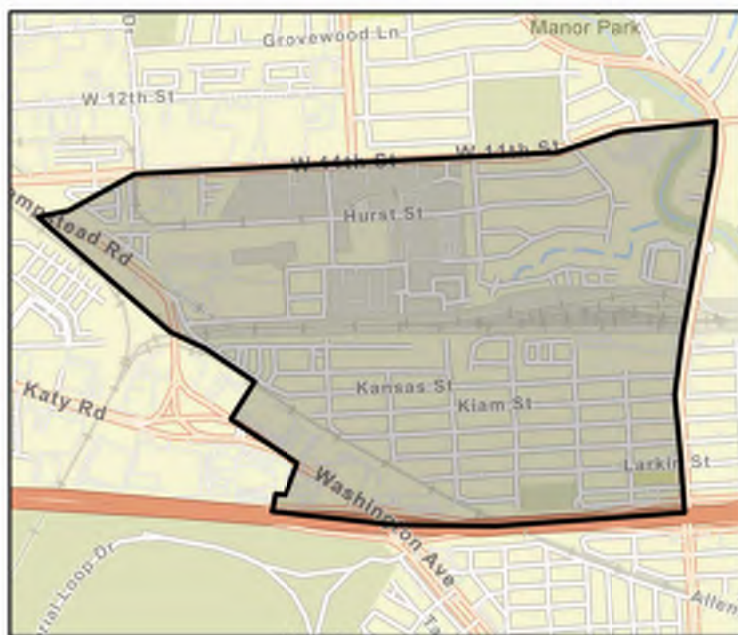
Estimated Cost and Funding Availability

Total Cost **\$120,000**

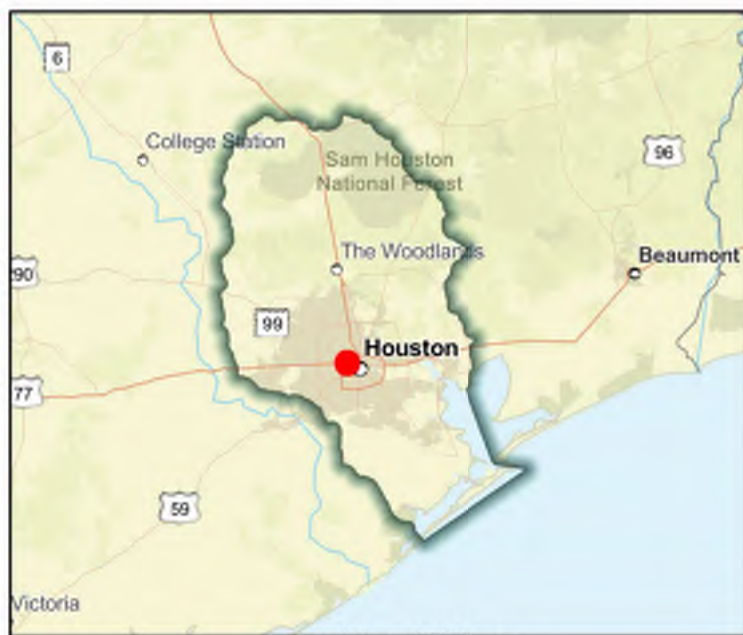
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **White Oak Bayou - Neighborhood Future Floodplain Analysis**

ID# **061000523**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for White Oak Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020104,120401020106,120401040301,120401040302,120401040**

Drainage area (Square miles, est.) **111**

Goal(s) **06000010, 06000015**

100-Year Flood Risk Summary

Population at risk **85,064**

of structures **17,090**

Critical facilities **145**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **28**

Roadway(s) impacted (length) **281**

Number of low water crossings **4**

Historical road closures **4**

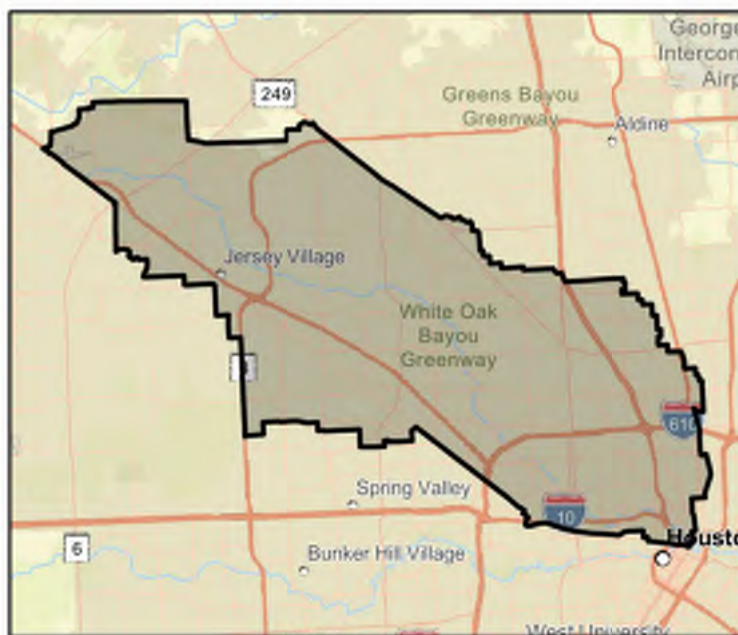
Estimated Cost and Funding Availability

Total Cost **\$46,675,608**

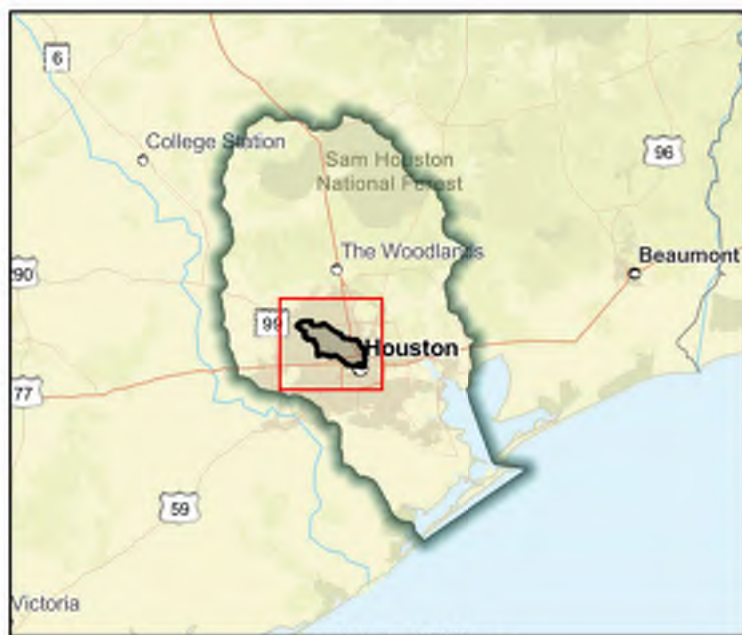
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak Bayou - Turkey Gully E106-00-00**

ID# **061000194**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401040304**

Drainage area (Square miles, est.) **7**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **8,056**

of structures **2,537**

Critical facilities **6**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **2**

Roadway(s) impacted (length) **27**

Number of low water crossings **0**

Historical road closures **0**

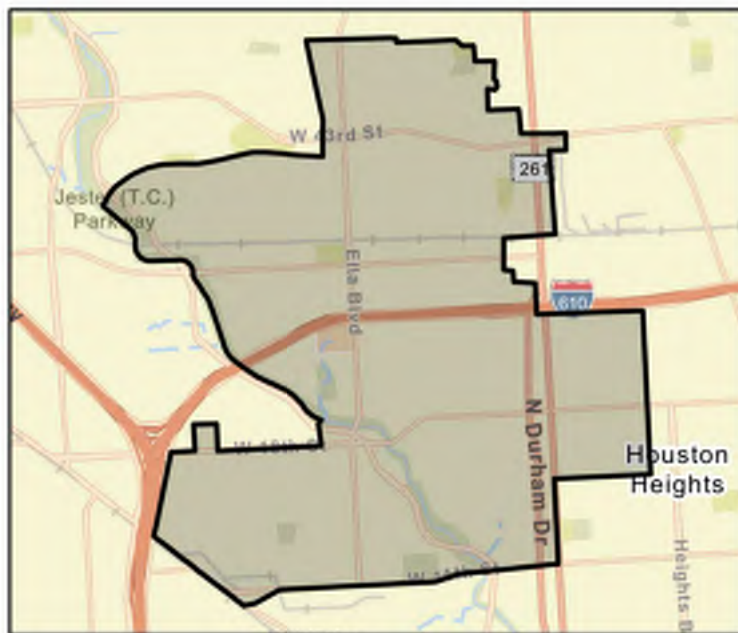
Estimated Cost and Funding Availability

Total Cost **\$1,330,000**

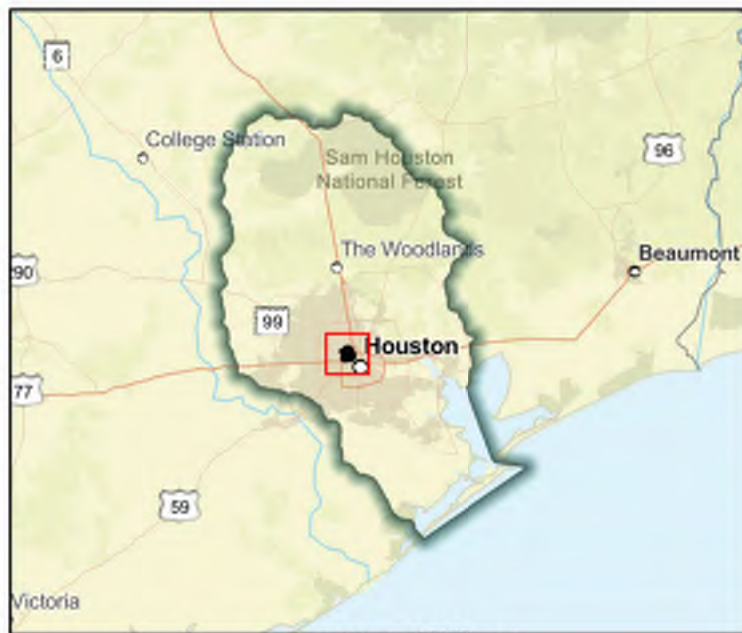
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title **White Oak Bayou Local Drainage Study**

ID# **061000524**

Sponsor (name of entity, not person) **Harris (County)**

RFPG recommend? **Yes**

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type **Watershed Planning**

Study description **The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in White Oak Bayou watershed.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known)

120401020104,120401020106,120401040301,120401040302,120401040

Drainage area (Square miles, est.) **111**

Goal(s) **06000015**

100-Year Flood Risk Summary

Population at risk **85,064**

of structures **17,090**

Critical facilities **145**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **28**

Roadway(s) impacted (length)

281

Number of low water crossings **4**

Historical road closures

4

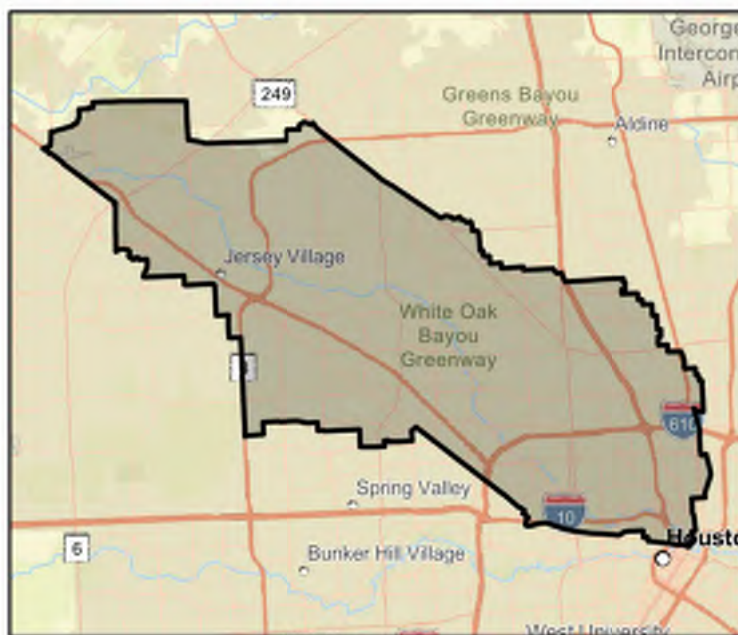
Estimated Cost and Funding Availability

Total Cost **\$4,896,108**

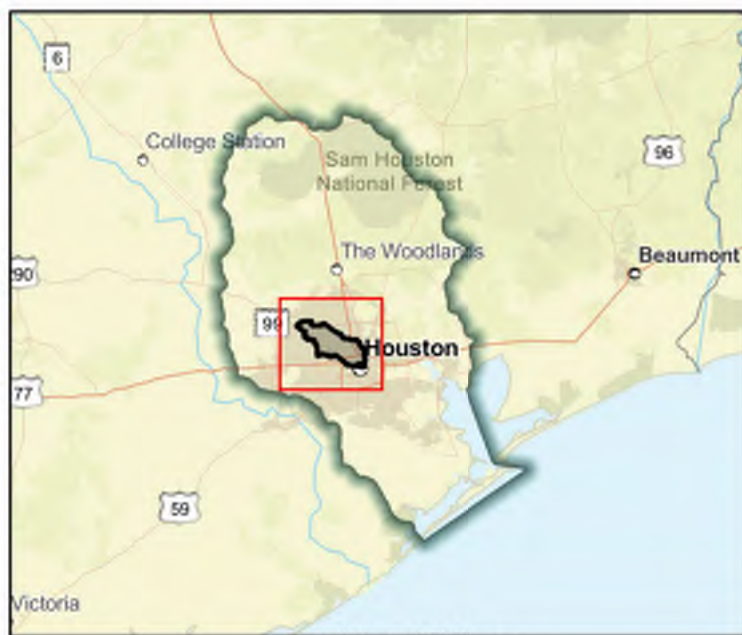
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **White Oak Bayou Watershed Study**

ID# **061000184**

Sponsor (name of entity, not person) **Harris County Flood Control District**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Watershed Planning**

Study description **Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **Yes**

Existing/Anticipated models in near term? **Yes**

County **Harris**

Watershed HUC# (if known) **120401020104,120401020106,120401040601,120401040305,120401040**

Drainage area (Square miles, est.) **111**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **85,064**

of structures **17,090**

Critical facilities **145**

Flood risk type: Riverine? **Yes**

Coastal? **No**

Local? **No**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **28**

Roadway(s) impacted (length) **281**

Number of low water crossings **4**

Historical road closures **4**

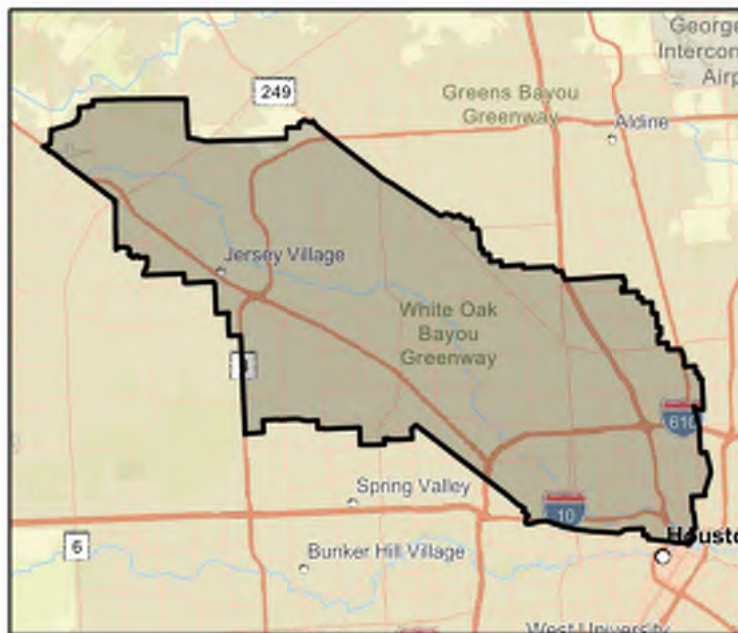
Estimated Cost and Funding Availability

Total Cost **\$800,000**

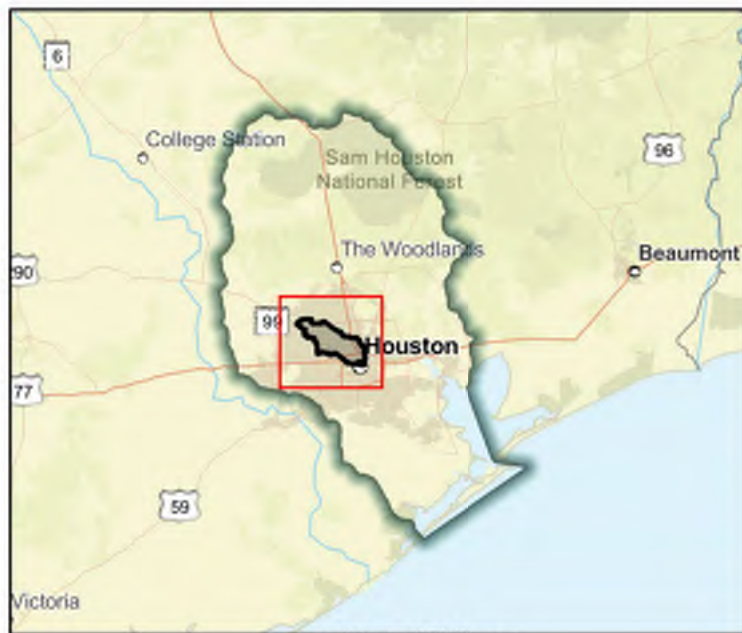
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Widen Drainage Systems and Culverts in City of Clear Lake Shores**

ID# **061000122**

Sponsor (name of entity, not person) **Clear Lake Shores (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston, Harris**

Watershed HUC# (if known) **120402040100**

Drainage area (Square miles, est.) **1**

Goal(s) **06000001,06000011,06000012,06000015**

100-Year Flood Risk Summary

Population at risk **2,597**

of structures **633**

Critical facilities **4**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **-**

Roadway(s) impacted (length) **9**

Number of low water crossings **0**

Historical road closures **0**

Estimated Cost and Funding Availability

Total Cost **\$100,000**

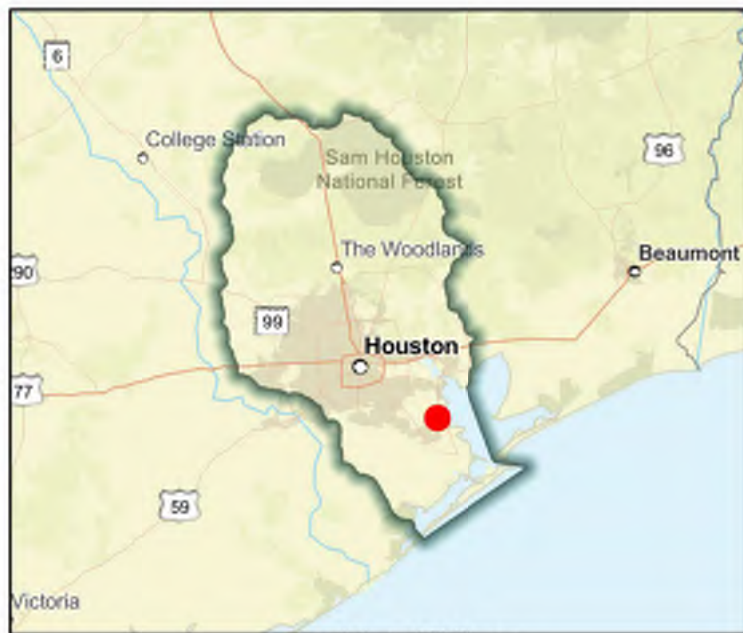
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title **Widen Drainage Systems and Culverts in City of Kemah**

ID# **061000121**

Sponsor (name of entity, not person) **Kemah (Municipality)**

RFPG recommend? **Yes** Reason for Recommendation **Alignment with RFPG goals and TWDB guidance principles.**

Study Details

Study type **Project Planning**

Study description **Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district.**

New Hydrologic or Hydraulic model? **No**

Emergency Need? **No**

Existing/Anticipated models in near term? **No**

County **Galveston, Chambers**

Watershed HUC# (if known) **120402040200, 120402040100**

Drainage area (Square miles, est.) **2**

Goal(s) **06000001, 06000011, 06000012, 06000015**

100-Year Flood Risk Summary

Population at risk **2,792**

of structures **562**

Critical facilities **7**

Flood risk type: Riverine? **No**

Coastal? **No**

Local? **Yes**

Playa? **No**

Other? **No**

Farm/Ranch land impacted (acres) **1**

Roadway(s) impacted (length) **12**

Number of low water crossings **-**

Historical road closures **-**

Estimated Cost and Funding Availability

Total Cost **\$100,000**

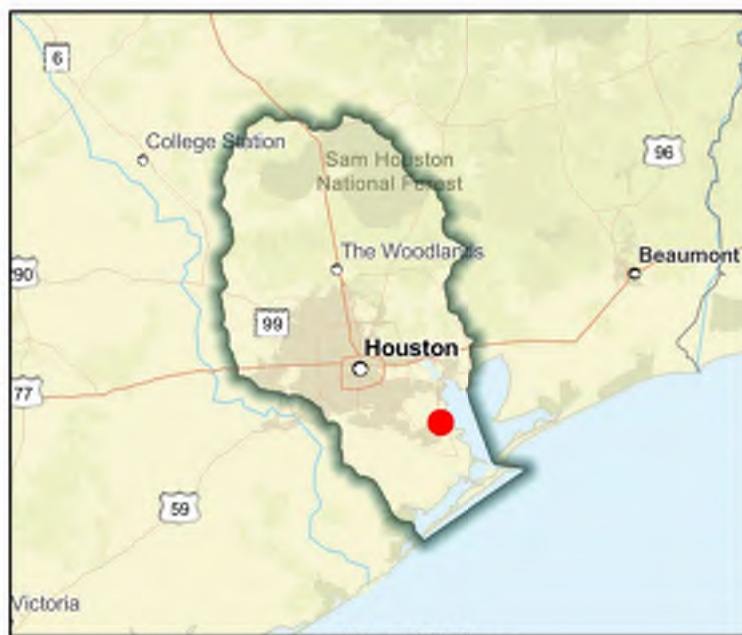
Amount of Available Funding **-**

Federal funding availability **Yes**

Funding source **-**



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Williamsburg Subdivision Drainage Assessment

ID# 061000024

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Further study of a flood risk reduction project in the Williamsburg Subdivision which includes additional detail for the design of a required weir structure.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? No

County Harris

Watershed HUC# (if known) 120401040104

Drainage area (Square miles, est.) 13

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 8

of structures 2

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 7

Roadway(s) impacted (length) 1

Number of low water crossings 0

Historical road closures 0

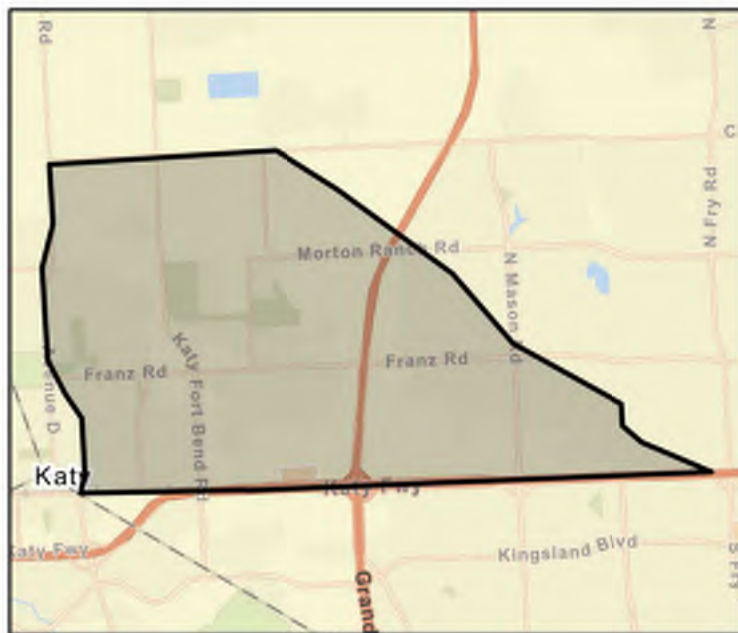
Estimated Cost and Funding Availability

Total Cost \$1,260,000

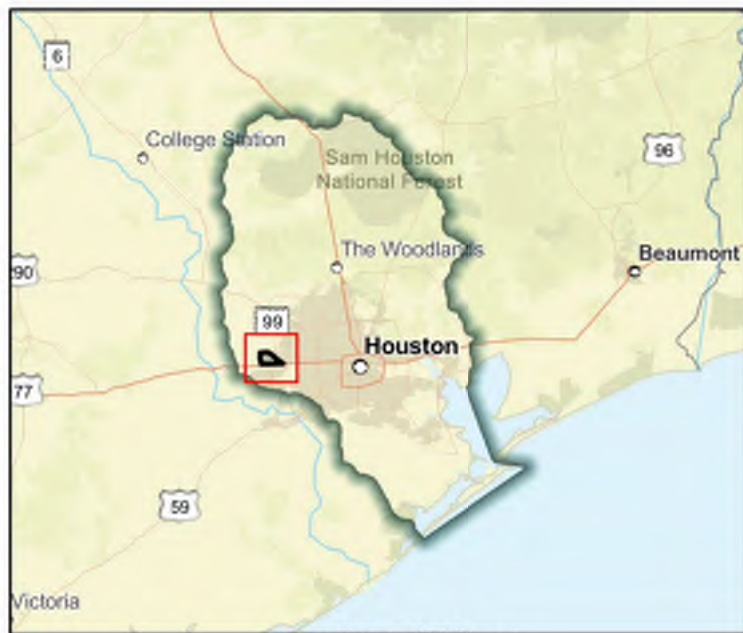
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek - Neighborhood Future Floodplain Analysis

ID# 061000516

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Willow Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020105,120401020106,120401020205,120401020209,120401020

Drainage area (Square miles, est.) 56

Goal(s) 06000010, 06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures 8

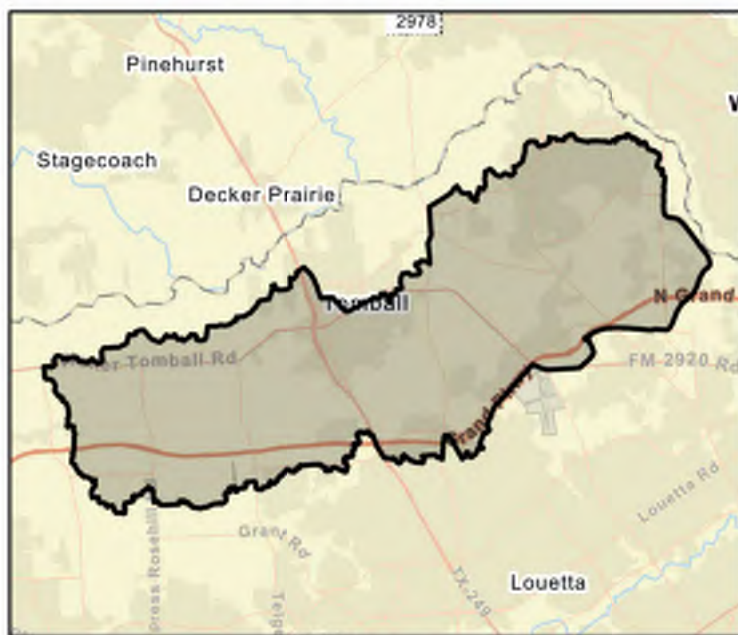
Estimated Cost and Funding Availability

Total Cost \$17,178,472

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek - Overflow Flooding between Burlington Northern Railroad and Hufsmith-Kohrville Rd. Analysis

ID# 061000032

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study recommended as part of the Willow Creek Watershed Plan. Planning level analysis to identify flooding reasons in Northern Point subdivision south of SH99.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020106,120401020105,120401020205,120401020210,120401020

Drainage area (Square miles, est.) 2

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 8

of structures 10

Critical facilities 0

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 3

Roadway(s) impacted (length) 1

Number of low water crossings 1

Historical road closures 1

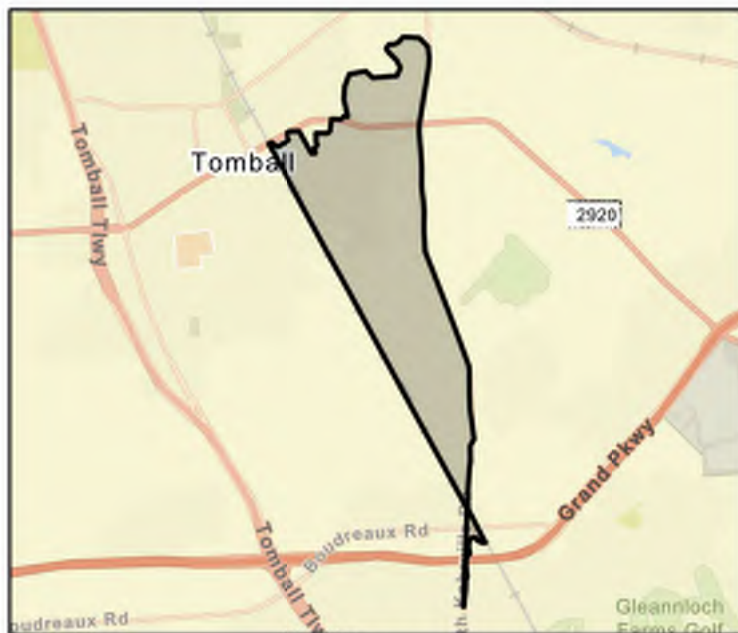
Estimated Cost and Funding Availability

Total Cost \$590,000

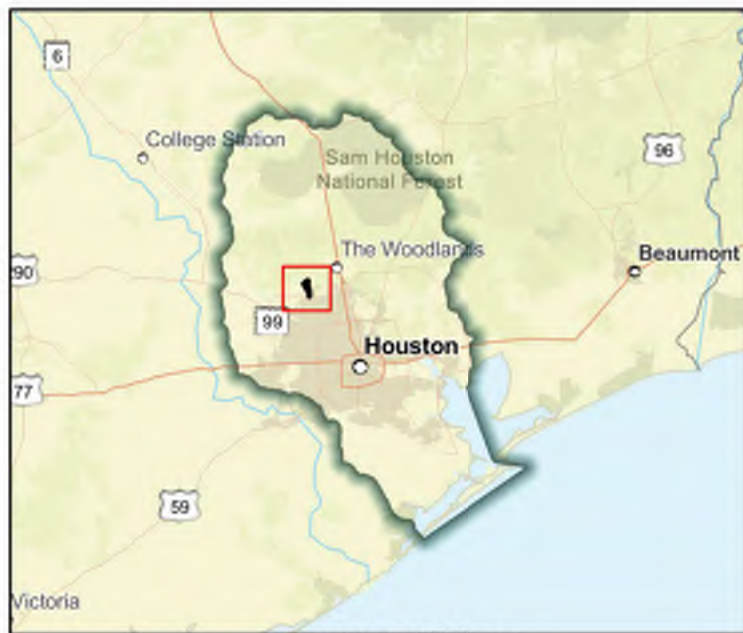
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Willow Creek Local Drainage Study

ID# 061000531

Sponsor (name of entity, not person) Harris (County)

RFPG recommend? Yes

Reason for Recommendation

Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Watershed Planning

Study description The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Willow Creek watershed.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020105, 120401020106, 120401020205, 120401020209,

Drainage area (Square miles, est.) 56

Goal(s) 06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? Yes

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures 8

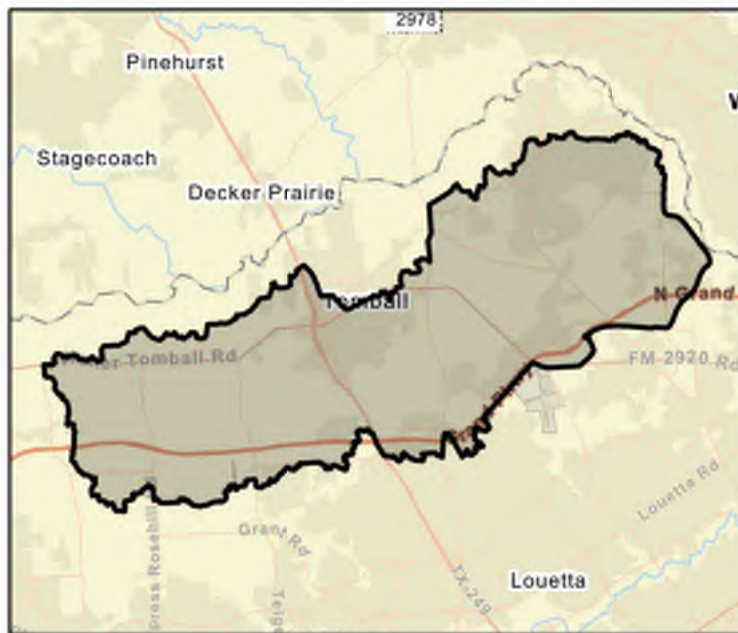
Estimated Cost and Funding Availability

Total Cost \$971,720

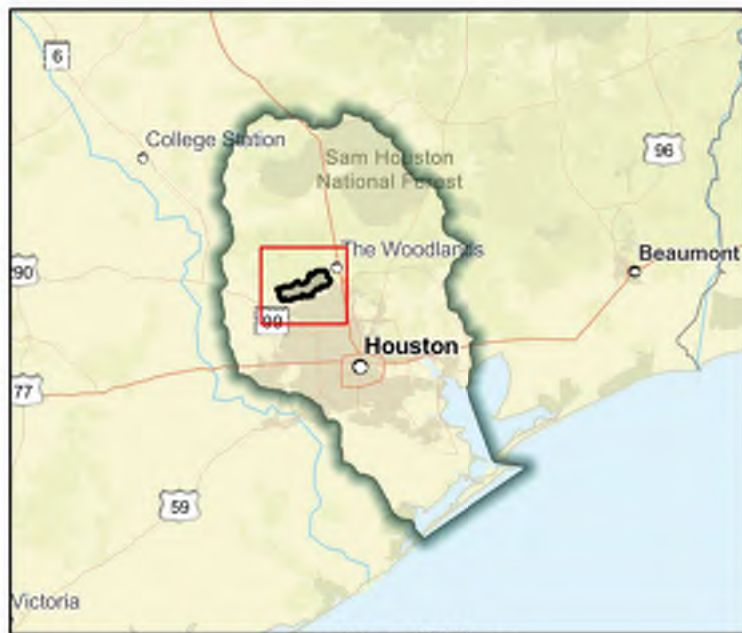
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek Watershed Plan - FM2920 Stormwater Detention Basin

ID# 061000340

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 826 acre-feet detention basin located near FM 2920 crossing of Willow Creek.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020212,120401020106,120401020210,120401020209,120401020

Drainage area (Square miles, est.) 55

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures 8

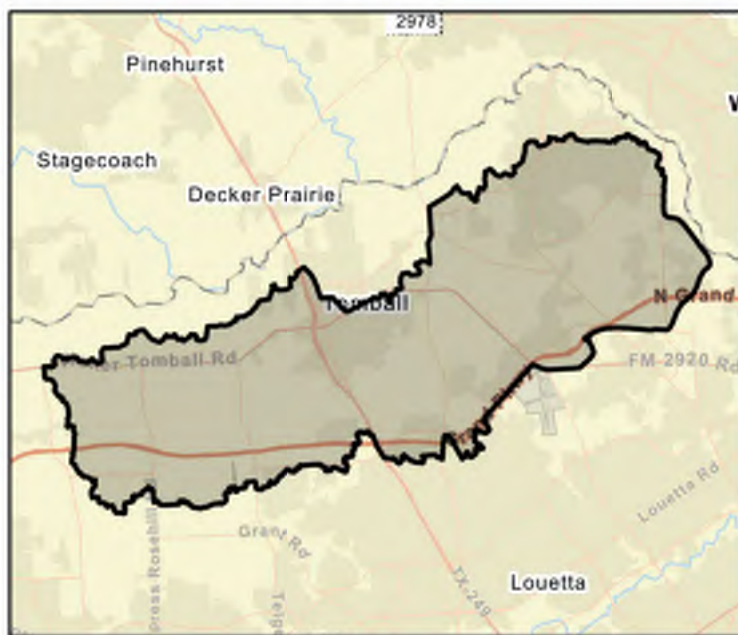
Estimated Cost and Funding Availability

Total Cost \$30,000

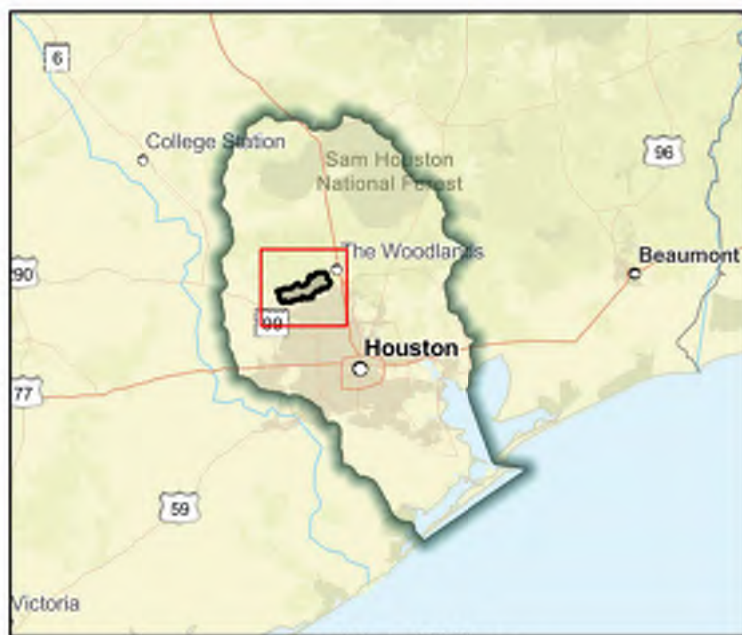
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek Watershed Plan - Immediate: Selective Clearing BNRR to Mouth

ID# 061000338

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a BCR required for this project to become a FMP. Selective clearing from BNRR to mouth to increase riverine storm water conveyance, maintain tree canopy & veg. diversity, minimize impact on riparian & uplands habitats.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020106,120401020209,120401020210,120401020212

Drainage area (Square miles, est.) 28

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 1,435

of structures 860

Critical facilities 6

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 16

Roadway(s) impacted (length) 11

Number of low water crossings 5

Historical road closures 5

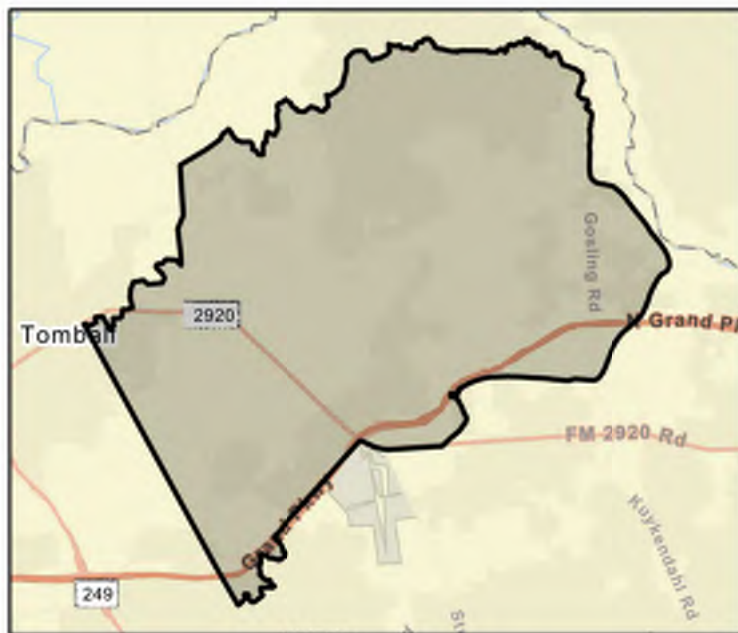
Estimated Cost and Funding Availability

Total Cost \$30,000

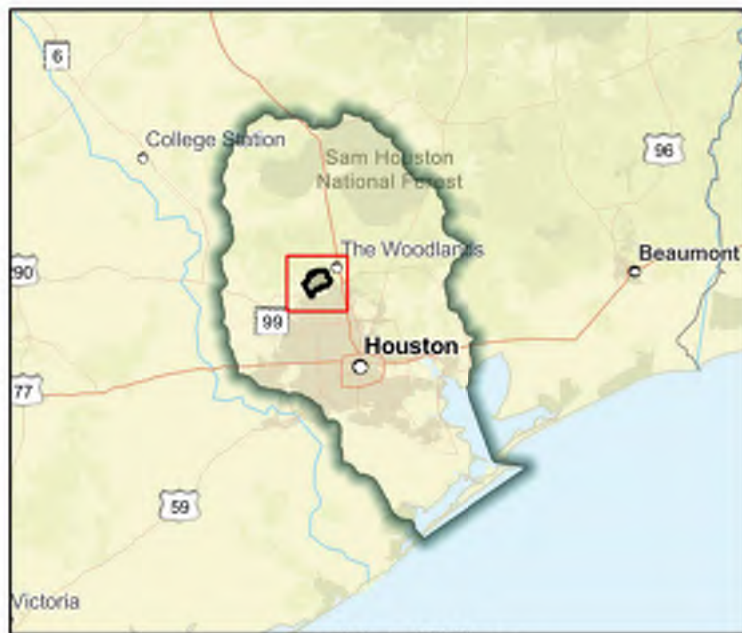
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek Watershed Plan - Kuykendahl Basin

ID# 061000341

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 727 acre-feet detention basin located near Kuykendahl Road crossing of Willow Creek.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020212,120401020106,120401020210,120401020209,120401020

Drainage area (Square miles, est.) 55

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures 8

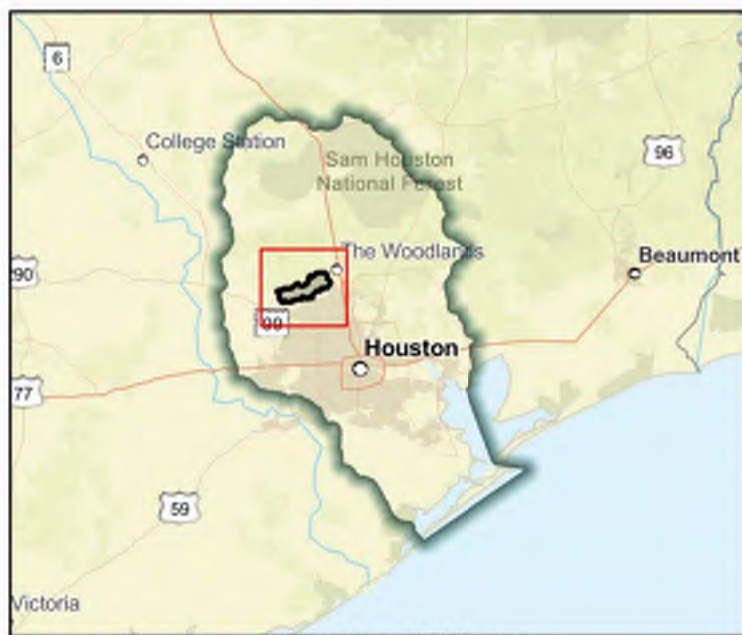
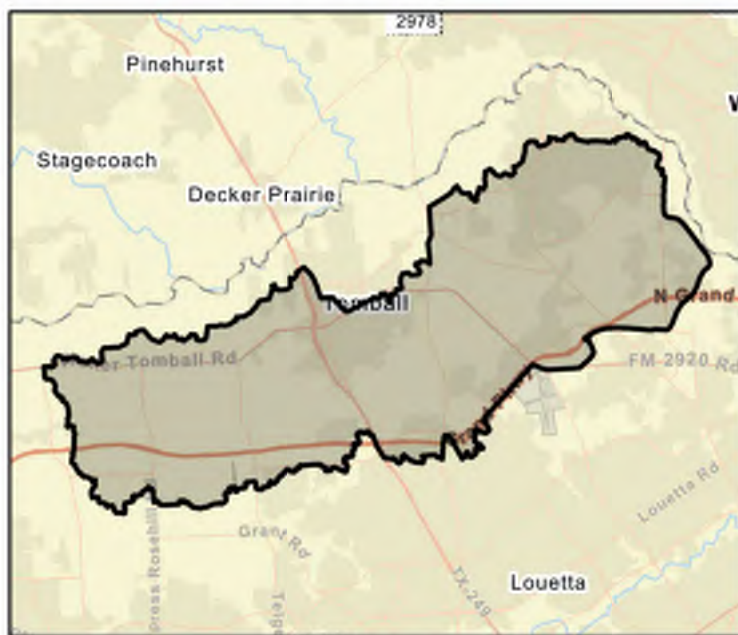
Estimated Cost and Funding Availability

Total Cost \$30,000

Amount of Available Funding -

Federal funding availability Yes

Funding source -



Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Title Willow Creek Watershed Plan - M120 Detention/Preservation Site

ID# 061000339

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? No

Reason for Recommendation

RFPG elevated FME to FMP under Task 12

Study Details

Study type Project Planning

Study description Study to develop BCA to become a FMP. Pursue purchase of property for regional detention, floodplain preservation, & habitat preservation.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020212,120401020106,120401020210,120401020209,120401020

Drainage area (Square miles, est.) 55

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures

8

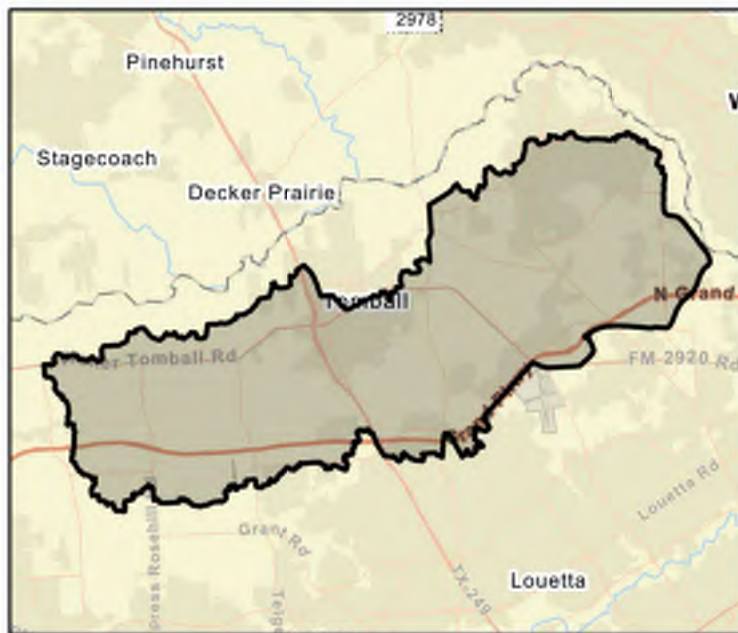
Estimated Cost and Funding Availability

Total Cost \$30,000

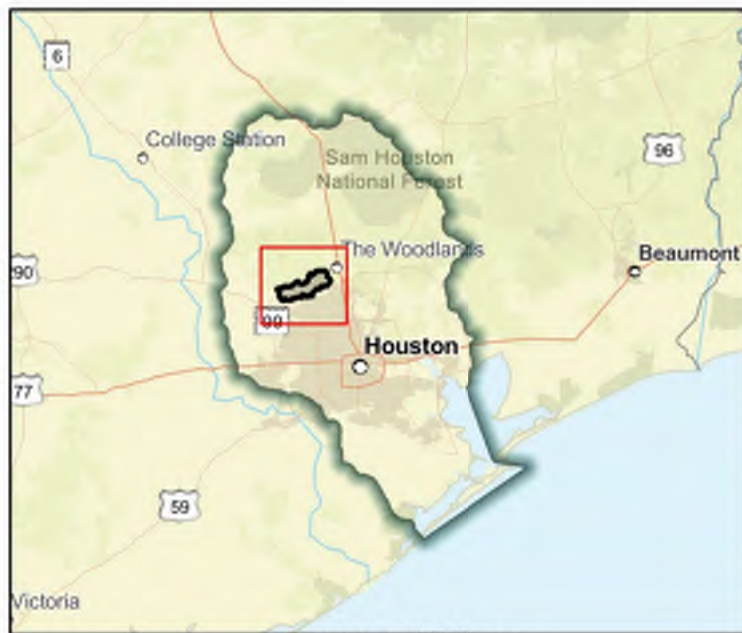
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

Flood Management Evaluation (FME)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Title Willow Creek Watershed Plan - M121 Basin Stormwater Detention Basin

ID# 061000342

Sponsor (name of entity, not person) Harris County Flood Control District

RFPG recommend? Yes Reason for Recommendation Alignment with RFPG goals and TWDB guidance principles.

Study Details

Study type Project Planning

Study description Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 1010 acre-feet detention basin located near M121 tributary.

New Hydrologic or Hydraulic model? No

Emergency Need? No

Existing/Anticipated models in near term? Yes

County Harris

Watershed HUC# (if known) 120401020212,120401020106,120401020210,120401020209,120401020

Drainage area (Square miles, est.) 55

Goal(s) 06000001,06000011,06000012,06000015

100-Year Flood Risk Summary

Population at risk 2,575

of structures 1,317

Critical facilities 7

Flood risk type: Riverine? Yes

Coastal? No

Local? No

Playa? No

Other? No

Farm/Ranch land impacted (acres) 68

Roadway(s) impacted (length) 36

Number of low water crossings 8

Historical road closures 8

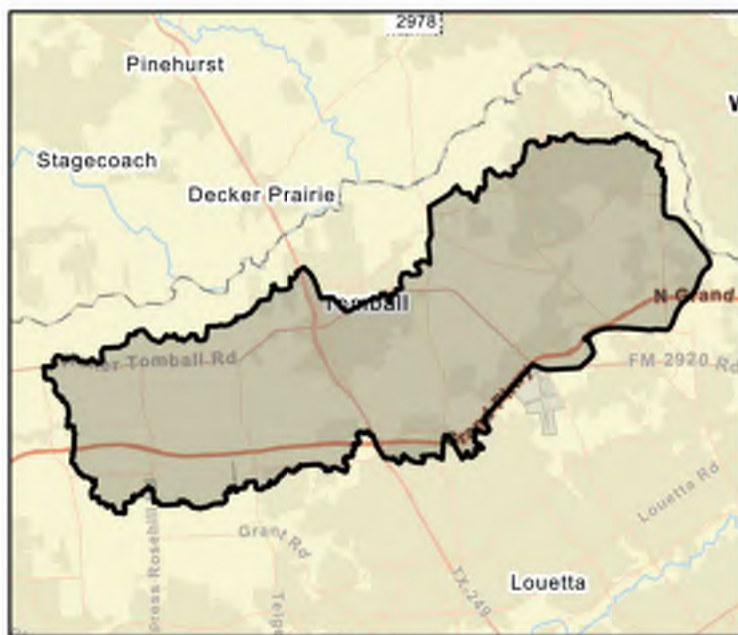
Estimated Cost and Funding Availability

Total Cost \$30,000

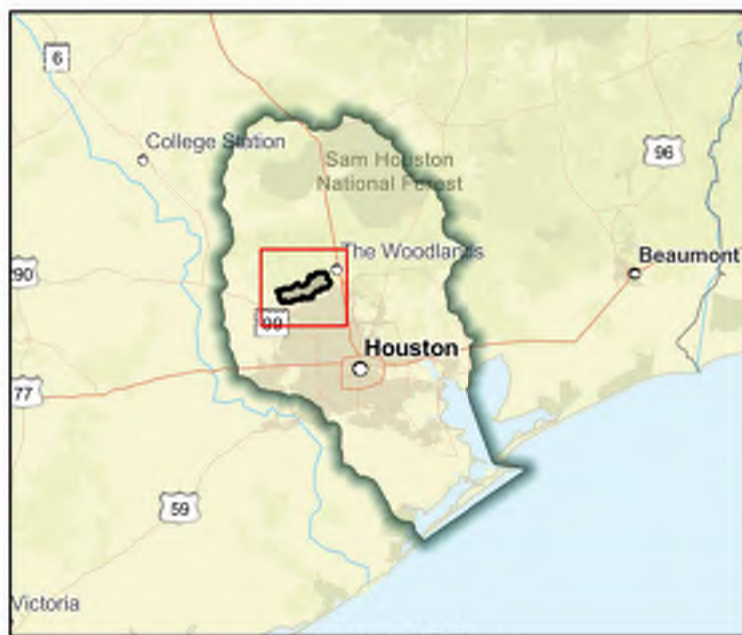
Amount of Available Funding -

Federal funding availability Yes

Funding source -



FME Area



Regional view of FME area

**Appendix 5-6:
Table 15 - Recommended FMEs**

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000002	Durant Street Storm Sewer and Pavement Improvements - Phase 2	Further study of Durant Street Phase 2 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000003	City of Arcola Regional Drainage Improvements	Further study of proposed flood risk reduction project that includes various drainage improvement alternatives.	06000015	Fort Bend	12040204
061000004	City of Stafford Drainage Improvements	Further study of proposed flood risk reduction project that includes drainage improvements to the Stafford Oaks neighborhood.	06000015	Fort Bend	-
061000005	Missouri City Estates Drainage Improvements	Further study of proposed flood risk reduction project that includes drainage improvements to Missouri City Estates.	06000015	Fort Bend, Harris	12040104
061000011	City of Galveston Master Drainage Study	City wide drainage and flood risk reduction planning study of Galveston to include Atlas 14 rainfall.	06000010	Galveston	12040204
061000013	City of Bellaire Local Drainage System Asset Management	Study to develop asset management plan / capital improvement plan to repair/replace local drainage infrastructure over time to ensure it is in good working order and meeting the level of service desired by the City.	06000015	Harris	12040104
061000014	City of Bellaire Regional Detention Facilities Development	Effort to identify and develop/design regional detention facilities to either provide flood risk reduction or to facilitate the construction of local or regional drainage improvement projects.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000015	City of Bellaire Cypress Ditch Drainage Improvements	Perform engineering services to develop and advance a flood risk reduction project in the Cypress Ditch area, servicing the southern part of the City of Bellaire.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000016	City of Bunker Hill Drainage Projects	Further study of proposed localized and regional flood risk reduction projects within the City of Bunker Hill.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000017	City of Bunker Hill Master Drainage and Stormwater Management Plan	Further study of Master Drainage and Stormwater Management Plan for the City of Bunker Hill to include Atlas 14 rainfall.	06000001, 06000010, 06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000002	Durant Street Storm Sewer and Pavement Improvements - Phase 2	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000003	City of Arcola Regional Drainage Improvements	120402040400	06000109	Project Planning	2.60	Urban/Local	City of Arcola
061000004	City of Stafford Drainage Improvements	-	-	Project Planning	0.48	Urban/Local	City of Stafford
061000005	Missouri City Estates Drainage Improvements	120401040401	06000083	Project Planning	0.11	Urban/Local	City of Stafford
061000011	City of Galveston Master Drainage Study	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Watershed Planning	211.08	Coastal, Urban/Local	City of Galveston
061000013	City of Bellaire Local Drainage System Asset Management	120401040402, 120401040401	06000084, 06000083	Project Planning	3.58	Urban/Local	City of Bellaire
061000014	City of Bellaire Regional Detention Facilities Development	120401040402, 120401040401	06000084, 06000083	Project Planning	3.58	Urban/Local	City of Bellaire
061000015	City of Bellaire Cypress Ditch Drainage Improvements	120401040402, 120401040401	06000084, 06000083	Project Planning	3.58	Urban/Local	City of Bellaire
061000016	City of Bunker Hill Drainage Projects	120401040303	06000080	Project Planning	1.44	Urban/Local	City of Bunker Hill Village
061000017	City of Bunker Hill Master Drainage and Stormwater Management Plan	120401040303	06000080	Watershed Planning	1.44	Urban/Local	City of Bunker Hill Village

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000002	Durant Street Storm Sewer and Pavement Improvements - Phase 2	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 90,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000003	City of Arcola Regional Drainage Improvements	Fort Bend, Arcola	No	\$ 233,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000004	City of Stafford Drainage Improvements	Fort Bend, Stafford	No	\$ 300,000.00	No	FME included in Region 8.
061000005	Missouri City Estates Drainage Improvements	Fort Bend, Harris, Stafford	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000011	City of Galveston Master Drainage Study	Galveston, City of Galveston	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000013	City of Bellaire Local Drainage System Asset Management	Harris, Harris County Flood Control District, Bellaire	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000014	City of Bellaire Regional Detention Facilities Development	Harris, Harris County Flood Control, City of Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000015	City of Bellaire Cypress Ditch Drainage Improvements	Harris, Harris County Flood Control, City of Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000016	City of Bunker Hill Drainage Projects	Harris, Harris County Flood Control, City of Bunker Hill Village	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000017	City of Bunker Hill Master Drainage and Stormwater Management Plan	Harris, Harris County Flood Control, City of Bunker Hill Village	No	\$ 170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000022	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Dickinson Bayou Alternative 2	Further refine the DB Alt. 2 in the LCCDBFMP (2021), including alternative analysis to McFarland Detention Basin, W Cemetery Rd. Detention Basin, Hilton Detention Basin, Magnolia Bayou & Borden Gully Detention Basins, and Diversion Channel at Desel Dr.	06000015	Brazoria, Galveston, Harris	12040204
061000024	Williamsburg Subdivision Drainage Assessment	Further study of a flood risk reduction project in the Williamsburg Subdivision which includes additional detail for the design of a required weir structure.	06000001, 06000015	Harris	12040104
061000025	Preliminary Drainage & Infrastructure Improvements Happy Hide A Way Subdivision	Additional analysis in the Jackson Bayou watershed, specifically along R102-00-00, is needed to determine the necessary improvements and provide a no impact solution.	06000001, 06000003, 06000004, 06000015	Harris	12040104
061000026	Bridgewater Village & Enclave at Bridgewater Drainage Analysis	Alternative analysis and assessment of additional protection of basin needed during design to control flows for 100-yr event.	06000001, 06000003, 06000004	Harris	12040104
061000027	Lake Shadows Subdivision Drainage Improvements	Further study and development of a FMP of recommended alternative 5 which includes installing the Foley trunk line downstream of the pipelines, upsizing and installing new outfalls, and installing the Belle Cote trunk line.	06000001, 06000015	Harris	12040101, 12040104
061000028	Gum Gully Rd, W Stroker Rd, Wigwam Ln, and Related Infrastructure Drainage Improvements	Further study as report recommendation (2019) indicates that regional drainage improvements to the streams must be studied and implemented before Harris County can obtain a benefit from roadway drainage improvements.	06000001, 06000003, 06000004, 06000015	Harris	12040104
061000029	Spanish Cove Subdivision Drainage Assessment	Additional analysis needed to confirm no negative effects. It is expected the larger channel can safely convey the increase in flows, but this must be demonstrated during the project design phase.	06000001, 06000003, 06000004, 06000015	Harris	12040101, 12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000022	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Dickinson Bayou Alternative 2	120402040100	06000106	Project Planning	86.02	Riverine, Coastal, Urban/Local	City of League City
061000024	Williamsburg Subdivision Drainage Assessment	120401040104	06000074	Project Planning	12.76	Riverine, Urban/Local	Harris County
061000025	Preliminary Drainage & Infrastructure Improvements Happy Hide A Way Subdivision	120401040704	06000096	Project Planning	0.26	Riverine, Urban/Local	Harris County
061000026	Bridgewater Village & Enclave at Bridgewater Drainage Analysis	120401040203	06000077	Project Planning	0.17	Riverine, Urban/Local	Harris County
061000027	Lake Shadows Subdivision Drainage Improvements	120401010502, 120401040704	06000025, 06000096	Project Planning	1.44	Urban/Local	Harris County
061000028	Gum Gully Rd, W Stroker Rd, Wigwam Ln, and Related Infrastructure Drainage Improvements	120401040704	06000096	Project Planning	0.50	Riverine, Urban/Local	Harris County
061000029	Spanish Cove Subdivision Drainage Assessment	120401010502, 120401040704	06000025, 06000096	Project Planning	0.79	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000022	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Dickinson Bayou Alternative 2	Galveston, Harris, Harris County Flood Control District,	No	\$ 1,090,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000024	Williamsburg Subdivision Drainage Assessment	Harris, Harris County Flood Control District, Katy, Houston	No	\$ 1,260,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000025	Preliminary Drainage & Infrastructure Improvements Happy Hide A Way Subdivision	Harris, Harris County Flood Control District	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000026	Bridgewater Village & Enclave at Bridgewater Drainage Analysis	Harris, Harris County Flood Control District, Houston	No	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000027	Lake Shadows Subdivision Drainage Improvements	Harris, Harris County Flood Control District	No	\$ 280,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000028	Gum Gully Rd, W Stroker Rd, Wigwam Ln, and Related Infrastructure Drainage Improvements	Harris, Harris County Flood Control District	No	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000029	Spanish Cove Subdivision Drainage Assessment	Harris, Harris County Flood Control District	No	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000031	Shoreacres Drainage Assessment	Further analysis necessary to determine downstream impacts and whether any additional volume in A104-11-00 would be available during a coincident event on Taylor Bayou.	06000001, 06000013, 06000014, 06000015	Chambers, Harris	12040204
061000032	Willow Creek - Overflow Flooding between Burlington Northern Railroad and Hufsmith-Kohrville Rd. Analysis	Study recommended as part of the Willow Creek Watershed Plan. Planning level analysis to identify flooding reasons in Northern Point subdivision south of SH99.	06000001, 06000003, 06000004, 06000015	Harris	12040102
061000034	Galveston Bay Watershed Plan- Analysis of PA07 100-year Conveyance Project	Project recommended by the Galveston Bay Watershed Plan. Modeling required to determine no negative Proposed subdivision drainage improvements to the Battle Ground Estates include replacement of driveway crossings and widening F101-08.	06000001, 06000005, 06000006, 06000015	Harris	12040104, 12040204
061000035	Galveston Bay Watershed Plan- Analysis of PA08 100-year Conveyance Project	Project recommended by the Galveston Bay Watershed Plan. Modeling required to determine no negative impacts. Storm sewer improvements to Monument Estates, increase roadside ditch capacity, and expand bypass channel outflowing into F101-00-00.	06000001, 06000005, 06000006, 06000015	Harris	12040104, 12040204
061000037	City of Alvin Flood Gauges	Study to identify areas where best to purchase additional flood gauges to be placed at bayous and key high water areas within City of Alvin.	06000001, 06000010	Brazoria, Galveston	12040204
061000038	Brazoria County Costal River Flood Extent Analysis	Study to determine flood extents, in Brazoria County, of recent hurricane disasters, by analyzing the post event aerial imagery through a GIS image classification process, and compare the flood extent area to other sources, such as LIDAR.	06000001, 06000010, 06000015	Brazoria	12040204
061000039	City of Alvin Master Drainage Plan	Comprehensive review of current drainage, studies and recommendations for future projects and studies to create a Master Drainage Plan for the City of Alvin.	06000010	Brazoria, Galveston	12040204
061000040	City of Alvin Open Space Preservation	Study for open space preservation within adjacent development, dedication of conservation easements or fee simple acquisition of land along Mustang Bayou.	06000001, 06000013, 06000014, 06000015	Brazoria, Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000031	Shoreacres Drainage Assessment	120402040100	06000106	Project Planning	0.96	Riverine, Urban/Local	City of Shoreacres
061000032	Willow Creek - Overflow Flooding between Burlington Northern Railroad and Hufsmith-Kohrville Rd. Analysis	120401020106, 120401020105, 120401020205, 120401020210, 120401020209, 120401020212	06000031, 06000030, 06000037, 06000042, 06000041, 06000044	Project Planning	55.37	Riverine, Urban/Local	Harris County Flood Control District (HCFC)
061000034	Galveston Bay Watershed Plan- Analysis of PA07 100-year Conveyance Project	120401040706, 120402040100	06000098, 06000106	Project Planning	19.29	Riverine, Urban/Local	Harris County Flood Control District (HCFC)
061000035	Galveston Bay Watershed Plan- Analysis of PA08 100-year Conveyance Project	120401040706, 120402040100	06000098, 06000106	Project Planning	19.29	Riverine, Urban/Local	Harris County Flood Control District (HCFC)
061000037	City of Alvin Flood Gauges	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	25.09	Urban/Local	City of Alvin
061000038	Brazoria County Costal River Flood Extent Analysis	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	1481.87	Riverine	Brazoria County
061000039	City of Alvin Master Drainage Plan	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	25.09	Urban/Local	City of Alvin
061000040	City of Alvin Open Space Preservation	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	25.09	Riverine, Urban/Local	City of Alvin

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000031	Shoreacres Drainage Assessment	Harris, Harris County Flood Control District, Shoreacres	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000032	Willow Creek - Overflow Flooding between Burlington Northern Railroad and Hufsmith-Kohrville Rd. Analysis	Harris, Harris County Flood Control District, Houston, Tomball	No	\$ 590,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000034	Galveston Bay Watershed Plan- Analysis of PA07 100-year Conveyance Project	Harris, Harris County Flood Control District, La Porte	No	\$ 400,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000035	Galveston Bay Watershed Plan- Analysis of PA08 100-year Conveyance Project	Harris, Harris County Flood Control District, La Porte	No	\$ 800,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000037	City of Alvin Flood Gauges	Brazos River Authority, West Brazoria County Drainage District, Alvin	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000038	Brazoria County Costal River Flood Extent Analysis	Brazoria, Brazos River Authority, West Brazoria County Drainage District, Gulf Coast Protection District	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000039	City of Alvin Master Drainage Plan	Brazoria, West Brazoria County Drainage District, Alvin	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000040	City of Alvin Open Space Preservation	Brazoria, West Brazoria County Drainage District, Alvin	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000041	City of Manvel SH. 6 Drainage Improvements	Further study of state Highway 6 drainage improvements, including storm sewer upgrades to meet current capacities, ditch deepening, and sub regional detention ponds. Project will also widen and reshape ditches, and upgrade culverts.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000042	Chambers County Dam and Levee Failure Inundation Map Update	Further study for all participating jurisdictions to update dam and levee failure inundation maps, and update floodplain and floodway maps throughout the county. The updated maps will also be made available to the public.	06000001, 06000010, 06000015	Chambers	12040203
061000043	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	Further assessment and design of detention ponds needed along Mustang and Dickinson Bayous to reduce flood risk in the City of Alvin.	06000001, 06000003, 06000004, 06000015	Brazoria, Galveston	12040204
061000044	Chambers County Property Protection	Stud to determine flood risk reduction potential of clearing obstacles, widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding throughout all participating jurisdictions.	06000001, 06000011, 06000012, 06000015	Chambers	12040203
061000045	City of Manvel Flora St. Drainage Improvements	Study of possible Flora Street drainage improvements: widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding in Manvel neighborhoods.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000046	Brazoria County Drainage Improvements	Drainage study needed and evaluated of alternatives include: Widen and reshape drainage ditches, and upgrade culverts to restore adequate drainage to mitigate flooding.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000047	City of Manvel Various Drainage Improvements	Study of various drainage improvements, including storm sewer rehabilitation and ditch deepening.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000041	City of Manvel SH. 6 Drainage Improvements	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Project Planning	27.41	Urban/Local	City of Manvel
061000042	Chambers County Dam and Levee Failure Inundation Map Update	120402030105, 120402030104, 120402030106, 120402030200	06000103, 06000102, 06000104, 06000105	Watershed Planning	865.55	Urban/Local	Chambers County
061000043	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	25.09	Riverine	City of Alvin
061000044	Chambers County Property Protection	120402030105, 120402030104, 120402030106, 120402030200	06000103, 06000102, 06000104, 06000105	Project Planning	865.55	Urban/Local	Chambers County
061000045	City of Manvel Flora St. Drainage Improvements	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Project Planning	27.41	Urban/Local	City of Manvel
061000046	Brazoria County Drainage Improvements	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	1481.87	Urban/Local	Brazoria County
061000047	City of Manvel Various Drainage Improvements	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Project Planning	27.41	Urban/Local	City of Manvel

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000041	City of Manvel SH. 6 Drainage Improvements	Brazoria, West Brazoria County Drainage District, Manvel	No	\$ 3,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000042	Chambers County Dam and Levee Failure Inundation Map Update	Chambers, Gulf Coast Protection District	No	\$ 25,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000043	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	Brazoria, West Brazoria County Drainage District, Alvin	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000044	Chambers County Property Protection	Chambers, Trinity River Authority of Texas	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000045	City of Manvel Flora St. Drainage Improvements	Brazoria, West Brazoria County Drainage District, Manvel	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000046	Brazoria County Drainage Improvements	Brazoria,, West Brazoria County Drainage District, Pearland, Manvel, Iowa Colony, Alvin, Brookside Village, Hillcrest, Liverpool, Hitchcock	No	\$ 350,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000047	City of Manvel Various Drainage Improvements	Brazoria, West Brazoria County Drainage District, Manvel	No	\$ 460,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000048	Brazoria County Property Protection	Further study required to assess alternatives to restore drainage and mitigate flooding throughout the county.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000049	City of Hillcrest Village Drainage Improvements	Further study and FMP development required to assess alternatives to restore drainage and mitigate flooding throughout the City of Hillcrest Village.	06000015	Brazoria	12040204
061000050	West Chocolate Bayou (CR 383 Ditch)	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000051	West Fork Chocolate (Cold River Ranch Ditch)	Further study of proposed channel modifications to Cold River Ranch Ditch included in the City of Pearland master drainage plan to include Atlas 14 rainfall.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000052	West Fork Chocolate Bayou	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000053	East Chocolate Bayou (E103-00-00)	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000054	Cannon Ditch Segment 2	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000055	City of Galveston Coastal Road Elevation	Elevate coastal roads to better protect public during evacuation and to protect the roads from flood damage, where technically feasible.	06000001, 06000003, 06000004	Galveston	12040204
061000056	Mary's Creek Lower Segment	Study to develop project into a FMP. Project will provide a 25-year LOS; Channel modifications from SH35 to downstream of Pearland Pkwy. and 1670 ac-ft mitigation.	06000001, 06000003, 06000004, 06000015	Brazoria, Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000048	Brazoria County Property Protection	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	1481.87	Urban/Local	Brazoria County
061000049	City of Hillcrest Village Drainage Improvements	120402040400	06000109	Project Planning	0.44	Urban/Local	City of Hillcrest Village
061000050	West Chocolate Bayou (CR 383 Ditch)	120402040400	06000109	Project Planning	3.37	Riverine	Brazoria Drainage District 4
061000051	West Fork Chocolate (Cold River Ranch Ditch)	120402040400	06000109	Project Planning	1.61	Riverine	Brazoria Drainage District 4
061000052	West Fork Chocolate Bayou	120402040400	06000109	Project Planning	13.89	Riverine	Brazoria Drainage District 4
061000053	East Chocolate Bayou (E103-00-00)	120402040400	06000109	Project Planning	0.49	Riverine	Brazoria Drainage District 4
061000054	Cannon Ditch Segment 2	120402040200, 120402040100	06000107, 06000106	Project Planning	5.71	Riverine	Brazoria Drainage District 4
061000055	City of Galveston Coastal Road Elevation	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Project Planning	211.08	Coastal	City of Galveston
061000056	Mary's Creek Lower Segment	120402040100	06000106	Project Planning	1.15	Riverine	City of Pearland

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000048	Brazoria County Property Protection	Brazoria, West Brazoria County Drainage District, Gulf Coast Protection District	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000049	City of Hillcrest Village Drainage Improvements	Brazoria, West Brazoria County Drainage District, Hillcrest	No	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000050	West Chocolate Bayou (CR 383 Ditch)	Brazoria, Fort Bend, West Brazoria County Drainage District, Arcola, Iowa Colony	No	\$ 253,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000051	West Fork Chocolate (Cold River Ranch Ditch)	Brazoria, West Brazoria County Drainage District, Manvel, Iowa Colony	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000052	West Fork Chocolate Bayou	Brazoria, Fort Bend, West Brazoria County Drainage District, Arcola, Manvel, Iowa Colony	No	\$ 2,072,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000053	East Chocolate Bayou (E103-00-00)	Brazoria, West Brazoria County Drainage District, Iowa Colony	No	\$ 48,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000054	Cannon Ditch Segment 2	Brazoria, West Brazoria County Drainage District, Pearland, Manvel	No	\$ 932,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000055	City of Galveston Coastal Road Elevation	Galveston, City of Galveston	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000056	Mary's Creek Lower Segment	Brazoria, Galveston, West Brazoria County Drainage District, Pearland, Friendswood	No	\$ 2,436,000.00	No	RFPG elevated FME to FMP under Task 12

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000057	Hickory Slough (Upper Segment)	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000059	City of Manvel Gates Loop Subdivision Drainage Improvement	Further study proposed Gates Loop subdivision drainage improvement.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000060	Hickory Slough Middle Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000061	Mary's Creek Upper Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000063	Mary's Creek Middle Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000064	Mustang Bayou Middle Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria, Fort Bend	12040204
061000065	Hickory Slough Lower Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000066	Mustang Bayou Upper Segment	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Fort Bend	12040204
061000067	City of Alvin Dickinson Bayou Watershed Study	Study of Dickinson Bayou Watershed to determine drainage improvement alternatives.	06000001, 06000010	Brazoria, Galveston	12040204

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000057	Hickory Slough (Upper Segment)	120402040100	06000106	Project Planning	4.75	Riverine	City of Pearland
061000059	City of Manvel Gates Loop Subdivision Drainage Improvement	120402040400	06000109	Project Planning	0.05	Urban/Local	City of Manvel
061000060	Hickory Slough Middle Segment	120402040100	06000106	Project Planning	1.83	Riverine	City of Pearland
061000061	Mary's Creek Upper Segment	120402040100	06000106	Project Planning	5.20	Riverine	City of Pearland
061000063	Mary's Creek Middle Segment	120402040100	06000106	Project Planning	4.23	Riverine	City of Pearland
061000064	Mustang Bayou Middle Segment	120402040400	06000109	Project Planning	5.35	Riverine	Brazoria Drainage District 4
061000065	Hickory Slough Lower Segment	120402040100	06000106	Project Planning	1.01	Riverine	City of Pearland
061000066	Mustang Bayou Upper Segment	120402040400, 120402040100	06000109, 06000106	Project Planning	7.07	Riverine	Brazoria Drainage District 4
061000067	City of Alvin Dickinson Bayou Watershed Study	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	25.09	Riverine	City of Alvin

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000057	Hickory Slough (Upper Segment)	Brazoria, West Brazoria County Drainage District, Pearland	No	\$ 1,136,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000059	City of Manvel Gates Loop Subdivision Drainage Improvement	Brazoria, West Brazoria County Drainage District, Manvel	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000060	Hickory Slough Middle Segment	Brazoria, West Brazoria County Drainage District, Pearland, Brookside Village	No	\$ 864,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000061	Mary's Creek Upper Segment	Brazoria, West Brazoria County Drainage District, Pearland	No	\$ 460,000.00	No	RFPG elevated FME to FMP under Task 12
061000063	Mary's Creek Middle Segment	Brazoria, West Brazoria County Drainage District, Pearland	No	\$ 628,000.00	No	RFPG elevated FME to FMP under Task 12
061000064	Mustang Bayou Middle Segment	Brazoria, Fort Bend, West Brazoria County Drainage District, Pearland, Manvel	No	\$ 1,212,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000065	Hickory Slough Lower Segment	Brazoria, West Brazoria County Drainage District, Pearland	No	\$ 1,048,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000066	Mustang Bayou Upper Segment	Fort Bend, Missouri City, Houston	No	\$ 2,040,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000067	City of Alvin Dickinson Bayou Watershed Study	Brazoria, West Brazoria County Drainage District, Alvin	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000069	City of Galveston Shoreline Protection	Further study and FMP development of a proposed shoreline protection for areas prone to coastal erosion.	06000001	Galveston	12040204
061000070	Cowart Creek Segment 16	Further study including Atlas 14 rainfall incorporation and Benefit Cost Analysis of proposed channel modifications included in the City of Pearland master drainage plan.	06000001, 06000003, 06000004, 06000015	Brazoria	12040204
061000071	City of Galveston Dune Restoration	Study of dune system to determine needs and flood damage reduction potential of restoration.	06000001, 06000015	Galveston	12040204
061000072	City of Hillcrest Village Engineering Survey	Conduct an engineering assessment to establish proper drainage for 24 homes located in the high risk flood Zone.	06000015	Brazoria	12040204
061000076	Dredging Cedar Bayou	Study of proposed Cedar Bayou dredging to determine flood risk reduction potential.	06000001, 06000015	Harris, Chambers	12040203
061000078	Dam and Levee Failure Inundation Map Update	Study by each jurisdiction to update their dam and levee failure inundation maps to identify the probability and impact of a dam and levee failures	06000001, 06000010, 06000015	Brazoria	12040204
061000080	Replace the Tiki Drive bridge with improved, hardened bridge to withstand storm surge and debris.	Further study of proposed Tiki Drive bridge modifications	06000001, 06000015	Galveston	12040204
061000082	Stream and River Flood Program	Conduct a flood mitigation outreach program using information from the river and stream flood study to increase awareness of specific riverine flooding problems and provide guidance on mitigation in affected communities.	06000001, 06000007, 06000010, 06000015	Waller	12040102, 12040104
061000083	Liberty County Drainage Projects	Further study of proposed drainage projects throughout the county- including adding ditches, detention ponds and detention basins in identified locations throughout the county in order to improve drainage.	06000015	Liberty	12040103, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000069	City of Galveston Shoreline Protection	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Project Planning	211.08	Coastal	City of Galveston
061000070	Cowart Creek Segment 16	120402040100	06000106	Project Planning	2.18	Riverine	City of Pearland
061000071	City of Galveston Dune Restoration	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Project Planning	211.08	Coastal, Urban/Local	City of Galveston
061000072	City of Hillcrest Village Engineering Survey	120402040400	06000109	Project Planning	0.44	Urban/Local	City of Hillcrest Village
061000076	Dredging Cedar Bayou	120402030105, 120402030104, 120402030106, 120402030200	06000103, 06000102, 06000104, 06000105	Project Planning	44.23	Riverine	Chambers County
061000078	Dam and Levee Failure Inundation Map Update	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	1481.87	Urban/Local	Brazoria County
061000080	Replace the Tiki Drive bridge with improved, hardened bridge to withstand storm surge and debris.	120402040200	06000107	Project Planning	1.59	Urban/Local	City of Tiki Island
061000082	Stream and River Flood Program	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Preparedness	515.95	Riverine, Urban/Local	Waller County
061000083	Liberty County Drainage Projects	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Project Planning	1169.76	Urban/Local	Liberty County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000069	City of Galveston Shoreline Protection	Galveston, City of Galveston	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000070	Cowart Creek Segment 16	Brazoria, West Brazoria County Drainage District, Pearland	No	\$ 40,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000071	City of Galveston Dune Restoration	Galveston, City of Galveston	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000072	City of Hillcrest Village Engineering Survey	Brazoria, West Brazoria County Drainage District, Hillcrest	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000076	Dredging Cedar Bayou	Chambers, Baytown, Mont Belvieu, Southeast Texas Flood Control District	No	\$ 7,070,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000078	Dam and Levee Failure Inundation Map Update	Brazoria, West Brazoria County Drainage District, Gulf Coast Protection District	No	\$ 2,200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000080	Replace the Tiki Drive bridge with improved, hardened bridge to withstand storm surge and debris.	Galveston, Tiki Island	No	\$ 220,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000082	Stream and River Flood Program	Waller, San Jacinto River Authority, Brazos River Authority, Katy, Waller, Houston, Prairie View, Gulf Coast Protection District	No	\$ 20,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000083	Liberty County Drainage Projects	Liberty, Cleveland, Dayton, North Cleveland, Plum Grove, Mont Belvieu, Southeast Texas Flood Control District	No	\$ 2,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000084	City of Bayou Vista Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000015	Galveston	12040204
061000085	Cane Island Branch- Alt 2	Further study and FMP development of proposed channel modifications to Cane Island Branch including Atlas 14 rainfall.	06000001, 06000015	Waller, Harris, Fort Bend	12040104
061000086	Property Protection, Structural Project	Generate base flood elevation data for flood map revisions. Use floodplain study to identify future mitigation activities to improve water ways and flood carrying capacities. Area to include approximately 4 miles of floodway in New Waverly.	06000001, 06000015	Walker	12040103
061000087	City of La Marque - East Side Storm water detention	Feasibility study and a drainage analysis of the new pond row acquisition and associated conveyance improvements on a part of 10 acres of land.	06000001, 06000015	Galveston	12040204
061000088	City of League City - Kansas Street Drainage	Further study and FMP development of proposed street drainage modifications to Kansas Street.	06000001, 06000015	Galveston, Harris	12040204
061000089	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	Study to update city storm surge maps based upon the NWS predicted storm surge and projected track for landfall. The new maps may more accurately display water depth in areas within the city.	06000001, 06000010, 06000015	Galveston, Harris	12040204
061000090	City of Bayou Vista - Storm Sewer System Evaluation	Storm sewer system evaluation to determine reconstruction/upgrade needs to increase water flow	06000001, 06000015	Galveston	12040204
061000091	City of Friendswood - Comprehensive Flood Mitigation Plan	Study to update city floodplain maps and develop flood mitigation plan	06000001, 06000015	Galveston, Harris	12040204
061000094	City of Santa Fe - Storm Water Detention & Widening Drainage System and Culverts Study	Study to plan for storm sewer detention and drainage system modifications.	06000001, 06000015	Galveston	12040204
061000096	City of Friendswood - Devils Dip	Further study and design of modifications along Mary's creek bridge and channel	06000001, 06000015	Galveston, Harris	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000084	City of Bayou Vista Master Drainage Plan	120402040200	06000107	Watershed Planning	0.45	Urban/Local	City of Bayou Vista
061000085	Cane Island Branch- Alt 2	120401040102, 120401040103, 120401040104, 120401040101, 120401040203	06000072, 06000073, 06000074, 06000071, 06000077	Project Planning	14.52	Urban/Local	Waller County
061000086	Property Protection, Structural Project	120401030101	06000046	Watershed Planning	2.21	Urban/Local	City of New Waverly
061000087	City of La Marque - East Side Storm water detention	120402040200	06000107	Project Planning	14.23	Urban/Local	City of La Marque
061000088	City of League City - Kansas Street Drainage	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000089	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	120402040200, 120402040100	06000107, 06000106	Watershed Planning	20.83	Coastal	City of Friendswood
061000090	City of Bayou Vista - Storm Sewer System Evaluation	120402040200	06000107	Project Planning	0.45	Urban/Local	City of Bayou Vista
061000091	City of Friendswood - Comprehensive Flood Mitigation Plan	120402040200, 120402040100	06000107, 06000106	Watershed Planning	20.83	Urban/Local	City of Friendswood
061000094	City of Santa Fe - Storm Water Detention & Widening Drainage System and Culverts Study	120402040300, 120402040200	06000108, 06000107	Project Planning	17.04	Urban/Local	City of Santa Fe
061000096	City of Friendswood - Devils Dip	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Riverine	City of Friendswood

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000084	City of Bayou Vista Master Drainage Plan	Galveston, Bayou Vista	Yes	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000085	Cane Island Branch- Alt 2	Fort Bend, Harris, Waller, Harris County Flood Control District, Katy	No	\$ 3,270,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000086	Property Protection, Structural Project	Walker, New Waverly	No	\$ 2,500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000087	City of La Marque - East Side Storm water detention	Galveston, La Marque	No	\$ 360,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000088	City of League City - Kansas Street Drainage	Galveston, Harris, League City	No	\$ 580,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000089	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	Galveston, Harris, Harris County Flood Control District, Friendswood	No	\$ 140,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000090	City of Bayou Vista - Storm Sewer System Evaluation	Galveston, Bayou Vista	No	\$ 130,000.00	No	Duplicate FME
061000091	City of Friendswood - Comprehensive Flood Mitigation Plan	Galveston, Harris, Harris County Flood Control District	No	\$ 140,000.00	No	Duplicate FME
061000094	City of Santa Fe - Storm Water Detention & Widening Drainage System and Culverts Study	Galveston, Santa Fe	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000096	City of Friendswood - Devils Dip	Galveston, Harris County Flood Control District, Friendswood	No	\$ 410,000.00	No	Sponsor secured funding for FME

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000097	League City - Stormwater Drainage Improvement- Interurban & Newport ditch	Further study of proposed slope paving (concrete lining) improvements	06000001, 06000015	Galveston, Harris	12040204
061000098	Study of Texas City Hurricane Flood Protection Project	Corp of Engineers study of the Texas City Hurricane Flood Protection Project to improve the current levee system to provide protection from category 5 storm.	06000001, 06000015	Galveston	12040204
061000101	Fort Bend County - Big Creek Project	Further study of Big Creek channel improvements and wetland mitigation sites.	06000001, 06000011, 06000012, 06000015	Fort Bend	12040104, 12040204
061000102	Raise Road Surfaces in City of Plum Grove	Further evaluation of road surface elevation.	06000001, 06000011, 06000012, 06000015	Liberty	12040103
061000103	Highland Terrace Drainage	Further study of slope paving a portion of the drainage ditch north of FM 518, with probable wetland mitigation and lowering pavement section of Highland Terrace Drive.	06000001, 06000015	Galveston, Harris	12040204
061000104	Sunmeadow Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1. Initial phase of project completed in 2005. Upsizing storm sewer system to reduce potential flooding. Include Atlas 14 rainfalls	06000001, 06000015	Liberty	12040103
061000105	City of Friendswood - Tributary 2 Drainage/Outfall Improvements	Further study of component of 2004 TXDOT study to include Atlas 14 rainfalls	06000001, 06000015	Galveston, Harris	12040204
061000107	Storm water detention ponds & Widening of drainage systems feasibility study	Study of area to identify problem areas and recommend flood mitigation alternatives that considered detention ponds & widening drainage systems.	06000001, 06000015	Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000097	League City - Stormwater Drainage Improvement- Interurban & Newport ditch	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000098	Study of Texas City Hurricane Flood Protection Project	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	664.95	Coastal, Urban/Local	Galveston County
061000101	Fort Bend County - Big Creek Project	120401040102, 120401040103, 120401040104, 120401040101, 120401040401, 120401040501, 120402040400, 120402040100	06000072, 06000073, 06000074, 06000071, 06000083, 06000085, 06000109, 06000106	Project Planning	882.72	Riverine	Fort Bend County Drainage District
061000102	Raise Road Surfaces in City of Plum Grove	120401030402	06000070	Project Planning	3.61	Urban/Local	City of Plum Grove
061000103	Highland Terrace Drainage	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000104	Sunmeadow Drainage Improvements Phase 2	120401030402	06000070	Project Planning	3.61	Urban/Local	City of Friendswood
061000105	City of Friendswood - Tributary 2 Drainage/Outfall Improvements	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Urban/Local	City of Friendswood
061000107	Storm water detention ponds & Widening of drainage systems feasibility study	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	664.95	Urban/Local	Galveston County

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000097	League City - Stormwater Drainage Improvement- Interurban & Newport ditch	Galveston, Harris, Harris County Flood Control District	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000098	Study of Texas City Hurricane Flood Protection Project	Galveston, USACE	No	\$ 1,590,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000101	Fort Bend County - Big Creek Project	Fort Bend County	No	\$ 200,000.00	No	FME included in Region 8.
061000102	Raise Road Surfaces in City of Plum Grove	Liberty, Plum Grove, Southeast Texas Flood Control District	No	\$ 35,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000103	Highland Terrace Drainage	Galveston, Harris, Harris County Flood Control District, League City	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000104	Sunmeadow Drainage Improvements Phase 2	Liberty, Plum Grove, Southeast Texas Flood Control District	No	\$ 160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000105	City of Friendswood - Tributary 2 Drainage/Outfall Improvements	Galveston, Harris, Harris County Flood Control District	No	\$ 170,000.00	No	Project has been completed.
061000107	Storm water detention ponds & Widening of drainage systems feasibility study	Galveston, Nassau Bay, Bayou Vista, Clear Lake Shores, Galveston, Jamaica Beach, Friendswood, Hitchcock, La Marque, League City, Santa Fe, Texas City, Kemah, Tiki Island, Dickinson, Seabrook	No	\$ 11,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000115	Stormwater Drainage Improvement- Nottingham ditch	Further study of proposed slope paving (concrete lining) improvements. Still in planning, consultant hired. Design complete and pending construction funding.	06000001, 06000015	Galveston, Harris	12040204
061000116	Remedy Data Deficiency in City of New Waverly	Conduct a proper risk assessment of the dams residents suspect are causing upstream flooding, and determine all potential inundation areas.	06000001, 06000015	Walker	12040103
061000117	City of Bayou Vista - Drainage Improvement Program	Study to develop drainage improvement program to reduce standing water and runoff, and reduce minor flooding for residents located in District No. 12	06000001, 06000015	Galveston	12040204
061000118	Stormwater Drainage Improvement- Bradshaw Rd	Further study of proposed slope paving (concrete lining) improvements. Southwest from SH 3 to the north line of CCISD's Elem. School #25. Pending Funding	06000001, 06000015	Galveston, Harris	12040204
061000119	Shellside Drainage Improvements	Further study of proposed drainage improvements to Shellside.	06000001, 06000015	Galveston, Harris	12040204
061000120	Evaluation of Culvert Enlargement and Bridge Elevation in Grimes County	Study to identify flood-prone areas and mitigate the flooding problem by enlarging culverts under roads and bridges.	06000003, 06000004	Grimes	12040101, 12040102
061000121	Widen Drainage Systems and Culverts in City of Kemah	Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district	06000001, 06000015	Galveston	12040204
061000122	Widen Drainage Systems and Culverts in City of Clear Lake Shores	Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000123	FM518 Drainage Improvements- Phase 2	Further study of component of 2007 Master Drainage Plan to include Atlas 14 rainfall	06000001, 06000015	Galveston, Harris	12040204
061000124	Replace Existing Culverts in City of Arcola	Evaluation of proposed culvert replacement.	06000003, 06000004, 06000015	Fort Bend	12040204

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000115	Stormwater Drainage Improvement- Nottingham ditch	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000116	Remedy Data Deficiency in City of New Waverly	120401030101	06000046	Watershed Planning	2.21	Urban/Local	City of New Waverly
061000117	City of Bayou Vista - Drainage Improvement Program	120402040200	06000107	Project Planning	0.45	Urban/Local	City of Bayou Vista
061000118	Stormwater Drainage Improvement- Bradshaw Rd	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000119	Shellside Drainage Improvements	120402040200, 120402040100	06000107, 06000106	Project Planning	52.89	Urban/Local	City of League City
061000120	Evaluation of Culvert Enlargement and Bridge Elevation in Grimes County	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000034, 06000035, 06000039, 06000038	Project Planning	798.87	Urban/Local	Grimes County
061000121	Widen Drainage Systems and Culverts in City of Kemah	120402040200, 120402040100	06000107, 06000106	Project Planning	1.91	Urban/Local	City of Kemah
061000122	Widen Drainage Systems and Culverts in City of Clear Lake Shores	120402040100	06000106	Project Planning	0.710432	Urban/Local	City of Clear Lake Shores
061000123	FM518 Drainage Improvements- Phase 2	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Urban/Local	City of Friendswood
061000124	Replace Existing Culverts in City of Arcola	120402040400	06000109	Project Planning	2.60	Urban/Local	City of Arcola

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000115	Stormwater Drainage Improvement- Nottingham ditch	Galveston, Harris, Harris County Flood Control District	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000116	Remedy Data Deficiency in City of New Waverly	Walker, New Waverly	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000117	City of Bayou Vista - Drainage Improvement Program	Galveston, Bayou Vista	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000118	Stormwater Drainage Improvement- Bradshaw Rd	Galveston, Harris, Harris County Flood Control District	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000119	Shellside Drainage Improvements	Galveston, Harris, Harris County Flood Control District	No	\$ 580,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000120	Evaluation of Culvert Enlargement and Bridge Elevation in Grimes County	Grimes, Plantersville, Todd Mission	No	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000121	Widen Drainage Systems and Culverts in City of Kemah	Galveston, Chambers, Kemah	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000122	Widen Drainage Systems and Culverts in City of Clear Lake Shores	Galveston, Clear Lake Shores	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000123	FM518 Drainage Improvements- Phase 2	Galveston, Harris, Harris County Flood Control District	No	\$ 410,000.00	No	Sponsor secured funding for FME
061000124	Replace Existing Culverts in City of Arcola	Fort Bend, Arcola	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000125	Update Liberty County Floodplain Maps	Study by participating jurisdictions to update floodway maps throughout the county, including Atlas 14 rainfalls.	06000001, 06000010, 06000015	Liberty	12040103, 12040203
061000129	Waller County Flood Damage Prevention Planning	Establish watershed-based planning and studies to address flood hazards with neighboring and constituent communities.	06000001, 06000015	Waller	12040102, 12040104
061000130	Hostetter and Gourd Creek Bridges Elevation Evaluation	Further study to elevate and install culverts on Hostetter and Gourd Creek roadways to prevent flooding and/or flood damage on roadway.	06000001, 06000015	Walker	12040101, 12040103
061000131	Implementation Study of Storm Sewer System Re-engineering in City of Kemah	Study of storm sewer system re-engineering and follow-up construction project to mitigate flood related impacts.	06000001, 06000015	Galveston	12040204
061000134	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable.	06000001, 06000015	Galveston	12040204
061000135	Recanalization Feasibility Study	Dechannelize existing feeder creeks that flow from north to south and improve drainage for storm water runoff.	06000001, 06000015	Liberty	12040103, 12040203
061000136	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable	06000001, 06000015	Galveston	12040103
061000137	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable	06000001, 06000015	Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000125	Update Liberty County Floodplain Maps	120401030108, 120401030109, 120401030201, 120401030202, 120401030203, 120401030204, 120401030205, 120401030401, 120401030402, 120402030101, 120402030102, 120402030103, 120402030104	06000053, 06000054, 06000056, 06000057, 06000058, 06000059, 06000060, 06000069, 06000070, 06000099, 06000100, 06000101, 06000102	Watershed Planning	1169.76	Riverine	Liberty County
061000129	Waller County Flood Damage Prevention Planning	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Watershed Planning	515.95	Urban/Local	Waller County
061000130	Hostetter and Gourd Creek Bridges Elevation Evaluation	120401010202, 120401010204, 120401030101, 120401030301, 120401030302	06000006, 06000008, 06000046, 06000061, 06000062	Project Planning	76.33	Urban/Local	Walker County
061000131	Implementation Study of Storm Sewer System Re-engineering in City of Kemah	120402040200, 120402040100	06000107, 06000106	Watershed Planning	1.91	Urban/Local	City of Kemah
061000134	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	664.95	Urban/Local	Galveston County
061000135	Recanalization Feasibility Study	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Project Planning	1169.76	Riverine, Urban/Local	Liberty County
061000136	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	120401030201, 120401030401	06000056, 06000069	Project Planning	1.91	Urban/Local	Galveston County
061000137	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	120402040100	06000106	Project Planning	0.71	Urban/Local	City of Clear Lake Shores

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000125	Update Liberty County Floodplain Maps	Liberty, Dayton	No	\$ 1,243,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000129	Waller County Flood Damage Prevention Planning	Waller, Katy, City of Waller, Houston, Prairie View	No	\$ 1,160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000130	Hostetter and Gourd Creek Bridges Elevation Evaluation	Walker, Willis, New Waverly	No	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000131	Implementation Study of Storm Sewer System Re-engineering in City of Kemah	Galveston, Chambers, Kemah	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000134	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Galveston, USACE	No	\$ 1,590,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000135	Recanalization Feasibility Study	Liberty, Trinity River Authority of Texas, San Jacinto River Authority, Southeast Texas Flood Control District, Gulf Coast Protection District	No	\$ 486,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000136	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Galveston, Kemah	No	\$ 190,000.00	no	Alignment with RFPG goals and TWDB guidance principles.
061000137	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Galveston, Clear Lake Shores	No	\$ 140,000.00	no	Alignment with RFPG goals and TWDB guidance principles.

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FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000138	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Review findings of potential breach to dam/levee system and develop/implement mitigation actions as applicable	06000001, 06000015	Galveston	12040204
061000139	City of Arcola Regional Drainage Improvements	Study of repetitive loss and possible drainage improvements.	06000001, 06000003, 06000004, 06000015	Fort Bend	12040204
061000140	Elevate Existing Bridge - East Fork San Jacinto River	Evaluate, Design and construct new bridge over east fork San Jacinto river on low water bridge road to reduce flooding.	06000001, 06000010, 06000011, 06000012, 06000015	Liberty	12040103
061000141	Southwood Forest Subdivision and Forgotten Forest Subdivision Evaluation	Study to develop a community-wide drainage system in Southwood Forest Subdivision and Forgotten Forest Subdivision.	06000001, 06000015	Walker	12040101
061000142	Shadowbend Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1 to include Atlas 14 rainfall.	06000001, 06000015	Galveston, Harris	12040204
061000143	City of Todd Mission Reduction of Floodplain Area Roads and Drainage Upgrade	Analysis of potential upgrades to be made to floodplain-area roads and drainage to reduce flood risk.	06000003, 06000004	Grimes	12040102
061000145	Jamica Cove Rd. Survey	Engineering assessment needed to determine if elevating the road would reduce future flooding impacts.	06000001, 06000015	Galveston	12040204
061000146	Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2	Further study of proposed drainage improvements to Stafford oaks	06000001, 06000015	Galveston, Harris	12040204
061000147	Implement Drainage Improvements in City of La Marque	Implement drainage projects that support low maintenance and cleaning of drainage ditches.	06000001, 06000015	Galveston	12040204
061000148	Liberty County Culvert Replacement Project	Increase culvert size in identified flood hazard problem areas within Liberty County.	06000015	Liberty	12040103, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000138	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	120402040200	06000107	Project Planning	14.23	Urban/Local	City of La Marque
061000139	City of Arcola Regional Drainage Improvements	120402040400	06000109	Project Planning	2.60	Urban/Local	City of Arcola
061000140	Elevate Existing Bridge - East Fork San Jacinto River	120401030201, 120401030401	06000056, 06000069	Project Planning	1.91	Riverine	City of North Cleveland
061000141	Southwood Forest Subdivision and Forgotten Forest Subdivision Evaluation	120401010202	06000006	Project Planning	0.29	Urban/Local	Walker County
061000142	Shadowbend Drainage Improvements Phase 2	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Urban/Local	City of Friendswood
061000143	City of Todd Mission Reduction of Floodplain Area Roads and Drainage Upgrade	120401020203, 120401020206	06000035, 06000038	Project Planning	2.00	Urban/Local	City of Todd Mission
061000145	Jamica Cove Rd. Survey	120402040300	06000108	Project Planning	0.71	Urban/Local	City of Jamaica Beach
061000146	Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Urban/Local	City of Friendswood
061000147	Implement Drainage Improvements in City of La Marque	120402040200	06000107	Project Planning	14.23	Urban/Local	City of La Marque
061000148	Liberty County Culvert Replacement Project	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Project Planning	1169.76	Urban/Local	Liberty

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000138	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	Galveston, La Marque	No	\$ 360,000.00	no	Alignment with RFPG goals and TWDB guidance principles.
061000139	City of Arcola Regional Drainage Improvements	Fort Bend, Arcola	No	\$ 520,000.00	no	Alignment with RFPG goals and TWDB guidance principles.
061000140	Elevate Existing Bridge - East Fork San Jacinto River	Liberty, North Cleveland	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000141	Southwood Forest Subdivision and Forgotten Forest Subdivision Evaluation	Walker	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000142	Shadowbend Drainage Improvements Phase 2	Galveston, Harris, Harris County Flood Control District, Friendswood	No	\$ 950,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000143	City of Todd Mission Reduction of Floodplain Area Roads and Drainage Upgrade	Grimes, Todd Mission	No	\$ 220,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000145	Jamica Cove Rd. Survey	Galveston, Jamaica Beach	No	\$ 140,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000146	Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2	Galveston, Harris, Harris County Flood Control District	No	\$ 50,000.00	No	Sponsor secured funding for FME
061000147	Implement Drainage Improvements in City of La Marque	Galveston, La Marque	No	\$ 360,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000148	Liberty County Culvert Replacement Project	Liberty, Cleveland, Dayton, North Cleveland, Mont Belvieu	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000149	Evaluating of Increase Height of Existing Levee Wall System in City of La Marque	Increase height of existing Levee wall system to withstand a Category 5 storm surge	06000001, 06000015	Galveston	12040204
061000150	Evaluation of Reinforcement of Critical Facilities in the City of Arcola	Reinforcement of critical facilities to withstand high winds from severe weather.	06000001, 06000011, 06000012	Fort Bend	12040204
061000151	Evaluation of Mitigation Alternatives for Repetitive Flood Claims Properties in Galveston County	Evaluate Mitigation Alternatives of Repetitive Flood Claim Properties in Galveston County	06000001, 06000015	Galveston	12040204
061000152	Cane Island Branch- Alt 1	Further study of 2,800 ac-ft detention upstream of Pitts road	06000001, 06000015	Fort Bend, Harris, Waller	12040104
061000153	Downtown Cleveland Drainage Line Installation	Further study of proposed larger drainage lines in downtown Cleveland to reduce flooding.	06000001, 06000010, 06000015	Liberty, San Jacinto	12040103
061000156	Flood Gates Evaluation at Walker County Annex #2	Evaluation of proposed removable facility flood gates at Walker County Annex #2	06000001, 06000015	Walker	12040101, 12040103
061000158	City of Bayou Vista Canal Dredging Study	Plan for Canal Dredging to reduce sediment deposited during storm events. Study to develop and implement canal dredging program.	06000001, 06000015	Galveston	12040204

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000149	Evaluating of Increase Height of Existing Levee Wall System in City of La Marque	120402040200	06000107	Project Planning	14.23	Urban/Local	City of La Marque
061000150	Evaluation of Reinforcement of Critical Facilities in the City of Arcola	120402040400	06000109	Project Planning	2.60	Urban/Local	City of Arcola
061000151	Evaluation of Mitigation Alternatives for Repetitive Flood Claims Properties in Galveston County	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	664.95	Urban/Local	Galveston County
061000152	Cane Island Branch- Alt 1	120401040102, 120401040103, 120401040104, 120401040101, 120401040203	06000072, 06000073, 06000074, 06000071, 06000077	Project Planning	14.52	Urban/Local	Waller County
061000153	Downtown Cleveland Drainage Line Installation	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Project Planning	18.74	Urban/Local	City of Cleveland
061000156	Flood Gates Evaluation at Walker County Annex #2	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Project Planning	797.84	Urban/Local	Walker County
061000158	City of Bayou Vista Canal Dredging Study	120402040200	06000107	Project Planning	0.45	Urban/Local	City of Bayou Vista

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061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000149	Evaluating of Increase Height of Existing Levee Wall System in City of La Marque	Galveston, La Marque	No	\$ 810,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000150	Evaluation of Reinforcement of Critical Facilities in the City of Arcola	Fort Bend, Arcola	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000151	Evaluation of Mitigation Alternatives for Repetitive Flood Claims Properties in Galveston County	Galveston Nassau Bay, Bayou Vista, Clear Lake Shores, Galveston, Jamaica Beach, Friendswood, Hitchcock, La Marque, League City, Santa Fe, Texas City, Kemah, Tiki Island, Dickinson, Seabrook	No	\$ 11,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000152	Cane Island Branch- Alt 1	Waller, Harris County Flood Control District, Katy-Brookshire Drainage District, Katy	No	\$ 180,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000153	Downtown Cleveland Drainage Line Installation	Liberty, Cleveland	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000156	Flood Gates Evaluation at Walker County Annex #2	Walker, Huntsville, New Waverly	No	\$ 20,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000158	City of Bayou Vista Canal Dredging Study	Galveston, Bayou Vista	No	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

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FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000160	Liberty County Regional Flood Drainage Plan	Regional drainage study to establish a county wide drainage plan including atlas 14 rainfall.	06000001, 06000015	Liberty	12040103, 12040203
061000161	City of North Cleveland Engineering Study	Study to identify drainage improvements in the City of North Cleveland.	06000001, 06000010, 06000011, 06000012, 06000015	Liberty	12040103
061000162	Elevation of Bridge Road in City of North Cleveland	Further study to elevate Bridge road	06000001, 06000010, 06000011, 06000012, 06000015	Liberty	12040103
061000163	Galveston County Drainage System Improvement Study	Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district	06000001	Galveston	12040204
061000164	Storm Water Detention Ponds Evaluation in the City of Santa Fe	Further study to determine detention ponds/basin could be solution for addressing flood impacts	06000015	Galveston	12040204
061000165	Drainage System Analysis for City of Santa Fe	Further study to widen drainage systems and increase culvert size to accommodate increased water flows. Coordinate efforts with water district	06000015	Galveston	12040204
061000166	City of Stafford Run Creek Detention Pond Construction	Further study of proposed detention ponds immediately downstream of Brand Lane and Independence Park.	06000015	Fort Bend, Harris	12040104, 12040204
061000167	City of Cleveland Drainage Improvements	Further study of proposed city of Cleveland drainage improvements	06000001, 06000015	Liberty, Montgomery, San Jacinto	12040103

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000160	Liberty County Regional Flood Drainage Plan	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Project Planning	1169.76	Urban/Local	Liberty County
061000161	City of North Cleveland Engineering Study	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Project Planning	18.74	Urban/Local	City of North Cleveland
061000162	Elevation of Bridge Road in City of North Cleveland	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Project Planning	18.74	Urban/Local	City of North Cleveland
061000163	Galveston County Drainage System Improvement Study	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	664.95	Urban/Local	Galveston County
061000164	Storm Water Detention Ponds Evaluation in the City of Santa Fe	120402040300, 120402040200	06000108, 06000107	Project Planning	17.04	Urban/Local	City of Santa Fe
061000165	Drainage System Analysis for City of Santa Fe	120402040300, 120402040200	06000108, 06000107	Project Planning	17.04	Urban/Local	City of Santa Fe
061000166	City of Stafford Run Creek Detention Pond Construction	120401040401, 120401040501, 120402040400	06000083, 06000085, 06000109	Project Planning	7.02	Riverine, Urban/Local	City of Stafford
061000167	City of Cleveland Drainage Improvements	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Project Planning	18.74	Riverine	City of Cleveland

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000160	Liberty County Regional Flood Drainage Plan	Liberty, Cleveland, Dayton, North Cleveland, Plum Grove, Mont Belvieu	No	\$ 486,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000161	City of North Cleveland Engineering Study	Liberty, North Cleveland	No	\$ 400,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000162	Elevation of Bridge Road in City of North Cleveland	Liberty, North Cleveland	No	\$ 120,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000163	Galveston County Drainage System Improvement Study	Galveston	No	\$ 1,590,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000164	Storm Water Detention Ponds Evaluation in the City of Santa Fe	Galveston, Santa Fe	No	\$ 380,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000165	Drainage System Analysis for City of Santa Fe	Galveston, Santa Fe	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000166	City of Stafford Run Creek Detention Pond Construction	Fort Bend, Harris, Harris County Flood Control District, Stafford	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000167	City of Cleveland Drainage Improvements	Liberty, Cleveland	No	\$ 410,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

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FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000168	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County Project	planning, H&H studies, design, environmental review, and barrier removal for the 98.6 miles of the San Jacinto Watershed and Tributary Barrier and Flood Mitigation-East County project area.	06000001, 06000015	Harris, Liberty, Montgomery, San Jacinto	12040103
061000169	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - West County Project	H&H study, design, tributary barrier removal, and environmental assessments for the 96.2 miles of the San Jacinto Watershed and Tributary Barrier and Flood Mitigation-West County project area.	06000001, 06000015	Harris, Montgomery	12040101
061000170	Spring Gully Watershed Planning Project Near-Term Planning Project: PA03	Planning-level study needed. PA03 warranted a near-term solution. Flooded structures centralized in a short reach along the main stem O200-00-00 which the best strategy for the area was buyouts.	06000001, 06000015	Harris	12040104, 12040203
061000171	Spring Gully Watershed Planning Project- Near-term Planning Project: PA04	Planning-level study. Lowering WSEL in O203-00-00 to around 29 feet MSL. Most benefit when O203-00-00 and Thompson Road Storm drain system upsized, but Thompson road storm drain design.	06000001, 06000015	Harris	12040104, 12040203
061000172	Spring Gully Watershed Planning Project - Near-term planning project: PA05	Planning-level study needed. A stormwater detention basin near confluence of O207-00-00 and O207-01-00 required to lower WSEL . Reduced flow rates only after relief channel in Phase III implemented.	06000001, 06000015	Harris	12040104, 12040203
061000173	Update Liberty County FIRMs to Include Bench Marks	Add bench marks to updated Flood Insurance Rate Maps.	06000001, 06000015	Liberty	12040103, 12040203
061000174	Carpenters Planning Study N110-00-00 Diversion to P103-00/P103-03	Feasibility study needed to evaluate a designed interconnection to lower Greens Bayou	06000001, 06000015	Harris	12040101, 12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000168	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County Project	120401030402, 120401030401	06000070, 06000069	Watershed Planning	94.89	Riverine, Urban/Local	Montgomery County
061000169	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - West County Project	120401010401, 120401010402, 120401010404	06000020, 06000021, 06000023	Watershed Planning	122.12	Riverine, Urban/Local	Montgomery County
061000170	Spring Gully Watershed Planning Project Near-Term Planning Project: PA03	120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030106	06000097, 06000098, 06000096, 06000103, 06000102, 06000104	Project Planning	32.66	Riverine, Urban/local	Harris County Flood Control District (HCFCF)
061000171	Spring Gully Watershed Planning Project- Near-term Planning Project: PA04	120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030106	06000097, 06000098, 06000096, 06000103, 06000102, 06000104	Project Planning	32.66	Riverine, Urban/local	Harris County Flood Control District (HCFCF)
061000172	Spring Gully Watershed Planning Project - Near-term planning project: PA05	120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030106	06000097, 06000098, 06000096, 06000103, 06000102, 06000104	Project Planning	32.66	Riverine, Urban/local	Harris County Flood Control District (HCFCF)
061000173	Update Liberty County FIRMs to Include Bench Marks	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Watershed Planning	1169.76	Urban/Local	Liberty County
061000174	Carpenters Planning Study N110-00-00 Diversion to P103-00/P103-03	120401010502, 120401040605, 120401040703, 120401040705, 120401040702, 120401040606, 120401040704	06000025, 06000091, 06000095, 06000097, 06000094, 06000092, 06000096	Project Planning	31.03	Riverine	Harris County Flood Control District (HCFCF)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000168	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County Project	Harris County Flood Control District, Harris, Liberty County, City of Houston,	No	\$ 1,160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000169	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - West County Project	Montgomery, Harris, City of Houston, Harris County Flood Control District	No	\$ 1,110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000170	Spring Gully Watershed Planning Project Near-Term Planning Project: PA03	Harris, Harris County Flood Control District, Baytown	No	\$ 600,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000171	Spring Gully Watershed Planning Project- Near-term Planning Project: PA04	Harris, Harris County Flood Control District, Baytown	No	\$ 210,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000172	Spring Gully Watershed Planning Project - Near-term planning project: PA05	Harris, Harris County Flood Control District, Baytown	No	\$ 170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000173	Update Liberty County FIRMs to Include Bench Marks	Liberty, Dayton	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000174	Carpenters Planning Study N110-00-00 Diversion to P103-00/P103-03	Harris, Harris County Flood Control District, Houston	No	\$ 1,200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000175	Regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management	Further study of regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management	06000001, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204
061000176	Lower Greens Feasibility Study	Feasibility study will identify the existing causes of flooding and solutions to reduce the risk of flooding in the lower stretch of Greens Bayou. Potential solutions channel conveyance improvements, detention, or bridge adjustments or replacements.	06000001, 06000010, 06000015	Harris	12040101, 12040102, 12040104
061000177	Addicks Reservoir Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Harris, Waller	12040102, 12040104
061000178	Barker Reservoir Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Fort Bend, Harris, Waller	12040102, 12040104
061000179	Buffalo Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project.	06000001, 06000010, 06000015	Fort Bend, Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000175	Regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management	120401010502, 120401040605, 120401040703, 120401040705, 120401040702, 120401040606, 120401040704	06000025, 06000091, 06000095, 06000097, 06000094, 06000092, 06000096	Project Planning	1770.82	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000176	Lower Greens Feasibility Study	120401010502, 120401010501, 120401020106, 120401020107, 120401040605, 120401040703, 120401040601, 120401040702, 120401040302, 120401040604, 120401040606, 120401040304, 120401040301, 120401040602, 120401040301, 120401040602, 120401040603, 120401040701	06000025, 06000024, 06000031, 06000032, 06000091, 06000095, 06000087, 06000094, 06000079, 06000090, 06000092, 06000081, 06000078, 06000088, 06000089, 06000093	Project Planning	210.14	Riverine	Harris County Flood Control District (HCFCF)
061000177	Addicks Reservoir Watershed Study	120401020103, 120401040102, 120401040202, 120401040104, 120401040201, 120401040302, 120401040101, 120401040203, 120401040303, 120401040301	06000028, 06000072, 06000076, 06000074, 06000075, 06000079, 06000071, 06000077, 06000080, 06000078	Watershed Planning	137.96	Riverine	Harris County Flood Control District (HCFCF)
061000178	Barker Reservoir Watershed Study	120401020103, 120401040102, 120401040103, 120401040104, 120401040101, 120401040203, 120401040303, 120401040401	06000028, 06000072, 06000073, 06000074, 06000071, 06000077, 06000080, 06000083	Watershed Planning	128.16	Riverine	Harris County Flood Control District (HCFCF)
061000179	Buffalo Bayou Watershed Study	120401040703, 120401040402, 120401040104, 120401040305, 120401040302, 120401040203, 120401040303, 120401040304, 120401040401, 120401040701	06000095, 06000084, 06000074, 06000082, 06000079, 06000077, 06000080, 06000081, 06000083, 06000093	Watershed Planning	101.51	Riverine	Harris County Flood Control District (HCFCF)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000175	Regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management	Harris, Harris County Flood Control District, Houston	No	\$ 20,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000176	Lower Greens Feasibility Study	Harris, Harris County Flood Control District, Houston, Humble	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000177	Addicks Reservoir Watershed Study	Harris, Waller, Harris County Flood Control District, Katy, Houston	Yes	\$ 670,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000178	Barker Reservoir Watershed Study	Fort Bend, Harris, Waller, Harris County Flood Control District, Katy, Houston	Yes	\$ 620,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000179	Buffalo Bayou Watershed Study	Fort Bend, Harris, Harris County Flood Control District, Hedwig Village, Hillshire Village, Hunters Creek Village, Piney Point Village, Houston, Bunker Hill Village, Spring Valley Village	Yes	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000180	Brays Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Fort Bend, Harris	12040104
061000181	Cypress Creek Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Harris, Waller	12040102, 12040104
061000182	Hunting Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Harris	12040104
061000183	Sims Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Fort Bend, Harris	12040104, 12040204
061000184	White Oak Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Harris	12040102, 12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000180	Brays Bayou Watershed Study	120401040703, 120401040402, 120401040305, 120401040303, 120401040401, 120401040502	06000095, 06000084, 06000082, 06000080, 06000083, 06000086	Watershed Planning	128.21	Riverine	Harris County Flood Control District (HCFCD)
061000181	Cypress Creek Watershed Study	120401020102, 120401020103, 120401020104, 120401020106, 120401020101, 120401020105, 120401020107, 120401020201, 120401020210, 120401020212, 120401020213, 120401040601, 120401040102, 120401040201, 120401040101, 120401040203, 120401040301, 120401040602, 120401040603	06000027, 06000028, 06000029, 06000031, 06000026, 06000030, 06000032, 06000033, 06000042, 06000044, 06000045, 06000087, 06000072, 06000075, 06000071, 06000077, 06000078, 06000088, 06000089	Watershed Planning	266.21	Riverine	Harris County Flood Control District (HCFCD)
061000182	Hunting Bayou Watershed Study	120401040703, 120401040604, 120401040606, 120401040304, 120401040701	06000095, 06000090, 06000092, 06000081, 06000093	Watershed Planning	30.87	Riverine	Harris County Flood Control District (HCFCD)
061000183	Sims Bayou Watershed Study	120401040703, 120401040402, 120401040502, 120401040501, 120402040400, 120402040100	06000095, 06000084, 06000086, 06000085, 06000109, 06000106	Watershed Planning	93.21	Riverine	Harris County Flood Control District (HCFCD)
061000184	White Oak Bayou Watershed Study	120401020104, 120401020106, 120401040601, 120401040305, 120401040302, 120401040604, 120401040303, 120401040304, 120401040301, 120401040701	06000029, 06000031, 06000087, 06000082, 06000079, 06000090, 06000080, 06000081, 06000078, 06000093	Watershed Planning	110.70	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000180	Brays Bayou Watershed Study	Fort Bend, Harris, Harris County Flood Control District, Houston, Bellaire, Meadows Place, Southside Place, West University Place, Stafford	Yes	\$ 620,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000181	Cypress Creek Watershed Study	Harris, Waller, Harris County Flood Control District, Waller, Houston, Tomball, Prairie View	Yes	\$ 1,230,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000182	Hunting Bayou Watershed Study	Harris, Harris County Flood Control District, Galena Park, Jacinto City, Houston	Yes	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000183	Sims Bayou Watershed Study	Fort Bend, Harris, Harris County Flood Control District, South Houston, Missouri City, Houston, Pasadena, Stafford	Yes	\$ 470,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000184	White Oak Bayou Watershed Study	Harris, Harris County Flood Control District, Jersey Village, Houston	Yes	\$ 800,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000185	Upper Greens Bayou Watershed Study	Watershed wide study using latest data, including MAAPnext models and Atlas 14 rainfall. Study to identify flooding issues within watershed, identify projects to reduce flooding, and provide cost estimates and benefit and cost metrics for each project	06000001, 06000010, 06000015	Harris	12040101, 12040102, 12040104
061000186	Brays Bayou - Poor Farm Ditch	Study to develop a BCR and elevate project to a FMP. Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls	06000001, '06000015	Harris	12040104
061000187	Brays Bayou Restore Channel Conveyance Capacity Along D115-00-00	Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls	06000001, '06000015	Harris	12040104
061000188	Brays Bayou - Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch	Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls	06000001, '06000015	Fort Bend, Harris	12040104
061000191	Spring Creek - Construction of a Reservoir along Spring Creek	Further study for design and construction of a future flood control dam and reservoir in the Spring Creek watershed	06000001, '06000015	Harris, Waller, Montgomery, Grimes	12040101, 12040102, 12040104
061000192	White Oak Bayou - E127-00-00 Fork	Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.	06000001, '06000015	Harris	12040104
061000194	White Oak Bayou - Turkey Gully E106-00-00	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls	06000001, '06000015	Harris	12040104
061000196	White Oak Bayou - General Drainage Improvements along E105-00-00	Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls	06000015	Harris	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000185	Upper Greens Bayou Watershed Study	120401010502, 120401010501, 120401020106, 120401020107, 120401040605, 120401040703, 120401040601, 120401040702, 120401040302, 120401040604, 120401040606, 120401040304, 120401040301, 120401040602, 120401040603, 120401040701	06000025, 06000024, 06000031, 06000032, 06000091, 06000095, 06000087, 06000094, 06000079, 06000090, 06000092, 06000081, 06000078, 06000088, 06000089, 06000093	Watershed Planning	210.14	Riverine	Harris County Flood Control District (HCFC)
061000186	Brays Bayou - Poor Farm Ditch	120401040402	06000084	Project Planning	3.34	Riverine	Harris County Flood Control District (HCFC)
061000187	Brays Bayou Restore Channel Conveyance Capacity Along D115-00-00	120401040401	06000083	Project Planning	6.32	Riverine	Harris County Flood Control District (HCFC)
061000188	Brays Bayou - Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch	120401040103, 120401040104, 120401040303, 120401040401	06000073, 06000074, 06000080, 06000083	Project Planning	34.14	Riverine	Harris County Flood Control District (HCFC)
061000191	Spring Creek - Construction of a Reservoir along Spring Creek	120401040103, 120401040104, 120401040303, 120401040401	06000073, 06000074, 06000080, 06000083	Project Planning	384.39	Riverine	Harris County Flood Control District (HCFC)
061000192	White Oak Bayou - E127-00-00 Fork	120401040302, 120401040301	06000079, 06000078	Project Planning	2.23	Riverine	City of Jersey Village
061000194	White Oak Bayou - Turkey Gully E106-00-00	120401040304	06000081	Project Planning	6.78	Riverine	Harris County Flood Control District (HCFC)
061000196	White Oak Bayou - General Drainage Improvements along E105-00-00	120401040304	06000081	Project Planning	0.92	Riverine	City of Houston

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000185	Upper Greens Bayou Watershed Study	Harris, Harris County Flood Control District, Houston, Humble	Yes	\$ 980,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000186	Brays Bayou - Poor Farm Ditch	Harris, Harris County Flood Control District, Houston, Southside Place, West University Place	No	\$ 690,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000187	Brays Bayou Restore Channel Conveyance Capacity Along D115-00-00	Harris, Harris County Flood Control District, Houston, Bellaire	No	\$ 1,020,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000188	Brays Bayou - Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch	Harris, Harris County Flood Control District, Houston	No	\$ 1,020,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000191	Spring Creek - Construction of a Reservoir along Spring Creek	Harris, Waller, Montgomery, Grimes, Harris County Flood Control District,	No	\$ 870,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000192	White Oak Bayou - E127-00-00 Fork	Harris, Harris County Flood Control District	No	\$ 150,000.00	No	Sponsor secured funding for FME
061000194	White Oak Bayou - Turkey Gully E106-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 1,330,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000196	White Oak Bayou - General Drainage Improvements along E105-00-00	Harris, Harris County Flood Control District	No	\$ 120,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000197	Harris County Wide - Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins	Further study for design and construction of stormwater detention basins on various City of Houston properties could reduce the risk of flooding in the area	06000010, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204
061000201	Little Cypress Creek - L109-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040102
061000202	Little Cypress Creek - L113-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040102
061000203	Little Cypress Creek - L103-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040102
061000204	Greens Bayou - P130-05-02	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000205	Greens Bayou - P142-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000197	Harris County Wide - Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins	120401020104, 120401020106, 120401040601, 120401040305, 120401040302, 120401040604, 120401040303, 120401040304, 120401040301, 120401040701	06000029, 06000031, 06000087, 06000082, 06000079, 06000090, 06000080, 06000081, 06000078, 06000093	Project Planning	1770.82	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000201	Little Cypress Creek - L109-00-00	120401020104, 120401020105, 120401020210	06000029, 06000030, 06000042	Project Planning	5.58	Riverine	Harris County Flood Control District (HCFCD)
061000202	Little Cypress Creek - L113-00-00	120401020104, 120401020105, 120401020205	06000029, 06000030, 06000037	Project Planning	14.96	Riverine	Harris County Flood Control District (HCFCD)
061000203	Little Cypress Creek - L103-00-00	120401020104, 120401020106, 120401020105	06000029, 06000031, 06000030	Project Planning	5.24	Riverine	Harris County Flood Control District (HCFCD)
061000204	Greens Bayou - P130-05-02	120401040602	06000088	Project Planning	0.13	Riverine	Harris County Flood Control District (HCFCD)
061000205	Greens Bayou - P142-00-00	120401040603	06000089	Project Planning	1.63	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000197	Harris County Wide - Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins	Harris, Harris County Flood Control District, Houston	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000201	Little Cypress Creek - L109-00-00	Harris, Harris County Flood Control District	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000202	Little Cypress Creek - L113-00-00	Harris, Harris County Flood Control District	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000203	Little Cypress Creek - L103-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000204	Greens Bayou - P130-05-02	Harris, Harris County Flood Control District, Houston	No	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000205	Greens Bayou - P142-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 250,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000207	San Jacinto River - G103-46-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040101
061000208	San Jacinto River - G103-33-04	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040101
061000209	San Jacinto River - G103-36-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040101
061000213	City of Conroe Riverine Study and Mapping Improvements	Study and new modeling for moderate to low quality areas and revise the flood maps using the results from the updated modeling	06000010	Montgomery	12040101
061000214	April Sound Subdivision Evaluation	Detailed analysis to be completed for the entire development using detailed storm sewer modeling	06000010, 06000015	Montgomery	12040101
061000215	City of Conroe Downtown Master Drainage Plan	Full as-built storm sewer inventory survey and a full drainage study recommended.	06000010, 06000015	Montgomery	12040101
061000216	Greens Bayou - P103-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000217	Barker - T101-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000207	San Jacinto River - G103-46-00	120401010501	06000024	Project Planning	58.51	Riverine	Harris County Flood Control District (HCFCD)
061000208	San Jacinto River - G103-33-04	120401010501	06000024	Project Planning	1.13	Riverine	Harris County Flood Control District (HCFCD)
061000209	San Jacinto River - G103-36-00	120401010501	06000024	Project Planning	58.51	Riverine	Harris County Flood Control District (HCFCD)
061000213	City of Conroe Riverine Study and Mapping Improvements	120401010207, 120401010401, 120401010402	06000011, 06000020, 06000021	Watershed Planning	100.07	Riverine	City of Conroe
061000214	April Sound Subdivision Evaluation	120401010207, 120401010401, 120401010402	06000011, 06000020, 06000021	Project Planning	100.07	Urban/Local	City of Conroe
061000215	City of Conroe Downtown Master Drainage Plan	120401010207, 120401010401, 120401010402	06000011, 06000020, 06000021	Project Planning	100.07	Urban/Local	City of Conroe
061000216	Greens Bayou - P103-00-00	120401040703, 120401040702, 120401040606	06000095, 06000094, 06000092	Project Planning	5.55	Riverine	Harris County Flood Control District (HCFCD)
061000217	Barker - T101-00-00	120401040102, 120401040104, 120401040203, 120401040303	06000072, 06000074, 06000077, 06000080	Project Planning	17.28	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000207	San Jacinto River - G103-46-00	Harris, Harris County Flood Control District, Houston, Humble	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000208	San Jacinto River - G103-33-04	Harris, Harris County Flood Control District, Houston	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000209	San Jacinto River - G103-36-00	Harris, Harris County Flood Control District, Houston, Humble	No	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000213	City of Conroe Riverine Study and Mapping Improvements	Montgomery, Conroe	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000214	April Sound Subdivision Evaluation	Montgomery, Conroe, San Jacinto River Authority	No	\$ 1,700,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000215	City of Conroe Downtown Master Drainage Plan	Montgomery, Conroe	No	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000216	Greens Bayou - P103-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000217	Barker - T101-00-00	Harris, Harris County Flood Control District, Katy, Houston	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000218	Barker - T103-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000219	Buffalo Bayou - W158-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000220	Buffalo Bayou - W130-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000221	Buffalo Bayou - W163-00-00	Further study of Flood Risk Reduction need identified through the HCFCD 'Watershed Planning Tool' to determine channel modifications needed to restore/improve channel conveyance including Atlas 14 rainfall	06000001, 06000015	Harris	12040104
061000222	City of Arcola Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend	12040204
061000223	City of Baytown Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Chambers, Harris	12040104, 12040203
061000224	City of Beach City Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Chambers	12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000218	Barker - T103-00-00	120401040102, 120401040104, 120401040203	06000072, 06000074, 06000077	Project Planning	4.07	Riverine	Harris County Flood Control District (HCFC)
061000219	Buffalo Bayou - W158-00-00	120401040303	06000080	Project Planning	2.82	Riverine	Harris County Flood Control District (HCFC)
061000220	Buffalo Bayou - W130-00-00	120401040305, 120401040303	06000082, 06000080	Project Planning	2.79	Riverine	Harris County Flood Control District (HCFC)
061000221	Buffalo Bayou - W163-00-00	120401040303	06000080	Project Planning	1.39	Riverine	Harris County Flood Control District (HCFC)
061000222	City of Arcola Master Drainage Plan	120402040400	06000109	Watershed Planning	2.60	Urban/Local	City of Arcola
061000223	City of Baytown Master Drainage Plan	120401040705, 120401040706, 120402030105, 120402030106, 120402030200	06000097, 06000098, 06000103, 06000104, 06000105	Watershed Planning	38.05	Urban/Local	City of Baytown
061000224	City of Beach City Master Drainage Plan	120402030200	06000105	Watershed Planning	4.46	Urban/Local	City of Beach City

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000218	Barker - T103-00-00	Harris, Harris County Flood Control District, Katy, Houston	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000219	Buffalo Bayou - W158-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000220	Buffalo Bayou - W130-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000221	Buffalo Bayou - W163-00-00	Harris, Harris County Flood Control District, Houston	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000222	City of Arcola Master Drainage Plan	Fort Bend, City of Arcola	No	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000223	City of Baytown Master Drainage Plan	Chambers, Harris, Harris County Flood Control District, Baytown,	Yes	\$ 520,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000224	City of Beach City Master Drainage Plan	Chambers, Beach City	Yes	\$ 240,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000225	City of Bellaire Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000226	City of Brookside Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Brazoria	12040204
061000227	City of Bunker Hill Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000228	City of Clear Lake Shores Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston, Harris	12040204
061000229	City of Cleveland Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Liberty	12040103
061000230	City of Coldspring Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	San Jacinto	12040103
061000232	City of Cut and Shoot Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101, 12040103
061000233	City of Dayton Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Liberty	12040203
061000234	City of Deer Park Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104, 12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000225	City of Bellaire Master Drainage Plan	120401040402, 120401040401	06000084, 06000083	Watershed Planning	3.58	Urban/Local	City of Bellaire
061000226	City of Brookside Village Master Drainage Plan	120402040100	06000106	Watershed Planning	2.06	Urban/Local	City of Brookside Village
061000227	City of Bunker Hill Village Master Drainage Plan	120401040303	06000080	Watershed Planning	1.44	Urban/Local	City of Bunker Hill Village
061000228	City of Clear Lake Shores Master Drainage Plan	120402040100	06000106	Watershed Planning	0.71	Urban/Local	City of Clear Lake Shores
061000229	City of Cleveland Master Drainage Plan	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Watershed Planning	18.74	Urban/Local	City of Cleveland
061000230	City of Coldspring Master Drainage Plan	120401030307	06000067	Watershed Planning	1.85	Urban/Local	City of Coldspring
061000232	City of Cut and Shoot Master Drainage Plan	120401010403, 120401030102, 120401030104	06000022, 06000047, 06000049	Watershed Planning	2.70	Urban/Local	City of Cut and Shoot
061000233	City of Dayton Master Drainage Plan	120402030104, 120402030103, 120402030102, 120402030101	06000102, 06000101, 06000100, 06000099	Watershed Planning	30.58	Urban/Local	City of Dayton
061000234	City of Deer Park Master Drainage Plan	120401040703, 120401040706, 120402040100	06000095, 06000098, 06000106	Watershed Planning	10.53	Urban/Local	City of Deer Park

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000225	City of Bellaire Master Drainage Plan	Harris, Harris County Flood Control, Bellaire	Yes	\$ 1,500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000226	City of Brookside Village Master Drainage Plan	Brazoria, West Brazoria County Drainage District, Brookside Village	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000227	City of Bunker Hill Village Master Drainage Plan	Harris, Harris County Flood Control, City of Bunker Hill Village	No	\$ 170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000228	City of Clear Lake Shores Master Drainage Plan	Galveston, Harris, Harris County Flood Control District, Clear Lake Shores	Yes	\$ 140,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000229	City of Cleveland Master Drainage Plan	Liberty, City of Cleveland	No	\$ 400,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000230	City of Coldspring Master Drainage Plan	San Jacinto, City of Coldspring	No	\$ 180,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000232	City of Cut and Shoot Master Drainage Plan	Montgomery, City of Cut and Shoot	No	\$ 210,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000233	City of Dayton Master Drainage Plan	Liberty, City of Dayton	No	\$ 108,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000234	City of Deer Park Master Drainage Plan	Harris, Harris County Flood Control District, Deer Park	Yes	\$ 320,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000235	City of Dickinson Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston	12040204
061000236	City of El Lago Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040204
061000237	City of Friendswood Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston, Harris	12040204
061000238	City of Fulshear Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend	12040104
061000239	City of Galena Park Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000241	City of Hedwig Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000242	City of Hillcrest Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Brazoria	12040204
061000243	City of Hillshire Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000244	City of Hitchcock Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Brazoria, Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000235	City of Dickinson Master Drainage Plan	120402040200	06000107	Watershed Planning	10.30	Urban/Local	City of Dickinson
061000236	City of El Lago Master Drainage Plan	120402040100	06000106	Watershed Planning	0.71	Urban/Local	City of El Lago
061000237	City of Friendswood Master Drainage Plan	120402040200, 120402040100	06000107, 06000106	Watershed Planning	20.83	Urban/Local	City of Friendswood
061000238	City of Fulshear Master Drainage Plan	120401040103	06000073	Watershed Planning	12.06	Urban/Local	City of Fulshear
061000239	City of Galena Park Master Drainage Plan	120401040703, 120401040701	06000095, 06000093	Watershed Planning	4.90	Urban/Local	City of Galena Park
061000241	City of Hedwig Village Master Drainage Plan	120401040303	06000080	Watershed Planning	0.94	Urban/Local	City of Hedwig Village
061000242	City of Hillcrest Master Drainage Plan	120402040400	06000109	Watershed Planning	0.44	Urban/Local	Hillcrest Village
061000243	City of Hillshire Village Master Drainage Plan	120401040303	06000080	Watershed Planning	0.27	Urban/Local	City of Hillshire Village
061000244	City of Hitchcock Master Drainage Plan	120402040300, 120402040200	06000108, 06000107	Watershed Planning	91.21	Urban/Local	City of Hitchcock

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000235	City of Dickinson Master Drainage Plan	Galveston, Dickinson	Yes	\$ 320,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000236	City of El Lago Master Drainage Plan	Harris, City of El Lago	No	\$ 140,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000237	City of Friendswood Master Drainage Plan	Galveston, Harris, Harris County Flood Control District, Friendswood	Yes	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000238	City of Fulshear Master Drainage Plan	Fort Bend, Fulshear	Yes	\$ 340,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000239	City of Galena Park Master Drainage Plan	Harris, Harris County Flood Control District, Galena Park	Yes	\$ 250,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000241	City of Hedwig Village Master Drainage Plan	Harris, Harris County Flood Control District, Hedwig Village	Yes	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000242	City of Hillcrest Master Drainage Plan	Brazoria, West Brazoria County Drainage District, Hillcrest	Yes	\$ 130,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000243	City of Hillshire Village Master Drainage Plan	Harris, Harris County Flood Control District, Hillshire Village	Yes	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000244	City of Hitchcock Master Drainage Plan	Brazoria, Galveston, West Brazoria County Drainage District, Hitchcock	Yes	\$ 720,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000246	City of Humble Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040101, 12040102, 12040104
061000247	City of Hunters Creek Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000248	City of Huntsville Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Walker	12040101, 12040103
061000249	City of Iowa Colony Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Brazoria	12040204
061000250	City of Jacinto City Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000251	City of Jamaica Beach Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston	12040204
061000252	City of Jersey Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000253	City of Katy Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend, Harris, Waller	12040104
061000254	City of Kemah Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston, Chambers	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000246	City of Humble Master Drainage Plan	120401010501, 120401020213, 120401040602	06000024, 06000045, 06000088	Watershed Planning	9.79	Urban/Local	City of Humble
061000247	City of Hunters Creek Village Master Drainage Plan	120401040303	06000080	Watershed Planning	1.95	Urban/Local	City of Hunters Creek Village
061000248	City of Huntsville Master Drainage Plan	120401010104, 120401010102, 120401010201, 120401010202, 120401030302	06000004, 06000002, 06000005, 06000006, 06000062	Watershed Planning	43.24	Urban/Local	City of Huntsville
061000249	City of Iowa Colony Master Drainage Plan	120402040400	06000109	Watershed Planning	9.42	Urban/Local	City of Iowa Colony
061000250	City of Jacinto City Master Drainage Plan	120401040701	06000093	Watershed Planning	1.85	Urban/Local	City of Jacinto City
061000251	City of Jamaica Beach Master Drainage Plan	120402040300	06000108	Watershed Planning	0.71	Urban/Local	City of Jamaica Beach
061000252	City of Jersey Village Master Drainage Plan	120401040302, 120401040301	06000079, 06000078	Watershed Planning	3.42	Urban/Local	City of Jersey Village
061000253	City of Katy Master Drainage Plan	120401040102, 120401040103, 120401040104, 120401040101, 120401040203	06000072, 06000073, 06000074, 06000071, 06000077	Watershed Planning	14.52	Urban/Local	City of Katy
061000254	City of Kemah Master Drainage Plan	120402040200, 120402040100	06000107, 06000106	Watershed Planning	1.91	Urban/Local	City of Kemah

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000246	City of Humble Master Drainage Plan	Harris, Harris County Flood Control District, Humble	Yes	\$ 320,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000247	City of Hunters Creek Village Master Drainage Plan	Harris, Harris County Flood Control District, Hunters Creek Village	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000248	City of Huntsville Master Drainage Plan	Walker, Huntsville	Yes	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000249	City of Iowa Colony Master Drainage Plan	Brazoria, West Brazoria County Drainage District, Iowa Colony	Yes	\$ 310,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000250	City of Jacinto City Master Drainage Plan	Harris, City of Jacinto City	No	\$ 180,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000251	City of Jamaica Beach Master Drainage Plan	Galveston, City of Jamaica Beach	No	\$ 140,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000252	City of Jersey Village Master Drainage Plan	Harris, Harris County Flood Control District, Jersey Village	Yes	\$ 220,000.00	No	Sponsor secured funding for FME
061000253	City of Katy Master Drainage Plan	Fort Bend, Harris, Waller, Harris County Flood Control District, Katy,	Yes	\$ 360,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000254	City of Kemah Master Drainage Plan	Galveston, Kemah	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000255	City of La Marque Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000256	City of La Porte Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000011, 06000012, 06000015	Harris	12040104, 12040204
061000257	City of League City Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000011, 06000012, 06000015	Galveston, Harris	12040204
061000258	City of Liverpool Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000011, 06000012, 06000015	Brazoria	12040204
061000259	City of Magnolia Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040102
061000260	City of Manvel Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000001, 06000011, 06000012, 06000015	Brazoria	12040204
061000261	City of Meadows Place Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend	12040104
061000262	City of Missouri City Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend	12040104, 12040204
061000263	City of Mont Belvieu Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Chambers	12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000255	City of La Marque Master Drainage Plan	120402040200	06000107	Watershed Planning	14.23	Urban/Local	City of La Marque
061000256	City of La Porte Master Drainage Plan	120401040706, 120402040100	06000098, 06000106	Watershed Planning	19.83	Urban/Local	City of La Porte
061000257	City of League City Master Drainage Plan	120402040200, 120402040100	06000107, 06000106	Watershed Planning	52.89	Urban/Local	City of League City
061000258	City of Liverpool Master Drainage Plan	120402040400	06000109	Watershed Planning	1.09	Urban/Local	City of Liverpool
061000259	City of Magnolia Master Drainage Plan	120401020204, 120401020207, 120401020208	06000036, 06000039, 06000040	Watershed Planning	2.87	Urban/Local	City of Magnolia
061000260	City of Manvel Master Drainage Plan	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Watershed Planning	27.41	Urban/Local	City of Manvel
061000261	City of Meadows Place Master Drainage Plan	120401040401	06000083	Watershed Planning	0.93	Urban/Local	City of Meadows Place
061000262	City of Missouri City Master Drainage Plan	120401040401, 120401040501, 120402040400	06000083, 06000085, 06000109	Watershed Planning	30.29	Urban/Local	City of Missouri City
061000263	City of Mont Belvieu Master Drainage Plan	120402030105, 120402030104	06000103, 06000102	Watershed Planning	17.20	Urban/Local	City of Mont Belvieu

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000255	City of La Marque Master Drainage Plan	Galveston, La Marque	Yes	\$ 360,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000256	City of La Porte Master Drainage Plan	Harris, Harris County Flood Control District, La Porte	Yes	\$ 410,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000257	City of League City Master Drainage Plan	Galveston, League City	Yes	\$ 580,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000258	City of Liverpool Master Drainage Plan	Brazoria, Liverpool	Yes	\$ 160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000259	City of Magnolia Master Drainage Plan	Montgomery, City of Magnolia	No	\$ 210,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000260	City of Manvel Master Drainage Plan	Brazoria, Manvel	Yes	\$ 460,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000261	City of Meadows Place Master Drainage Plan	Fort Bend, Meadows Place	Yes	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000262	City of Missouri City Master Drainage Plan	Fort Bend, City of Missouri City	No	\$ 470,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000263	City of Mont Belvieu Master Drainage Plan	Chambers, City of Mont Belvieu	No	\$ 390,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000264	City of Montgomery Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101
061000265	City of Morgan's Point Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104, 12040204
061000266	City of Nassau Bay Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston, Harris	12040204
061000267	City of New Waverly Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Walker	12040103
061000268	City of North Cleveland Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Liberty	12040103
061000269	City of Oak Ridge North Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101, 12040102
061000270	City of Panorama Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101
061000271	City of Pasadena Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104, 12040204
061000272	City of Patton Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040103

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000264	City of Montgomery Master Drainage Plan	120401010307, 120401010206	06000018, 06000010	Watershed Planning	5.10	Urban/Local	City of Montgomery
061000265	City of Morgan's Point Master Drainage Plan	120401040706, 120402040100	06000098, 06000106	Watershed Planning	2.22	Urban/Local	City of Morgan's Point
061000266	City of Nassau Bay Master Drainage Plan	120402040100	06000106	Watershed Planning	1.74	Urban/Local	City of Nassau Bay
061000267	City of New Waverly Master Drainage Plan	120401030101	06000046	Watershed Planning	2.21	Urban/Local	City of New Waverly
061000268	City of North Cleveland Master Drainage Plan	120401030201, 120401030401	06000056, 06000069	Watershed Planning	1.91	Urban/Local	City of North Cleveland
061000269	City of Oak Ridge North Master Drainage Plan	120401010404, 120401020212	06000023, 06000044	Watershed Planning	1.44	Urban/Local	City of Oak Ridge North
061000270	City of Panorama Village Master Drainage Plan	120401010207, 120401010401	06000011, 06000020	Watershed Planning	1.09	Urban/Local	City of Panorama Village
061000271	City of Pasadena Master Drainage Plan	120401040703, 120401040502, 120402040100	06000095, 06000086, 06000106	Watershed Planning	44.58	Urban/Local	City of Pasadena
061000272	City of Patton Village Master Drainage Plan	120401030109, 120401030402	06000054, 06000070	Watershed Planning	2.40	Urban/Local	City of Patton Village

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000264	City of Montgomery Master Drainage Plan	Montgomery, City of Montgomery	No	\$ 250,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000265	City of Morgan's Point Master Drainage Plan	Harris, Harris County Flood Control District, Morgan's Point	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000266	City of Nassau Bay Master Drainage Plan	Galveston, Harris, Harris County Flood Control District, Nassau Bay	Yes	\$ 180,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000267	City of New Waverly Master Drainage Plan	Walker, City of New Waverly	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000268	City of North Cleveland Master Drainage Plan	Liberty, City of North Cleveland	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000269	City of Oak Ridge North Master Drainage Plan	Montgomery, Oak Ridge North	Yes	\$ 170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000270	City of Panorama Village Master Drainage Plan	Montgomery, City of Panorama Village	No	\$ 160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000271	City of Pasadena Master Drainage Plan	Harris, Harris County Flood Control District, Pasadena	Yes	\$ 550,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000272	City of Patton Village Master Drainage Plan	Montgomery, Patton Village	Yes	\$ 200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000274	City of Piney Point Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000275	City of Plantersville Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Grimes	12040101, 12040102
061000276	City of Plum Grove Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Liberty	12040103
061000277	City of Prairie View Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Waller	12040102
061000278	City of Roman Forest Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040103
061000279	City of Santa Fe Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston	12040204
061000280	City of Seabrook Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston, Harris, Chambers	12040204
061000281	City of Shenandoah Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101, 12040102
061000282	City of Shoreacres Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Chambers, Harris	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000274	City of Piney Point Village Master Drainage Plan	120401040303	06000080	Watershed Planning	2.13	Urban/Local	City of Piney Point Village
061000275	City of Plantersville Master Drainage Plan	120401010305, 120401010306, 120401020206	06000016, 06000017, 06000038	Watershed Planning	1.98	Urban/Local	City of Plantersville
061000276	City of Plum Grove Master Drainage Plan	120401030402	06000070	Watershed Planning	3.61	Urban/Local	City of Plum Grove
061000277	City of Prairie View Master Drainage Plan	120401020101	06000026	Watershed Planning	7.32	Urban/Local	City of Prairie View
061000278	City of Roman Forest Master Drainage Plan	120401030109, 120401030402	06000054, 06000070	Watershed Planning	2.19	Urban/Local	City of Roman Forest
061000279	City of Santa Fe Master Drainage Plan	120402040300, 120402040200	06000108, 06000107	Watershed Planning	17.04	Urban/Local	City of Santa Fe
061000280	City of Seabrook Master Drainage Plan	120402040100	06000106	Watershed Planning	21.19	Urban/Local	City of Seabrook
061000281	City of Shenandoah Master Drainage Plan	120401010402, 120401010404, 120401020211, 120401020212	06000021, 06000023, 06000043, 06000044	Watershed Planning	1.95	Urban/Local	City of Shenandoah
061000282	City of Shoreacres Master Drainage Plan	120402040100	06000106	Watershed Planning	0.96	Urban/Local	City of Shoreacres

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000274	City of Piney Point Village Master Drainage Plan	Harris, Harris County Flood Control District, Piney Point Village	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000275	City of Plantersville Master Drainage Plan	Grimes, City of Plantersville	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000276	City of Plum Grove Master Drainage Plan	Liberty, City of Plum Grove	No	\$ 230,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000277	City of Prairie View Master Drainage Plan	Waller, City of Prairie View	No	\$ 290,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000278	City of Roman Forest Master Drainage Plan	Montgomery, Roman Forest	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000279	City of Santa Fe Master Drainage Plan	Galveston, Santa Fe	Yes	\$ 380,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000280	City of Seabrook Master Drainage Plan	Galveston, Harris, Harris County Flood Control District, Seabrook	Yes	\$ 420,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000281	City of Shenandoah Master Drainage Plan	Montgomery, Shenandoah	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000282	City of Shoreacres Master Drainage Plan	Harris, Harris County Flood Control, City of Shoreacres	No	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000283	City of South Houston Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000284	City of Southside Place Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000285	City of Splendora Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040103
061000286	City of Spring Valley Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000287	City of Stafford Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend, Harris	12040104, 12040204
061000288	City of Stagecoach Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040102
061000289	City of Sugar Land Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Fort Bend	12040104
061000290	City of Taylor Lake Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040204
061000291	City of Texas City Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Chambers, Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000283	City of South Houston Master Drainage Plan	120401040703, 120401040502	06000095, 06000086	Watershed Planning	3.04	Urban/Local	City of South Houston
061000284	City of Southside Place Master Drainage Plan	120401040402	06000084	Watershed Planning	0.25	Urban/Local	City of Southside Place
061000285	City of Splendora Master Drainage Plan	120401030109, 120401030402, 120401030401	06000054, 06000070, 06000069	Watershed Planning	3.06	Urban/Local	City of Splendora
061000286	City of Spring Valley Village Master Drainage Plan	120401040303	06000080	Watershed Planning	1.21	Urban/Local	City of Spring Valley Village
061000287	City of Stafford Master Drainage Plan	120401040401, 120401040501, 120402040400	06000083, 06000085, 06000109	Watershed Planning	7.02	Urban/Local	City of Stafford
061000288	City of Stagecoach Master Drainage Plan	120401020204, 120401020208	06000036, 06000040	Watershed Planning	1.17	Urban/Local	City of Stagecoach
061000289	City of Sugar Land Master Drainage Plan	120401040401	06000083	Watershed Planning	42.76	Urban/Local	City of Sugar Land
061000290	City of Taylor Lake Village Master Drainage Plan	120402040100	06000106	Watershed Planning	1.30	Urban/Local	City of Taylor Lake Village
061000291	City of Texas City Master Drainage Plan	120402040200	06000107	Watershed Planning	185.08	Urban/Local	City of Texas City

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000283	City of South Houston Master Drainage Plan	Harris, Harris County Flood Control District, South Houston	Yes	\$ 210,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000284	City of Southside Place Master Drainage Plan	Harris, City of Southside Place	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000285	City of Splendora Master Drainage Plan	Montgomery, Splendora	Yes	\$ 210,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000286	City of Spring Valley Village Master Drainage Plan	Harris, Harris County Flood Control District, Spring Valley Village	Yes	\$ 160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000287	City of Stafford Master Drainage Plan	Fort Bend, Harris, Harris County Flood Control District, Stafford,	Yes	\$ 280,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000288	City of Stagecoach Master Drainage Plan	Montgomery, Stagecoach	No	\$ 160,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000289	City of Sugar Land Master Drainage Plan	Fort Bend, Sugar Land	Yes	\$ 540,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000290	City of Taylor Lake Village Master Drainage Plan	Harris, Harris County Flood Control, City of Taylor Lake Village	No	\$ 170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000291	City of Texas City Master Drainage Plan	Galveston, Texas City	Yes	\$ 950,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000292	City of Tiki Island Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Galveston	12040204
061000293	City of Todd Mission Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Grimes	12040102
061000294	City of Tomball Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040102
061000295	City of Waller Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris, Waller	12040102
061000296	City of Webster Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040204
061000297	City of West University Place Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Harris	12040104
061000298	City of Willis Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101, 12040103
061000299	City of Woodbranch Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.	06000010	Montgomery	12040103
061000300	Town of Woodloch Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall.	06000010	Montgomery	12040101

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000292	City of Tiki Island Master Drainage Plan	120402040200	06000107	Watershed Planning	1.59	Urban/Local	City of Tiki Island
061000293	City of Todd Mission Master Drainage Plan	120401020203, 120401020206	06000035, 06000038	Watershed Planning	2.00	Urban/Local	City of Todd Mission
061000294	City of Tomball Master Drainage Plan	120401020106, 120401020205, 120401020210, 120401020209	06000031, 06000037, 06000042, 06000041	Watershed Planning	13.04	Urban/Local	City of Tomball
061000295	City of Waller Master Drainage Plan	120401020101, 120401020105, 120401020201	06000026, 06000030, 06000033	Watershed Planning	3.71	Urban/Local	City of Waller
061000296	City of Webster Master Drainage Plan	120402040100	06000106	Watershed Planning	6.60	Urban/Local	City of Webster
061000297	City of West University Place Master Drainage Plan	120401040402	06000084	Watershed Planning	2.00	Urban/Local	West University Place
061000298	City of Willis Master Drainage Plan	120401010403, 120401010401, 120401010204, 120401010205, 120401030102, 120401030101	06000022, 06000020, 06000008, 06000009, 06000047, 06000046	Watershed Planning	4.72	Urban/Local	City of Willis
061000299	City of Woodbranch Master Drainage Plan	120401030105, 120401030109	06000050, 06000054	Watershed Planning	2.00	Urban/Local	Woodbranch Village
061000300	Town of Woodloch Master Drainage Plan	120401010402	06000021	Watershed Planning	0.08	Urban/Local	Town of Woodloch

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000292	City of Tiki Island Master Drainage Plan	Galveston, Tiki Island	Yes	\$ 180,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000293	City of Todd Mission Master Drainage Plan	Grimes, City of Todd Mission	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000294	City of Tomball Master Drainage Plan	Harris, Harris County Flood Control, City of Tomball	No	\$ 350,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000295	City of Waller Master Drainage Plan	Waller, City of Waller	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000296	City of Webster Master Drainage Plan	Harris, Harris County Flood Control District, Webster	Yes	\$ 280,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000297	City of West University Place Master Drainage Plan	Harris, Harris County Flood Control, City of West University Place	No	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000298	City of Willis Master Drainage Plan	Montgomery, City of Willis	No	\$ 250,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000299	City of Woodbranch Master Drainage Plan	Montgomery, Woodbranch	Yes	\$ 190,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000300	Town of Woodloch Master Drainage Plan	Montgomery, Woodloch	Yes	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000301	Brazoria Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Brazoria	12040204
061000302	Chambers Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Chambers	12040203
061000304	Galveston Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Galveston	12040204
061000305	Grimes Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Grimes	12040101, 12040102

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000301	Brazoria Flood Mapping Updates	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	1481.87	Riverine, Urban/Local	Brazoria County
061000302	Chambers Flood Mapping Updates	120402030105, 120402030104, 120402030106, 120402030200	06000103, 06000102, 06000104, 06000105	Watershed Planning	865.55	Riverine, Urban/Local	Chambers County
061000304	Galveston Flood Mapping Updates	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Watershed Planning	664.95	Riverine, Urban/Local	Galveston County
061000305	Grimes Flood Mapping Updates	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000034, 06000035, 06000039, 06000038	Watershed Planning	798.87	Riverine, Urban/Local	Grimes County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000301	Brazoria Flood Mapping Updates	Brazoria, West Brazoria County Drainage District, Pearland, Manvel, Iowa Colony, Alvin, Brookside Village, Hillcrest, Liverpool, Hitchcock	Yes	\$ 6,440,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000302	Chambers Flood Mapping Updates	Chambers, Morgan's Point, Pasadena, Baytown, Beach City, Texas City, Kemah, Seabrook, Shoreacres, Mont Belvieu, Southeast Texas Flood Control District,	Yes	\$ 631,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000304	Galveston Flood Mapping Updates	Galveston, Nassau Bay, Bayou Vista, Clear Lake Shores, Galveston, Jamaica Beach, Friendswood, Hitchcock, La Marque, League City, Santa Fe, Texas City, Kemah, Tiki Island, Dickinson, Seabrook	Yes	\$ 2,960,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000305	Grimes Flood Mapping Updates	Grimes, Plantersville, Todd Mission	Yes	\$ 908,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000307	Montgomery Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Montgomery	12040101, 12040102, 12040103
061000308	San Jacinto Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	San Jacinto	12040103
061000309	Walker Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Walker	12040101, 12040103
061000310	Waller Flood Mapping Updates	County wide study to produce flood mapping updates including Atlas 14 rainfall.	06000010	Waller	12040102, 12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000307	Montgomery Flood Mapping Updates	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000034, 06000035, 06000039, 06000038	Watershed Planning	1072.61	Riverine, Urban/Local	Montgomery County
061000308	San Jacinto Flood Mapping Updates	120401030201, 120401030108, 120401030106, 120401030107, 120401030303, 120401030305, 120401030202, 120401030301, 120401030302, 120401030304, 120401030306, 120401030401, 120401030307, 120401030308	06000056, 06000053, 06000051, 06000052, 06000063, 06000065, 06000057, 06000061, 06000062, 06000064, 06000066, 06000069, 06000067, 06000068	Watershed Planning	625.69	Riverine, Urban/Local	San Jacinto County
061000309	Walker Flood Mapping Updates	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Watershed Planning	797.84	Riverine, Urban/Local	Walker County
061000310	Waller Flood Mapping Updates	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Watershed Planning	515.95	Riverine, Urban/Local	Waller County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000307	Montgomery Flood Mapping Updates	Montgomery, Montgomery County Drainage District 9, Patton Village, Roman Forest, Shenandoah, Woodbranch, Cleveland, Magnolia, Oak Ridge North, Panorama Village, Willis, Stagecoach, Houston, Cut and Shoot, Conroe, Splendora, Woodloch, Montgomery, Tomball	Yes	\$ 4,700,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000308	San Jacinto Flood Mapping Updates	San Jacinto	Yes	\$ 1,419,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000309	Walker Flood Mapping Updates	Walker, Huntsville, New Waverly	Yes	\$ 1,747,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000310	Waller Flood Mapping Updates	Waller, Katy, Waller, Houston, Prairie View	Yes	\$ 2,300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000311	37th Street, Galveston, Drainage Project	Further study and FMP development of existing storm sewer system replacement and upgrades using the city's updated drainage criteria that now require a 25-year storm drainage capacity.	06000015	Brazoria, Galveston	12040204
061000312	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek	Develop BCA to become a FMP. This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the rainfall event by more than 340 acres in a pre-Atlas 1% rainfall event.	06000015	Harris	12040104
061000313	Addicks Reservoir - Design and Construction of Dinner Creek Stormwater Detention Basin	Develop BCA to become a FMP. Project would provide additional stormwater detention in support of flood damage reduction and could reduce the risk of flooding for approximately 30 multi-family structures in Addicks Reservoir Watershed.	06000015	Harris	12040104
061000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	Study to develop a BCA needed for this project to become a FMP. This project is part of the South Mayde Creek Plan to reduce flood risk 70+ homes & reduce the rainfall event by 340+ acres in pre-Atlas 1% rainfall event.	06000015	Harris	12040104
061000317	Arcadian Gardens Subdivision Drainage Improvements	Study to develop a Cost Benefit Analysis and elevate the project to a FMP. To achieve this goal, the key features of improvements are to rehabilitate roadside swales, build new storm sewers and improve the outfall drainage conditions.	06000015	Harris	12040104
061000318	Fort Bend County Willow Fork Channel Improvements	Further study and BCA development. Combo of 11 different channel improvements were identified along Willow Fork and its tributaries as part of the Fort Bend County Master Drainage Plan that, when combined, will provide a 100-year level of service.	06000015	Fort Bend, Harris, Waller	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000311	37th Street, Galveston, Drainage Project	120402040200	06000107	Project Planning	253.17	Coastal, Urban/Local	City of Galveston
061000312	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek	120401040102, 120401040202, 120401040104, 120401040203, 120401040303	06000072, 06000076, 06000074, 06000077, 06000080	Project Planning	15.50	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000313	Addicks Reservoir - Design and Construction of Dinner Creek Stormwater Detention Basin	120401040102, 120401040202, 120401040104, 120401040203, 120401040303	06000072, 06000076, 06000074, 06000077, 06000080	Project Planning	15.50	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	120401040202, 120401040104, 120401040203, 120401040303	06000076, 06000074, 06000077, 06000080	Project Planning	13.20	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000317	Arcadian Gardens Subdivision Drainage Improvements	120401040704	06000096	Project Planning	0.32	Urban/Local	Harris County
061000318	Fort Bend County Willow Fork Channel Improvements	120401040102, 120401040103, 120401040104, 120401040101, 120401040401	06000072, 06000073, 06000074, 06000071, 06000083	Project Planning	46.10	Riverine	Fort Bend County Drainage District

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000311	37th Street, Galveston, Drainage Project	Galveston, City of Galveston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000312	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Duplicate FME
061000313	Addicks Reservoir - Design and Construction of Dinner Creek Stormwater Detention Basin	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000317	Arcadian Gardens Subdivision Drainage Improvements	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000318	Fort Bend County Willow Fork Channel Improvements	Fort Bend, Harris, Waller, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000319	Armand Bayou - Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Design and Construction of this stormwater detention basin could reduce the risk of flooding for over 400 structures in an Atlas 14 1% rainfall event.	06000015	Harris	12040204
061000320	Warren Lake and Dam Retrofit	Further study of Retrofit dam to improve detention of flood & storm water runoff, new 137.3 ac wetlands complex added of storage capacity & conversion of fields to tallgrass prairies to add approximately 856 ac-ft of total storage during rainfall events.	06000013, 060000140600 0015	Harris	12040102
061000321	Armand Bayou Watershed- Basin Expansion and Extension and H&H Study (Phases 1 + 2)	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Channel modifications along B115-00-00 requires expansion of B500-04-00 and new detention property,	06000015	Harris	12040204
061000322	Jackson Bayou Watershed Planning Project- Immediate: First Street Crossing Mitigation	Develop BCA to become a FMP. Priority ranking #1, 0.5 mile upstream along Jackson Bayou identified to fulfill mitigation efforts. Culvert upsizing recommended at First Street. Improvements produced need or 32.4 acre-feet of detention.	06000015	Harris	12040104
061000323	B106-WP01 & WP02 for Armand Bayou Watershed	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Conveyance improvements for B106-00-00 channel, including detention/mitigation storage	06000015	Harris	12040104, 12040204
061000324	Barker Reservoir Flood Risk Reduction and Park Project	Study to further the proposed project. FIF application information unavailable.	06000015	Fort Bend, Harris	12040104
061000325	Beaumont Place Subdivision Drainage Improvement Phase 2	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000326	I100-WP01 Vince Bayou Watershed Planning Project Recommendation	Study to develop a BCR required for this project to become a FMP. Alt-6 Detention basin and channel widening near Strawberry road on left bank of Vince Bayou.	06000015	Harris	12040104, 12040204

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000319	Armand Bayou - Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins	120402040100	06000106	Project Planning	4.79	Urban/Local	Harris County Flood Control District (HCFCD)
061000320	Warren Lake and Dam Retrofit	120401020103	06000028	Project Planning	2.11	Riverine, Urban/Local	Coastal Prairie Conservancy
061000321	Armand Bayou Watershed- Basin Expansion and Extension and H&H Study (Phases 1 + 2)	120402040100	06000106	Project Planning	1.09	Riverine	Harris County Flood Control District (HCFCD)
061000322	Jackson Bayou Watershed Planning Project- Immediate: First Street Crossing Mitigation	120401040704	06000096	Project Planning	0.51	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000323	B106-WP01 & WP02 for Armand Bayou Watershed	120401040706, 120402040100	06000098, 06000106	Project Planning	9.77	Riverine, Urban/Local	Harris County
061000324	Barker Reservoir Flood Risk Reduction and Park Project	120401040103	06000073	Project Planning	27.08	Riverine, Urban/Local	Willow Fork Drainage District
061000325	Beaumont Place Subdivision Drainage Improvement Phase 2	120401040606	06000092	Project Planning	1.41	Urban/Local	Harris County
061000326	I100-WP01 Vince Bayou Watershed Planning Project Recommendation	120401040703, 120402040100	06000095, 06000106	Project Planning	2.07	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000319	Armand Bayou - Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins	Harris, Harris County Flood Control District, La Porte, Pasadena	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000320	Warren Lake and Dam Retrofit	Harris, Harris County Flood Control District	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000321	Armand Bayou Watershed- Basin Expansion and Extension and H&H Study (Phases 1 + 2)	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000322	Jackson Bayou Watershed Planning Project- Immediate: First Street Crossing Mitigation	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000323	B106-WP01 & WP02 for Armand Bayou Watershed	Harris, Harris County Flood Control District, La Porte, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000324	Barker Reservoir Flood Risk Reduction and Park Project	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000325	Beaumont Place Subdivision Drainage Improvement Phase 2	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000326	I100-WP01 Vince Bayou Watershed Planning Project Recommendation	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000327	Blalock Road Drainage Improvement Project	Study to further the proposed project that includes increasing the capacity of the drainage system with a 9'x9' RCB to replace dual 36-inch RCP along the east side of the road and an open ditch with driveway culverts on the west side of the road.	06000015	Harris	12040104
061000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	Study to develop a BCR required for this project to become a FMP. A project could reduce the risk flooding for over 2,500 structures and could reduce the frequency and duration of flooding along about 100 miles of roadway.	06000003, 06000004, 06000015	Fort Bend, Harris	12040104
061000329	I100-WP06 for Vince Bayou Watershed Planning Project	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, design, and construction of a stormwater detention basin and channel widening near Strawberry Road and Young Street	06000015	Harris	12040104, 12040204
061000330	I100-WP10 for Vince Bayou Watershed Planning Project	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, Design, and Construction of Two Stormwater Detention Basins near Westside Dr. and Westside. Ct.	06000015	Harris	12040104, 12040204
061000331	I100-WP07 for Vince Bayou Watershed Planning Project	Study to develop a BCR needed for this project to become a FMP. Pasadena (CIP) Street Lowering (Various). Right-of-way acquisition, Design, and Construction of Stormwaters Detention Basin and construction of Culverts near Pasadena Blvd.	06000015	Harris	12040104, 12040204
061000332	I100-WP11 for Vince Bayou Watershed Planning Project	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Right-of-way acquisition, Design, and Construction of Stormwater Detention Basins near Spencer Hwy. and Tulip Street	06000015	Harris	12040104, 12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000327	Blalock Road Drainage Improvement Project	120401040302, 120401040303	06000079, 06000080	Project Planning	6.70	Urban/Local	City of Piney Point Village
061000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	120401040401	06000083	Project Planning	22.88	Urban/Local	Harris County Flood Control District (HCFCD)
061000329	I100-WP06 for Vince Bayou Watershed Planning Project	120401040703, 120401040502, 120402040100	06000095, 06000086, 06000106	Project Planning	4.42	Riverine, Urban/Local	Harris County
061000330	I100-WP10 for Vince Bayou Watershed Planning Project	120401040703, 120401040502, 120402040100	06000095, 06000086, 06000106	Project Planning	4.42	Urban/Local	Harris County
061000331	I100-WP07 for Vince Bayou Watershed Planning Project	120401040703, 120401040502, 120402040100	06000095, 06000086, 06000106	Project Planning	4.42	Urban/Local	Harris County
061000332	I100-WP11 for Vince Bayou Watershed Planning Project	120401040703, 120401040502, 120402040100	06000095, 06000086, 06000106	Project Planning	4.42	Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000327	Blalock Road Drainage Improvement Project	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	Fort Bend, Harris, Harris County Flood Control District	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000329	I100-WP06 for Vince Bayou Watershed Planning Project	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000330	I100-WP10 for Vince Bayou Watershed Planning Project	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000331	I100-WP07 for Vince Bayou Watershed Planning Project	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000332	I100-WP11 for Vince Bayou Watershed Planning Project	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000333	Carpenters Planning Study Cloverleaf Community Flood Risk Reduction Project (Phase 1 and 2)	Study to develop a BCR required for this project to become a FMP. Drainage system upgrade using combination of 9'x7' RCB spanning 3,000' and a 109 acre-feet detention facility providing drainage relief for this portion of the Cloverleaf Community.	06000015	Harris	12040104
061000334	Goose Creek Flood Risk Reduction Phase 1	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. 1.65 Miles of Goose Creek channel modifications (Downstream of IH 10) with proposed detention basin "J"	06000015	Harris	12040104
061000335	Goose Creek Flood Risk Reduction Phase 2	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. 1.00 Mile of Goose Creek channel modifications (Upstream of IH 10) with proposed detention basin "I"	06000015	Harris	12040104
061000336	Goose Creek Flood Risk Reduction Phase 3	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Local channel modifications and crossing structure improvements along O117 and O126	06000015	Harris	12040104
061000337	Spring Creek Watershed Plan- Recommended Alternative for PA-02: J131-01-00 Storm Sewer improvements & channel modification	Study to develop a BCR required for this project to become a FMP. Channel modifications along J131-01 & storm sewer improvements under Zion Road, reduces sheet flow by providing positive drainage outfall for ~200 ac of land.	06000015	Harris	12040102
061000338	Willow Creek Watershed Plan- Immediate: Selective Clearing BNRR to Mouth	Study to develop a BCR required for this project to become a FMP. Selective clearing from BNRR to mouth to increase riverine storm water conveyance, maintain tree canopy & veg. diversity, minimize impact on riparian & uplands habitats.	06000015	Harris	12040102
061000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	Study to develop BCA to become a FMP. Pursue purchase of property for regional detention, floodplain preservation, & habitat preservation.	06000015	Harris	12040102

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000333	Carpenters Planning Study Cloverleaf Community Flood Risk Reduction Project (Phase 1 and 2)	120401040702, 120401040606	06000094, 06000092	Project Planning	0.74	Urban/Local	Harris County Flood Control District (HCFCD)
061000334	Goose Creek Flood Risk Reduction Phase 1	120401040705, 120401040706	06000097, 06000098	Project Planning	6.22	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000335	Goose Creek Flood Risk Reduction Phase 2	120401040705, 120401040706	06000097, 06000098	Project Planning	7.32	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000336	Goose Creek Flood Risk Reduction Phase 3	120401040705	06000097	Project Planning	1.39	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000337	Spring Creek Watershed Plan- Recommended Alternative for PA-02: J131-01-00 Storm Sewer improvements & channel modification	120401020209	06000041	Project Planning	0.30	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000338	Willow Creek Watershed Plan- Immediate: Selective Clearing BNRR to Mouth	120401020106, 120401020105, 120401020210	06000031, 06000030, 06000042	Project Planning	55.37	Riverine	Harris County Flood Control District (HCFCD)
061000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	120401020106, 120401020105, 120401020210	06000031, 06000030, 06000042	Project Planning	55.37	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000333	Carpenters Planning Study Cloverleaf Community Flood Risk Reduction Project (Phase 1 and 2)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000334	Goose Creek Flood Risk Reduction Phase 1	Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000335	Goose Creek Flood Risk Reduction Phase 2	Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000336	Goose Creek Flood Risk Reduction Phase 3	Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000337	Spring Creek Watershed Plan- Recommended Alternative for PA-02: J131-01-00 Storm Sewer improvements & channel modification	Harris, Harris County Flood Control District, Tomball	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000338	Willow Creek Watershed Plan- Immediate: Selective Clearing BNRR to Mouth	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000340	Willow Creek Watershed Plan- FM2920 Stormwater Detention Basin	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 826 acre-feet detention basin located near FM 2920 crossing of Willow Creek	06000015	Harris	12040102
061000341	Willow Creek Watershed Plan- Kuykendahl Basin	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 727 acre-feet detention basin located near Kuykendahl Road crossing of Willow Creek	06000015	Harris	12040102
061000342	Willow Creek Watershed Plan- M121 Basin Stormwater Detention Basin	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Proposed 1010 acre-feet detention basin located near M121 tributary	06000015	Harris	12040102
061000343	Galveston Bay Watershed Plan- PA01 (N+6) Channel & Crossing Improvements	Develop BCA to become FMP. Channel deepening from N Broadway St to N Utah St, convert open channel segment to closed conduit w/ 8'x5' concrete boxes b/w N Utah St & Main St, replace concrete pipe w/ dual 8'x5' concrete box culvert outfall to F212.	06000015	Harris	12040204
061000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	Study to develop a BCA to become FMP. This stormwater detention basin compliments the federal project on White Oak Bayou which will reduce the risk of flooding for 1,800 structures in an Atlas 14 1% rainfall event.	06000015	Harris	12040102, 12040104
061000345	Spring Gully Watershed Planning Project- Project Phase I	Develop BCA to become FMP. 108 ac-ft of detention storage. Basin A w/ 95 ac-ft of storage, 10 ft depth, inlet & outlet structures consist of 2 culverts & weir. Basin B w/ 13 ac-ft of storage, 10.5 ft depth, inlet & outlet structures of culvert & weir.	06000015	Harris	12040104
061000346	Spring Gully Watershed Planning Project- Project Phase II	Develop BCA to become a FMP. Independent of Phase I. Phase II includes addition of Stormwater Detention Basin C, with 80 acre-feet of detention storage w/ 9.5 ft depth & an inlet and outlet structure consisting of a culvert & a weir.	06000015	Harris	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000340	Willow Creek Watershed Plan- FM2920 Stormwater Detention Basin	120401020106, 120401020105, 120401020210	06000031, 06000030, 06000042	Project Planning	55.37	Riverine	Harris County Flood Control District (HCFCD)
061000341	Willow Creek Watershed Plan- Kuykendahl Basin	120401020106, 120401020105, 120401020210	06000031, 06000030, 06000042	Project Planning	55.37	Riverine	Harris County Flood Control District (HCFCD)
061000342	Willow Creek Watershed Plan- M121 Basin Stormwater Detention Basin	120401020106, 120401020105, 120401020210	06000031, 06000030, 06000042	Project Planning	55.37	Riverine	Harris County Flood Control District (HCFCD)
061000343	Galveston Bay Watershed Plan- PA01 (N+6) Channel & Crossing Improvements	120402040100	06000106	Project Planning	1.13	Riverine	Harris County Flood Control District (HCFCD)
061000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	120401020104, 120401020106, 120401040601, 120401040302, 120401040604, 120401040303, 120401040304, 120401040301	06000029, 06000031, 06000087, 06000079, 06000090, 06000080, 06000081, 06000078	Project Planning	79.45	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000345	Spring Gully Watershed Planning Project- Project Phase I	120401040705	06000097	Project Planning	0.49	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000346	Spring Gully Watershed Planning Project- Project Phase II	120401040705	06000097	Project Planning	0.49	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

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FME ID	FME Name					
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1					
061000340	Willow Creek Watershed Plan- FM2920 Stormwater Detention Basin					
061000341	Willow Creek Watershed Plan- Kuykendahl Basin	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000342	Willow Creek Watershed Plan- M121 Basin Stormwater Detention Basin					
061000343	Galveston Bay Watershed Plan- PA01 (N+6) Channel & Crossing Improvements	Harris, Harris County Flood Control District, Morgan's Point, La Porte	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000345	Spring Gully Watershed Planning Project- Project Phase I	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000346	Spring Gully Watershed Planning Project- Project Phase II	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000347	Spring Gully Watershed Planning Project- Project Phase III	Complete after phase 2. Relief channel intended to outfall into Stormwater Detention Basin C from Phase 2. Consists of trapezoidal 850-foot channel with cross culvert sized at Prairie Street. Upstream of the culvert crossing, the bottom width is 8 ft.	06000015	Harris	12040104
061000348	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The project could reduce the risk of flooding for more than 450 structures in an Atlas 14 1% rainfall event.	06000015	Harris	12040104, 12040204
061000349	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The project could reduce the risk of flooding for over 40 structures in an Atlas 14 1% rainfall event.	06000015	Harris	12040104, 12040204
061000350	Galveston Bay Watershed Plan- PA04 (S+4) Crossing Improvements	Recommended alternative directly addresses need for improved channel conveyance by increasing the size of the crossings at El Jardin Dr and Youpon Dr. to 8'x5' box culverts.	06000015	Chambers, Harris	12040204
061000353	TC Jester Detention Basin	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of a 25 acre stormwater detention basin. Estimated construction cost is \$10,047,910. this application is requesting \$10,000,000.00 of these funds.	06000015	Harris	12040102, 12040104
061000354	Halls Bayou Drainage Project Bond C-26 & C-27	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000355	Halls Bayou Drainage Project Bond C-01	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000347	Spring Gully Watershed Planning Project- Project Phase III	120401040705	06000097	Project Planning	0.49	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000348	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00	120401040706, 120402040100	06000098, 06000106	Project Planning	0.75	Urban/Local	Harris County Flood Control District (HCFCD)
061000349	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00	120401040706, 120402040100	06000098, 06000106	Project Planning	2.01	Urban/Local	Harris County Flood Control District (HCFCD)
061000350	Galveston Bay Watershed Plan- PA04 (S+4) Crossing Improvements	120402040100	06000106	Project Planning	0.50	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000353	TC Jester Detention Basin	120401020106, 120401020107, 120401020210, 120401020212, 120401020213, 120401040601, 120401040602, 120401040603	06000031, 06000032, 06000042, 06000044, 06000045, 06000087, 06000088, 06000089	Project Planning	92.81	Urban/Local	Harris County Flood Control District (HCFCD)
061000354	Halls Bayou Drainage Project Bond C-26 & C-27	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	44.45	Riverine	Harris County Flood Control District (HCFCD)
061000355	Halls Bayou Drainage Project Bond C-01	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	44.45	Riverine	Harris County Flood Control District (HCFCD)

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000347	Spring Gully Watershed Planning Project- Project Phase III	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000348	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00	Harris, Harris County Flood Control District, La Porte	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000349	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00	Harris, Harris County Flood Control District, La Porte	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000350	Galveston Bay Watershed Plan- PA04 (S+4) Crossing Improvements	Harris, Harris County Flood Control District, Pasadena, Seabrook	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000353	TC Jester Detention Basin	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000354	Halls Bayou Drainage Project Bond C-26 & C-27	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000355	Halls Bayou Drainage Project Bond C-01	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000356	Westador Stormwater Detention Basin	Study to develop a BCR required for this project to become a FMP. The Westador Detention Basin is a proposed detention mitigation project within the Cypress Creek Watershed and located south of Cypress Creek and east and west of K141-00-00.	06000015	Harris	12040102, 12040104
061000357	Cypress Creek Implementation Plan - Various Detention Sites	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. The Implementation Plan identifies that approximately 14,000 acre-feet of stormwater detention volume across 23 different sites reducing flooding risk.	06000015	Harris	12040102, 12040104
061000358	Little Cypress Creek - Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program	Study to develop a BCR required for this to become a FMP. The Little Cypress Creek Frontier program will reduce the risk of flooding and include detention, sediment control, vegetation management and other flood risk management projects.	06000015	Harris	12040102
061000360	G103-38-00 (Kingwood Diversion Ditch)	Study to develop a BCR required for this to become a FMP. Improvements to the Kingwood Diversion Ditch include channel modifications, flow diversion from Bens Branch, bridge replacements, as well as a new outfall to the West Fork San Jacinto River.	06000015	Harris, Montgomery	12040101, 12040103
061000361	G103-80-03.1B (Taylor Gully)	Study to develop a BCR required for this project to become a FMP. Improvements to Taylor Gully include two miles of channel conveyance improvements to the upper limits of Taylor Gully and a concrete low flow structure.	06000015	Harris	12040101, 12040103
061000362	Goose Creek O119-00-00-P001 (Alt 2A1)	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel modifications and in-line stormwater detention along O119 to facilitate Harris County drainage improvements in Highland Mobile Estates	06000015	Harris	12040104, 12040203

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000356	Westador Stormwater Detention Basin	120401020106, 120401020107, 120401020210, 120401020212, 120401020213, 120401040601, 120401040602, 120401040603	06000031, 06000032, 06000042, 06000044, 06000045, 06000087, 06000088, 06000089	Project Planning	92.81	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000357	Cypress Creek Implementation Plan - Various Detention Sites	120401020104, 120401020106, 120401020105, 120401020107, 120401020210, 120401020213, 120401040601, 120401040201, 120401040301, 120401040602	06000029, 06000031, 06000030, 06000032, 06000042, 06000045, 06000087, 06000075, 06000078, 06000088	Project Planning	118.36	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000358	Little Cypress Creek - Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program	120401020103, 120401020104, 120401020106, 120401020101, 120401020105, 120401020205, 120401020210	06000028, 06000029, 06000031, 06000026, 06000030, 06000037, 06000042	Project Planning	52.10	Riverine	Harris County Flood Control District (HCFCD)
061000360	G103-38-00 (Kingwood Diversion Ditch)	120401010501, 120401010404, 120401030110, 120401030402	06000024, 06000023, 06000055, 06000070	Project Planning	21.65	Riverine	Harris County Flood Control District (HCFCD)
061000361	G103-80-03.1B (Taylor Gully)	120401010501, 120401010404, 120401030110, 120401030402	06000024, 06000023, 06000055, 06000070	Project Planning	21.65	Riverine	Harris County Flood Control District (HCFCD)
061000362	Goose Creek O119-00-00-P001 (Alt 2A1)	120401040705, 120402030104	06000097, 06000102	Project Planning	0.23	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000356	Westador Stormwater Detention Basin	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000357	Cypress Creek Implementation Plan - Various Detention Sites	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000358	Little Cypress Creek - Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000360	G103-38-00 (Kingwood Diversion Ditch)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000361	G103-80-03.1B (Taylor Gully)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000362	Goose Creek O119-00-00-P001 (Alt 2A1)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000363	Goose Creek O119-00-00-P001 (Alt 2A3)	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Secondary option for the recommended alternative with less benefits and project cost	06000015	Harris	12040104, 12040203
061000364	Sims Bayou C116 Storm Sewer Improvement (C116-00-00-P001) From Mykawa Road to Telephone Road	Study to develop a BCR required for this project to become a FMP. To increase the system C116 capacity, Alternative 1 adds capacity to the C116 system trunkline through an additional parallel trunkline, from Dixie Drive to Sims Bayou.	06000015	Harris	12040104
061000365	Greens Bayou (P100-00-00) Mid-Reach Channel Conveyance Improvements From John F. Kennedy Blvd to Veterans Memorial Drive (Ultimate Project (Alternative 3))	Study to develop a BCR required for this project to become a FMP. 2,000 ac-ft proposed Hardy stormwater detention basin and channel conveyance improvements throughout the Green's Bayou Mid-Reach (From John F. Kennedy Blvd to Veterans Memorial Drive)	06000015	Harris	12040101, 12040102, 12040104
061000366	Greens Bayou - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Potential federal funded project, the risk of flooding could be reduced for approximately 100 structures in a pre-Atlas 1% rainfall event.	06000015	Harris	12040104
061000367	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou (Q100-00-00)	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou	06000015	Chambers, Harris	12040104, 12040203
061000368	Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence	06000015	Harris, Liberty	12040103, 12040104, 12040203
061000369	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou (Q100-00-00)	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou	06000015	Chambers, Harris	12040104, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000363	Goose Creek O119-00-00-P001 (Alt 2A3)	120401040705, 120402030104	06000097, 06000102	Project Planning	0.23	Riverine	Harris County Flood Control District (HCFCD)
061000364	Sims Bayou C116 Storm Sewer Improvement (C116-00-00-P001) From Mykawa Road to Telephone Road	120401040502	06000086	Project Planning	1.39	Urban/Local	Harris County Flood Control District (HCFCD)
061000365	Greens Bayou (P100-00-00) Mid-Reach Channel Conveyance Improvements From John F. Kennedy Blvd to Veterans Memorial Drive (Ultimate Project (Alternative 3))	120401010502, 120401010501, 120401020106, 120401020107, 120401040605, 120401040703, 120401040601, 120401040702, 120401040302, 120401040604, 120401040606, 120401040301, 120401040602, 120401040603, 120401040701	06000025, 06000024, 06000031, 06000032, 06000091, 06000095, 06000087, 06000094, 06000079, 06000090, 06000092, 06000078, 06000088, 06000089, 06000093	Project Planning	165.69	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000366	Greens Bayou - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01	120401040604, 120401040603	06000090, 06000089	Project Planning	1.02	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000367	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou (Q100-00-00)	120401040706, 120402030106, 120402030200	06000098, 06000104, 06000105	Project Planning	28.42	Urban/Local	Harris County Flood Control District (HCFCD)
061000368	Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence	120401030205, 120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030103, 120402030106, 120402030102, 120402030200, 120402030101	06000060, 06000097, 06000098, 06000096, 06000103, 06000102, 06000101, 06000104, 06000100, 06000105, 06000099	Project Planning	3.52	Riverine	Harris County Flood Control District (HCFCD)
061000369	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou (Q100-00-00)	120401040706, 120402030105, 120402030106	06000098, 06000103, 06000104	Project Planning	18.71	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
		Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000363	Goose Creek O119-00-00-P001 (Alt 2A3)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000364	Sims Bayou C116 Storm Sewer Improvement (C116-00-00-P001) From Mykawa Road to Telephone Road	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000365	Greens Bayou (P100-00-00) Mid-Reach Channel Conveyance Improvements From John F. Kennedy Blvd to Veterans Memorial Drive (Ultimate Project (Alternative 3))	Harris, Harris County Flood Control District	No	\$ 30,000.00	No	Duplicate FME
061000366	Greens Bayou - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000367	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou (Q100-00-00)	Chambers, Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000368	Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence	Chambers, Harris, Liberty, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000369	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou (Q100-00-00)	Chambers, Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000370	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 1	Further study to develop this project into a FMP. FIF application information unavailable.	06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204
061000371	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 2	Further study to develop this project into a FMP. FIF application information unavailable.	06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204
061000372	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 3	Further study to develop this project into a FMP. FIF application information unavailable.	06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204
061000373	City of Tomball Drainage Improvements	Study to the drainage project for the City of Tomball is comprised of building storm sewer systems and channel conveyance to enable flood waters to be removed from portions of the city bounded by Holderrieth Road, SH 249, UPRR, and FM 2920.	06000015	Harris, Montgomery	12040102
061000374	Cedar Bayou Flood Risk Reduction Study - Q128 Channel Improvements from US 90 to Q100 Confluence	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements from US 90 to Confluence with Q100	06000015	Harris	12040103, 12040104, 12040203
061000376	Cedar Bayou Flood Risk Reduction Study - Channel improvements from US 90 to FM 1942	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements from US 90 to FM 1942	06000015	Chambers, Harris, Liberty	12040103, 12040104, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000370	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 1	120401040706, 120402030105, 120402030106	06000098, 06000103, 06000104	Project Planning	1770.82	Other	City of Pasadena
061000371	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 2	120401010501, 120401030205, 120401030402	06000024, 06000060, 06000070	Project Planning	1770.82	Other	City of Pasadena
061000372	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 3	120401010501, 120401030205, 120401030402	06000024, 06000060, 06000070	Project Planning	1770.82	Other	City of Pasadena
061000373	City of Tomball Drainage Improvements	120401020106, 120401020205, 120401020210, 120401020209	06000031, 06000037, 06000042, 06000041	Project Planning	13.04	Urban/Local	City of Tomball
061000374	Cedar Bayou Flood Risk Reduction Study - Q128 Channel Improvements from US 90 to Q100 Confluence	120401030205, 120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030103, 120402030106, 120402030102, 120402030200, 120402030101	06000060, 06000097, 06000098, 06000096, 06000103, 06000102, 06000101, 06000104, 06000100, 06000105, 06000099	Project Planning	4.91	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000376	Cedar Bayou Flood Risk Reduction Study - Channel improvements from US 90 to FM 1942	120401030205, 120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030103, 120402030106, 120402030102, 120402030200, 120402030101	06000060, 06000097, 06000098, 06000096, 06000103, 06000102, 06000101, 06000104, 06000100, 06000105, 06000099	Project Planning	46.64	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000370	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 1	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	No	Sponsor no longer pursuing FME
061000371	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 2	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	No	Sponsor no longer pursuing FME
061000372	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 3	Harris, Harris County Flood Control District, Pasadena	No	\$ 30,000.00	No	Sponsor no longer pursuing FME
061000373	City of Tomball Drainage Improvements	Harris, Harris County Flood Control District, Tomball	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000374	Cedar Bayou Flood Risk Reduction Study - Q128 Channel Improvements from US 90 to Q100 Confluence	Harris, Liberty, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000376	Cedar Bayou Flood Risk Reduction Study - Channel improvements from US 90 to FM 1942	Harris, Liberty, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000379	Cedar Bayou Flood Risk Reduction Study - Channel improvements upstream of FM 1960	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Cedar Bayou channel improvements upstream of FM 1960	06000015	Harris, Liberty	12040103, 12040104, 12040203
061000384	Houston Braeburn Glen Area Flood Mitigation	Further study of a proposed project that includes upsizing of the existing stormwater system with new pipes, inlets, and manholes. Lateral improvement will be completed on Mahoning Drive and Valley View Lane.	06000015	Fort Bend, Harris	12040104
061000388	Roman Forest Boulevard Bridge Elevation Project	Further study of this project involves the study, design, elevation, and replacement of the Roman Forest Boulevard Bridge to mitigate the risks associated with storms and riverine flooding for the approximate 15,000 citizens.	06000015	Montgomery	12040103
061000389	White Oak - SPT and E116 (E116-00-00) Improvements : PA01 thru PA-05	Study to develop a Benefit Cost Analysis needed for these projects to become a FMP. The "E116-00-00 Flood Reduction Feasibility Study" was completed in March 2022 and provides a decrease riverine and urban flood risk in the area.	06000015	Harris	12040104
061000394	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00	Develop BCA to become a FMP. This project could reduce the risk of flooding for over 210 structures and could reduce the 1% rainfall event for over 170 acres as part of the Halls Ahead Bond Implementation Program.	06000015	Harris	12040104
061000395	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00	Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 80+ structures, size of the floodplain by 30+ acres & frequency & duration of flooding of up to half a mile of roadway in an Atlas 14 1% event.	06000015	Harris	12040104
061000396	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00	Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 60+ structures & floodplain by 40+ acres.	06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000379	Cedar Bayou Flood Risk Reduction Study - Channel improvements upstream of FM 1960	120401030205, 120401040705, 120401040706, 120401040704, 120402030105, 120402030104, 120402030103, 120402030106, 120402030102, 120402030200, 120402030101	06000060, 06000097, 06000098, 06000096, 06000103, 06000102, 06000101, 06000104, 06000100, 06000105, 06000099	Project Planning	23.01	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000384	Houston Braeburn Glen Area Flood Mitigation	120401040401	06000083	Project Planning	95.57	Urban/Local	City of Houston
061000388	Roman Forest Boulevard Bridge Elevation Project	120401030109, 120401030402	06000054, 06000070	Project Planning	2.19	Riverine	Montgomery County
061000389	White Oak - SPT and E116 (E116-00-00) Improvements : PA01 thru PA-05	120401040302, 120401040304	06000079, 06000081	Project Planning	6.90	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000394	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	7.29	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000395	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	5.68	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
061000396	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	6.31	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000379	Cedar Bayou Flood Risk Reduction Study - Channel improvements upstream of FM 1960	Harris, Liberty, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000384	Houston Braeburn Glen Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000388	Roman Forest Boulevard Bridge Elevation Project	Montgomery, Roman Forest	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000389	White Oak - SPT and E116 (E116-00-00) Improvements : PA01 thru PA-05	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000394	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000395	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000396	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-21-00	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	Study to develop a BCR required for this project to become a FMP. Would reduce flood risk for 300+ structures, size of floodplain by 200+ acres. Facilitates future drainage projects by more outfall depth.	06000015	Harris	12040104
061000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	Study to develop a BCR required for this project to become a FMP. Would reduce flood risk for 600+ structures. Facilitates future drainage projects by more outfall depth.	06000015	Harris	12040104
061000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	Develop BCA to become a FMP. Part of Halls Ahead Bond Implementation Program, could reduce flood risk for 150+ structures, size of the floodplain by 90+ acres, frequency & duration of flooding along 3+ miles of roadway in an Atlas 14 1% event.	06000015	Harris	12040104
061000402	Carpenters (N100-00-00) Channel Improvements	Study to develop a Cost Benefit Analysis and elevate the project to a FMP. Carpenters Bayou (N100-00-00) channel conveyance improvements.	06000015	Harris	12040104
061000403	Halls Bayou - Design and Construction of a Stormwater Detention Basin in Brock Park	Develop BCA to become a FMP. Provides additional stormwater detention in support of flood damage reduction as part of the Halls Ahead Bond Implementation Program. The project will be a partnership with the City of Houston.	06000015	Harris	12040104
061000404	Halls Bayou - Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project	Develop BCA to become a FMP. Projects as part of the Halls Ahead Bond Implementation Program, could reduce the risk of flooding for more than 700 structures in an Atlas 14 1% rainfall event.	06000015	Harris	12040104
061000405	Hunting Bayou Wallisville Outfall (H103-00-00) - Gellhorn Drive	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Diversion channel expansion for Gellhorn Drive flood reductions.	06000015	Harris	12040104
061000406	Hunting Bayou Wallisville Outfall (H103-00-00) - Denver Harbor	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Denver Harbor drainage system improvements.	06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	1.57	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	6.01	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	6.01	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000402	Carpenters (N100-00-00) Channel Improvements	120401040702	06000094	Project Planning	0.85	Riverine, Urban/Local	Harris County
061000403	Halls Bayou - Design and Construction of a Stormwater Detention Basin in Brock Park	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Project Planning	44.41	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000404	Halls Bayou - Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Other	44.41	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000405	Hunting Bayou Wallisville Outfall (H103-00-00) - Gellhorn Drive	120401040606, 120401040701	06000092, 06000093	Project Planning	4.93	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000406	Hunting Bayou Wallisville Outfall (H103-00-00) - Denver Harbor	120401040606, 120401040701	06000092, 06000093	Project Planning	4.93	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000402	Carpenters (N100-00-00) Channel Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000403	Halls Bayou - Design and Construction of a Stormwater Detention Basin in Brock Park	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000404	Halls Bayou - Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000405	Hunting Bayou Wallisville Outfall (H103-00-00) - Gellhorn Drive	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000406	Hunting Bayou Wallisville Outfall (H103-00-00) - Denver Harbor	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000407	Luce Bayou (Z100-00-00-P026) Bypass Channel	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel bypass to provide Luce main stem upstream and local overland flooding relief	06000015	Harris	12040101, 12040103, 12040104, 12040203
061000412	Luce Bayou (Z100-00-00-P026) Channelization	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of channel improvements along Luce main stem	06000015	Harris	12040101, 12040103, 12040104, 12040203
061000413	Luce Bayou (Z100-00-00-P026) Upstream Detention	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. Construction of regional detention upstream of Luce Bayou, including acquiring open land north of Harris County	06000015	Harris	12040101, 12040103, 12040104, 12040203
061000414	Planning Phase Study Report for Fairgreen & Eastex Freeway Forest Subdivisions Drainage Improvements 2019	Further study of Scenarios A, B and C recommended by the Fairgreen & Eastex Freeway Forest Subdivisions Drainage Report. Will develop Benefit Cost Analysis and other data required for a FMP designation.	06000015	Harris	12040104
061000415	City of Manvel Rogers Rd. Drainage Improvements	Further study Alleluia Trail Rogers Rd & All Roads off Rogers drainage improvements, including storm sewer rehabilitation and ditch deepening.	06000015	Brazoria	12040204, 12040204, 12040204
061000416	Fallbrook, Ridgpoint and Westpoint Subdivision Drainage Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000417	Houston Fifth Area Flood Mitigation	Further study to develop this project into a FMP. This unfunded CDBG-MIT application involves installing various storm sewer infrastructure in the Fifth Ward within the City of Houston.	06000015	Harris	12040104
061000418	Houston Port Area Flood Mitigation	Further study to develop this project into a FMP. The project includes storm sewer improvements on nearly every street in the Pleasantville neighborhood to improve conveyance capacity and construction of a detention basin.	06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000407	Luce Bayou (Z100-00-00-P026) Bypass Channel	120401010502, 120401010501, 120401030205, 120401030402, 120401040704, 120402030103, 120402030102	06000025, 06000024, 06000060, 06000070, 06000096, 06000101, 06000100	Project Planning	74.89	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000412	Luce Bayou (Z100-00-00-P026) Channelization	120401010502, 120401010501, 120401030205, 120401030402, 120401040704, 120402030103, 120402030102	06000025, 06000024, 06000060, 06000070, 06000096, 06000101, 06000100	Project Planning	74.89	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000413	Luce Bayou (Z100-00-00-P026) Upstream Detention	120401010502, 120401010501, 120401030205, 120401030402, 120401040704, 120402030103, 120402030102	06000025, 06000024, 06000060, 06000070, 06000096, 06000101, 06000100	Project Planning	74.89	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000414	Planning Phase Study Report for Fairgreen & Eastex Freeway Forest Subdivisions Drainage Improvements 2019	120401040604, 120401040603	06000090, 06000089	Project Planning	0.26	Urban/Local	Harris County
061000415	City of Manvel Rogers Rd. Drainage Improvements	120402040100, 120402040400, 120402040200	06000106, 06000107, 06000109	Project Planning	27.41	Urban/Local	City of Manvel
061000416	Fallbrook, Ridgpoint and Westpoint Subdivision Drainage Improvements	120401040604, 120401040603	06000090, 06000089	Project Planning	1.96	Urban/Local	Harris County
061000417	Houston Fifth Area Flood Mitigation	120401040701	06000093	Project Planning	40.60	Urban/Local	City of Houston
061000418	Houston Port Area Flood Mitigation	120401040701	06000093	Project Planning	40.60	Urban/Local	City of Houston

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000407	Luce Bayou (Z100-00-00-P026) Bypass Channel	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000412	Luce Bayou (Z100-00-00-P026) Channelization	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000413	Luce Bayou (Z100-00-00-P026) Upstream Detention	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000414	Planning Phase Study Report for Fairgreen & Eastex Freeway Forest Subdivisions Drainage Improvements 2019	Harris, Harris County Flood Control District	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000415	City of Manvel Rogers Rd. Drainage Improvements	City of Manvel, Brazoria County	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000416	Fallbrook, Ridgepoint and Westpoint Subdivision Drainage Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000417	Houston Fifth Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000418	Houston Port Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000419	Houston Huntington Village Area Flood Mitigation	Further study to develop this project into a FMP. The project includes storm sewer improvements in the Huntington Village neighborhood to reduce structural flood loss.	06000015	Fort Bend, Harris	12040104
061000420	Clear Creek - Friendswood Detention Basin Near FM 528 in Friendswood	Develop BCA to become a FMP. ROW acquisition, design, and construction of 39 ac stormwater detention basin holding 500 ac-ft near FM 528; Additional solutions include buyouts, improving channel conveyance, and tributary detention.	06000015	Brazoria, Galveston, Harris	12040204
061000421	Clear Creek - Hughes Stormwater Detention (SWD) Basin	Develop BCA to become a FMP. Project identified in Clear Creek Federal Project study for flood management but did not yield high enough cost benefit ratio for Federal funding. Therefore, Harris and Galveston County have decided to fund this effort.	06000015	Brazoria, Galveston, Fort Bend, Harris	12040104, 12040204
061000422	Danubina Drainage Improvements	Study to further this project and develop an FMP. This CDBG-MIT application involves the installation and construction of various storm sewer and detention infrastructure.	06000015	Chambers, Harris	12040203
061000423	North Alexander Drainage Improvements	Further study to develop this project into a FMP. This CDBG-MIT application involves the installation and construction of various storm sewer and detention infrastructure.	06000015	Chambers, Harris	12040203
061000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.	06000015	Galveston, Harris	12040204
061000425	Clear Creek - Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity	Major maintenance to restore channel conveyance capacity.	06000015	Harris, Galveston	12040104, 12040204
061000426	Sawdust Road Bridge Elevation Project	Further study of study, design, elevation, & replacement of the Sawdust Road Bridge to mitigate the risks associated with riverine flooding for the citizens residing in the Grogan's Point and Timberlakes - Timberridge Subdivisions.	06000015	Harris, Montgomery	12040101, 12040102

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000419	Houston Huntington Village Area Flood Mitigation	120401040401	06000083	Project Planning	95.57	Urban/Local	City of Houston
061000420	Clear Creek - Friendswood Detention Basin Near FM 528 in Friendswood	120402040200, 120402040100	06000107, 06000106	Project Planning	102.41	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000421	Clear Creek - Hughes Stormwater Detention (SWD) Basin	120401040502, 120401040501, 120402040200, 120402040400, 120402040100	06000086, 06000085, 06000107, 06000109, 06000106	Project Planning	200.27	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000422	Danubina Drainage Improvements	120402030106	06000104	Project Planning	48.36	Urban/Local	City of Baytown
061000423	North Alexander Drainage Improvements	120402030106	06000104	Project Planning	48.36	Urban/Local	City of Baytown
061000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	120402040200, 120402040100	06000107, 06000106	Project Planning	20.83	Urban/Local	City of Friendswood
061000425	Clear Creek - Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity	120401040502, 120401040501, 120402040200, 120402040400, 120402040100	06000086, 06000085, 06000107, 06000109, 06000106	Project Planning	200.27	Riverine, Urban/Local	Harris County Flood Control District (HCFCF)
061000426	Sawdust Road Bridge Elevation Project	120401010402, 120401010404, 120401020107, 120401020210, 120401020209, 120401020211, 120401020212, 120401020213	06000021, 06000023, 06000032, 06000042, 06000041, 06000043, 06000044, 06000045	Project Planning	32.94	Riverine	Montgomery County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000419	Houston Huntington Village Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000420	Clear Creek - Friendswood Detention Basin Near FM 528 in Friendswood	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000421	Clear Creek - Hughes Stormwater Detention (SWD) Basin	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000422	Danubina Drainage Improvements	Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000423	North Alexander Drainage Improvements	Harris, Harris County Flood Control District, Baytown	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	Galveston, Harris, Harris County Flood Control District, Friendswood	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000425	Clear Creek - Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity	Harris, Harris County Flood Control District, Friendswood	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000426	Sawdust Road Bridge Elevation Project	Montgomery,	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000427	Sandpiper Village Subdivision Drainage Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040102
061000431	Oak Glen Place Subdivision Drainage Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000432	Northfield Place Subdivision Drainage Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000433	Spring Shadows South	Study to develop a Benefit Cost Analysis needed to elevate project to a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000434	Houston Kashmere Gardens Area Flood Mitigation	Further study to develop this project into a FMP. The project includes improvements to storm sewer, roadside ditch systems, culverts, sewer inlets, and the construction of detention basins.	06000015	Harris	12040104
061000435	City of Southside Place - Auden Street Drainage Improvement Project	This project provides for design and construction of a new stormwater conveyance system for the City of Southside Place, that will have the capacity to convey a City standard storm event (2-year storm).	06000015	Harris	12040104
061000436	Unincorporated Areas of Bacliff and San Leon Roadside Ditches & Driveway Culverts Improvements	Further study of this unfunded CDBG-MIT project consists of various areas of roadside ditch and driveway culvert improvements in Bacliff and San Leon.	06000015	Galveston, Chambers	12040204
061000437	Evaluation of Dredging of Channels that Exit Into Lake Houston	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris, Liberty, Montgomery	12040101, 12040103
061000438	Greens Bayou, Jackson Bayou, White Oak Bayou, Cypress Creek and San Jacinto River Areas Subdivision Drainage Mitigation Project	This proposed solution recommends establishing positive drainage and clear flow lines, which are expected to reduce the water surface elevation in the subdivision to mitigate the structural flood risk for all 1,445 beneficiaries.	06000015	Harris, Waller, Liberty, Montgomery	12040101, 12040102, 12040103, 12040104, 12040203, 12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000427	Sandpiper Village Subdivision Drainage Improvements	120401020107	06000032	Project Planning	2.31	Urban/Local	Harris County
061000431	Oak Glen Place Subdivision Drainage Improvements	120401040604, 120401040304	06000090, 06000081	Project Planning	6.01	Urban/Local	Harris County
061000432	Northfield Place Subdivision Drainage Improvements	120401040604, 120401040304	06000090, 06000081	Project Planning	6.01	Urban/Local	Harris County
061000433	Spring Shadows South	120401040302, 120401040303	06000079, 06000080	Project Planning	5.82	Urban/Local	City of Houston
061000434	Houston Kashmere Gardens Area Flood Mitigation	120401040703, 120401040604, 120401040606, 120401040304, 120401040701	06000095, 06000090, 06000092, 06000081, 06000093	Project Planning	30.87	Urban/Local	City of Houston
061000435	City of Southside Place - Auden Street Drainage Improvement Project	120401040402	06000084	Project Planning	45.60	Urban/Local	City of Southside Place
061000436	Unincorporated Areas of Bacliff and San Leon Roadside Ditches & Driveway Culverts Improvements	120402040200	06000107	Project Planning	6.95	Urban/Local	Galveston County
061000437	Evaluation of Dredging of Channels that Exit Into Lake Houston	120401010501, 120401030205, 120401030402	06000024, 06000060, 06000070	Project Planning	155.78	Urban/Local	Harris County
061000438	Greens Bayou, Jackson Bayou, White Oak Bayou, Cypress Creek and San Jacinto River Areas Subdivision Drainage Mitigation Project	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	1042.20	Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000427	Sandpiper Village Subdivision Drainage Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000431	Oak Glen Place Subdivision Drainage Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000432	Northfield Place Subdivision Drainage Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000433	Spring Shadows South	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000434	Houston Kashmere Gardens Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000435	City of Southside Place - Auden Street Drainage Improvement Project	Harris, Harris County Flood Control District, Southside Place	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000436	Unincorporated Areas of Bacliff and San Leon Roadside Ditches & Driveway Culverts Improvements	Galveston, Chambers	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000437	Evaluation of Dredging of Channels that Exit Into Lake Houston	North Harris County Regional Water Authority, San Jacinto River Authority, Harris County Flood Control District, USACE	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000438	Greens Bayou, Jackson Bayou, White Oak Bayou, Cypress Creek and San Jacinto River Areas Subdivision Drainage Mitigation Project	Harris, Harris County Flood Control District,	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000439	Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project	The mitigation solution for Cypress Creek Estates is to install storm sewer systems along West Shadow Lake, East Shadow Lake, North Shadow Lake and Winding Lane, to re-grade the roadside ditches, and to remove and replace of all driveways and culverts.	06000015	Harris	12040101, 12040102, 12040104
061000440	Brazoria County Camp Mohawk County Park Development	Develop Benefit Cost Analysis in support of the purchase of approximately 160 acres of flood prone area adjacent to and surrounding Camp Mohawk County Park to be used as open space.	06000015	Brazoria	12040204
061000441	Addicks Reservoir - Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek	Develop BCA to become a FMP. This project is part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the rainfall event by more than 340 acres in a pre-Atlas 1% rainfall event.	06000015	Harris	12040104
061000442	Forest Estates - Live Oak Creek Watershed Artesian Forest 1 - Artesian Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000443	Artesian Forest 1 - Artesian Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000444	Artesian Forest East - Artesian Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000445	Lilly - Alligator Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000446	East Fork North - Alligator Creek Watershed "	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000447	East Fork South - Alligator Creek Watershed "	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000439	Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	542.61	Urban/Local	Harris County
061000440	Brazoria County Camp Mohawk County Park Development	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Project Planning	1481.87	Urban/Local	Brazoria County
061000441	Addicks Reservoir - Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek	120401040102, 120401040202, 120401040104, 120401040203, 120401040303	06000072, 06000076, 06000074, 06000077, 06000080	Project Planning	15.50	Riverine	Harris County Flood Control District (HCFCD)
061000442	Forest Estates - Live Oak Creek Watershed Artesian Forest 1 - Artesian Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	2.48	Riverine, Urban/Local	City of Conroe
061000443	Artesian Forest 1 - Artesian Creek Watershed	120401010207	06000011	Project Planning	1.40	Riverine, Urban/Local	City of Conroe
061000444	Artesian Forest East - Artesian Creek Watershed	120401010207	06000011	Project Planning	1.40	Riverine, Urban/Local	City of Conroe
061000445	Lilly - Alligator Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	1.40	Riverine, Urban/Local	City of Conroe
061000446	East Fork North - Alligator Creek Watershed "	120401010207, 120401010401	06000011, 06000020	Project Planning	6.01	Riverine, Urban/Local	City of Conroe
061000447	East Fork South - Alligator Creek Watershed "	120401010207, 120401010401	06000011, 06000020	Project Planning	6.01	Riverine, Urban/Local	City of Conroe

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000439	Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project	Harris, Waller, Harris County Flood Control District, Jersey Village, Waller, Houston, Tomball, Prairie View, Humble	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000440	Brazoria County Camp Mohawk County Park Development	Brazoria West Brazoria County Drainage District, Pearland, Manvel, Iowa Colony, Alvin, Brookside Village, Hillcrest, Liverpool, Hitchcock	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000441	Addicks Reservoir - Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000442	Forest Estates - Live Oak Creek Watershed Artesian Forest 1 - Artesian Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000443	Artesian Forest 1 - Artesian Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000444	Artesian Forest East - Artesian Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000445	Lilly - Alligator Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000446	East Fork North - Alligator Creek Watershed "	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000447	East Fork South - Alligator Creek Watershed "	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000448	West Branch - Alligator Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000449	Oak Hollow - Alligator Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000450	Cable - Alligator Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000451	South Frazier - Grand Lake Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000452	Rivershire East - Grand Lake Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000453	Rivershire West - Grand Lake Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000454	Baretta - Grand Lake Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000455	Valley - Stewarts Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000456	Hunnington - Stewarts Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000457	Avenue M - Stewarts Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000458	South 3rd - Stewarts Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000459	Toby - Little Caney Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000460	Southern Oak - Little Laney Creek	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000448	West Branch - Alligator Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	6.01	Riverine, Urban/Local	City of Conroe
061000449	Oak Hollow - Alligator Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	6.01	Riverine, Urban/Local	City of Conroe
061000450	Cable - Alligator Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	6.01	Riverine, Urban/Local	City of Conroe
061000451	South Frazier - Grand Lake Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	3.51	Riverine, Urban/Local	City of Conroe
061000452	Rivershire East - Grand Lake Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	3.51	Riverine, Urban/Local	City of Conroe
061000453	Rivershire West - Grand Lake Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	3.51	Riverine, Urban/Local	City of Conroe
061000454	Baretta - Grand Lake Creek Watershed	120401010401	06000020	Project Planning	3.59	Riverine, Urban/Local	City of Conroe
061000455	Valley - Stewarts Creek Watershed	120401010207, 120401010403, 120401010401, 120401010402, 120401010205, 120401010206	06000011, 06000022, 06000020, 06000021, 06000009, 06000010	Project Planning	19.66	Riverine, Urban/Local	City of Conroe
061000456	Hunnington - Stewarts Creek Watershed	120401010207, 120401010403, 120401010401, 120401010402, 120401010205, 120401010206	06000011, 06000022, 06000020, 06000021, 06000009, 06000010	Project Planning	19.66	Riverine, Urban/Local	City of Conroe
061000457	Avenue M - Stewarts Creek Watershed	120401010207, 120401010403, 120401010401, 120401010402, 120401010205, 120401010206	06000011, 06000022, 06000020, 06000021, 06000009, 06000010	Project Planning	19.66	Riverine, Urban/Local	City of Conroe
061000458	South 3rd - Stewarts Creek Watershed	120401010207, 120401010403, 120401010401, 120401010402, 120401010205, 120401010206	06000011, 06000022, 06000020, 06000021, 06000009, 06000010	Project Planning	19.66	Riverine, Urban/Local	City of Conroe
061000459	Toby - Little Caney Creek Watershed	120401010403, 120401010401, 120401010402	06000022, 06000020, 06000021	Project Planning	8.61	Riverine, Urban/Local	City of Conroe
061000460	Southern Oak - Little Laney Creek	120401010403, 120401010401, 120401010402	06000022, 06000020, 06000021	Project Planning	8.61	Riverine, Urban/Local	City of Conroe

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000448	West Branch - Alligator Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000449	Oak Hollow - Alligator Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000450	Cable - Alligator Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000451	South Frazier - Grand Lake Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000452	Rivershire East - Grand Lake Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000453	Rivershire West - Grand Lake Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000454	Baretta - Grand Lake Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000455	Valley - Stewarts Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000456	Hunnington - Stewarts Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000457	Avenue M - Stewarts Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000458	South 3rd - Stewarts Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000459	Toby - Little Caney Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000460	Southern Oak - Little Laney Creek	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000461	Rush Creek Lake - Lake Conroe Estates Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000013, 06000014, 06000015	Montgomery	12040101
061000462	Longmire and SH-105 - Live Oak Creek Watershed	Develop a benefits cost analysis in support of this project identified in the City of Conroe Master Drainage Plan.	06000015	Montgomery	12040101
061000463	Southeast Montgomery County Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	06000010	Montgomery	12040101, 12040102, 12040103
061000464	Carpenters Bayou (West Acres, Shadowglen & Old River Terrace Neighborhood)	Further study to develop a BCA required to elevate project to FMP. The project is to reduce flooding in the Problem Area #5 identified by the Carpenters Bayou Watershed Planning Project Report, 2021.	06000015	Harris	12040101, 12040104
061000465	Catalina	Study to develop a BCR and other data needed to elevate project to a FMP. FIF application information unavailable.	06000015	Harris	12040204
061000466	Ralston Acres Subdivision Drainage Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104
061000467	Middle Armand Bayou Protection Project	Further study to develop this project into a FMP. FIF application information unavailable.	06000015	Harris	12040204
061000468	Houston Sunnyside Area Flood Mitigation	Further study to develop into a FMP. Includes new storm sewer trunk systems on major thoroughfares & new or improved neighborhood storm sewer systems. Will also require construction of detention basins to mitigate the proposed improvements.	06000015	Harris	12040104, 12040204
061000469	Eastex Freeway Forest Sections 3 & 4 Subdivision Improvements	Study to develop a Benefit Cost Analysis needed for this project to become a FMP. FIF application information unavailable.	06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000461	Rush Creek Lake - Lake Conroe Estates Watershed	120401010207, 120401010206	06000011, 06000010	Project Planning	2.38	Riverine, Urban/Local	City of Conroe
061000462	Longmire and SH-105 - Live Oak Creek Watershed	120401010207, 120401010401	06000011, 06000020	Project Planning	2.38	Riverine, Urban/Local	City of Conroe
061000463	Southeast Montgomery County Master Drainage Plan	120401010403, 120401010401, 120401010402, 120401010501, 120401010404, 120401020212, 120401030110, 120401030102, 120401030108, 120401030104, 120401030103, 120401030105, 120401030106, 120401030107, 120401030109, 120401030402, 120401030401	06000022, 06000020, 06000021, 06000024, 06000023, 06000044, 06000055, 06000047, 06000053, 06000049, 06000048, 06000050, 06000051, 06000052, 06000054, 06000070, 06000069	Watershed Planning	312.72	Riverine, Urban/Local	Montgomery County
061000464	Carpenters Bayou (West Acres, Shadowglen & Old River Terrace Neighborhood)	120401010502, 120401040605, 120401040703, 120401040705, 120401040702, 120401040606, 120401040704	06000025, 06000091, 06000095, 06000097, 06000094, 06000092, 06000096	Project Planning	31.03	Urban/Local	Harris County
061000465	Catalina	120402040100	06000106	Project Planning	261.60	Other	City of Houston
061000466	Ralston Acres Subdivision Drainage Improvements	120401040605, 120401040604, 120401040606	06000091, 06000090, 06000092	Project Planning	1.86	Urban/Local	Harris County
061000467	Middle Armand Bayou Protection Project	120402040100	06000106	Other	261.60	Urban/Local	City of Pasadena
061000468	Houston Sunnyside Area Flood Mitigation	120401040402, 120401040502, 120401040501, 120402040100	06000084, 06000086, 06000085, 06000106	Project Planning	23.57	Urban/Local	City of Houston
061000469	Eastex Freeway Forest Sections 3 & 4 Subdivision Improvements	120401040604, 120401040603	06000090, 06000089	Project Planning	20.07	Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000461	Rush Creek Lake - Lake Conroe Estates Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000462	Longmire and SH-105 - Live Oak Creek Watershed	Montgomery, Conroe	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000463	Southeast Montgomery County Master Drainage Plan	Montgomery	No	\$ 1,170,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000464	Carpenters Bayou (West Acres, Shadowglen & Old River Terrace Neighborhood)	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000465	Catalina	Harris, Harris County Flood Control District	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000466	Ralston Acres Subdivision Drainage Improvements	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	Sponsor secured funding for FME
061000467	Middle Armand Bayou Protection Project	Harris County Flood Control District, Pasadena	No	\$ 30,000.00	No	Sponsor no longer pursuing FME
061000468	Houston Sunnyside Area Flood Mitigation	Harris, Harris County Flood Control District, Houston	No	\$ 30,000.00	No	RFPG elevated FME to FMP under Task 12
061000469	Eastex Freeway Forest Sections 3 & 4 Subdivision Improvements	Harris, Harris County Flood Control District, Houston,	No	\$ 30,000.00	No	Sponsor secured funding for FME

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000470	Ledge Street Area Drainage and Paving	Project provides for design and construction of storm water drainage and paving improvements, mitigation, and necessary utilities to serve the Ledge and Nathaniel areas east of Clearwood Drive to mitigate structural flooding risk.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000471	Scott Street (OST to Brays Bayou) Area Drainage and Paving Improvements (remove southland from it)	Project for design and construction of storm drainage and paving improvements in the Scott Street Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000472	Freeway Manor North Area Drainage and Paving Improvements FMN, FMS, GWT and C106-10	Project for design and construction of storm drainage and paving improvements in the Freeway Manor North Area to mitigate structural flooding risk. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000473	Richmond Plaza (South) Drainage and Paving Improvements (Chimney Rock -Burnett/Bayland Park)	Project for design and construction of storm drainage and paving improvements in the Richmond Plaza Area to reduce risk and structural flooding. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000474	Southland Area Drainage and Paving Improvements	Project for design and construction of storm drainage and paving improvements in the Southland Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000475	Westbury Area Drainage and Paving Improvements Subproject 1 (+30%) -include entire Westbury	Project for design and construction of storm drainage and paving improvements including a surface detention basin in the Westbury Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000470	Ledge Street Area Drainage and Paving	120401040502	06000086	Project Planning	0.14	Urban/Local	City of Houston
061000471	Scott Street (OST to Brays Bayou) Area Drainage and Paving Improvements (remove southland from it)	120401040402	06000084	Project Planning	1.09	Urban/Local	City of Houston
061000472	Freeway Manor North Area Drainage and Paving Improvements FMN, FMS, GWT and C106-10	120401040502	06000086	Project Planning	0.12	Urban/Local	City of Houston
061000473	Richmond Plaza (South) Drainage and Paving Improvements (Chimney Rock -Burnett/Bayland Park)	120401040401	06000083	Project Planning	0.16	Urban/Local	City of Houston
061000474	Southland Area Drainage and Paving Improvements	120401040402	06000084	Project Planning	0.03	Urban/Local	City of Houston
061000475	Westbury Area Drainage and Paving Improvements Subproject 1 (+30%) -include entire Westbury	120401040401	06000083	Project Planning	0.16	Urban/Local	City of Houston

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000470	Ledge Street Area Drainage and Paving	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000471	Scott Street (OST to Brays Bayou) Area Drainage and Paving Improvements (remove southland from it)	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000472	Freeway Manor North Area Drainage and Paving Improvements FMN, FMS, GWT and C106-10	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000473	Richmond Plaza (South) Drainage and Paving Improvements (Chimney Rock -Burnett/Bayland Park)	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000474	Southland Area Drainage and Paving Improvements	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000475	Westbury Area Drainage and Paving Improvements Subproject 1 (+30%) -include entire Westbury	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000476	Chateau Forest Area Drainage and Paving (30%) Goforth	Project for design and construction of storm drainage and paving improvements in the Chateau Forest Drive and West Little York Road Areas. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000477	Drainage and Paving Improvements for Cottage Grove East - Phase II	Phase 2 of storm drainage and street improvements bounded by IH-10W, White Oak Bayou, TC Jester, and Durham Dr. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000478	TIRZ17 Memorial City Area Detention Basin	Provides for right-of-way acquisition, design and construction of detention basins to mitigate impacts in the Memorial City Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000479	P518 Aldine West field	Project for design and construction of detention pond in conjunction with TxDot. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000480	Spring Shadows North	Project for design and construction of storm drainage and paving improvements in the Spring Shadows Areas to mitigate structural flooding risk. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000481	Kirkwood/Nottingham	Project provides for design and construction of storm drainage and paving improvements in the Nottingham and Yorkshire Areas. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000482	Gellhorn	This project provides for paving improvements including storm inlet improvements in the Gelhorn Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000476	Chateau Forest Area Drainage and Paving (30%) Goforth	120401040302	06000079	Project Planning	0.53	Urban/Local	City of Houston
061000477	Drainage and Paving Improvements for Cottage Grove East - Phase II	120401040304	06000081	Project Planning	0.18	Urban/Local	City of Houston
061000478	TIRZ17 Memorial City Area Detention Basin	120401040303	06000080	Project Planning	0.03	Urban/Local	City of Houston
061000479	P518 Aldine West field	120401040604	06000090	Project Planning	0.02	Urban/Local	City of Houston
061000480	Spring Shadows North	120401040302	06000079, 06000080	Project Planning	0.43	Urban/Local	City of Houston
061000481	Kirkwood/Nottingham	120401040303	06000080	Project Planning	0.38	Urban/Local	City of Houston
061000482	Gellhorn	120401040701	06000093	Project Planning	0.02	Urban/Local	City of Houston

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000476	Chateau Forest Area Drainage and Paving (30%) Goforth	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000477	Drainage and Paving Improvements for Cottage Grove East - Phase II	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000478	TIRZ17 Memorial City Area Detention Basin	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000479	P518 Aldine West field	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000480	Spring Shadows North	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000481	Kirkwood/Nottingham	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000482	Gellhorn	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000483	Turkey Gully	This study will analyze the local drainage systems in the Shady Acres area to divert stormwater flow from Turkey Gully to White Oak Bayou. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000484	D-133 Sharpstown	This project provides for the right-of-way acquisition, design and construction of detention basins in the Sharpstown Area. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040204
061000485	City of Bellaire Newcastle/Kilmarnock Area Drainage Improvements	Perform engineering services to develop and advance a flood risk reduction project in the Newcastle/Kilmarnock area, servicing the eastern part of the City of Bellaire.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000486	City of Bellaire Loop 610 Area Drainage Improvements	Perform engineering services to develop and advance a flood risk reduction project in the Newcastle area, servicing the east-central part of the City of Bellaire.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000487	City of Bellaire South Rice Area Drainage Improvements	Perform engineering services to develop and advance a flood risk reduction project in the South Rice area, servicing the west-central part of the City of Bellaire.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000488	City of Bellaire Chimney Rock Area Drainage Improvements	Perform preliminary engineering services to develop and advance a flood risk reduction project in the Chimney Rock area, servicing the western part of the City of Bellaire.	06000001, 06000011, 06000012, 06000015	Harris	12040104
061000489	City of Huntsville - Elkins Lake Watershed	Analysis of alternatives to determine mitigation of existing flood problems	06000001, 06000011, 06000012, 06000015	Walker	12040101,12040103
061000490	City of Huntsville - Spring Lake Watershed	Analysis of alternatives to determine mitigation of existing flood problems	06000001, 06000011, 06000012, 06000015	Walker	12040101,12040103

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000483	Turkey Gully	120401040304	06000081	Project Planning	0.25	Riverine, Urban/Local	City of Houston
061000484	D-133 Sharpstown	120401040401	06000083	Project Planning	8.54	Urban/Local	City of Houston
061000485	City of Bellaire Newcastle/Kilmarnock Area Drainage Improvements	120401040401, 120401040402	06000083, 06000084	Project Planning	3.60	Urban/Local	City of Bellaire
061000486	City of Bellaire Loop 610 Area Drainage Improvements	120401040401, 120401040402	06000083, 06000084	Project Planning	3.60	Urban/Local	City of Bellaire
061000487	City of Bellaire South Rice Area Drainage Improvements	120401040401, 120401040402	06000083, 06000084	Project Planning	3.60	Urban/Local	City of Bellaire
061000488	City of Bellaire Chimney Rock Area Drainage Improvements	120401040401, 120401040402	06000083, 06000084	Project Planning	3.60	Urban/Local	City of Bellaire
061000489	City of Huntsville - Elkins Lake Watershed	120401010104,120401010102,120401010201,120401010202,120401030302	06000004,06000002,06000005,06000006,06000062	Watershed Planning	43.43	Urban/Local	City of Huntsville
061000490	City of Huntsville - Spring Lake Watershed	120401010104,120401010102,120401010201,120401010202,120401030302	06000004,06000002,06000005,06000006,06000062	Watershed Planning	43.43	Urban/Local	City of Huntsville

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000483	Turkey Gully	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000484	D-133 Sharpstown	Houston	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000485	City of Bellaire Newcastle/Kilmarnock Area Drainage Improvements	Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000486	City of Bellaire Loop 610 Area Drainage Improvements	Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000487	City of Bellaire South Rice Area Drainage Improvements	Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000488	City of Bellaire Chimney Rock Area Drainage Improvements	Bellaire	No	\$ 1,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000489	City of Huntsville - Elkins Lake Watershed	Webster, Walker County	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000490	City of Huntsville - Spring Lake Watershed	Webster, Walker County	No	\$ 300,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000491	Montgomery County MUDs 83,84 - Alternative 4 and 6B PER	Further define Alternative 4 and 6B recommended in the Oakhurst Drainage System & Bentwood Diversion Channel Flood Reduction Study (March 2021) including performing a benefit cost analysis.	06000001, 06000011, 06000012, 06000015	Montgomery	12040101
061000494	Montgomery County MUDs 83,84 - Storm Sewer Improvements	Further define storm sewer improvements recommended in the Oakhurst Drainage System & Bentwood Diversion Channel Flood Reduction Study (March 2021), evaluate and identify potential inlet improvements.	06000001, 06000011, 06000012, 06000015	Montgomery	12040101
061000495	Preliminary Engineering Design of Detention Pond & Conveyance System for Buddy Grass and Railroad Ditches	Study to create detention pond & Ditch system for Buddy Grass and RR Ditches	06000001, 06000011, 06000012, 06000015	Liberty, Harris	12040203
061000496	Feasibility Study - Convert Enderli Reservoir into a Detention Pond	Request to study converting Enderli Reservoir into a detention pond	06000001, 06000011, 06000012, 06000015	Liberty, Harris	12040203
061000497	Preliminary Engineering Design of Detention Pond at intersection of HWY90 & Railroad near Cedar Bayou	Study to create detention pond & Ditch system for Buddy Grass and RR Ditches	06000001, 06000011, 06000012, 06000015	Liberty, Harris	12040203
061000498	Preliminary Engineering Design of Detention Pond at Gier Road & Cedar Bayou	Study to create detention pond at Gier Road Ditch & Cedar Bayou Intersection	06000001, 06000011, 06000012, 06000015	Liberty	12040203
061000499	Preliminary Engineering Design of Detention Pond at Hatcherville & Cedar Bayou Farm Ditches	Study to create detention pond for Hatcherville & Cedar Bayou Farms Ditches	06000001, 06000011, 06000012, 06000015	Liberty	12040203
061000500	Green Acres Neighborhood Drainage Improvement Study	Evaluate existing flood risk in the Green Acres Neighborhood and identify solutions to mitigate flooding.	06000001, 06000010	Harris	12040204
061000501	Addicks Reservoir - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Addicks Reservoir watershed.	06000010, 06000015	Harris, Waller	12040102, 12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000491	Montgomery County MUDs 83,84 - Alternative 4 and 6B PER	120401010501, 120401010404	06000023, 06000024	Project Planning	1.25	Riverine	Montgomery County MUD 83, Montgomery County MUD 84
061000494	Montgomery County MUDs 83,84 - Storm Sewer Improvements	120401010501, 120401010404	06000023, 06000024	Project Planning	1.25	Riverine	Montgomery County MUD 83, Montgomery County MUD 84
061000495	Preliminary Engineering Design of Detention Pond & Conveyance System for Buddy Grass and Railroad Ditches	120402030102	06000100	Project Planning	0.47	Riverine	Liberty County WCID#1
061000496	Feasibility Study - Convert Enderli Reservoir into a Detention Pond	120402030102, 120402030103	06000100, 06000101	Project Planning	1.56	Riverine	Liberty County WCID#1
061000497	Preliminary Engineering Design of Detention Pond at intersection of HWY90 & Railroad near Cedar Bayou	120402030103	06000101	Project Planning	1.47	Riverine	Liberty County WCID#1
061000498	Preliminary Engineering Design of Detention Pond at Gier Road & Cedar Bayou	120402030102	06000100	Project Planning	0.11	Riverine	Liberty County WCID#1
061000499	Preliminary Engineering Design of Detention Pond at Hatcherville & Cedar Bayou Farm Ditches	120402030104	06000102	Project Planning	0.42	Riverine	Liberty County WCID#1
061000500	Green Acres Neighborhood Drainage Improvement Study	120402040100	06000106	Project Planning	0.37	Urban/Local	City of Webster
061000501	Addicks Reservoir - Neighborhood Future Floodplain Analysis	120401020103, 120401020104, 120401040101, 120401040102, 120401040104, 120401040201, 120401040202, 120401040203, 120401040301, 120401040302, 120401040303	06000028, 06000029, 06000072, 06000076, 06000074, 06000075, 06000079, 06000071, 06000077, 06000080, 06000078	Watershed Planning	138.47	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000491	Montgomery County MUDs 83,84 - Alternative 4 and 6B PER	Montgomery County MUD 83, Montgomery County MUD 84	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000494	Montgomery County MUDs 83,84 - Storm Sewer Improvements	Montgomery County MUD 83	No	\$ 650,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000495	Preliminary Engineering Design of Detention Pond & Conveyance System for Buddy Grass and Railroad Ditches	Liberty County WCID#1	No	\$ 5,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000496	Feasibility Study - Convert Enderli Reservoir into a Detention Pond	Liberty County WCID#1	No	\$ 4,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000497	Preliminary Engineering Design of Detention Pond at intersection of HWY90 & Railroad near Cedar Bayou	Liberty County WCID#1	No	\$ 3,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000498	Preliminary Engineering Design of Detention Pond at Gier Road & Cedar Bayou	Liberty County WCID#1	No	\$ 3,500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000499	Preliminary Engineering Design of Detention Pond at Hatcherville & Cedar Bayou Farm Ditches	Liberty County WCID#1	No	\$ 3,500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000500	Green Acres Neighborhood Drainage Improvement Study	Webster	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000501	Addicks Reservoir - Neighborhood Future Floodplain Analysis	Harris County, Waller County, Houston, Katy	No	\$ 31,022,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000502	Armand Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Armand Bayou watershed.	06000010, 06000015	Harris	12040104, 12040204
061000503	Barker Reservoir - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Barkers Reservoir watershed.	06000010, 06000015	Harris, Waller, Fort Bend	12040102, 12040104
061000504	Brays Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Brays Bayou watershed.	06000010, 06000015	Harris, Fort Bend	12040104
061000505	Buffalo Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Buffalo Bayou watershed.	06000010, 06000015	Harris, Fort Bend	12040104
061000506	Carpenters Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Carpenters Bayou watershed.	06000010, 06000015	Harris	12040101, 12040104
061000507	Cedar Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Cedar Bayou watershed.	06000010, 06000015	Harris, Liberty, Chambers	12040101, 12040103, 12040104, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000502	Armand Bayou - Neighborhood Future Floodplain Analysis	120401040703, 120401040706, 120402040100	06000095, 06000098, 06000106	Watershed Planning	59.12	Riverine, Urban/Local	Harris County
061000503	Barker Reservoir - Neighborhood Future Floodplain Analysis	120401020103, 120401040101, 120401040102, 120401040103, 120401040104, 120401040203, 120401040303, 120401040401	06000028, 06000071, 06000072, 06000073, 06000074, 06000077, 06000080, 06000083	Watershed Planning	129.28	Riverine, Urban/Local	Harris County
061000504	Brays Bayou - Neighborhood Future Floodplain Analysis	120401040303, 120401040305, 120401040401, 120401040402, 120401040501, 120401040502, 120401040703	06000080, 06000082, 06000083, 06000084, 06000085, 06000086, 06000095	Watershed Planning	128.68	Riverine, Urban/Local	Harris County
061000505	Buffalo Bayou - Neighborhood Future Floodplain Analysis	120401040104, 120401040203, 120401040301, 120401040302, 120401040303, 120401040304, 120401040305, 120401040401, 120401040402, 120401040701, 120401040703	06000074, 06000077, 06000078, 06000079, 06000080, 06000081, 06000082, 06000083, 06000084, 06000093, 06000095	Watershed Planning	101.87	Riverine, Urban/Local	Harris County
061000506	Carpenters Bayou - Neighborhood Future Floodplain Analysis	120401010502, 120401040605, 120401040606, 120401040702, 120401040703, 120401040704, 120401040705	06000025, 06000091, 06000092, 06000094, 06000095, 06000096, 06000097	Watershed Planning	31.15	Riverine, Urban/Local	Harris County
061000507	Cedar Bayou - Neighborhood Future Floodplain Analysis	120401010501, 120401010502, 120401030205, 120401040704, 120401040705, 120401040706, 120402030101, 120402030101, 120402030102, 120402030103, 120402030104, 120402030105, 120102030106, 120402030200	06000024, 06000025, 06000060, 06000096, 06000097, 06000098, 06000099, 06000100, 06000101, 06000102, 06000103, 06000104, 06000105	Watershed Planning	199.18	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000502	Armand Bayou - Neighborhood Future Floodplain Analysis	Harris County, Houston, Nassau Bay, La Porte, Deer Park, Webster, Pasadena, Taylor Lake Village	No	\$ 44,078,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000503	Barker Reservoir - Neighborhood Future Floodplain Analysis	Fort Bend County, Harris County, Waller County, Houston, Fulshear, Katy	No	\$ 25,956,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000504	Brays Bayou - Neighborhood Future Floodplain Analysis	Fort Bend County, Harris County, Sugar Land, Missouri City, Houston, Stafford, Bellaire, Meadows Place, 06003305, 06003595	No	\$ 66,091,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000505	Buffalo Bayou - Neighborhood Future Floodplain Analysis	Fort Bend County, Harris County, Houston, Hedwig Village, Hilshire Village, Hunters Creek Village, 06002495, 06002856, 06003593	No	\$ 5,644,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000506	Carpenters Bayou - Neighborhood Future Floodplain Analysis	Harris County, Houston	No	\$ 32,227,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000507	Cedar Bayou - Neighborhood Future Floodplain Analysis	Chambers, Harris County, Liberty, Dayton, Baytown, Mont Belvieu	No	\$ 5,340,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000508	Clear Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Clear Creek watershed.	06000010, 06000015	Harris, Fort Bend, Brazoria, Galveston	12040104, 12040204
061000509	Greens Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Greens Bayou watershed.	06000010, 06000015	Harris	12040101, 12040102, 12040104
061000510	Little Cypress Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Little Cypress Creek watershed.	06000010, 06000015	Harris	12040102
061000511	Luce Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Luce Bayou watershed.	06000010, 06000015	Harris, Montgomery, Liberty	12040101, 12040103, 12040203

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000508	Clear Creek - Neighborhood Future Floodplain Analysis	120401040501, 120401040502, 120401040703, 120402030100, 120402040200, 120402040400	06000085, 06000086, 06000095, 06000106, 06000107, 06000109	Watershed Planning	201.03	Riverine, Urban/Local	Harris County
061000509	Greens Bayou - Neighborhood Future Floodplain Analysis	120401010501, 120401010502, 120401020106, 120401020107, 120401040301, 120401040302, 120401040304, 120401040601, 120401040602, 120401040603, 120401040604, 120401040601, 120401040602, 120401040603, 120401040604, 120401040605, 120401040606, 120401040701	06000024, 06000025, 06000031, 06000032, 06000078, 06000079, 06000081, 06000087, 06000088, 06000089, 06000090, 06000091, 06000092, 06000093, 06000094, 06000095	Watershed Planning	210.92	Riverine, Urban/Local	Harris County
061000510	Little Cypress Creek - Neighborhood Future Floodplain Analysis	120401020101, 120401020103, 120401020104, 120401020105, 120401020106, 120401020201, 120101020205, 120401020210	06000026, 06000028, 06000029, 06000030, 06000031, 06000033, 06000037, 06000042	Watershed Planning	52.31	Riverine, Urban/Local	Harris County
061000511	Luce Bayou - Neighborhood Future Floodplain Analysis	120401010501, 120401030203, 120401030204, 120401030205, 120101030402, 120402030101, 120402030102	06000024, 06000058, 06000059, 06000060, 06000070, 06000099, 06000100	Watershed Planning	74.95	Riverine, Urban/Local	Harris County

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000508	Clear Creek - Neighborhood Future Floodplain Analysis	Brazoria, Galveston County, Fort Bend County, Harris County, Missouri City, Houston, Alvin, Nassau Bay, Pearland, Clear Lake Shores, Friendswood, La Porte, El Lago, Manvel, Brookside Village, League City, Webster, Pasadena, 06003396, Seabrook, Shoreacres, Taylor Lake Village	No	\$ 75,233,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000509	Greens Bayou - Neighborhood Future Floodplain Analysis	Harris County, Houston, Humble	No	\$ 92,079,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000510	Little Cypress Creek - Neighborhood Future Floodplain Analysis	Harris County, Houston	No	\$ 13,778,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000511	Luce Bayou - Neighborhood Future Floodplain Analysis	Harris County, Liberty, Dayton, Houston	No	\$ 2,612,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000512	San Jacinto & Galveston Bay - Neighborhood Future Floodplain	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for San Jacinto & Galveston Bay watershed.	06000010, 06000015	Harris	12040104, 12040204
061000513	San Jacinto River - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for San Jacinto River watershed.	06000010, 06000015	Harris, Montgomery	12040101,12040102,12040103, 12040104,12040203,12040204
061000514	Sims Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Sims Bayou watershed.	06000010, 06000015	Harris, Fort Bend	12040104,12040204
061000515	Spring Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Spring Creek watershed.	06000010, 06000015	Harris, Waller, Montgomery, Grimes	12040101,12040102,12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000512	San Jacinto & Galveston Bay - Neighborhood Future Floodplain	120401040706, 120402040100	06000098, 06000106	Watershed Planning	19.36	Riverine, Urban/Local	Harris County
061000513	San Jacinto River - Neighborhood Future Floodplain Analysis	-		Watershed Planning	473.35	Riverine, Urban/Local	Harris County
061000514	Sims Bayou - Neighborhood Future Floodplain Analysis	120401040401,120401040402,120401040501,120401040502,120401040703,120402040100,120402040400	06000083,06000084,06000085,06000086,06000095,06000106,06000109	Watershed Planning	93.54	Riverine, Urban/Local	Harris County
061000515	Spring Creek - Neighborhood Future Floodplain Analysis	-	06000016,06000017,06000018,06000019,06000020,06000021,06000023,06000024,06000026,06000030,06000032,06000033,06000034,06000035,06000036,06000037,06000038,06000039,06000040,06000041,06000042,06000043,06000044,06000045,06000088	Watershed Planning	385.96	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000512	San Jacinto & Galveston Bay - Neighborhood Future Floodplain	Chambers, Harris County, Morgan's Point, La Porte, Pasadena, Seabrook, Shoreacres	No	\$ 15,316,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000513	San Jacinto River - Neighborhood Future Floodplain Analysis	Chambers, Harris County, Liberty, Houston, Baytown, Montgomery, Patton Village, Roman Forest, Shenandoah, Woodbranch, Galena Park, Morgan's Point, Oak Ridge North, Plum Grove, La Porte, Deer Park, Conroe, 06003031, 06003037, Pasadena, Humble	No	\$ 52,736,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000514	Sims Bayou - Neighborhood Future Floodplain Analysis	Fort Bend County, Harris County, Missouri City, Houston, Stafford, South Houston, Pearland, Pasadena	No	\$ 1,599,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000515	Spring Creek - Neighborhood Future Floodplain Analysis	Harris County, Waller County, Grimes, Houston, Montgomery, Shenandoah, Magnolia, Oak Ridge North, Stagecoach, Waller, Plantersville, Conroe, Tomball, 06003415, Humble, 06003600, 06003601	No	\$ 7,219,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000516	Willow Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Willow Creek watershed.	06000010, 06000015	Harris	12040102
061000517	Greens Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Greens Bayou watershed.	06000015	Harris	12040101,12040102,12040104
061000518	Carpenters Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Carpenters Bayou watershed.	06000015	Harris	12040101,12040104
061000519	San Jacinto River Watershed Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in San Jacinto River watershed.	06000015	Harris, Montgomery	12040101,12040102,12040103,12040104,12040203,12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000516	Willow Creek - Neighborhood Future Floodplain Analysis	120401020105,120401020106,120401020205,120401020209,120401020210,120401020212	06000030,06000031,06000037,06000041,06000042,06000044	Watershed Planning	55.65	Riverine, Urban/Local	Harris County
061000517	Greens Bayou Local Drainage Study	120401010501,120401010502,120401020106,120401020107,120401040301,120401040302,120401040304,120401040601,120401040602,120401040603,120401040604,120401040605,120401040606,120401040701,120401040702,120401040703	06000024,06000025,06000031,06000032,06000078,06000079,06000081,06000087,06000088,06000089,06000090,06000091,06000092,06000093,06000094,06000095	Watershed Planning	210.92	Riverine, Urban/Local	Harris County
061000518	Carpenters Bayou Local Drainage Study	120401010502,120401040605,120401040606,120401040702,120401040703,120401040704,120401040705	06000025,06000091,06000092,06000094,06000095,06000096,06000097	Watershed Planning	31.14	Riverine, Urban/Local	Harris County
061000519	San Jacinto River Watershed Local Drainage Study	-	-	Watershed Planning	473.37	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000516	Willow Creek - Neighborhood Future Floodplain Analysis	Harris County, Houston, Tomball	No	\$ 17,179,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000517	Greens Bayou Local Drainage Study	Harris County, Houston, Humble	No	\$ 21,649,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000518	Carpenters Bayou Local Drainage Study	Harris County, Houston	No	\$ 1,088,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000519	San Jacinto River Watershed Local Drainage Study	Chambers, Harris County, Liberty, Houston, Baytown, Montgomery, Patton Village, Roman Forest, Shenandoah, Woodbranch, Galena Park, Morgan's Point, Oak Ridge North, Plum Grove, La Porte, Deer Park, Conroe, 06003031, 06003037, Pasadena, Humble	No	\$ 3,288,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000520	Clear Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Clear Creek watershed.	06000015	Harris, Fort Bend, Brazoria, Galveston	12040104,12040204
061000521	Cypress Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Cypress Creek watershed.	06000015	Harris, Waller	12040102,12040104
061000522	Cypress Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified though MAAPNext and best available data for the development of flood mitigation projects for Cypress Creek watershed.	06000010, 06000015	Harris, Waller	12040102,12040104
061000523	White Oak Bayou - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified though MAAPNext and best available data for the development of flood mitigation projects for White Oak Bayou watershed.	06000010, 06000015	Harris	12040102,12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000520	Clear Creek Local Drainage Study	120401040501,120401040502,120401040703,120402040100,120402040200,120402040400	06000085,06000086,06000095,06000106,06000107,06000109	Watershed Planning	201.07	Riverine, Urban/Local	Harris County
061000521	Cypress Creek Local Drainage Study	-	06000026,06000027,06000028,06000029,06000030,06000031,06000032,06000033,06000042,06000044,06000045,06000071,06000072,06000075,06000076,06000077,06000078,06000087,06000088,06000089	Watershed Planning	267.22	Riverine, Urban/Local	Harris County
061000522	Cypress Creek - Neighborhood Future Floodplain Analysis	-	06000026,06000027,06000028,06000029,06000030,06000031,06000032,06000033,06000042,06000044,06000045,06000071,06000072,06000075,06000076,06000077,06000078,06000087,06000088,06000089	Watershed Planning	267.23	Riverine, Urban/Local	Harris County
061000523	White Oak Bayou - Neighborhood Future Floodplain Analysis	120401020104,120401020106,120401040301,120401040302,120401040303,120401040304,120401040305,120401040601,120401040604,120401040701,120401040703	06000029,06000031,06000078,06000079,06000080,06000081,06000082,06000087,06000090,06000093,06000095	Watershed Planning	111.11	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000520	Clear Creek Local Drainage Study	Brazoria, Galveston County, Fort Bend County, Harris County, Missouri City, Houston, Alvin, Nassau Bay, Pearland, Clear Lake Shores, Friendswood, La Porte, El Lago, Manvel, Brookside Village, League City, Webster, Pasadena, 06003396, Seabrook, Shoreacres, Taylor Lake Village	No	\$ 3,008,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000521	Cypress Creek Local Drainage Study	Harris County, Waller County, Houston, Prairie View, Waller, Tomball, 06003600	No	\$ 10,768,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000522	Cypress Creek - Neighborhood Future Floodplain Analysis	Harris County, Waller County, Houston, Prairie View, Waller, Tomball, 06003600	No	\$ 67,763,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000523	White Oak Bayou - Neighborhood Future Floodplain Analysis	Harris County, Houston, Jersey Village	No	\$ 46,676,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000524	White Oak Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in White Oak Bayou watershed.	06000015	Harris	12040102,12040104
061000525	Spring Gully & Goose Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Spring Gully & Goose Creek watershed.	06000015	Harris	12040104,12040203
061000526	Cedar Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Cedar Bayou watershed.	06000015	Harris, Liberty, Chambers	12040101,12040103,12040104,12040203
061000527	Addicks Reservoir Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Addicks Reservoir watershed.	06000015	Harris, Waller	12040102,12040104
061000528	Little Cypress Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Little Cypress Creek watershed.	06000015	Harris	12040102
061000529	Buffalo Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Buffalo Bayou watershed.	06000015	Harris, Fort Bend	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000524	White Oak Bayou Local Drainage Study	120401020104,120401020106,120401040301,120401040302,120401040303,120401040304,120401040305,120401040601,120401040604,120401040701,120401040703	06000029,06000031,06000078,06000079,06000080,06000081,06000082,06000087,06000090,06000093,06000095	Watershed Planning	111.11	Riverine, Urban/Local	Harris County
061000525	Spring Gully & Goose Creek Local Drainage Study	120401040704,120401040705,120401040706,120402030104,120402030105,120402030106	06000096,06000097,06000098,06000102,06000103,06000104	Watershed Planning	34.96	Riverine, Urban/Local	Harris County
061000526	Cedar Bayou Local Drainage Study	120401010501,120401010502,120401030205,120401040704,120401040705,120401040706,120402030101,120402030102,120402030103,120402030104,120402030105,120402030106,120402030200	06000024,06000025,06000060,06000096,06000097,06000098,06000099,06000100,06000101,06000102,06000103,06000104,06000105	Watershed Planning	199.04	Riverine, Urban/Local	Harris County
061000527	Addicks Reservoir Local Drainage Study	120401020103,120401020104,120401040101,120401040102,120401040104,120401040201,120401040202,120401040203,120401040301,120401040302,120401040303	06000028,06000029,06000071,06000072,06000074,06000075,06000076,06000077,06000078,06000079,06000080	Watershed Planning	138.47	Riverine, Urban/Local	Harris County
061000528	Little Cypress Creek Local Drainage Study	120401020101,120401020103,120401020104,120401020105,120401020106,120401020201,120401020205,120401020210	06000026,06000028,06000029,06000030,06000031,06000033,06000037,06000042	Watershed Planning	52.30	Riverine, Urban/Local	Harris County
061000529	Buffalo Bayou Local Drainage Study	120401040104,120401040203,120401040301,120401040302,120401040303,120401040304,120401040305,120401040401,120401040402,120401040701,120401040703	06000074,06000077,06000078,06000079,06000080,06000081,06000082,06000083,06000084,06000093,06000095	Watershed Planning	101.88	Riverine, Urban/Local	Harris County

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000524	White Oak Bayou Local Drainage Study	Harris County, Houston, Jersey Village	No	\$ 4,897,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000525	Spring Gully & Goose Creek Local Drainage Study	Harris County, Baytown	No	\$ 3,591,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000526	Cedar Bayou Local Drainage Study	Chambers, Harris County, Liberty, Dayton, Baytown, Mont Belvieu	No	\$ 905,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000527	Addicks Reservoir Local Drainage Study	Harris County, Waller County, Houston, Katy	No	\$ 7,151,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000528	Little Cypress Creek Local Drainage Study	Harris County, Houston	No	\$ 568,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000529	Buffalo Bayou Local Drainage Study	Fort Bend County, Harris County, Houston, Hedwig Village, Hilshire Village, Hunters Creek Village, 06002495, 06002856, 06003593	No	\$ 195,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000530	Spring Gully & Goose Creek - Neighborhood Future Floodplain Analysis	Watershed-wide study investigating neighborhoods at flood risks identified through MAAPNext and best available data for the development of flood mitigation projects for Spring Gully & Goose Creek watershed.	06000010, 06000015	Harris	12040104, 12040203
061000531	Willow Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Willow Creek watershed.	06000015	Harris	12040102
061000532	Luce Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Luce Bayou watershed.	06000015	Harris, Liberty, Montgomery	12040101, 12040103, 12040203
061000533	Barker Reservoir Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Barker Reservoir watershed.	06000015	Harris, Fort Bend, Waller	12040102, 12040104
061000534	Brays Bayou Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Brays Bayou watershed.	06000015	Harris, Fort Bend	12040104
061000535	Briarwood Area Drainage Improvements	Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.	06000001, 06000010	Harris	12040104, 12040203

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000530	Spring Gully & Goose Creek - Neighborhood Future Floodplain Analysis	120401040704, 120401040705, 120401040706, 120402030104, 120402030105, 120402030106	06000096, 06000097, 06000098, 06000102, 06000103, 06000104	Watershed Planning	34.96	Riverine, Urban/Local	Harris County
061000531	Willow Creek Local Drainage Study	120401020105, 120401020106, 120401020205, 120401020209, 120401020210, 120401020212	06000030, 06000031, 06000037, 06000041, 06000042, 06000044	Watershed Planning	55.58	Riverine, Urban/Local	Harris County
061000532	Luce Bayou Local Drainage Study	120401010501, 120401030203, 120401030204, 120401030205, 120401030402, 120402030101, 120402030204	06000024, 06000058, 06000059, 06000060, 06000070, 06000099, 06000100	Watershed Planning	74.94	Riverine, Urban/Local	Harris County
061000533	Barker Reservoir Local Drainage Study	120401020103, 120401040101, 120401040102, 120401040103, 120101040104, 120401040203, 120401040303, 120401040401	06000028, 06000071, 06000072, 06000073, 06000074, 06000077, 06000080, 06000083	Watershed Planning	128.62	Riverine, Urban/Local	Harris County
061000534	Brays Bayou Local Drainage Study	120401040303, 120401040305, 120101040401, 120401040402, 120401040501, 120401040502, 120401040703	06000080, 06000082, 06000083, 06000084, 06000085, 06000086, 06000095	Watershed Planning	128.66	Riverine, Urban/Local	Harris County
061000535	Briarwood Area Drainage Improvements	120401040706, 120402030106	06000098, 06000104	Project Planning	0.07	Urban/Local	City of Baytown

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000530	Spring Gully & Goose Creek - Neighborhood Future Floodplain Analysis	Harris County, Baytown	No	\$ 14,929,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000531	Willow Creek Local Drainage Study	Harris County, Houston, Tomball	No	\$ 972,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000532	Luce Bayou Local Drainage Study	Harris County, Liberty, Dayton, Houston	No	\$ 328,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000533	Barker Reservoir Local Drainage Study	Fort Bend County, Harris County, Waller County, Houston, Fulshear, Katy	No	\$ 2,369,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000534	Brays Bayou Local Drainage Study	Fort Bend County, Harris County, Sugar Land, Missouri City, Houston, Stafford, Bellaire, Meadows Place, 06003305, 06003595	No	\$ 334,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000535	Briarwood Area Drainage Improvements	Baytown, Harris County	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000536	North Alexander	Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.	06000001, 06000010	Harris	12040203
061000537	Rollingbrook Garth and Main	Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria. Detention is also proposed to mitigate for impacts from increased flow.	06000001, 06000010	Harris	12040104
061000538	West Baytown Phase 2	Further analysis to become a FMP. This project includes proposed storm sewer improvements to bring the area to accordance with the City of Baytown drainage criteria.	06000001, 06000010	Harris	12040104
061000539	Spring Creek Local Drainage Study	The main objective of this study is to analyze local subdivision drainage of repetitive loss and high flood risks neighborhoods to produce flood mitigation projects in Spring Creek watershed.	06000001, 06000010	Harris, Montgomery, Waller, Grimes	12040101, 12040102, 12040104
061000540	South Shore Drainage Pump Station	Project includes analysis to bring the existing storm sewer into compliance with updated drainage criteria along with the evaluation and design of a pump station.	06000001, 06000010	Galveston	12040204
061000541	51st Street Drainage Basin Pump Station Project	The project includes evaluation of storm drainage improvements including a pump station at 51st Street and Harborside that will help reduce flooding in the project area and the surrounding areas.	06000001, 06000011, 06000012, 06000015	Galveston	12040204

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FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000536	North Alexander	120402030106	06000104	Project Planning	0.17	Urban/Local	City of Baytown
061000537	Rollingbrook Garth and Main	120401040706	06000098	Project Planning	0.08	Urban/Local	City of Baytown
061000538	West Baytown Phase 2	120401040706	06000098	Project Planning	0.17	Urban/Local	City of Baytown
061000539	Spring Creek Local Drainage Study	-	06000016, 06000017, 06000018, 06000019, 06000020, 06000021, 06000023, 06000024, 06000026, 06000030, 06000032, 06000033, 06000034, 06000035, 06000036, 06000037, 06000038, 06000039, 06000040, 06000041, 06000042, 06000043, 06000044, 06000045, 06000088	Watershed Planning	385.89	Riverine, Urban/Local	Harris County
061000540	South Shore Drainage Pump Station	120402040200	06000107	Project Planning	1.24	Urban/Local	Galveston County
061000541	51st Street Drainage Basin Pump Station Project	120402040200	06000107	Project Planning	1.18	Urban/Local	Galveston County

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FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000536	North Alexander	Baytown, Harris County	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000537	Rollingbrook Garth and Main	Baytown, Harris County	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000538	West Baytown Phase 2	Baytown, Harris County	No	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000539	Spring Creek Local Drainage Study	Harris County, Waller County, Grimes, Houston, Montgomery, Shenandoah, Magnolia, Oak Ridge North, Stagecoach, Waller, Plantersville, Conroe, Tomball, 06003415, Humble, 06003600, 06003601	No	\$ 343,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000540	South Shore Drainage Pump Station	Galveston County, Galveston	No	\$ 5,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000541	51st Street Drainage Basin Pump Station Project	Galveston County, Galveston	No	\$ 9,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000542	Kansas Street Drainage Project, Phase 2	Further analysis of propose drainage improvements within the City's Historic District.	06000001, 06000010	Galveston	12040204
061000543	Gum Bayou Drainage Improvements	Widen Gum Bayou from approximately SH 96 to the City's ETJ and create a new detention pond approximately 270 ac-ft in size.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000544	Magnolia Creek & Cedar Gully Drainage Improvement Project	Project would look at Magnolia Creek and Cedar Gully upstream of FM 518. Improvements would include modification of detention pond outlets and culvert crossings at Summer Place.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000545	Highland Terrace and Wesley Drive Drainage Improvements	Evaluation of an extension of the FM 518 & Wesley Drive Drainage Improvement project. Includes extending storm sewer improvements.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000546	Benson Bayou Regional Mitigation Conveyance & Detention Pond Project	Further study of proposed regrading of Benson Bayou and tributaries along with a regional mitigation pond and reconstruction of road crossings and existing outfall structures.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000547	Interurban Watershed Drainage Improvement Project	Project would widen Interurban Ditch by approximately 10' starting at FM 518 and extending upstream for approximately 2,000 linear feet. A 10 to 12 acre-feet detention pond downstream of FM 518 will need to be constructed to mitigate.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000548	Patton Subdivision Drainage Improvements Project	Evaluation of storm sewer improvements along Sanders St., West Wilkins St., and Interurban St. The storm sewer would discharge into an approximate 40 ac-ft new detention pond along W. Galveston/W. Wilkins before discharging into Interurban Ditch.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000551	St. Charles Street Drainage Improvements Project	Further analysis of proposed storm sewer improvements to St Charles Street and evaluation of detention.	06000001, 06000011, 06000012, 06000015	Galveston	12040204

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000542	Kansas Street Drainage Project, Phase 2	120402040100, 120402040200	06000106, 06000107	Project Planning	51.84	Riverine, Urban/Local	City of League City
061000543	Gum Bayou Drainage Improvements	120402040100, 120402040200	06000106, 06000107	Project Planning	5.93	Riverine, Urban/Local	City of League City
061000544	Magnolia Creek & Cedar Gully Drainage Improvement Project	120402040100, 120402040200	06000106, 06000107	Project Planning	6.30	Riverine, Urban/Local	City of League City
061000545	Highland Terrace and Wesley Drive Drainage Improvements	120402040100, 120402040200	06000106, 06000107	Project Planning	0.87	Riverine, Urban/Local	City of League City
061000546	Benson Bayou Regional Mitigation Conveyance & Detention Pond Project	120402040100, 120402040200	06000106, 06000107	Project Planning	5.10	Riverine, Urban/Local	City of League City
061000547	Interurban Watershed Drainage Improvement Project	120402040100, 120402040200	06000106, 06000107	Project Planning	1.12	Riverine, Urban/Local	City of League City
061000548	Patton Subdivision Drainage Improvements Project	120402040100, 120402040200	06000106, 06000107	Project Planning	1.12	Urban/Local	City of League City
061000551	St. Charles Street Drainage Improvements Project	120402040100, 120402040200	06000106, 06000107	Project Planning	5.13	Riverine, Urban/Local	City of League City

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Entities with Oversight	Emergency Need	Estimated Study Cost	RFPG Recommendation (Y/N)	Reason for Recommendation
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Brazoria, Galveston, West Brazoria County Drainage District, Alvin	No	\$ 110,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000542	Kansas Street Drainage Project, Phase 2	Galveston County, Harris County, League City	No	\$ 580,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000543	Gum Bayou Drainage Improvements	League City, Galveston County	No	\$ 1,200,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000544	Magnolia Creek & Cedar Gully Drainage Improvement Project	League City, Galveston County	No	\$ 750,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000545	Highland Terrace and Wesley Drive Drainage Improvements	League City, Galveston County	No	\$ 600,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000546	Benson Bayou Regional Mitigation Conveyance & Detention Pond Project	League City, Galveston County	No	\$ 5,000,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000547	Interurban Watershed Drainage Improvement Project	League City	No	\$ 700,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000548	Patton Subdivision Drainage Improvements Project	League City, Galveston County	No	\$ 700,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000551	St. Charles Street Drainage Improvements Project	League City, Galveston County	No	\$ 50,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	Description	Associated Goal No.	Counties	HUC8s
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	06000015	Brazoria	12040204
061000552	Columbia Memorial Parkway Drainage Improvement Project	A detailed drainage analysis is needed to confirm storm sewer sizes and if detention would be needed. Project would replace roadside ditches with a curb and gutter system.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000553	Magnolia Creek & Cedar Gully Clearing and Desnagging Project	Project would look at Magnolia Creek and Cedar Gully downstream of FM 518 and all work would be above the ordinary high water mark. Scope of work includes the removal of vegetation and/or Desnagging of the channels.	06000001, 06000011, 06000012, 06000015	Galveston	12040204
061000554	Texas Avenue-Magnolia-MedicalCenterBlvd-Hwy3 Drainage Improvement Study	Evaluate existing flood risk in a portion of the city bounded by Magnolia St, Texas Avenue, Hwy3, and Medical Center Blvd. Identify solutions to mitigate flood risk in this area.	06000001, 06000010	Harris	12040204
061000555	HCMUD365 Cole Crossing Stormwater Detention and Water Quality Improvement Project	PER to further study and design the incorporation of additional mitigation volume and SWQ features in the existing Cole Crossing detention pond along Cypress Creek.	06000001, 06000011, 06000012, 06000015	Harris	12040102, 12040104
061000556	Brookshire-Katy Drainage District Watershed Study	Study to expand on the recently completed existing conditions model assessment. Conduct a needs assessment and identify mitigation solutions (FMPs) to be incorporated into the flood plan.	06000001, 06000011, 06000012, 06000015	Waller	12040102, 12040104
061000557	Drainage and Paving Improvements for Cottage Grove East - Phase I	Phase 1 of storm drainage and street improvements bounded by IH-10W, White Oak Bayou, Durham Dr. and Shepherd Dr. Cost is to perform the BCA and additional analysis to promote this FME to a FMP.	06000001, 06000011, 06000012, 06000015	Harris	12040104

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name	HUC12s	Watershed Names	FME Study Type	FME Study Area (sqmi)	Flood Risk Type	Sponsor
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1	120402040400	06000109	Project Planning	0.002	Urban/Local	City of Alvin
061000552	Columbia Memorial Parkway Drainage Improvement Project	120402040100, 120402040200	06000106, 06000107	Project Planning	4.44	Riverine, Urban/Local	City of League City
061000553	Magnolia Creek & Cedar Gully Clearing and Desnagging Project	120402040100, 120402040200	06000106, 06000107	Project Planning	5.76	Riverine, Urban/Local	City of League City
061000554	Texas Avenue-Magnolia-MedicalCenterBlvd-Hwy3 Drainage Improvement Study	120402040100	06000106	Project Planning	0.59	Urban/Local	City of Webster
061000555	HCMUD365 Cole Crossing Stormwater Detention and Water Quality Improvement Project	120401020104, 120401020105, 120401020106, 120401020210, 120401040201, 120401040301	06000029, 06000030, 06000031, 06000042, 06000075, 06000078	Project Planning	25.77	Riverine, Urban/Local	Harris County MUD 365
061000556	Brookshire-Katy Drainage District Watershed Study	120401020103, 120401040101, 120401040102, 120401040103, 120401040203	06000028, 06000071, 06000072, 06000073, 06000077	Project Planning	76.77	Urban/Local	Brookshire Katy Drainage District
061000557	Drainage and Paving Improvements for Cottage Grove East - Phase I	120401040304	06000081	Project Planning	0.01	Urban/Local	City of Houston

Appendix 5-6: Table 15 - Flood Management Evaluations Recommended by RFPG

FME ID	FME Name					
061000001	Durant Street Storm Sewer and Pavement Improvements - Phase 1					
061000552	Columbia Memorial Parkway Drainage Improvement Project	League City, Galveston County	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000553	Magnolia Creek & Cedar Gully Clearing and Desnagging Project	Galveston County, League City	No	\$ 150,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000554	Texas Avenue-Magnolia-MedicalCenterBlvd-Hwy3 Drainage Improvement Study	Webster	No	\$ 100,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000555	HCMUD365 Cole Crossing Stormwater Detention and Water Quality Improvement Project					
061000556	Brookshire-Katy Drainage District Watershed Study	Fort Bend County, Harris County, Waller County, Brookshire Katy Drainage District, Houston, Katy	No	\$ 500,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.
061000557	Drainage and Paving Improvements for Cottage Grove East - Phase I	Houston	-	\$ 30,000.00	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7:
Table 16 - Recommended FMPs

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	The LCC Alt. Combination 3 as proposed as part of the LCCDBFMP (2021), including detention channel benching, a diversion tunnel, capacity improvements, and an auxiliary opening.	06000001, 06000005, 06000006, 06000011, 06000012, 06000015	Brazoria, Galveston, Harris	12040204
063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	Projects submitted as part of the CDBG MIT grant in the Brays Bayou Watershed which include regional channel and detention projects including D133 (Bintliff Ditch) and Sharpstown Drainage.	06000001, 06000005, 06000006, 06000011, 06000012, 06000015	Harris	12040104
063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	Projects submitted as part of the CDBG MIT grant in the Sims Bayou Watershed which include three (3) regional channel and detention projects including C147/C547, Saltwater Ditch, and C506.	06000001, 06000005, 06000006, 06000011, 06000012, 06000015	Fort Bend, Harris	12040204,12040104
063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	Projects submitted as part of the CDBG MIT grant in Halls Bayou which include five (5) regional channel and detention projects including C-28, C-41 Hardy West, C-41 Mainstem, C-30, and C-23.	06000001, 06000005, 06000006, 06000011, 06000015	Harris	12040104
063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	Projects submitted as part of the CDBG MIT grant in the White Oak Bayou Watershed which include five (5) regional channel and detention projects including Kolbe Road, Barwood, E132-00-00, Tower Oaks, & Little White Oak Bayous.	06000001, 06000005, 06000006, 06000011, 06000015	Harris	12040102,12040104
063000056	Mary's Creek Lower, Middle, and Upper Segment	A part of the Pearland Master Drainage Plan (2019), this channel improvement alternative includes channel benching to increase conveyance capacity, bridge/culvert replacement to remove hydraulic restrictions, and regional detention to provide mitigation.	06000001, 06000011, 06000012, 06000015	Brazoria, Galveston	12040204

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name						
063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	120402040200, 120402040100	06000107, 06000107, 06000106	Comprehensive	109.51	Riverine	City of League City
063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	120401040401	06000083, 06000083	Comprehensive	128.21	Riverine	Harris County Flood Control District (HCFCDD)
063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	120401040703, 120401040402, 120401040502, 120401040501, 120402040400, 120402040100	06000095, 06000095, 06000084, 06000086, 06000085, 06000109, 06000106	Comprehensive	93.21	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT						
063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	120401020104, 120401020106, 120401040601, 120401040305, 120401040302, 120401040604, 120401040303, 120401040304, 120401040301, 120401040701	06000029, 06000029, 06000031, 06000087, 06000082, 06000079, 06000090, 06000080, 06000081, 06000078, 06000093	Comprehensive	110.71	Urban/Local	Harris County Flood Control District (HCFCDD)
063000056	Mary's Creek Lower, Middle, and Upper Segment	120402040100	06000106	Comprehensive	17.20	Riverine	City of Pearland

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	Brazoria County, Galveston County , Harris County, Harris County Flood Control District (HCFCD)	No	\$ 1,150,000,000.00		1,262,349.07	0
063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	Harris County, Harris County Flood Control District (HCFCD), Houston	Yes	\$ 107,061,000.00		669,131.25	0
063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	Harris County, Harris County Flood Control District (HCFCD), Houston	Yes	\$ 99,653,000.00		43,650.03	0
063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	Harris County, Houston-Galveston County Area Council, Harris County Flood Control District (HCFCD), Houston, Gulf Coast Protection District	Yes	\$ 99,653,000.00		32,964.94	0
063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	Harris County, Harris County Flood Control District (HCFCD), Jersey Village, Houston	Yes	\$ 120,015,000.00		179,126.87	0
063000056	Mary's Creek Lower, Middle, and Upper Segment	Brazoria County, Pearland, Friendswood, Galveston County , West Brazoria County Drainage District	No	\$ 154,040,000.00		66,282.28	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	No	No	No	0.06	0.3320	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	No	No	No	0.13	0.7559	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	No	No	No	1.8	0.7973	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	No	No	No	1.46	0.7827	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	No	No	No	0.8	0.9188	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000056	Mary's Creek Lower, Middle, and Upper Segment	No	No	No	0.16		Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	Reduce flooding in the Caney Creek watershed by benching/widening a 7.8-mile-long stretch to increase conveyance capacity. Must be constructed with detention at FM1097 or detention at SH105 to capture runoff from Caney Creek.	06000001, 06000005, 06000006, 06000011, 06000012, 06000015	Harris, Liberty, Montgomery, San Jacinto, Walker	12040103
063000059	East Fork San Jacinto River - Winters Bayou Detention	The goal of the detention facility is to reduce flooding in the East Fork watershed by constructing a 1.60-mile-long earthen impoundment that captures runoff from Winters Bayou.	06000001, 06000003, 06000004, 06000011, 06000012, 06000015	Harris, Liberty, Montgomery, San Jacinto, Walker	12040103
063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	The goal of the detention ponds is to reduce flooding in the Lake Creek and West Fork watersheds by constructing earthen impoundments that captures runoff from Garrett's Creek, Caney Creek, & Little Caney Creek.	06000001, 06000003, 06000004, 06000015	Montgomery, Grimes	12040101
063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	Widen 4.3-mile-long stretch to increase conveyance capacity. Must be completed with 4.7-mile-long detention at SH105 and 3.2-mile-long at Walker Creek to reduce flooding in Peach Creek watershed.	06000001, 06000003, 06000004, 06000005, 06000006, 06000011, 06000012, 06000015	Liberty, Montgomery, San Jacinto, Walker	12040103

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105			Comprehensive	370.50	Riverine	Montgomery County
063000059	East Fork San Jacinto River - Winters Bayou Detention			Detention Pond	408.79	Riverine	San Jacinto County
063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010203, 120401010304, 120401010205	06000001, 06000001, 06000012, 06000013, 06000014, 06000003, 06000007, 06000015, 06000009	Detention Pond	103.90	Riverine	Montgomery County
063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	120401030110, 120401030102, 120401030108, 120401030101, 120401030103, 120401030105, 120401030106, 120401030107, 120401030109, 120401030402, 120401030303, 120401030304, 120401030401	06000055, 06000055, 06000047, 06000053, 06000046, 06000048, 06000050, 06000051, 06000052, 06000054, 06000070, 06000063, 06000064, 06000069	Comprehensive	157.95	Riverine	Montgomery County

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	Montgomery County, San Jacinto River Authority, Harris County Flood Control District (HCFCF)	Yes	\$ 469,000,000.00	TWDB FIF grants, GLO	361,603.71	0
063000059	East Fork San Jacinto River - Winters Bayou Detention	San Jacinto County, San Jacinto River Authority, Harris County Flood Control District (HCFCF)	No	\$ 134,000,000.00	TWDB, GLO	205,837.18	0
063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	Montgomery County, Grimes County, San Jacinto River Authority	Yes	\$ 291,000,000.00	TWDB, GLO	819,718.31	0
063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	Montgomery County, San Jacinto County, San Jacinto River Authority	Yes	\$ 810,000,000.00	TWDB, GLO	706,806.29	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	No	No	No	0.3	0.5481	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000059	East Fork San Jacinto River - Winters Bayou Detention	No	No	No	0.47	0.6011	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	No	No	No	0.26	0.1696	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	No	No	No	0.26	0.5893	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	8.9-mile, 200-foot-wide benched improvement 4-feet above the flowline of Woodlands channel and 6.9-mile, 300-foot-wide benched improvement 4 feet above I-45 channel. Must be completed with detention on Birch Creek and Walnut Creek.	06000001, 06000003, 06000004, 06000005, 06000006, 06000011, 06000012, 06000015	Harris, Waller, Montgomery, Grimes	12040101,12040102,12040104
063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	Channel improvement to reduce flooding in West Fork watershed by benching/widening to increase conveyance capacity of West Fork to lower the water surface elevation. Conduct after or in conjunction with detention on Lake Creek or Spring Creek.	06000001, 06000003, 06000004, 06000011, 06000012, 06000015	Harris, Montgomery	12040104,12040103,12040102,12040101,12040203
063000113	City of Friendswood Ordinances and Regulation Update	Adopt higher codes and update ordinances and regulation to promote hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Galveston, Harris	12040204
063000114	City of Bayou Vista Regulations and Permit Requirements Update	Update regulations and permit requirements to address enhances hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000115	City of League City Freeboard Ordinance	Update city ordinance to require 24" of freeboard in the floodplain.	06000001, 06000007, 06000010, 06000015	Galveston, Harris	12040204
063000123	City of Cleveland Floodplain Land-Use Ordinance	The city shall adopt a land-use ordinance which prohibits building residential or commercial structures in the 100-year floodplain.	06000001, 06000007, 06000010, 06000015	Liberty, Montgomery, San Jacinto	12040103

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	120401030110, 120401030102, 120401030108, 120401030101, 120401030103, 120401030105, 120401030106, 120401030107, 120401030109, 120401030402, 120401030303, 120401030304, 120401030401	06000055, 06000016, 06000017, 06000018, 06000019, 06000020, 06000021, 06000024, 06000023, 06000036, 06000026, 06000030, 06000032, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000042, 06000040, 06000041, 06000043, 06000044, 06000045, 06000088	Comprehensive	386.26	Riverine	Montgomery County
063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	120401010502, 120401010501, 120401010404, 120401020213, 120401030110, 120401030402, 120401040705, 120401040702, 120401040602, 120401040704, 120402030104, 120402030102	06000025, 06000025, 06000024, 06000023, 06000045, 06000055, 06000070, 06000097, 06000094, 06000088, 06000096, 06000102, 06000100	Channel	141.08	Riverine	Harris County Flood Control District (HCFCD)
063000113	City of Friendswood Ordinances and Regulation Update	120402040200, 120402040100	06000107, 06000107, 06000106	Preparedness	20.83	Urban/Local	City of Friendswood
063000114	City of Bayou Vista Regulations and Permit Requirements Update	120402040200	06000107, 06000107	Preparedness	0.45	Urban/Local	City of Bayou Vista
063000115	City of League City Freeboard Ordinance	120402040200, 120402040100	06000107, 06000107, 06000106	Preparedness	52.89	Riverine, Urban/Local	City of League City
063000123	City of Cleveland Floodplain Land-Use Ordinance	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Preparedness	18.74	Urban/Local	City of Cleveland

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	Harris County, Montgomery County, San Jacinto River Authority, Harris County Flood Control District (HCFCD)	Yes	\$ 393,000,000.00	TWDB, GLO, FEMA, USACE	71,728.42	0
063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	Harris County, Montgomery County, San Jacinto River Authority, Harris County Flood Control District (HCFCD), Houston	No	\$ 994,000,000.00	TWDB, GLO	606,837.61	0
063000113	City of Friendswood Ordinances and Regulation Update	Friendswood	No	\$ 109,000.00			0
063000114	City of Bayou Vista Regulations and Permit Requirements Update	Galveston County , Bayou Vista	No	\$ 109,000.00			0
063000115	City of League City Freeboard Ordinance	Galveston County , League City	No	\$ 109,000.00			0
063000123	City of Cleveland Floodplain Land-Use Ordinance	Cleveland	No	\$ 109,000.00			0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	No	No	No	0.73	0.1743	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	No	No	No	0.1	0.2454	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000113	City of Friendswood Ordinances and Regulation Update	No	No	No	5	0.2739	No	Project has been completed.
063000114	City of Bayou Vista Regulations and Permit Requirements Update	No	No	No	5	0.1425	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000115	City of League City Freeboard Ordinance	No	No	No	5	0.1870	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000123	City of Cleveland Floodplain Land-Use Ordinance	No	No	No	5	0.7482	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000124	City of Cleveland Flooplain Ordinance Update	Adopt a land use ordinance which requires any structure within the 100-year floodplain to be elevated 2 feet.	06000001, 06000007, 06000010, 06000015	Liberty, Montgomery, San Jacinto	12040103
063000126	City of Cleveland Ordinance Update Pipeline Right-of-Way	Adopt 25-foot setback from pipeline right-of-way.	06000001, 06000007, 06000010, 06000015	Liberty, Montgomery, San Jacinto	12040103
063000127	Galveston Bay Surge Protection Coastal Storm Risk Management	Federal projects identified in the Texas Coastal Study (2021) including Boliver Gates, Galveston Sea Wall Improvements, Ecosystem Restoration, Galveston Ring Barrier system, Clear Creek & Dickinson Bayou Gates, and non-structural measures.	06000011, 06000012, 06000013, 06000014	Brazoria, Galveston, Fort Bend, Chambers, Harris, Liberty	12040204,12040203,12040104
063000128	Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection	Ecosystem restoration efforts planned along the GIWW such as the restoration of wetlands and islands, construction of breakwaters, and oyster reef scaling will provide natural buffer from coastal storm surge and prevent erosion.	06000011, 06000012, 06000013, 06000014	Brazoria, Galveston, Fort Bend, Chambers, Harris, Liberty	12040204,12040203,12040104
063000129	City of Manvel City Ordinance	The city shall adopt a land use ordinance which requires any structure within the 100-year floodplain to be elevated 2 feet above base flood elevation.	06000001, 06000007, 06000010, 06000015	Brazoria	12040204

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000124	City of Cleveland Flooplain Ordinance Update	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Preparedness	18.74	Urban/Local	City of Cleveland
063000126	City of Cleveland Ordinance Update Pipeline Right-of-Way	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Preparedness	18.74	Urban/Local	City of Cleveland
063000127	Galveston Bay Surge Protection Coastal Storm Risk Management	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000091, 06000095, 06000084, 06000097, 06000098, 06000094, 06000082, 06000090, 06000092, 06000081, 06000086, 06000085, 06000093, 06000096, 06000103, 06000102, 06000104, 06000105, 06000108, 06000107, 06000109, 06000110, 06000106	Coastal	1905.02	Coastal	Gulf Coast Protection District
063000128	Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000091, 06000095, 06000084, 06000097, 06000098, 06000094, 06000082, 06000090, 06000092, 06000081, 06000086, 06000085, 06000093, 06000096, 06000103, 06000102, 06000104, 06000105, 06000108, 06000107, 06000109, 06000110, 06000106	Coastal	1559.02	Coastal	Gulf Coast Protection District
063000129	City of Manvel City Ordinance	120402040200, 120402040400, 120402040100	06000107, 06000107, 06000109, 06000106	Preparedness	27.41	Urban/Local	City of Manvel

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000124	City of Cleveland Flooplain Ordinance Update	Cleveland	No	\$ 109,000.00			0
063000126	City of Cleveland Ordinance Update Pipeline Right-of-Way	Cleveland	No	\$ 55,000.00			0
063000127	Galveston Bay Surge Protection Coastal Storm Risk Management	Galveston County , Chambers County, Houston, Gulf Coast Protection District, Galveston, Liberty County WCID#1	Yes	\$ 24,107,064,000.00	Other (35%)	318,270.28	0
063000128	Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection	Brazoria County, Chambers County, Galveston County , Gulf Coast Protection District, Liberty County WCID#1	Yes	\$ 1,200,169,000.00			100
063000129	City of Manvel City Ordinance	Brazoria County, West Brazoria County Drainage District, Manvel	No	\$ 103,000.00			0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000124	City of Cleveland Flooplain Ordinance Update	No	No	No	0	0.7482	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000126	City of Cleveland Ordinance Update Pipeline Right-of-Way	No	No	No		0.7482	No	Yields no direct flood risk reduction benefits and does not have a BCR.
063000127	Galveston Bay Surge Protection Coastal Storm Risk Management	No	No	No	1.91	0.4702	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000128	Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection	No	No	No	0	0.4944	No	Yields no direct flood risk reduction benefits and does not have a BCR.
063000129	City of Manvel City Ordinance	No	No	No	5	0.4239	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000130	City of Manvel Land-Use Ordinance Adoption	The city shall adopt a land-use ordinance which prohibits building residential or commercial structures in the 100-year floodplain.	06000001, 06000007, 06000010, 06000015	Brazoria	12040204
063000132	City of Manvel GIS Database Improvements	Improve GIS database to include repetitive loss properties areas and flooded structure data. Data to be used for future drainage infrastructure planning and to provide outreach and emergency services to residents in substantial risk zones.	06000001, 06000007, 06000010, 06000015	Brazoria	12040204
063000136	Brazoria County NFIP Technical Material	Place copies of FEMA Flood-related technical bulletins in County libraries.	06000001, 06000015	Brazoria	12040204
063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	The Stormwater management plan is focused on six minimum measures regarding what is being done to prevent stormwater pollution. Annual reporting and renewals are required to ensure compliance is met.	06000001, 06000007, 06000010, 06000015	Galveston, Harris	12040204
063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	Update regulations and permit requirements.	06000001, 06000007, 06000010, 06000015	Galveston, Harris	12040204
063000142	City of Hitcock - Improve Regulations and Permit Requirements	Improve regulations and permit requirements to promote hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Brazoria, Galveston	12040204
063000143	City of Jamaica Beach - Improve Regulations and Permit Requirements	Improve regulations and permit requirements to promote hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000144	City of Kemah - Improve Regulations and Permit Requirements	Improve regulations and permit requirements to promote hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Galveston, Chambers	12040204
063000145	City of Kemah - Update Floodplain Ordinance	Update floodplain ordinance to ensure compliance with minimum standard of NFIP.	06000001, 06000007, 06000010, 06000015	Galveston, Chambers	12040204
063000146	City of La Marque - Improve Regulations and Permit Requirements	Improve regulations and permit requirements to promote hazard mitigation strategies.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000148	City of Tiki Island - Improve Regulations and Permit Requirements	Update and/or develop regulations and permits to address hazards prone to the area and include any changes in future development area.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000149	City of Santa Fe - Improve Regulations and Permit Requirements	Update and/or develop regulations and permits to address hazards prone to the area and include any changes in future development area.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000152	City of Galveston Land Use Mapping	Develop proposed land use mapping to allow easier consideration of hazards.	06000001, 06000007, 06000010, 06000015	Galveston	12040204

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000130	City of Manvel Land-Use Ordinance Adoption	120402040200, 120402040400, 120402040100	06000107, 06000107, 06000109, 06000106	Preparedness	27.41	Urban/Local	City of Manvel
063000132	City of Manvel GIS Database Improvements	120402040200, 120402040400, 120402040100	06000107, 06000107, 06000109, 06000106	Preparedness	27.41	Urban/Local	City of Manvel
063000136	Brazoria County NFIP Technical Material	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000108, 06000107, 06000109, 06000106	Other	1481.87	Urban/Local	Brazoria
063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	120402040100	06000106, 06000106	Preparedness	0.71	Riverine, Urban/Local	City of Clear Lake Shores
063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	120402040100	06000106, 06000106	Preparedness	0.71	Urban/Local	City of Clear Lake Shores
063000142	City of Hitchcock - Improve Regulations and Permit Requirements	120402040300, 120402040200	06000108, 06000108, 06000107	Preparedness	91.21	Urban/Local	City of Hitchcock
063000143	City of Jamaica Beach - Improve Regulations and Permit Requirements	120402040300	06000108, 06000108	Preparedness	0.71	Urban/Local	City of Jamaica Beach
063000144	City of Kemah - Improve Regulations and Permit Requirements	120402040200, 120402040100	06000107, 06000107, 06000106	Preparedness	1.91	Urban/Local	City of Kemah
063000145	City of Kemah - Update Floodplain Ordinance	120402040200, 120402040100	06000107, 06000107, 06000106	Preparedness	1.91	Urban/Local	City of Kemah
063000146	City of La Marque - Improve Regulations and Permit Requirements	120402040200	06000107, 06000107	Preparedness	14.23	Urban/Local	City of La Marque
063000148	City of Tiki Island - Improve Regulations and Permit Requirements	120402040200	06000107, 06000107	Preparedness	1.59	Urban/Local	City of Tiki Island
063000149	City of Santa Fe - Improve Regulations and Permit Requirements	120402040300, 120402040200	06000108, 06000108, 06000107	Preparedness	17.04	Riverine, Urban/Local	City of Santa Fe
063000152	City of Galveston Land Use Mapping	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000108, 06000107, 06000109, 06000110	Preparedness	211.08	Urban/Local	City of Galveston

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000130	City of Manvel Land-Use Ordinance Adoption	Brazoria County, West Brazoria County Drainage District, Manvel	No	\$ 103,000.00			0
063000132	City of Manvel GIS Database Improvements	Brazoria County, West Brazoria County Drainage District, Manvel	No	\$ 21,000.00			0
063000136	Brazoria County NFIP Technical Material	Brazoria County	No	\$ 21,000.00			0
063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	Galveston County , Clear Lake Shores	No	\$ 109,000.00			0
063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	Galveston County , Clear Lake Shores	No	\$ 109,000.00			0
063000142	City of Hitchcock - Improve Regulations and Permit Requirements	Galveston County , Hitchcock	No	\$ 109,000.00			0
063000143	City of Jamaica Beach - Improve Regulations and Permit Requirements	Galveston County , Jamaica Beach	No	\$ 109,000.00			0
063000144	City of Kemah - Improve Regulations and Permit Requirements	Galveston County , Kemah	No	\$ 109,000.00			0
063000145	City of Kemah - Update Floodplain Ordinance	Galveston County , Kemah	No	\$ 109,000.00			0
063000146	City of La Marque - Improve Regulations and Permit Requirements	Galveston County , La Marque	No	\$ 109,000.00			0
063000148	City of Tiki Island - Improve Regulations and Permit Requirements	Galveston County , Tiki Island	No	\$ 109,000.00			0
063000149	City of Santa Fe - Improve Regulations and Permit Requirements	Galveston County , Santa Fe	No	\$ 109,000.00			0
063000152	City of Galveston Land Use Mapping	Galveston County , Galveston	No	\$ 11,000.00			0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000130	City of Manvel Land-Use Ordinance Adoption	No	No	No	5	0.4239	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000132	City of Manvel GIS Database Improvements	No	No	No		0.4239	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000136	Brazoria County NFIP Technical Material	No	No	No		0.3584	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	No	No	No	0	0.2026	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	No	No	No	5	0.2026	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000142	City of Hitcock - Improve Regulations and Permit Requirements	No	No	No	5	0.5464	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000143	City of Jamaica Beach - Improve Regulations and Permit Requirements	No	No	No	5	0.0307	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000144	City of Kemah - Improve Regulations and Permit Requirements	No	No	No	5	0.4215	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000145	City of Kemah - Update Floodplain Ordinance	No	No	No	5	0.4215	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000146	City of La Marque - Improve Regulations and Permit Requirements	No	No	No	5	0.6658	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000148	City of Tiki Island - Improve Regulations and Permit Requirements	No	No	No	5	0.1375	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000149	City of Santa Fe - Improve Regulations and Permit Requirements	No	No	No	5	0.3550	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000152	City of Galveston Land Use Mapping	No	No	No		0.4242	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000153	City of Galveston Freeboard Requirement Enforcement	Consider adoption and enforcement of freeboard requirement into City's Flood Damage Prevention Ordinance.	06000001, 06000007, 06000010, 06000015	Galveston	12040204
063000167	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	Projects submitted as part of the CDBG MIT grant in Greens Bayou including Projects: Fountainview Sec 1&2, Castlewood Sec 3&4, North Forest, Mid-Reach Greens, Parkland Estates, and Humble Road Place.	06000001, 06000005, 06000006, 06000011, 06000015	Harris	12040104
063000186	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	Project proposed to improve conveyance within the D111-00-00 channel between Bellaire and University Boulevards. The LOS of the channel is increased from a 10-year event to a 50-year event. Mitigation volume is provided in the Meyer SW Detention Basin.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000201	City of Alvin Unified Development Ordinance	A unified land development code combines all land use controls into a single document with a logical structure that is user friendly. Cost is time, data and preparation of a unified land development code.	06000001, 06000007, 06000010, 06000015	Brazoria, Galveston, Fort Bend	12040204
063000311	37th Street Improvement Project	The project proposes storm sewer improvements coupled with implementing a stormwater pump station to addressing 100-year event flooding and improve access to major evacuation routes.	06000001, 06000003, 06000004, 06000015	Galveston	12040204
063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	Design and Construction of Dinner Creek Stormwater Detention Basin (U520-01-00-E003). Project would expand the existing detention basin to ultimate conditions and incorporate both detention and retention.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	Part of the South Mayde Creek Plan that could reduce the risk of flooding for more than 70 homes and reduce the rainfall event by more than 340 acres in a pre-Atlas 1% rainfall event.	06000001, 06000011, 06000012, 06000015	Harris	12040204
063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	This project provides for design and construction of three offline detention basins in B509-03-00 and B509-04-00.	06000001, 06000011, 06000012, 06000015	Harris	12040204

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000153	City of Galveston Freeboard Requirement Enforcement	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000108, 06000107, 06000109, 06000110	Preparedness	211.08	Riverine, Urban/Local	City of Galveston
063000167	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	120401040601, 120401040604, 120401040602, 120401040603	06000087, 06000090, 06000088, 06000089	Comprehensive	165.69	Urban/Local	Harris County Flood Control District (HCFCD)
063000186	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	120401040402	06000084	Channel	2.08	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000201	City of Alvin Unified Development Ordinance	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000108, 06000107, 06000109, 06000106	Preparedness	25.09	Urban/Local	City of Alvin
063000311	37th Street Improvement Project	120402040200	06000107	Infrastructure	211.72	Coastal	City of Galveston
063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	120401040202, 120401040201, 120401040203, 120401040303	06000076, 06000075, 06000077, 06000080	Detention Pond	20.51	Riverine	Harris County Flood Control District (HCFCD)
063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	120401040203, 120401040303, 120401040303	06000074, 06000077, 06000080	Comprehensive	13.25	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	120402040100, 120401040703, 120401040706	06000106, 06000095, 06000098	Detention Pond	59.11	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000153	City of Galveston Freeboard Requirement Enforcement	Galveston County , Galveston	No	\$ 100,000.00			0
063000167	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	Harris County, Harris County Flood Control District (HCFCD), Houston	Yes	\$ 120,284,000.00		66,235.69	0
063000186	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	Houston, Southside Place, West University Place, Harris County, Harris County Flood Control District (HCFCD)	No	\$ 19,917,000.00		2,489,625.00	0
063000201	City of Alvin Unified Development Ordinance	Brazoria County, West Brazoria County Drainage District, Alvin	No	\$ 100,000.00	Entity Budget/Funds (100%)		0
063000311	37th Street Improvement Project	Galveston County, Galveston, Gulf Coast Waste Disposal Authority, Houston-Galveston Area Council, Gulf Coast Protection District	No	\$ 75,000,000.00	Other (25%)	382,653.07	0
063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	Harris County	No	\$ 33,081,000.00		787,642.86	0
063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	Harris County, Harris County Flood Control District (HCFCD), Houston	No	\$ 27,818,000.00		105,371.22	0
063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	La Porte, Pasadena, Harris County Flood Control District (HCFCD), Harris County	No	\$ 34,850,000.00		2,323,333.34	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000153	City of Galveston Freeboard Requirement Enforcement	No	No	No	5	0.4242	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000167	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	No	No	No	2.13	0.6951	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000186	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	No	No	No	1.23	0.0261	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000201	City of Alvin Unified Development Ordinance	No	No	No	5	0.5052	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000311	37th Street Improvement Project	No	No	No	0.08	0.6790	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	No	No	No	0.04	0.3676	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	No	No	No	0.73	0.2764	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	No	No	No	0.01	0.4130	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000320	Warren Lake and Dam Retrofit	Retrofit dam to improve detention of flood & storm water runoff, new 137.3 ac wetlands complex added of storage capacity & conversion of fields to tallgrass prairies to add approximately 856 ac-ft of total storage during rainfall events.	06000001, 06000011, 06000012, 06000015	Harris	12040102
063000321	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	The proposed project includes the expansion and extension of existing detention basins to alleviate historical and potential future riverine flooding within the Armand Bayou Watershed.	06000001, 06000011, 06000012, 06000015	Harris	12040104, 12040204
063000327	Blalock Road Drainage Improvement Project	The proposed drainage improvements project will replace an undersized drainage system on Blalock Road, tie into drainage improvements on South Piney Point Road, and provide improvements on a drainage area that frequently experiences drainage issues.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	The proposed project includes widening sections of the Keegans Bayou main channel and a 1,600 acre-feet detention basin.	06000001, 06000011, 06000012, 06000015	Fort Bend, Harris	12040104
063000334	Goose Creek Flood Risk Reduction	The project includes three phases of development. Phase 1 includes a regional detention basin and channel improvements along two segments of Goose Creek for a total length of 1.65 miles. Phase 2 includes a regional detention basin and channel improvements	06000001, 06000011, 06000012, 06000015	Harris	12040104, 12040203
063000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	The project includes a 1,640 acre-feet regional detention basin, 85 acres of floodplain preservation, & habitat preservation in Willow Creek.	06000001, 06000011, 06000012, 06000015	Harris	12040102
063000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	This project includes a stormwater detention basin that compliments the federal project on White Oak Bayou.	06000001, 06000011, 06000012, 06000015	Harris	12040102, 12040104

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000320	Warren Lake and Dam Retrofit	120401020103, 120401020101, 120401020105	06000028, 06000026, 06000030	Comprehensive	2.12	Riverine	Coastal Prairie Conservancy
063000321	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	120401040703, 120402040100	06000095, 06000098, 06000106	Detention Pond	59.11	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000327	Blalock Road Drainage Improvement Project	120401040303	06000080	Infrastructure	0.88	Riverine, Urban/Local	City of Piney Point Village
063000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	120401040401, 120401040501	06000083, 06000085	Comprehensive	22.96	Urban/Local	Harris County Flood Control District (HCFCD)
063000334	Goose Creek Flood Risk Reduction	120401040705, 120401040706, 120402030104, 120402030105, 120402030106	06000097, 06000098, 06000103, 06000102, 06000104	Comprehensive	27.03	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	120401020105, 120401020106, 120401020205, 120401020209, 120401020210, 120401020212	06000031, 06000030, 06000037, 06000042, 06000041, 06000044	Detention Pond	55.58	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	120401020104, 120401020106, 120401040301, 120401040302, 120401040304, 120401040305, 120401040601, 120401040701, 120401040703	06000029, 06000031, 06000095, 06000087, 06000082, 06000079, 06000081, 06000078, 06000093	Detention Pond	78.67	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000320	Warren Lake and Dam Retrofit	Harris County Flood Control District (HCFCD), Harris County	No	\$ 6,439,000.00		137,000.00	0
063000321	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	Harris County Flood Control District (HCFCD), Harris County, City of Pasadena, City of Deer Park	No	\$ 9,450,000.00		41,086.96	0
063000327	Blalock Road Drainage Improvement Project	City of Piney Point Village	No	\$ 19,324,000.00		357,851.86	0
063000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	Fort Bend County, Harris County, Harris County Flood Control District (HCFCD)	No	\$ 190,218,000.00		94,682.93	0
063000334	Goose Creek Flood Risk Reduction	Harris County, Harris County Flood Control District (HCFCD), Baytown	No	\$ 46,494,000.00		172,840.15	0
063000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	Harris County, Harris County Flood Control District (HCFCD), Houston	No	\$ 64,900,000.00		511,023.63	0
063000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	Harris County, Harris County Flood Control District (HCFCD), Houston	No	\$ 42,600,000.00		60,683.77	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000320	Warren Lake and Dam Retrofit	No	No	No	4.45	0.5555	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000321	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	No	No	No	0.81	0.5126	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000327	Blalock Road Drainage Improvement Project	No	No	No	0.004	0.2762	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	No	No	No	0.94	0.6517	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000334	Goose Creek Flood Risk Reduction	No	No	No	0.48	0.6291	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	No	No	No	0.68	0.2567	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	No	No	No	1.89	0.3480	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	Program implementation plan for the design and construction of 22 regional detention basins (12,800 ac-ft) in the Cypress Creek watershed K100-00-00) based on the Cypress Creek Watershed and Major Tributaries Regional Drainage Plan Update(February 2020).	06000001, 06000011, 06000012, 06000015	Harris	12040102,12040104
063000360	Kingwood Diversion Ditch (G103-38-00)	Improvements to the Kingwood Diversion Ditch include channel modifications, flow diversion from Bens Branch, bridge replacements, as well as a new outfall to the West Fork San Jacinto River.	06000001, 06000011, 06000012, 06000015	Harris, Montgomery	12040101, 12040103
063000389	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	The proposed project includes channel improvements, upsizing of culverts, siltation removal, local drainage improvements, and a stormwater detention basin within White Oak Bayou Tributary E116-00-00.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	This project provides for design and construction for the second phase of the Aldine Westfield North Detention Basin in the Halls Bayou watershed.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	This project provides for the design and construction of flood mitigation improvements including detention basins along P118-23-00 and concrete lining P118-23-02. (2018 Bond Project C-26 & C-27)	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	This project provides analysis and preliminary design (Alternative 3b) for detention basin, widening of existing channels, and extension of channel P118-25-01 (Halls Bayou Tributary).	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	This project provides analysis and description of the existing flooding conditions within the P118-27-00 catchment area and consequently develops flood risk mitigation alternatives, including detention basin and channel improvements.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000402	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	The proposed project includes the design and construction of approximately two miles of channel improvements along N100-00-00, channel improvements to a short segment of N109-00-00, and a detention basin to mitigate downstream impacts.	06000001, 06000011, 06000012, 06000015	Harris	12040101, 12040104

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	120401020104, 120401020106, 120401020105, 120401020107, 120401020210, 120401020213, 120401040601, 120401040201, 120401040301, 120401040602	06000029, 06000031, 06000030, 06000032, 06000042, 06000045, 06000087, 06000075, 06000078, 06000088	Detention Pond	118.81	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000360	Kingwood Diversion Ditch (G103-38-00)	120401010404, 120401010501, 120401030110, 120401030402	06000024, 06000023, 06000055, 06000070	Comprehensive	21.77	Riverine	Harris County Flood Control District (HCFCDD)
063000389	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	120401040302, 120401040304	06000079, 06000081	Comprehensive	6.92	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	120401040604	06000090	Detention Pond	52.16	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Comprehensive	1.58	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Comprehensive	52.32	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Comprehensive	6.03	Riverine, Urban/Local	Harris County Flood Control District (HCFCDD)
063000402	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	120401010502, 120401040602, 120401040604, 120401040605, 120401040606, 120401040701, 120401040702, 120401040703, 120401040704, 120401040705	06000025, 06000091, 06000095, 06000097, 06000094, 06000090, 06000092, 06000088, 06000093, 06000096	Comprehensive	66.62	Urban/Local	Harris County Flood Control District (HCFCDD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 550,000,000.00		195,451.32	0
063000360	Kingwood Diversion Ditch (G103-38-00)	Harris County, Harris County Flood Control District (HCFCD), Houston	No	\$ 62,938,000.00		1,284,448.98	0
063000389	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 8,375,000.00		348,958.34	0
063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 10,371,000.00		80,395.35	0
063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 31,317,000.00		109,500.00	0
063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 14,939,000.00		15,692.23	0
063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 23,680,000.00		72,861.54	0
063000402	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	Port of Houston Authority, Harris County Flood Control District (HCFCD), Houston-Galveston Area Council, Harris County, Houston	No	\$ 30,360,000.00		80,105.55	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	No	No	No	0.28	0.2762	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000360	Kingwood Diversion Ditch (G103-38-00)	No	No	No	0.03	0.1993	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000389	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	No	No	No	1.47	0.4169	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	No	No	No	0	0.7504	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	No	No	No	0.48	0.6601	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	No	No	No	0.96	0.7755	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	No	No	No	2.18	0.7313	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000402	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	No	No	No	0.46	0.5752	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000417	Houston Fifth Area Flood Mitigation	This unfunded CDBG-MIT application involves installing various storm sewer infrastructure in the Fifth Ward and Market Square areas within the City of Houston.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000418	Houston Port Area Flood Mitigation	The project includes storm sewer improvements on nearly every street in the Pleasantville neighborhood to improve conveyance capacity and construction of a detention basin.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000422	Danubina Drainage Improvements	This CDBG-MIT application involves the installation and construction of improvements along Hull Gully, detention, and storm sewer improvements along Hunnicutt Street.	06000001, 06000011, 06000012, 06000015	Chambers, Harris	12040104, 12040203
063000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.	06000001, 06000011, 06000012, 06000015	Galveston, Harris	12040204
063000434	Houston Kashmere Gardens Area Flood Mitigation	The project includes improvements to storm sewer, roadside ditch systems, culverts, sewer inlets, and the construction of detention basins.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000453	Rivershire West - Grand Lake Creek Watershed	This project is located in a residential neighborhood and consists of benching, floodwalls, and upsizing culverts to route and contain flow. Additionally, there are proposed bridge modifications to reduce impediments to water flow	06000001, 06000011, 06000012, 06000015	Montgomery	12040101
063000468	Houston Sunnyside Area Flood Mitigation	Includes new storm sewer trunk systems on major thoroughfares & new or improved neighborhood storm sewer systems. Will also require construction of detention basins to mitigate the proposed improvements.	06000001, 06000011, 06000012, 06000015	Harris	12040204, 12040104
063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	Project consists of ROW acquisition and construction of a detention basin near Veterans Memorial which provides approximately 460 acre-feet of storage.	06000001, 06000011, 06000012, 06000015	Harris	12040104

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000417	Houston Fifth Area Flood Mitigation	120401040701	06000093	Infrastructure	40.60	Urban/Local	City of Houston
063000418	Houston Port Area Flood Mitigation	120401040701	06000093	Infrastructure	40.60	Urban/Local	City of Houston
063000422	Danubina Drainage Improvements	120401040705, 120401040706, 120402030105, 120402030106, 120402030200	06000097, 06000098, 06000103, 06000104, 06000105	Infrastructure	47.70	Urban/Local	City of Baytown
063000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	120402040200, 120402040100	06000107, 06000106	Detention Pond	20.90	Urban/Local	City of Friendswood
063000434	Houston Kashmere Gardens Area Flood Mitigation	120401040703, 120401040604, 120401040606, 120401040304, 120401040701	06000095, 06000090, 06000092, 06000081, 06000093	Infrastructure	30.87	Urban/Local	City of Houston
063000453	Rivershire West - Grand Lake Creek Watershed	120401010207, 120401010401	06000011, 06000020	Channel	1.66	Riverine, Urban/Local	City of Conroe
063000468	Houston Sunnyside Area Flood Mitigation	120401040402, 120401040502, 120401040501, 120402040100	06000084, 06000086, 06000085, 06000106	Infrastructure	23.57	Urban/Local	City of Houston
063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	120401040604	06000090	Detention Pond	51.95	Riverine	Harris County Flood Control District (HCFCDD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000417	Houston Fifth Area Flood Mitigation	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 89,754,000.00		68,724.35	0
063000418	Houston Port Area Flood Mitigation	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 99,022,000.00		184,055.77	0
063000422	Danubina Drainage Improvements	Harris County, Harris County Flood Control District (HCFCD), Baytown	No	\$ 18,468,000.00		166,378.38	0
063000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	Friendswood, Harris County, Harris County Flood Control District (HCFCD), Galveston County	No	\$ 65,800,000.00	Bonds/Other Financing (25%)	382,558.14	0
063000434	Houston Kashmere Gardens Area Flood Mitigation	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 94,880,000.00		207,614.88	0
063000453	Rivershire West - Grand Lake Creek Watershed	Montgomery County, Conroe	No	\$ 30,000,000.00		300,000.00	0
063000468	Houston Sunnyside Area Flood Mitigation	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 111,282,000.00		78,923.41	0
063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 35,250,000.00		120,719.18	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000417	Houston Fifth Area Flood Mitigation	No	No	No	1.87	0.9031	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000418	Houston Port Area Flood Mitigation	No	No	No	0.3	0.7542	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000422	Danubina Drainage Improvements	No	No	No	0.96	0.7896	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	No	No	No	0.21	0.2362	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000434	Houston Kashmere Gardens Area Flood Mitigation	No	No	No	1.09	0.8895	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000453	Rivershire West - Grand Lake Creek Watershed	No	No	No	0.11		Yes	Alignment with RFPG goals and TWDB guidance principles.
063000468	Houston Sunnyside Area Flood Mitigation	No	No	No	1.2	0.8140	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	No	No	No	0.49	0.7810	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000470	Halls Bayou Drainage Project Bond C-01	Provides for design and construction of drainage improvements to P118-26-00 including approximately 119 acre-feet of total storage between two basins and the replacement of a channel with RCBs.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	This project provides for design and construction of four detention basins providing approximately 602 ac-ft of storage in the Halls Bayou watershed. Includes a half mile of channel improvements to P118-00-00.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	This project includes the design and construction of three detention basins (226 ac-ft) along South Mayde Creek (U101-00-00).	06000001, 06000011, 06000012, 06000015	Harris, Waller	12040104
063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	This project includes three regional detention pond cells along Langham Creek within the Addicks Reservoir watershed to mitigate peak discharges expected with new development in the area.	06000001, 06000011, 06000012, 06000015	Harris	12040104
063000474	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	The proposed project includes channel improvements and inline detention from Cullen Boulevard to Pearland Parkway along with additional offline detention basins to mitigate for impacts from additional conveyance in the mainstem of Clear Creek.	06000001, 06000011, 06000012, 06000015	Harris, Fort Bend, Brazoria, Galveston	12040104, 12040204
063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	This project provides for design and construction of a 311 ac-ft dry-bottom detention basin and 20-ft of channel improvements to P118-21-00.	06000001, 06000011, 06000012, 06000015	Harris	12040104

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000470	Halls Bayou Drainage Project Bond C-01	120401040605, 120401040601, 120401040302, 120401040604, 120401040606, 120401040304, 120401040603, 120401040701	06000091, 06000087, 06000079, 06000090, 06000092, 06000081, 06000089, 06000093	Comprehensive	52.32	Riverine	Harris County Flood Control District (HCFCD)
063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	120401040604	06000090	Comprehensive	51.95	Riverine	Harris County Flood Control District (HCFCD)
063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	120401040203	06000077	Detention Pond	44.83	Riverine	Harris County Flood Control District (HCFCD)
063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	120401040201	06000077	Detention Pond	54.98	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000474	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	120401040501, 120401040502, 120401040703, 120402040100, 120402040200, 120402040400	06000095, 06000086, 06000085, 06000107, 06000109, 06000106	Comprehensive	200.95	Riverine, Urban/Local	Harris County Flood Control District (HCFCD)
063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	120401040604	06000090	Comprehensive	51.95	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000470	Halls Bayou Drainage Project Bond C-01	Houston, Harris County Flood Control District (HCFCD), Harris County	No	\$ 22,386,000.00		33,066.47	0
063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 38,230,000.00		503,026.32	0
063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 11,440,000.00		193,898.31	0
063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 2,553,000.00		510,600.00	0
063000474	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	Brazoria County, Galveston County, Fort Bend County, Harris County, Nassau Bay, Missouri City, Pearland, Clear Lake Shores, Friendswood, Bellaire, Houston, El Lago, Manvel, Alvin, Brookside Village, La Marque, Webster, Pasadena, Kemah, Seabrook, Shoreacres, Taylor Lake Village	No	\$ 295,268,000.00		383,464.94	0
063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 40,780,000.00		10,195,000.00	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000470	Halls Bayou Drainage Project Bond C-01	No	No	No	2.32	0.7491	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	No	No	No	0.18	0.8743	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	No	No	No	0.18	0.2551	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	No	No	No	0.05	0.1948	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000474	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	No	No	No	0.54	0.3430	Yes	Alignment with RFPG goals and TWDB guidance principles.
063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	No	No	No	0.21	0.7873	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s
063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	Provides for design and construction of two detention basins in the Cypress Creek watershed, including a new 4,756 ac-ft detention basin and an expansion of an existing HCFCD detention basin along K500-01-00 from 531 ac-ft to 9,336 ac-ft of storage.	06000001, 06000011, 06000012, 06000015	Harris	12040102
063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	Proposal of the Hardy West Detention Basin (P118-00-00-E006). Project consists of 2 basins providing 400 acre-ft of detention volume adjacent to Halls Bayou and separated by P118-25-00.	06000001, 06000011, 06000012, 06000015	Harris	12040104

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor
063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	120401020104	06000029	Detention Pond	274.06	Riverine	Harris County Flood Control District (HCFCD)
063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	120401040604, 120401040304, 120401040603, 120401040701	06000090, 06000081, 06000089, 06000093	Detention Pond	51.95	Riverine	Harris County Flood Control District (HCFCD)

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Percent Nature Based Solution (by cost)
063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	Harris County Flood Control District (HCFCD), Harris County	No	\$ 345,330,000.00		232,076.62	0
063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	Harris County	No	\$ 32,053,000.00		525,459.02	0

Appendix 5-7: Table 16 - Potentially Feasible Flood Mitigation Projects Recommended by RFPG

FMP ID	FMP Name	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)	BCR	Social Vulnerability Index (SVI)	RFPG Recommendation (Y/N)	Reason for Recommendation
063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	No	No	No	0.39		Yes	Alignment with RFPG goals and TWDB guidance principles.
063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	No	No	No	0.38	0.7167	Yes	Alignment with RFPG goals and TWDB guidance principles.

**Appendix 5-8:
Table 17 - Recommended FMSs**

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000001	City of Bellaire Roadway and Drainage Improvements	Perform engineering services in support of the local drainage asset management planning, to repair or reconstruct antiquated local drainage and associated road infrastructure. Including design of storm sewers, roadways, and overland storage/conveyance.	06000001, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Other	3.6
062000002	City of Bellaire Non-Structural Flood Risk Reduction Strategies	Conduct planning and outreach efforts to identify residents interested in buy-out, home elevation, or flood proofing programs, and develop plans or grant applications to support interested parties.	06000001, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Other	3.6
062000003	City of Bellaire Drainage Requirements and Flood Damage Prevention Ordinance	Develop updates to Bellaire's residential and non-residential drainage requirements and the City's flood damage prevention ordinance, in alignment with Bellaire's broader flood risk management goals and objectives.	06000001, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Other	3.6
062000004	City of Bellaire Surrounding Area Drainage Improvements	Partner with surrounding municipalities/governmental agencies to identify drainage improvements (conveyance or detention) which could minimize extreme event sheet flow entering into Bellaire.	06000001, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Other	3.6
062000005	City of Bellaire Floodwater Public Awareness Initiatives	Periodically distribute messages to residents warning of dangers of walking or playing in floodwaters. Develop a plan with local schools to educate children to avoid walking, playing, or riding bicycles in floodwaters.	06000001, 06000005, 06000006, 06000010, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Education and Outreach	3.6
062000006	City of Bunker Hill Community Outreach	Community Outreach (flooded street identification, marking and signage)	06000001, 06000005, 06000006, 06000010, 06000015	Harris	12040104	120401040303	6,000,080	Education and Outreach	1.4

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000001	City of Bellaire Roadway and Drainage Improvements	Urban/Local	City of Bellaire	Harris, Bellaire, Harris County Flood Control District	N	\$ 3,000,000.00	Bonds/Other Financing (25%)	0	0	No	No	No
062000002	City of Bellaire Non- Structural Flood Risk Reduction Strategies	Urban/Local	City of Bellaire	Harris, Bellaire	N	\$ 50,000.00	Other (25%)	0	0	No	No	No
062000003	City of Bellaire Drainage Requirements and Flood Damage Prevention Ordinance	Urban/Local	City of Bellaire	Harris, Harris County Flood Control District, Bellaire	N	\$ 50,000.00	General Revenue (25%)	0	0	No	No	No
062000004	City of Bellaire Surrounding Area Drainage Improvements	Urban/Local	City of Bellaire	Harris, Harris County Flood Control District, Bellaire	N	\$ 100,000.00	General Revenue (25%)	0	0	No	No	No
062000005	City of Bellaire Floodwater Public Awareness Initiatives	Urban/Local	City of Bellaire	Bellaire	N	\$ 50,000.00	General Revenue (25%)	0	0	No	No	No
062000006	City of Bunker Hill Community Outreach	Urban/Local	City of Bunker Hill Village	Harris, Harris County Flood Control District, Bunker Hill Village	N	\$ 100,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000001	City of Bellaire Roadway and Drainage Improvements	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000002	City of Bellaire Non-Structural Flood Risk Reduction Strategies	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000003	City of Bellaire Drainage Requirements and Flood Damage Prevention Ordinance	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000004	City of Bellaire Surrounding Area Drainage Improvements	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000005	City of Bellaire Floodwater Public Awareness Initiatives	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000006	City of Bunker Hill Community Outreach	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000007	City of Bunker Hill Dam/Levee Maintenance and Monitoring Plan	Minimize the risk of dam/levee failure and related damage to existing and proposed structures by monitoring the maintenance and inspection schedules.	06000001,06000015	Harris	12040104	120401040303	6,000,080	Other	1.4
062000008	Harris County Hazard Mitigation Action AW-3	Utilizing the existing public outreach capability to develop, deploy, and disseminate targeted outreach projects promoting risk communication, mitigation and resilience to all the hazards of concern.	06000001, 06000005, 06000006, 06000010, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204	N/A	N/A	Education and Outreach	1,770.8
062000009	Harris County Hazard Mitigation Action AW-4	Strive to capture time-sensitive data such as high-water marks, extent and location of hazard, and loss information to support future updates to risk assessments as well as other plans and programs that utilize hazard extent data.	06000001, 06000010, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204	N/A	N/A	Flood Measurement and Warning	1,770.8
062000010	Harris County Hazard Mitigation Action AW-5	Continue to develop, improve, and implement an enhanced mass public warning and alert system within the Harris County Joint Information Center to provide warning capability throughout Harris County to support the emergency management of all hazards.	06000001, 06000010, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204	N/A	N/A	Flood Measurement and Warning	1,770.8
062000011	Harris County Hazard Mitigation Action AW-6	Utilize viable and relevant information, data and tools (Hazus models) developed as part of the update to the risk assessment of this plan update to support training and exercise of the County's preparedness, response and recovery programs.	06000001, 06000010, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204	N/A	N/A	Flood Measurement and Warning	1,770.8

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000007	City of Bunker Hill Dam/Levee Maintenance and Monitoring Plan	Riverine, Urban/Local	City of Bunker Hill Village	Harris, Harris County Flood Control District, Houston, Bunker Hill Village	N	\$ 500,000.00		0	0	No	No	No
062000008	Harris County Hazard Mitigation Action AW-3	Riverine, Urban/Local	Harris County	Harris	N	\$ 100,000.00		0	0	No	No	No
062000009	Harris County Hazard Mitigation Action AW-4	Riverine, Urban/Local	Harris County	Harris	N	\$ 300,000.00		0	0	No	No	No
062000010	Harris County Hazard Mitigation Action AW-5	Riverine, Urban/Local	Harris County	Harris	N	\$ 100,000.00		0	0	No	No	No
062000011	Harris County Hazard Mitigation Action AW-6	Riverine, Urban/Local	Harris County	Harris	N	\$ 500,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000007	City of Bunker Hill Dam/Levee Maintenance and Monitoring Plan	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000008	Harris County Hazard Mitigation Action AW-3	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000009	Harris County Hazard Mitigation Action AW-4	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000010	Harris County Hazard Mitigation Action AW-5	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000011	Harris County Hazard Mitigation Action AW-6	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000012	City of Alvin CRS Application	Apply and once accepted maintain and/or improve CRS status. Cost is time, data and preparation of a CRS application. Benefit, if approved homeowner with flood insurance could receive a discount based on the City's CRS score.	06000001, 06000015	Brazoria	12040204	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Other	15.7
062000013	Brazoria County Increased Cost of Compliance Education	Implement campaign on public education of ICC (Increased Cost of Compliance) coverage.	06000001, 06000005, 06000006, 06000010, 06000015	Brazoria	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Education and Outreach	1,481.6
062000014	City of Galveston NFIP CRS Rating	Maintain membership of the NFIP's CRS	06000001, 06000015	Galveston	12040204	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Other	53.4
062000015	Develop Applicable Plans and Studies to Address Hazard Mitigation in Galveston County	Review planning needs annually to include, but not be limited to, CEMP, debris management, stormwater management, master plan, drainage, drought, GIS mapping, complete study to locate areas prone to expansive soils and land subsidence, etc.	06000001, 06000007, 06000015	Galveston	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Regulatory and Guidance	665.1
062000016	Waller County Elevation Certificate Requirement	Require and maintain FEMA elevation certificates for all new/improved building in the special flood hazard area (SFHA).	06000001, 06000007, 06000010, 06000015	Waller	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Regulatory and Guidance	797.9

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000012	City of Alvin CRS Application	Riverine, Urban/Local	City of Alvin	Brazoria, Alvin	N	\$ 25,000.00	Entity Budget/Funds (100%)	0	0	No	No	No
062000013	Brazoria County Increased Cost of Compliance Education	Riverine, Coastal, Urban/Local	Brazoria County	Brazoria	N	\$ 20,000.00		0	0	No	No	No
062000014	City of Galveston NFIP CRS Rating	Riverine, Coastal, Urban/Local	City of Galveston	Galveston	N	\$ 10,000.00		0	0	No	No	No
062000015	Develop Applicable Plans and Studies to Address Hazard Mitigation in Galveston County	Riverine, Coastal, Urban/Local	Galveston County	Galveston	N	\$ 100,000.00		0	0	No	No	No
062000016	Waller County Elevation Certificate Requirement	Riverine, Urban/Local	Waller County	Waller, Waller, Hempstead, Brookshire, Brookshire Katy Drainage District, Katy	N	\$ 50,000.00	General Revenue (50%)	0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000012	City of Alvin CRS Application	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000013	Brazoria County Increased Cost of Compliance Education	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000014	City of Galveston NFIP CRS Rating	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000015	Develop Applicable Plans and Studies to Address Hazard Mitigation in Galveston County	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000016	Waller County Elevation Certificate Requirement	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000017	Develop Program to Optimize Operation of the Flood Gates at Second Cut Outlet in City of Kemah	Develop program to integrate with the Harris County Flood Control District for the purpose of optimizing the operation of the flood gates at second cut outlet.	06000001, 06000007, 06000010, 06000015	Galveston	12040204	120402040200, 120402040100	06000107, 06000106	Regulatory and Guidance	1.9
062000018	Galveston County-wide Education and Outreach	Provide educational information related to preparedness, mitigation, response, and recovery to the public.	06000001, 06000005, 06000006, 06000010, 06000015	Galveston, Harris	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Education and Outreach	665.0
062000019	Public Information and Awareness in City of New Waverly	Rewrite, improve, and implement new local floodplain regulations, to include a public information campaign on regulatory awareness.	06000001, 06000005, 06000006, 06000010, 06000015	Walker	12040103	120401030101	6,000,046	Education and Outreach	2.2
062000020	Promotion of Flood Insurance in City of Arcola	Promote the purchase of flood insurance. Advertise the availability, cost, and coverage of flood insurance through the NFIP.	06000001, 06000005, 06000006, 06000010, 06000015	Fort Bend	12040204	120402040400	6,000,109	Education and Outreach	2.6
062000021	City of Todd Mission Public Outreach & Education	Provide educational information related to preparedness, mitigation, response, and recovery to the public.	06000001, 06000005, 06000006, 06000010, 06000015	Grimes	12040102	120401020203, 120401020206	06000035, 06000038	Education and Outreach	2.0
062000022	Increase Public Awareness of Hazards in City of Arcola	Increase public awareness of hazards and hazardous areas. Distribute public awareness information regarding flood hazards.	06000001, 06000005, 06000006, 06000010, 06000015	Fort Bend	12040204	120402040400	6,000,109	Education and Outreach	2.6

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000017	Develop Program to Optimize Operation of the Flood Gates at Second Cut Outlet in City of Kemah	Riverine, Coastal, Urban/Local	City of Kemah	Galveston, Harris County Flood Control District, Kemah	N	\$ 100,000.00		0	0	No	No	No
062000018	Galveston County-wide Education and Outreach	Riverine, Coastal, Urban/Local	Galveston County	Galveston	N	\$ 50,000.00		0	0	No	No	No
062000019	Public Information and Awareness in City of New Waverly	Urban/Local	City of New Waverly	Walker, New Waverly	N	\$ 10,000.00		0	0	No	No	No
062000020	Promotion of Flood Insurance in City of Arcola	Riverine, Urban/Local	City of Arcola	Fort Bend, Arcola	N	\$ 50,000.00		0	0	No	No	No
062000021	City of Todd Mission Public Outreach & Education	Riverine, Urban/Local	City of Todd Mission	Todd Mission	N	\$ 20,000.00		0	0	No	No	No
062000022	Increase Public Awareness of Hazards in City of Arcola	Riverine, Urban/Local	City of Arcola	Arcola	N	\$ 50,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000017	Develop Program to Optimize Operation of the Flood Gates at Second Cut Outlet in City of Kemah	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000018	Galveston County-wide Education and Outreach	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000019	Public Information and Awareness in City of New Waverly	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000020	Promotion of Flood Insurance in City of Arcola	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000021	City of Todd Mission Public Outreach & Education	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000022	Increase Public Awareness of Hazards in City of Arcola	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000023	Expand Development of Emergency Notification System in Liberty County	Expand development of emergency notification system/work to establish public awareness of emergency notification process.	06000001, 06000005, 06000006, 06000010, 06000015	Liberty	12040103, 12040203	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Education and Outreach	1,169.8
062000025	Galveston County Stormproof/Retrofit Infrastructure	Stormproof/retrofit critical facilities and infrastructure for county-owned properties and unincorporated areas.	06000001, 06000003, 06000004, 06000015	Galveston	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Infrastructure Projects	665.2
062000026	Implement Stormwater Management Plan in City of Bayou Vista	Implement stormwater management plan to improve drainage during flood and other weather events.	06000001, 06000007, 06000015	Galveston	12040204	120402040200	6,000,107	Regulatory and Guidance	0.4
062000027	Walker County Public Information and Awareness	Purchase high water (flood) indicators for low water river crossing for county roads.	06000001, 06000010, 06000015	Walker	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Flood Measurement and Warning	797.7

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000023	Expand Development of Emergency Notification System in Liberty County	Riverine, Urban/Local	Liberty County	Liberty	N	\$ 10,000.00		0	0	No	No	No
062000025	Galveston County Stormproof/Retrofit Infrastructure	Riverine, Coastal, Urban/Local	Galveston County	Galveston, Galveston	Y	\$ 5,000,000.00		0	0	No	No	No
062000026	Implement Stormwater Management Plan in City of Bayou Vista	Riverine, Coastal, Urban/Local	City of Bayou Vista	Bayou Vista	N	\$ 25,000.00		0	0	No	No	No
062000027	Walker County Public Information and Awareness	Riverine, Urban/Local	Walker County	Walker	N	\$ 122,720.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000023	Expand Development of Emergency Notification System in Liberty County	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000025	Galveston County Stormproof/Retrofit Infrastructure	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000026	Implement Stormwater Management Plan in City of Bayou Vista	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000027	Walker County Public Information and Awareness	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000028	City of Bayou Vista Severe Weather Warning Systems	Purchase and install severe weather warning systems	06000001, 06000010, 06000015	Galveston	12040204	120402040200	6,000,107	Flood Measurement and Warning	0.4
062000029	Natural Infrastructure Project Barker Reservoir Headwater Acquisition and Restoration	Purchase and restore agricultural & natural lands at the headwater of Barker Reservoir. Manage land for agricultural use, restore native landscape like grasslands and wetlands, and enhance management practices. Provides natural flood mitigation benefits.	06000001, 06000013, 06000014	Waller	12040102, 12040104	120401020103, 120401040101	06000028, 06000071	Property Acquisition and Structural Elevation	1.8
062000030	Natural Infrastructure Project Mound Creek Conservation	Purchase conservation easement from landowner to permanently conserve as agricultural/natural areas. KPC to ensure land remains undeveloped agricultural land and maintain conservation. Would provide multiple benefits such as flood mitigation, and more.	06000001, 06000013, 06000014	Harris, Waller	12040102	120401020103, 120401020101	06000028, 06000026	Property Acquisition and Structural Elevation	3.3
062000031	Brazoria County Structure Elevation	Elevate structures in flood zone. Over 70% of these structures are pre-firm and do not meet current FEMA elevation standards. FEMA estimates that over 400 structures may be substantially damaged and must be elevated to meet current standards.	06000001, 06000015	Brazoria	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Property Acquisition and Structural Elevation	1,481.9
062000032	Brazoria County Non-structural Mitigation / Land Preservation	Up to 35,0000 acres of land could be purchased to help reduce the impacts of natural hazards by converting the space to floodwater storage, groundwater recharge, erosion, drought mitigation, in the form of public green space.	06000001, 06000015	Brazoria	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Property Acquisition and Structural Elevation	1,481.9
062000033	City of Bellaire Flood Rescue Plan	Develop a plan to address rescues from both one-story and two-story homes. This includes evacuating disabled/physically impaired/elderly individuals from homes in advance of anticipated extreme rainfall events.	06000001, 06000007, 06000010, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Regulatory and Guidance	3.6

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000028	City of Bayou Vista Severe Weather Warning Systems	Riverine, Coastal, Urban/Local	City of Bayou Vista	Bayou Vista	N	\$ 35,000.00		0	0	No	No	No
062000029	Natural Infrastructure Project Barker Reservoir Headwater Acquisition and Restoration	Riverine, Urban/Local	Coastal Prairie Conservancy	Harris, Waller, Harris County Flood Control District	N	\$ 33,000,000.00		0	0	No	No	No
062000030	Natural Infrastructure Project Mound Creek Conservation	Riverine, Urban/Local	Coastal Prairie Conservancy	Harris, Waller, Harris County Flood Control District	N	\$ 32,000,000.00		0	0	No	No	No
062000031	Brazoria County Structure Elevation	Riverine, Urban/Local, Coastal	Brazoria County	Brazoria, Alvin, Iowa Colony, Pearland	Y	\$ 60,000,000.00		0	0	No	No	No
062000032	Brazoria County Non-structural Mitigation / Land Preservation	Riverine, Urban/Local, Coastal	Brazoria County	Brazoria, Alvin, Iowa Colony, Pearland	Y	\$ 65,000,000.00		0	0	No	No	No
062000033	City of Bellaire Flood Rescue Plan	Riverine, Urban/Local	City of Bellaire	Bellaire	N	\$ 200,000.00	General Revenue (25%)	0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000028	City of Bayou Vista Severe Weather Warning Systems	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000029	Natural Infrastructure Project Barker Reservoir Headwater Acquisition and Restoration	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000030	Natural Infrastructure Project Mound Creek Conservation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000031	Brazoria County Structure Elevation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000032	Brazoria County Non-structural Mitigation / Land Preservation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000033	City of Bellaire Flood Rescue Plan	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000034	Brazoria County Dam and Levee Failure Outreach and Education campaign	Implement an outreach and education campaign to educate the public on mitigation techniques for dam and levee failure to reduce loss of life and property.	06000001, 06000005, 06000006, 06000010, 06000015	Brazoria	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Education and Outreach	1,481.9
062000035	Amending Grimes County Floodplain Ordinance	Prohibit the building of any new structures located down-stream of high hazard dams by amending the floodplain ordinance.	06000001, 06000007, 06000015	Grimes	12040101, 12040102	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000034, 06000035, 06000039, 06000038	Regulatory and Guidance	798.9
062000036	Grimes County Property Acquisition	Per NFIP participation, the acquisition of structures located in the 100-year flood plain and in dam inundation areas.	06000001, 06000015	Grimes	12040101, 12040102	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000034, 06000035, 06000039, 06000038	Property Acquisition and Structural Elevation	798.9

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000034	Brazoria County Dam and Levee Failure Outreach and Education campaign	Riverine, Urban/Local, Coastal	Brazoria County	Brazoria, Alvin, Iowa Colony, Pearland	N	\$ 20,000.00		0	0	No	No	No
062000035	Amending Grimes County Floodplain Ordinance	Riverine, Urban/Local	Grimes County	Grimes, Todd Mission	N	\$ 20,000.00		0	0	No	No	No
062000036	Grimes County Property Acquisition	Riverine, Urban/Local	Grimes County	Grimes, Todd Mission	Y	\$ 95,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000034	Brazoria County Dam and Levee Failure Outreach and Education campaign	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000035	Amending Grimes County Floodplain Ordinance	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000036	Grimes County Property Acquisition	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000037	Property Acquisition Down-Stream of High Hazard Dams in Grimes County	Acquire homes located down-stream of high hazard dams.	06000001, 06000015	Grimes	12040101, 12040102	120401010101, 120401010301, 120401010302, 120401010303, 120401010103, 120401010304, 120401010305, 120401010306, 120401020202, 120401020203, 120401020207, 120401020206	06000001, 06000012, 06000013, 06000014, 06000003, 06000015, 06000016, 06000017, 06000003, 06000034, 06000035, 06000039, 06000038	Property Acquisition and Structural Elevation	798.9
062000038	Walker County Property Acquisition in Deep River Plantation Subdivision	Acquire flood loss properties and properties prone to flooding in the Deep River Plantation Subdivision.	06000001, 06000015	Walker	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Property Acquisition and Structural Elevation	797.8
062000039	City of Santa Fe Stormproof/retrofit New Critical Infrastructure	New construction and existing critical facilities and infrastructure should include advanced mitigation techniques.	06000001, 06000007, 06000015	Galveston	12040204	120402040300, 120402040200	06000108, 06000107	Regulatory and Guidance	17.0

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000037	Property Acquisition Down-Stream of High Hazard Dams in Grimes County	Riverine, Urban/Local	Grimes County	Walker	Y	\$ 1,000,000.00		0	0	No	No	No
062000038	Walker County Property Acquisition in Deep River Plantation Subdivision	Riverine, Urban/Local	Walker County	Walker	Y	\$ 2,475,000.00		0	0	No	No	No
062000039	City of Santa Fe Stormproof/retrofit New Critical Infrastructure	Riverine, Urban/Local	City of Santa Fe	Santa Fe	N	\$ 5,000,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000037	Property Acquisition Down-Stream of High Hazard Dams in Grimes County	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000038	Walker County Property Acquisition in Deep River Plantation Subdivision	No	Outside of San Jacinto region.
062000039	City of Santa Fe Stormproof/retrofit New Critical Infrastructure	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000040	Waller County Drainage System Maintenance	Project will clear obstacles, widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding in all participating jurisdictions.	06000001, 06000003, 06000004, 06000015	Waller	12040102, 12040104	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Infrastructure Projects	515.9
062000041	Waller County Flood Hazard Public Information Campaign	Posting of signage at high profile locations and use of social media to communicate threats/concerns. Flood gauges for common flooded road crossings. Burn ban signs.	06000001, 06000005, 06000006, 06000010, 06000015	Waller	12040102, 12040104	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Education and Outreach	515.9

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000040	Waller County Drainage System Maintenance	Riverine, Urban/Local	Waller County	Waller, Waller, Brookshire Katy Drainage District, Katy	0	\$ 2,500,000.00	General Revenue (50%)	0	0	No	No	No
062000041	Waller County Flood Hazard Public Information Campaign	Riverine, Urban/Local	Waller County	Waller, Waller, Hempstead, Brookshire, Brookshire Katy Drainage District, Katy	N	\$ 20,000.00	General Revenue (50%)	0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000040	Waller County Drainage System Maintenance	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000041	Waller County Flood Hazard Public Information Campaign	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000042	Waller County Freeboard Requirement Update	The county may increase its freeboard requirement to 24-in from 18-in above the base flood elevation. County may require that all new lots within a platted subdivision be located fully outside of the floodplain. Applicable to all floodplain development.	06000001, 06000007, 06000015	Waller	12040102, 12040104	120401020102, 120401020103, 120401020204, 120401020101, 120401020201, 120401020202, 120401020203, 120401020205, 120401020207, 120401020206, 120401040102, 120401040103, 120401040101, 120401040203	06000027, 06000028, 06000036, 06000026, 06000033, 06000034, 06000035, 06000037, 06000039, 06000038, 06000072, 06000073, 06000071, 06000077	Regulatory and Guidance	515.9
062000043	Install Outdoor Early warning System in Walker County	Install Outdoor Early warning System to provide citizens early warning of an impending disaster, or an event that would affect the life and/or property of the citizens.	06000001, 06000005, 06000006, 06000010, 06000015	Walker	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Education and Outreach	797.8

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000042	Waller County Freeboard Requirement Update	Riverine, Urban/Local	Waller County	Waller, Waller, Hempstead, Brookshire, Brookshire Katy Drainage District, Katy	N	\$ 100,000.00	General Revenue (100%)	0	0	No	No	No
062000043	Install Outdoor Early warning System in Walker County	Riverine, Urban/Local	Walker County	Walker, Huntsville, New Waverly	N	\$ 850,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000042	Waller County Freeboard Requirement Update	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000043	Install Outdoor Early warning System in Walker County	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000044	Walker County Public Hazard Information and Awareness Campaign	The county and participating jurisdiction will create and implement an education campaign to educate the public on mitigation techniques for all hazards.	06000001, 06000005, 06000006, 06000010, 06000015	Walker	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Education and Outreach	797.8
062000045	Retrofit and Harden the Emergency Operations Center Serving Walker County	Retrofit and harden the Emergency Operations Center serving Walker county including city of Huntsville, New Waverly, and Riverside.	06000001, 06000005, 06000006, 06000010, 06000015	Walker	12040101, 12040103	120401010104, 120401010101, 120401010102, 120401010103, 120401010201, 120401010202, 120401010203, 120401010204, 120401030101, 120401030106, 120401030303, 120401030305, 120401030301, 120401030302	06000004, 06000001, 06000002, 06000003, 06000005, 06000006, 06000007, 06000008, 06000046, 06000051, 06000063, 06000065, 06000061, 06000062	Education and Outreach	797.8
062000046	City of Cleveland Drainage Maintenance	Removal of debris, silt and vegetation obstacles in drainageways. Project will clear obstacles, mow and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding.	06000001, 06000003, 06000004, 06000015	Liberty, Montgomery, San Jacinto	12040103	120401030201, 120401030108, 120401030109, 120401030203, 120401030202, 120401030401	06000056, 06000053, 06000054, 06000058, 06000057, 06000069	Infrastructure Projects	18.7

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000044	Walker County Public Hazard Information and Awareness Campaign	Riverine, Urban/Local	Walker County	Walker, Huntsville, New Waverly	N	\$ 20,000.00		0	0	No	No	No
062000045	Retrofit and Harden the Emergency Operations Center Serving Walker County	Riverine, Urban/Local	Walker County	Walker, Huntsville	N	\$ 4,000,000.00		0	0	No	No	No
062000046	City of Cleveland Drainage Maintenance	Riverine, Urban/Local	City of Cleveland	Cleveland, San Jacinto, Montgomery	N	\$ 5,000,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000044	Walker County Public Hazard Information and Awareness Campaign	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000045	Retrofit and Harden the Emergency Operations Center Serving Walker County	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000046	City of Cleveland Drainage Maintenance	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000047	City of Hilcrest Village Land Acquisition	Purchase additional land for retention pond construction to mitigate flooding in flood zones.	06000001, 06000015	Brazoria	12040204	120402040400	6,000,109	Property Acquisition and Structural Elevation	0.4
062000048	City of Manvel Property Acquisition	Acquire Repetitive Loss (RL) and Severe Repetitive Loss (SRL) properties in the 100-year flood plain, as identified by FEMA and NFIP.	06000001, 06000015	Brazoria	12040204	120402040200, 120402040400, 120402040100	06000107, 06000109, 06000106	Property Acquisition and Structural Elevation	27.4
062000049	City of Bellaire Flood Early Warning System	Develop Flood Early Warning System for the City of Bellaire to inform emergency responders and to assist residents in making safe decisions during major storm events.	06000001, 06000010, 06000015	Harris	12040104	120401040402, 120401040401	06000084, 06000083	Flood Measurement and Warning	3.6
062000050	City of Bayou Vista Management Practices for Securing Windblown Debris in Canals	Debris generated by many hazards if the level of intensity allows. Implement plan to remove debris throughout the canal system especially since Bayou Vista is a residential canal community.	06000001, 06000003, 06000004, 06000015	Galveston	12040204	120402040200	6,000,107	Infrastructure Projects	0.4
062000051	Maintain Drainage Systems and Culverts in City of Friendswood	Clean & recut drainage ditches, complete work orders related to conveyance systems. Pursue sub-regional drainage improvements.	06000001, 06000003, 06000004, 06000015	Galveston, Harris	12040204	120402040200, 120402040100	06000107, 06000106	Infrastructure Projects	20.8
062000052	City of League City Property Acquisition and Relocation	Buying and removing property from the floodplain will reduce long-term, repetitive flood loss. The open space created by the removal of insured property will facilitate drainage and allow for the creation of recreation areas.	06000001, 06000015	Galveston, Harris	12040204	120402040200, 120402040100	06000107, 06000106	Property Acquisition and Structural Elevation	52.9
062000053	City of Santa Fe - Harden Existing Critical Facilities and Infrastructure	Harden existing critical facilities and infrastructure. Specifically City Hall, Maintenance Building, Library, and Community Center.	06000001, 06000003, 06000004, 06000015	Galveston	12040204	120402040300, 120402040200	06000108, 06000107	Infrastructure Projects	17.0

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000047	City of Hillcrest Village Land Acquisition	Riverine, Urban/Local	City of Hillcrest Village	Hillcrest	Y	\$ 250,000.00		0	0	No	No	No
062000048	City of Manvel Property Acquisition	Riverine, Urban/Local	City of Manvel	Manvel	Y	\$ 1,700,000.00		0	0	No	No	No
062000049	City of Bellaire Flood Early Warning System	Riverine, Urban/Local	City of Bellaire	Bellaire, Harris County Flood Control District	N	\$ 150,000.00	General Revenue (25%)	0	0	No	No	No
062000050	City of Bayou Vista Management Practices for Securing Windblown Debris in Canals	Riverine, Urban/Local, Coastal	City of Bayou Vista	Bayou Vista	N	\$ 100,000.00		0	0	No	No	No
062000051	Maintain Drainage Systems and Culverts in City of Friendswood	Riverine, Urban/Local	City of Friendswo od	Friendswood, Harris, Galveston	N	\$ 1,400,000.00		0	0	No	No	No
062000052	City of League City Property Acquisition and Relocation	Riverine, Urban/Local	City of League City	League City	Y	\$ 300,000,000.00		0	0	No	No	No
062000053	City of Santa Fe - Harden Existing Critical Facilites and Infrastructure	Riverine, Urban/Local	City of Santa Fe	Santa Fe	Y	\$ 2,000,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000047	City of Hilcrest Village Land Acquisition	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000048	City of Manvel Property Acquisition	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000049	City of Bellaire Flood Early Warning System	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000050	City of Bayou Vista Management Practices for Securing Windblown Debris in Canals	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000051	Maintain Drainage Systems and Culverts in City of Friendswood	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000052	City of League City Property Acquisition and Relocation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000053	City of Santa Fe - Harden Existing Critical Facilites and Infrastructure	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000054	City of Santa Fe - Drainage System Maintenance	Keep areas of concern free of unnecessary debris as needed. Implement and maintain tree, vegetation trimming/removal near, infrastructure, drainage systems and roadside areas.	06000001, 06000003, 06000004, 06000015	Galveston	12040204	120402040300, 120402040200	06000108, 06000107	Infrastructure Projects	17.0
062000055	Liberty County Floodplain Acquisition	Acquisition of property in the floodplain.	06000001, 06000015	Liberty	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000107, 06000109, 06000106	Property Acquisition and Structural Elevation	664.9
062000056	City of Galveston Floodplain Manager Increase	Increase and maintain number of floodplain managers in the building division through training and certification.	06000001, 06000007, 06000015	Galveston	12040204	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Regulatory and Guidance	211.1
062000057	City of Galveston SRL and RL Property Mitigation	Elevation, acquisition or other mitigation of identified Repetitive Loss and Severe Repetitive Loss properties and structures damaged by flooding.	06000001, 06000015	Galveston	12040204	120402040300, 120402040200, 120402040400, 120402040500	06000108, 06000107, 06000109, 06000110	Property Acquisition and Structural Elevation	211.1
062000058	City of Bunker Hill Village Non-Structural Mitigation Projects	Non-structural mitigation measure - buried powerlines, tree management and generators	06000001, 06000015	Harris	12040104	120401040303	6,000,080	Other	1.4
062000059	Hardening of Critical Facilities in City of Mission Todd	Protecting critical facilities such as hospitals, fire stations, police stations and water treatment plants can help keep them operational during severe storms.	06000001, 06000003, 06000004, 06000015	Grimes	12040102	120401020203, 120401020206	06000035, 06000038	Infrastructure Projects	2.0
062000060	Harris County Mitigation Buyout and Relocation Program	This program is designed to assist owners whose properties were damaged by a natural disaster and or in an area that is designated hopelessly deep in the floodplain and repetitively flooded, to relocate outside the threat of flooding.	06000001, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204			Property Acquisition and Structural Elevation	1,770.8

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000054	City of Santa Fe - Drainage System Maintenance	Urban/Local	City of Santa Fe	Santa Fe	N	\$ 5,000.00		0	0	No	No	No
062000055	Liberty County Floodplain Acquisition	Riverine, Urban/Local	Liberty County	Liberty, Dayton	Y	\$ 750,000.00		0	0	No	No	No
062000056	City of Galveston Floodplain Manager Increase	Riverine, Urban/Local, Coastal	City of Galveston	Galveston	N	\$ 10,000.00		0	0	No	No	No
062000057	City of Galveston SRL and RL Property Mitigation	Riverine, Urban/Local, Coastal	City of Galveston	Galveston, Galveston	Y	\$ 80,000.00		0	0	No	No	No
062000058	City of Bunker Hill Village Non-Structural Mitigation Projects	Riverine, Urban/Local	City of Bunker Hill Village	Harris, Harris County Flood Control District, Bunker Hill Village,	N	\$ 100,000.00		0	0	No	No	No
062000059	Hardening of Critical Facilities in City of Mission Todd	Riverine, Urban/Local	City of Todd Mission	Grimes, Todd Mission	Y	\$ 25,000.00		0	0	No	No	No
062000060	Harris County Mitigation Buyout and Relocation Program	Riverine, Urban/Local, Coastal	Harris County	Harris, Houston, Harris County Flood Control District	Y	\$ 75,000,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000054	City of Santa Fe - Drainage System Maintenance	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000055	Liberty County Floodplain Acquisition	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000056	City of Galveston Floodplain Manager Increase	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000057	City of Galveston SRL and RL Property Mitigation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000058	City of Bunker Hill Village Non-Structural Mitigation Projects	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000059	Hardening of Critical Facilities in City of Mission Todd	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000060	Harris County Mitigation Buyout and Relocation Program	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000061	City of Alvin Full Time Floodplain Administrator	Hire a full-time floodplain administrator who can support CRS application, NFIP, mapping and community floodplain support. A dedicated employee could help the community obtain CRS status and full time flood plain support.	06000001, 06000007, 06000015	Brazoria, Galveston, Fort Bend	12040204	120402040300, 120402040200, 120402040400, 120402040100	06000108, 06000108, 06000107, 06000109, 06000106	Regulatory and Guidance	25.1
062000062	City of Pearland SRL and RL Property Acquisition	Continue working with County and State officials to identify repetitive loss and severe repetitive loss properties, and pursue mitigation projects to reduce risk.	06000001, 06000015	Brazoria, Fort Bend, Harris	12040104, 12040204	120401040501, 120402040200, 120402040400, 120402040100	06000085, 06000085, 06000107, 06000109, 06000106	Property Acquisition and Structural Elevation	48.7
062000063	Harris County Wide Voluntary Buyout Program	Targeted home buyouts to reduce flood damages in areas several feet deep in the floodplain where structural projects to reduce flooding are not cost-effective and/or beneficial.	06000001, 06000015	Harris	12040101, 12040102, 12040103, 12040104, 12040203, 12040204			Property Acquisition and Structural Elevation	1,770.8
062000064	Mitigate Repetitive Flood Claim & Severe Repetitive Loss Properties in Galveston County	Grant funding through HMGP may be used to mitigate RFC and SRL properties. Mitigation option will be implemented with property owners as funding and opportunities arise.	06000001, 06000011, 06000012, 06000015	Galveston	12040204	120402040200	06000107, 06000107	Property Acquisition and Structural Elevation	14.2
062000065	Liberty County Regional Coordination	Work with adjoining counties regarding flooding and drainage issues.	06000001, 06000011, 06000012, 06000015	Liberty	12040103, 12040203	120401030201, 120401030108, 120401030109, 120401030205, 120401030402, 120401030203, 120401030204, 120401030202, 120401030401, 120402030104, 120402030103, 120402030102, 120402030101	06000056, 06000056, 06000053, 06000054, 06000060, 06000070, 06000058, 06000059, 06000057, 06000069, 06000102, 06000101, 06000100, 06000099	Other	1,169.9

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000061	City of Alvin Full Time Floodplain Administrator	Riverine, Urban/Local	City of Alvin	Alvin	N	\$ 100,000.00	Entity Budget/Funds (100%)	0	0	No	No	No
062000062	City of Pearland SRL and RL Property Acquisition	Riverine, Urban/Local	City of Pearland	Pearland, Brazoria, Brazoria County Drainage District 4	Y	\$ 100,000.00	Other (0%)	0	0	No	No	No
062000063	Harris County Wide Voluntary Buyout Program	Riverine, Urban/Local, Coastal	Harris County Flood Control District (HCFCD)	Harris, Houston, Harris County Flood Control District	Y	\$ 500,000,000.00		0	0	No	No	No
062000064	Mitigate Repetitive Flood Claim & Severe Repetitive Loss Properties in Galveston County	Riverine, Urban/Local, Coastal	Galveston County	Galveston, Galveston, Jamaica Beach, Hitchcock, La Marque, Santa Fe, Texas City,	N	\$ 30,000,000.00		0	0	No	No	No
062000065	Liberty County Regional Coordination	Riverine, Urban/Local, Coastal	Liberty County	Liberty, Chambers, Harris, San Jacinto, Hardin	N	\$ 500,000.00		0	0	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000061	City of Alvin Full Time Floodplain Administrator	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000062	City of Pearland SRL and RL Property Acquisition	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000063	Harris County Wide Voluntary Buyout Program	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000064	Mitigate Repetitive Flood Claim & Severe Repetitive Loss Properties in Galveston County	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000065	Liberty County Regional Coordination	Yes	Alignment with RFPG goals and TWDB guidance principles.

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Strategy Project Area (sqmi)
062000066	Warren Ranch Preservation	Acquisition of remaining private interest stake in the 6,004-acre Warren Ranch for floodplain preservation and conservation. Place a conservation easement on the Ranch to conserve ag and natural habitat.	06000012,06000013	Harris	12040102	120401020103	06000028	Property Acquisition and Structural Elevation	9.4
062000067	Cypress Creek Headwater Acquisition and Preservation	Acquisition and restoration of 1,074-acres of ag and natural lands at the headwaters of Cypress Creek.	06000012,06000013	Waller	12040102	120401020102, 120401020103	06000027, 06000028	Property Acquisition and Structural Elevation	1.7

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	Flood Risk Type (Riverine, Coastal, Urban, Playa, Other)	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount	Cost/Structure removed	Consideration of Nature Based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
062000066	Warren Ranch Preservation	Riverine	Coastal Prairie Conservancy	Harris County Flood Control District (HCFCD), Harris County	N	\$ 50,000,000.00		0	100	No	No	No
062000067	Cypress Creek Headwater Acquisition and Preservation	Riverine	Coastal Prairie Conservancy	Harris County Flood Control District (HCFCD), Harris County	N	\$ 18,000,000.00		0	100	No	No	No

Appendix 5-8: Table 17 - Potentially Feasible Flood Mitigation Strategies Recommended by RFPG

FMS ID	FMS Name	RFPG Recommendation (Y/N)	Reason for Recommendation
062000066	Warren Ranch Preservation	Yes	Alignment with RFPG goals and TWDB guidance principles.
062000067	Cypress Creek Headwater Acquisition and Preservation	Yes	Alignment with RFPG goals and TWDB guidance principles.

**Appendix 5-9:
No Adverse Impact Summary Table**

Appendix 5-9 - No Adverse Impact Determination

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	No	There are increases in flow to Sims Bayou.	Yes	Detention mitigation alternatives are identified in the associated report to mitigate increases in peak flow.	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000026	060000000027	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan	Draft Plan	Lower Clear Creek and Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternatives Evaluation	James D. Keith (Freese and Nichols, Inc.) and Boris P. Minot (Freese and Nichols, Inc.)	In Section 3.3 Alternative 3: Detention + Conveyance+ I-45 Tunnel it states, "Alternative 3 would have reduced damages [...] and not creat adverse impacts"
06	063000027	060000000030	Brays CDBG-MIT: Bintliff	Draft Plan	Sharpstown Master Drainage Plan Technical Memorandum		Section 4.3.2 Extreme Event Mitigation states "The Hydrualic modeling showed no increase in peak flow rates of Brays Bayou downstream of the project area, with a 6 cfs reduction at Hillcorft in the 500-year storm event, as well as no adverse impacts to the water surface elevations of Brays Bayou for the 500-year storm event"
06	063000037	600000000031, 600000000032, 600000000033	Sims CDBG-MIT: C147, Sims CDBG-MIT: C506, Sims CDBG-MIT: Salt Water Ditch	Draft Plan	Salt Water Ditch: Feasibility Study for Flood Damage Reduction to Salt Water Ditch, HCFCD Unit C118-00-00 and Addendum to Feasibility Study for Flood Damage Reduction to Saltwater Ditch	Saltwater Ditch: Connor McColloch (Civil Tech Engineering, Inc.) and Melvin Spinks (Civil Tech Engineering. Inc.)	Section 5.11 Recommended Plan states, "A detention pond with approximately 817 acre-feet of detention will be required to mitigate the peak flow impacts to Sims Bayou. " Potential detention mitigation sites are noted in the associated report.

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	Yes	N/A	N/A	N/A	Yes	Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000040	060000000029	Halls CDBG-MIT	Draft Plan	<p>*C-41 - Mainstem: Halls Bayou (P118-00-00) Mainstem Improvements (C-41) Summary Report</p> <p>*C-41 - Hardy West: Hardy West Alternatives Analysis Summary Report</p> <p>*C-23 - P118-08-00: P118-08-00 Final Model Revision Summary Memo</p> <p>*C-30 - P118-27-00: Halls Bayou Tributary Unit No. P118-27-00 Alternatives Analysis Summary Report</p>	<p>*C-41 - Mainstem: Connor R. Bishop (Lockwood Andrews and Newnam, Inc.)</p> <p>*C-41 - Hardy West: David M. Barton (Lockwood Andrews Newnam, Inc.)</p> <p>*C-23 - P118-08-00: Hardy West: David M. Barton (Lockwood Andrews Newnam, Inc.)</p> <p>*C-30 - P118-27-00: Chris E. Edwards (Lockwood Andrews and Newnam, Inc.)</p>	<p>*C-41 - Mainstem: Section 6. Impacts Analysis on Halls Bayou states, "verall, the preliminary impact analysis reflects that Alternative 1 WSELs are below Pre-Existing Conditions WSELs, while providing slightly more benefit to areas along Halls Bayou downstream of the Hall Park detention basin when compared to Alternatives 2 and 3"</p> <p>*C-41 - Hardy West: Executive Summary states, "Alternative 3 provides a 10-year (pre-Atlas 14 update) level of-service (LOS), and results in no adverse impacts to Halls Bayou and the surrounding region, up to and including the 500-year storm event (pre-Atlas 14 update).</p> <p>*C-23 - P118-08-00: Section 3.0 Summary and Conclusions states "No No downstream impacts are expected due to the downstream peak flows matching the previous iteration in both timing and magnitude."</p> <p>*C-30 - P118-27-00: Executive Summary States "Alternative 2 results in no adverse impacts to P118-27-00, Halls Bayou, and the surrounding region, up to and including the 500-year storm event (pre-Atlas 14 update)"</p>
06	063000046	060000000034	White Oak Bayou CDBG MIT: Little White Oak	Draft Plan	<p>Little White Oak Bayou CDBG-MIT Project Project Background and Certification of No Adverse Impact</p>	<p>Burton L Johnson</p>	<p>The memo states, "In lieu of a traditional report, this memorandum provides the certification of no adverse impact. [...] Based upon my review of the computed flowrates and water surface elevations associated with the CDBG-MIT project described in this memorandum along with and my understanding of the hydrologic and hydraulic models utilized in the determination of the water surface elevations, I hereby conclude and certify that the proposed CDBG-MIT project will not increase water surface elevations and peak flowrates upstream of, adjacent to, or downstream of the proposed project."</p>

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000056	Mary's Creek Lower, Middle, and Upper Segment	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	Yes	N/A	N/A	N/A	Yes	Model, Engineering Statement
06	063000059	East Fork San Jacinto River - Winters Bayou Detention	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	Yes	N/A	N/A	N/A	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000056	060000000056	Marys Creek	Amended Plan	City of Pearland Brazoria Drainage District No. 4 Master Drainage Plan Update Final Report	Terry M. Barr (Halff Associates, Inc.)	Appendix G Section 2.4.3 states "As projects are selected for further development, the Preliminary Engineering Report will need to evaluate potential adverse impacts of each project and provide the requisite mitigation to avoid these impacts."
06	063000058	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"
06	063000059	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"
06	063000060	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"
06	063000061	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000114	City of Bayou Vista Regulations and Permit Requirements Update	Yes	N/A	N/A	N/A	Yes	N/A
06	063000115	City of League City Freeboard Ordinance	Yes	N/A	N/A	N/A	Yes	N/A
06	063000123	City of Cleveland Floodplain Land-Use Ordinance	Yes	N/A	N/A	N/A	Yes	N/A
06	063000124	City of Cleveland Flooplain Ordinance Update	Yes	N/A	N/A	N/A	Yes	N/A
06	063000127	Galveston Bay Surge Protection Coastal Storm Risk Management	Yes	N/A	N/A	N/A	Yes	Study, Engineering Judgement
06	063000129	City of Manvel City Ordinance	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000130	City of Manvel Land-Use Ordinance Adoption	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000132	City of Manvel GIS Database Improvements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000136	Brazoria County NFIP Technical Material	Not applicable	N/A	N/A	N/A	Yes	N/A

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000062	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"
06	063000064	060000000026	San Jacinto Master Drainage Plan	Draft Plan	San Jacinto Regional Watershed Master Drainage Plan	Terry M. Barr (Halff Associates, Inc.) and Hector Olmos (Freese and Nichols, Inc.)	In Section 8.6 Individual Alternatives it states, "compensatory storage must first be constructed upstream of each channelization alternative to avoid adverse downstream impacts. Each detention alternative identified in this study is more than enough to mitigate the adverse downstream impact for the recommended channelization alternatives"
06	063000114	N/A	N/A	N/A	N/A		N/A
06	063000115	N/A	N/A	N/A	N/A		N/A
06	063000123	N/A	N/A	N/A	N/A		N/A
06	063000124	N/A	N/A	N/A	N/A		N/A
06	063000127	N/A	N/A	N/A	Coastal Texas Protection and restoration feasibility study		Section 7. Recommendations states, "The Recommended Plan developed is technically sound, economically justified, and socially and environmentally acceptable. In accordance with the National Environmental Policy Act (NEPA), a diligent effort was made to coordinate and collaborate with resource agencies, local industry, and environmental interests"
06	063000129	N/A	N/A	N/A	N/A		N/A
06	063000130	N/A	N/A	N/A	N/A		N/A
06	063000132	N/A	N/A	N/A	N/A		N/A
06	063000136	N/A	N/A	N/A	N/A		N/A

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06	063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000142	City of Hitcock - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000143	City of Jamaica Beach - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000144	City of Kemah - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000145	City of Kemah - Update Floodplain Ordinance	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000146	City of La Marque - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000148	City of Tiki Island - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000149	City of Santa Fe - Improve Regulations and Permit Requirements	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000152	City of Galveston Land Use Mapping	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000153	City of Galveston Freeboard Requirement Enforcement	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000201	City of Alvin Unified Development Ordinance	Not applicable	N/A	N/A	N/A	Yes	N/A
06	063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	No	There are a few locations with minor WSE increases that are not expected to have a significant impact. They will be mitigated upon design.	Yes	Two regional detention basins will provide mitigation. The ultimate mitigation plan will be determined during the design phase.	Yes	Model, Study, Engineering Judgement

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000139	N/A	N/A	N/A	N/A		N/A
06	063000140	N/A	N/A	N/A	N/A		N/A
06	063000142	N/A	N/A	N/A	N/A		N/A
06	063000143	N/A	N/A	N/A	N/A		N/A
06	063000144	N/A	N/A	N/A	N/A		N/A
06	063000145	N/A	N/A	N/A	N/A		N/A
06	063000146	N/A	N/A	N/A	N/A		N/A
06	063000148	N/A	N/A	N/A	N/A		N/A
06	063000149	N/A	N/A	N/A	N/A		N/A
06	063000152	N/A	N/A	N/A	N/A		N/A
06	063000153	N/A	N/A	N/A	N/A		N/A
06	063000201	N/A	N/A	N/A	N/A		N/A
06	063000315	06000000315	Alter2Scen2	Amended Plan	Lower South Mayde Creek (U101-00-00) Bypass Channel and Channel Improvements Preliminary Engineering Report	Jason L. Becker (Halff Associates)	Statement in the Executive Summary states "The results from the impact analysis developed in conjunction with the USACE indicated that both recommendations do not result in an adverse change in peak flow rate or rate-of-rise for the Addicks Reservoir." Although the modeling indicated minor WSEL increases at certain locations along South Mayde Creek existing conditions during the 1% and 0.2% AEP events, the alternative analysis demonstrated the potential benefit of a comprehensive flood risk reduction strategy combining multiple drainage improvements.

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000327	Blalock Road Drainage Improvement Project	Yes	N/A	N/A	N/A	Yes	Model, Engineering Judgement
06	063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	Yes	N/A	N/A	N/A	Yes	Model, Study, Engineering Judgement
06	063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	Yes	N/A	N/A	N/A	Yes	Model
06	063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	Yes	N/A	N/A	N/A	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000319	060000000319	B_B100-00-00	Amended Plan	Preliminary Engineering Report Phase 2 Genoa Red Bluff Stormwater Detention Basins	Satya Pilla (iGET Services)	Sections 4.1, 4.2, 4.3 and 4.4 (various alternatives) all include the statement "There are no adverse impacts along Spring Gully" and "There are no adverse impacts along Armand Bayou"
06	063000327	060000000327	Blalock	Amended Plan	Blalock Road Drainage Improvements		Provided technical memorandum states "The requirement of a restrictor installed on the system to provide no adverse hydraulic impact to Buffalo Bayou will limit the drainage improvements to the Blalock Road drainage system until detention storage is obtained to provide mitigation on Buffalo Bayou. Once mitigation is obtained, the restrictor could be removed allowing the proposed drainage system to perform as designed."
06	063000357	060000000357	Cypress Creek; K100-00-00	Amended Plan	Cypress Creek Program Implementation Plan	Rod Pinheiro (Jones Carter)	Acknowledged lots of mitigation will be required and will break project into sub-projects for completion.
06	063000396	060000000396	P118-21	Amended Plan	Excavation of Detention Basins and Channel Conveyance Improvements in P118-21-00: Preliminary Engineering Report	Chris E. Edwards (LAN)	Provides multiple options for mitigation and reduces impacts in the model, although does not say so outright in the report.
06	063000397	060000000397	P11823BaselineConditions	Amended Plan	Alternative Analysis Report P118-23-00 and P118-23-02 Channel Improvements	Baoxu Zhang, Min Xiao, and Ajay Ramachandran (Idcus)	A No Adverse Impact Analysis was performed for this project for design storm events up to and including the 500-year 24-hour design storm. Selected alternative will not cause adverse impacts.
06	063000399	060000000399	P118	Amended Plan	Preliminary Engineering Report for P118-25-00 and Tributaries Conveyance and Detention Improvements	Alberto Espinoza (R.G. Miller Engineers)	Appendix G Section 6 states "Based on the analysis, the proposed improvements will provide a flood risk reduction for the area and will not cause any adverse impacts downstream."
06	063000400	060000000400	P118-27-00	Amended Plan	Halls Bayou Tributary Unit No. P118-27-00 Alternatives Analysis Summary Report	Chris E. Edwards (LAN)	Executive Summary states "Alternative 2 results in no adverse impacts to P118-27-00, Halls Bayou, and the surrounding region, up to and including the 500-year storm event (pre-Atlas 14 update).

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06	063000417	Houston Fifth Area Flood Mitigation	No	The report acknowledges that there will be negative impacts that need to be mitigated with detention basins.	Yes	Detention basins will be provided to ensure no adverse impacts as part of this project.	Yes	Model, Engineering Judgement
06	063000418	Houston Port Area Flood Mitigation	Yes	N/A	N/A	N/A	Yes	Model, Engineering Judgement
06	063000434	Houston Kashmere Gardens Area Flood Mitigation	Yes	N/A	N/A	N/A	Yes	Model
06	063000453	Rivershire West - Grand Lake Creek Watershed	No	There are some increases in peak flow rates as a result of the project.	No	The WSEL increases are within the West Fork floodplain and the elevations are less than the BFEs because the WF drives the flooding.	Yes	Model, Study
06	063000468	Houston Sunnyside Area Flood Mitigation	Yes	N/A	N/A	N/A	Yes	Model
06	063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	Yes	N/A	N/A	N/A	Yes	Model
06	063000470	Halls Bayou Drainage Project Bond C-01	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	Yes	N/A	N/A	N/A	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000417	060000000417	5thWardMP	Amended Plan	Fifth Ward Master Drainage Plan Technical Memorandum	Candyce Ward (CobbFendley)	The report acknowledges that there will be negative impacts that need to be mitigated with detention basins.
06	063000418	060000000418	Pleasantville	Amended Plan	WO121 - Pleasantville Detention Analysis Technical Memorandum		The memorandum does not explicitly state no adverse impact, but the provided detention basins show reduced WSELs with no adverse impact.
06	063000434	060000000434	KashmereGardens	Amended Plan	Houston Kashmere Gardens Area Flood Mitigation Project Technical Memorandum		Statement in Section 3 of the Technial Memorandum states "The Kashmere Gardens' proposed improvements will not adversely impact the peak discharge into oufall channels."
06	063000453	060000000453	Alligator Creek	Amended Plan	Alligator Creek Master Drainage Plan	Ryan Londeen (Half Associates)	Section 3.14 P14 - Rivershire West states "The proposed project minimally increase the 1-percent ACE peak flow rates downstream and, as a result, is not estimated to need any detention mitigation."
06	063000468	060000000468	Saltwater Ditch	Amended Plan	South Park/Sunnyside Drainage Analysis Proposed Conditions Technical Memorandum		Technical memorandum includes language that increased flows will be mitigated by provided detention basins.
06	063000469	060000000469	20230123Vision Plan	Amended Plan	Veterans Memorial Detention Basin A State Flood Plan BCA		BCA Memorandum states "There are no adverse impacts when compared to the Baseline Conditions water surface elevation"
06	063000470	060000000470	CLOS2_CLOS1	Amended Plan	P118-26-00 Evaluation Report for Flood Damage Reduction	Keith Edwin Smathers and Scott P. Hughes (BGE, Inc.)	BCA Memorandum explains that implementations were put in place to prevent adverse impacts on Halls Bayou.
06	063000471	060000000471	20230123Vision Plan	Amended Plan	Parker Road Detention Basins Memorandum		The summary memorandum states that "There are no adverse impacts observed when compared to the Baseline Conditions WSEs"

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06	063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	Yes	N/A	N/A	N/A	Yes	Model
06	063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000167	Greens Mid-Reach	Yes	N/A	N/A	N/A	Yes	Model
06	063000186	Poor Farm Ditch	Yes	N/A	N/A	N/A	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000472	060000000472	HDR_SMCGrandParkway	Amended Plan	Grand Parkway at Clay Stormwater Detention Basin U501-07-00-E001 Preliminary Engineering Report	Ramon A. Herrera (Midtown Engineers)	Statement in Executive Summary states "Although some of the results show a slight increase in peak flows across the 2D profile lines near SH99, the overall flood risk is reduced due to lower Water Surface Elevations in the channel."
06	063000473	060000000473	Final_U500	Amended Plan	Drainage Impact Analysis for U500-01-00-E001 Regional Stormwater Detention Basin Along Langham Creek (U100-00-00)	Hector Olmos and Leslie A. Munoz (Freese and Nichols)	Statement in Executive Summary states "Based on the completed analysis, the proposed project will not have any adverse impact on the water surface elevations along Langham Creek for events up to and including the 100-year event."
06	063000475	060000000475	Prop_Hahl	Amended Plan	Hahl North Detention Basin Memorandum		The summary memorandum states that "There are no adverse impacts when compared to the Baseline Conditions WSEs."
06	063000476	060000000476	HEC RAS 5.0.6 Cypress Creek	Amended Plan	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update: Cypress Creek Report	Sirish K. Mandichetti (Michael Baker)	No explicit statement, but there are tables showing no increase in WSEL, along with the statement "alternatives were developed with emphasis on reducing adverse flood effect within this region".
06	063000167	060000000037	Greens Bayou (P100-00-00) Mid-Reach Channel Conveyance Improvements	Final Plan	Greens Bayou Mid-Reach Channel Conveyance Improvements, Preliminary Engineering Report From John F. Kennedy Blvd to Veterans Memorial Drive	Jessica Lynn Sprague (CivilTech)	In P100-00-00-E012 HEC-RAS Model Impact Results Memorandum states that the slight WSE increased are, "Based on modeling anomalies and do not reflect true adverse impacts when compared to the without project conditions."
06	063000186	060000000085	Poor Farm Ditch	Amended Plan	Poor Farm Ditch Conveyance Improvements Between Bellaire and University Boulevards	Cory J. Stull (Freese and Nichols, Inc.) and Ashley S. Poe (Freese and Nichols, Inc.)	Section 5.0 Summary and Conclusions states, "As the increase in water surface elevations are contained within channel banks or ROW and mitigation volume is available, it can be demonstrated the the proposed channel improvements [...] will cause no adverse impact for storm events up to and including the 100-year"

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06	063000311	Galveston 37th Street	Yes	N/A	N/A	N/A	Yes	Study, Engineering Judgement
06	063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond Project C-38)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	063000320	Warren Lake and Dam	Yes	N/A	N/A	N/A	Yes	Study, Engineering Judgement
06	063000424	Friendswood - Inline & Offline Detention	No	Water Surface Elevation impacts above 0.35 feet on Dixie Farm Road (FM 1959), immediately upstream of FM 1959 Detention Basin.	Yes	Project team has acknowledged impacts and designated the impacts a result of modeling noise. Project team has submitted FMA scoping grant application to further refine modeling.	Yes	Model, Study, Engineering Judgement

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000311	N/A	N/A	N/A	Engineer's Justification Statement for the 37th Street Drainage Project; CDBG-MIT Hurricane Harvey State Mitigation Competition	Dr. Daniel Christodoss, Ph.D., P.E. (City Engineer of City of Galveston)	Page 11 of 19 of the Engineer's Justification Statement states, "Upon completion of the 37th Street Drainage Project, the rainwater produced by a 100-year event will be contained within the City's right-of-way, and flooding of private property will be eliminated within the boundaries of the project improvement area"
06	063000313	060000000086	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	Amended Plan	U520-01-00-E003 Dinner Creek Stormwater Detention Basin Drainage Impact Analysis	Leslie A. Munoz (Freese and Nichols, Inc.)	Section 4.4- No Adverse Impact evaluation states, " The results presented in this section indicate that implementation of both the Ultimate and the Phase 1 improvements will not results in adverse impact to water surface elevation along Dinner creek for up to and including the 500-year event."
06	063000320	N/A	N/A	N/A	Warren Lake and Dam Retrofit Project No Adverse Impact Report	John R Blound, PE (Civil Solutions)	Section No Adverse Impact states, "It is my opinion that the proposed project will not adversely impact upstream, downstream or adjacent property owners . All adverse impacts of the project(impounding of storm water) will occur on property the project owner controls."
06	063000424	060000000090	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	Amended Plan	Friendswood Inline and Offline Detention Alternative- Memorandum Documenting Main Technical Assumptions	Jim Keith, PE, CFM, and Boris Minot, PE, CFM	Acknowledged areas with localized WSE above 0.1 feet and defends increases since project was high level design with simplified approached takem that will be mitigated in future refinements of the design and analysis.

Appendix 5-9 - No Adverse Impact Determination

Region	FMP ID	FMP Name	FMP Meets ALL No Negative Impacts Requirements from Exhibit C Section 3.6.A (Yes/ No)	Negative Impact Description	Planning level Mitigation Plan (Yes/ No)	Mitigation Plan Description	No Negative Impact Determination (Yes/No)	Basis of No Negative Impact Determination (Model, Study, Engineering Judgement)
06	063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000328	Keegans Bayou Flood Risk Reduction Project	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000422	Danubina Drainage Improvement Project	Yes	N/A	N/A	N/A	Yes	Study
06	63000334	Goose Creek Flood Risk Reduction Project	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000360	Kingwood Diversion Ditch	No	Water Surface elevation impacts within the channel near the downstream end of G103-38-00.	Yes	Detention basins will be provided to ensure no adverse impacts as part of this project. Detention estimates were provided as part of the study.	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	063000477	060000000087	P118-E006 (Hardy West) (2018 Bond Project C-41)	Amended Plan	Hardy West Alternative Analysis Summary Report		Section 5- Recommended Alternative states, "Alternative 3 provides a 10-year (pre-Atlas 14 update) level of-service (LOS), and results in no adverse impacts to Halls Bayou and the surrounding region, up to and including the 500-year storm event (pre-Atlas 14 update)."
06	63000328	060000000045	Keegans Bayou	Draft Plan	Keegans Bayou Feasibility Study Plan Final Report (Appendix 5-4K)	Afshin Gazerzadeh (Huitt-Zollars, Inc)	Page 9 of the report states that "the channel modifications are successfully mitigated by the 1,600 ac-ft of detention basin storage."
06	63000422	N/A	N/A	N/A	City of Baytown Master Drainage Plan Volume 2: Storm Sewer System Analysis (Appendix 5-4AP)	Dora Janice Jacob (Dannenbaum Engineering Corporation)	Section 10.3 of the report states that "The detention ponds proposed for the proposed condition and channel improvements will account for impacts that cannot be mitigated due to the limited detention options in the area."
06	63000334	060000000052	CDBG Goose Creek Watershed Plan	Draft Plan	Final Engineering Report for the Goose Creek Watershed Planning Project (Appendix 5-4L)	Polydefkis Bouratsis (AECOM)	Section 4.1 of the report states that the project "includes two new detention basins that will be developed adjacent to Goose Creek, Basin I and Basin J. The purpose of the detention basins is to provide flooding relief and to mitigate the negative impacts of the channel and structure improvements."
06	63000360	060000000046	Kingwood Drainage Study Models	Draft Plan	Kingwood Drainage Study (Appendix 5-4M)	Connor A. McColloch (Neel-Schaffer, Inc.)	The report acknowledges that there will be negative impacts that need to be mitigated with detention basins with detention estimates provided on pages 123 and 124 of the report.

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06	63000344	White Oak Bayou – Woodland Trails Stormwater Detention Basin	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000339	Willow Creek – M120 Detention and Preservation Project	Yes	N/A	N/A	N/A	Yes	Model
06	63000321	Armand Bayou – Conveyance Improvements along B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00	Yes	N/A	N/A	N/A	Yes	Model
06	63000474	Clear Creek Mid Reach Project	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000402	Carpenters Bayou – Mainstem Channel Modifications and Detention	Yes	N/A	N/A	N/A	Yes	Model, Study
06	63000389	White Oak Bayou - E116 Tributary Modifications and Detention	Yes	N/A	N/A	N/A	Yes	Model, Study

Region	FMP ID	Model ID	Model Name	Model Submitted	Study Name and Location	Engineer of Record (Optional)	Engineering Judgement Description
06	63000344	060000000344	Woodland Trails Stormwater Detention Basin	Amended Plan	Woodland Trails Stormwater Detention Basin (E500-24-00-E001) Preliminary Engineering Report (Appendix 5-4AB)	Steven Bak (Cobb, Fendley & Associates, Inc.)	Section 6.2 states that the project will "reduce the existing flood hazard along White Oak Bayou by lowering peak flows and water surface elevations ("WSEs"). The results presented in the analysis indicate that the Oxbow Alternative had the largest peak flow and WSE reductions along White Oak Bayou."
06	63000339	060000000050	CDBG Willow Creek Watershed Plan	Draft Plan	Willow Creek Watershed Plan Final Engineering Report (Appendix 5-4AC)		The model results support the conclusion of no adverse impacts due to the proposed improvements.
06	63000321	060000000321	Armand Bayou Conveyance Improvements B500-040-E004 and Channel Improvements B115-00-00	Amended Plan	N/A		The model results support the conclusion of no adverse impacts due to the proposed improvements.
06	63000474	060000000474	Clear Creek Mid Reach Project	Amended Plan	Clear Creek Flood Risk Management Pre-Construction Engineering and Design Recommendation (Appendix 5-4AH)	Yasmin Martinez (Jacobs Engineering Group, Inc.)	Page 7 states that "the project limits along Clear Creek were reduced and additional mitigation was added to mitigate the adverse impacts."
06	63000402	060000000051	CDBG Carpenters Bayou Watershed Plan	Draft Plan	The Carpenters Bayou Watershed Planning Project: Final Engineering Report (Appendix 5-4AI)	Jacob M. Torres (Torres & Associates, LLC)	Section 5.2 states that the project includes a "182 acre-feet stormwater detention facility to mitigate impacts downstream caused by the channel improvements."
06	63000389	060000000039	E116 Flood Reduction Feasibility	Draft Plan	E116-00-00 Flood Reduction Feasibility Study: Final Engineering Report (Appendix 5-4AJ)	Zubin R. Sukheswalla (Pape-Dawson Consulting Engineers)	Section 7.1 states "Discussion of stormwater detention basins is included in Section 6 as it relates to mitigation of adverse impacts from the proposed infrastructure improvements. No additional detention other than that discussed in Section 6 is expected to be necessary."

**Appendix 5-10:
FMP Details**

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	063000026	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	San Jacinto	Comprehensive	2	Clear Creek & Dickinson Bayou	No	\$ 1,150,000,000	0.06
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	063000027	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	San Jacinto	Comprehensive	2	Brays Bayou	No	\$ 107,061,000	0.13
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	063000037	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	San Jacinto	Comprehensive	2	Sims Bayou	No	\$ 99,653,000	1.80
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	063000040	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	San Jacinto	Comprehensive	2	Halls Bayou	No	\$ 99,653,000	1.46

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	\$ 1,262,349.13	Unknown	Unknown	3642	Planning	1.029		Baseline average flood depth > 1ft	6	Brazoria County, Galveston County, Harris County; Pasadena city, Alvin city, El Lago city, Clear Lake Shores city, Taylor Lake Village city, La Porte city, Webster city, Friendswood city, Houston city, Kemah city, Nassau Bay city, Pearland city, Shoreacres city, League City city, Seabrook city
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	\$ 669,131.25	Unknown	Unknown	267	Planning	0.524		Baseline average flood depth > 0.5ft	4	Harris County, Fort Bend County; Meadows Place city, Southside Place city, Missouri City city, Sugar Land city, Bellaire city, Stafford city, Houston city, Four Corners CDP, Mission Bend CDP, West University Place city
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	\$ 43,650.03	Unknown	Unknown	4367	Planning	1.063		Baseline average flood depth > 1ft	6	Harris County, Fort Bend County; Pasadena city, Missouri City city, Stafford city, South Houston city, Houston city, Pearland city
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	\$ 32,964.94	Unknown	0.01	15541	Planning	2.813		Baseline average flood depth > 2ft	8	Harris County; Houston city, Aldine CDP

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	5,453,858	10,260	0.19%	<25% of project community affected	1	911	25.01%	Reduced risk to <50% of structures in floodplain	4	1358	\$ 1,364,856,777	\$ 1,225,237,940	10%	Flood damage reduction < 25%	2
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	5,553,924	6,750	0.12%	<25% of project community affected	1	160	59.93%	Reduced risk to <75% of structures in floodplain	7	78	\$ 5,892,708	\$ 3,163,203	46%	Flood damage reduction > 25%	4
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	5,553,924	14,516	0.26%	<25% of project community affected	1	2283	52.28%	Reduced risk to <75% of structures in floodplain	7	1328	\$ 27,781,666	\$ -	100%	Flood damage reduction >95%	10
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	4,731,145	43,667	0.92%	<25% of project community affected	1	3023	19.45%	Reduced risk to <50% of structures in floodplain	4	3259	\$ 147,283,199	\$ 7,740,718	95%	Flood damage reduction >95%	10

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	8	44.44%	Reduced risk for >25% of critical facilities in floodplain	4	9.087		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.332		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	4	15.38%	Reduced risk for <25% of critical facilities in floodplain	2	7.572		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.756		SVI between 0.75-1.00 (high vulnerability)	10
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	32	54.24%	Reduced risk for >50% of critical facilities in floodplain	6	9.189		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.797		SVI between 0.75-1.00 (high vulnerability)	10
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	6	6.25%	Reduced risk for <25% of critical facilities in floodplain	2	14.439		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.783		SVI between 0.75-1.00 (high vulnerability)	10

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 69,673,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 6,487,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 6,038,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 6,038,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a high level of environmental benefits (4+ categories)	10		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Halls Bayou Watershed Mitigation Application 1 - CDBG MIT		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	063000046	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	San Jacinto	Comprehensive	2	White Oak Bayou	No	\$ 120,015,000	0.80
Mary's Creek Lower, Middle, and Upper Segment	063000056	Mary's Creek Lower, Middle, and Upper Segment	San Jacinto	Comprehensive	2	San Jacinto River Basin	No	\$ 154,040,000	0.16
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	063000058	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	San Jacinto	Comprehensive	2	San Jacinto River Basin	No	\$ 469,000,000	0.30
East Fork San Jacinto River - Winters Bayou Detention	063000059	East Fork San Jacinto River - Winters Bayou Detention	San Jacinto	Detention Pond	2	San Jacinto River Basin	No	\$ 134,000,000	0.47

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)			Score 2: Severity - Community Need (% Population)	
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	\$ 179,126.88	Unknown	0.01	2937	Planning	0.903		Baseline average flood depth > 0.5ft	4	Harris County; Houston city, Jersey Village city
Mary's Creek Lower, Middle, and Upper Segment	\$ 66,282.28	Unknown	Unknown	2711	Planning	1.138		Baseline average flood depth > 1ft	6	Brazoria County, Galveston County;
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	\$ 361,603.72	Varies by Roadways	Varies by Roadways	2146	Planning	1.511		Baseline average flood depth > 1ft	6	Walker County, San Jacinto County, Harris County, Montgomery County, Liberty County; Cleveland city, Deerwood CDP, New Waverly city, Woodbranch city, Porter Heights CDP, Patton Village city, Roman Forest city, Houston city, Splendora city, Grangerland CDP, Willis city, Cut and Shoot city
East Fork San Jacinto River - Winters Bayou Detention	\$ 205,837.19	Varies by Roadways	Varies by Roadways	1896	Planning	1.144		Baseline average flood depth > 1ft	6	Walker County, San Jacinto County, Harris County, Montgomery County, Liberty County; Cleveland city, Patton Village city, Coldspring city, Roman Forest city, North Cleveland city, Houston city, Splendora city, Plum Grove city, Huntsville city, Oakhurst CDP

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	4,731,145	10,513	0.22%	<25% of project community affected	1	670	22.81%	Reduced risk to <50% of structures in floodplain	4	549	\$ 152,483,269	\$ 105,838,953	31%	Flood damage reduction > 25%	4
Mary's Creek Lower, Middle, and Upper Segment	60,312	6,644	11.02%	<25% of project community affected	1	2324	85.72%	Reduced risk to >75% of structures in floodplain	10	310	\$ 1,182,357	\$ 486,080	59%	Flood damage reduction > 50%	6
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	5,547,018	3,232	0.06%	<25% of project community affected	1	1297	60.44%	Reduced risk to <75% of structures in floodplain	7	336	\$ 1,339,324	\$ 781,055	42%	Flood damage reduction > 25%	4
East Fork San Jacinto River - Winters Bayou Detention	5,547,018	2,559	0.05%	<25% of project community affected	1	651	34.34%	Reduced risk to <50% of structures in floodplain	4	297	\$ 547,719	\$ -	100%	Flood damage reduction >95%	10

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply				Score 8: Social Vulnerability					
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	3	7.32%	Reduced risk for <25% of critical facilities in floodplain	2	8.709		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.919		SVI between 0.75-1.00 (high vulnerability)	10
Mary's Creek Lower, Middle, and Upper Segment	6	66.67%	Reduced risk for >50% of critical facilities in floodplain	6	9.414		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.176		SVI between 0.01-0.25 (low vulnerability)	1
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	0	0.00%	Reduced risk for 0 structures in floodplain	0	10.533		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.548		SVI between 0.5-0.75 (moderate to high vulnerability)	7
East Fork San Jacinto River - Winters Bayou Detention	1	33.33%	Reduced risk for >25% of critical facilities in floodplain	4	9.432		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.601		SVI between 0.5-0.75 (moderate to high vulnerability)	7

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 7,272,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Mary's Creek Lower, Middle, and Upper Segment	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 9,323,000	6.05%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 31,940,000	6.81%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
East Fork San Jacinto River - Winters Bayou Detention	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 10,008,000	7.47%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Mary's Creek Lower, Middle, and Upper Segment		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
East Fork San Jacinto River - Winters Bayou Detention		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	063000060	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	San Jacinto	Detention Pond	2	San Jacinto River Basin	No	\$ 291,000,000	0.26
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	063000061	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	San Jacinto	Comprehensive	2	San Jacinto River Basin	No	\$ 810,000,000	0.26
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	063000062	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	San Jacinto	Comprehensive	2	San Jacinto River Basin	No	\$ 393,000,000	0.73
City of Bayou Vista Regulations and Permit Requirements Update	063000114	City of Bayou Vista Regulations and Permit Requirements Update	San Jacinto	Preparedness	1		No	\$ 109,000	5.00
City of League City Freeboard Ordinance	063000115	City of League City Freeboard Ordinance	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00

General Project Data						Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)			Score 2: Severity - Community Need (% Population)	
Project Name	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	\$ 819,718.31	Varies by Roadways	Varies by Roadways	479	Planning	2.6		Baseline average flood depth > 2ft	8	Grimes County, Montgomery County; Conroe city, Richards CDP, Shiro CDP, Plantersville city, Montgomery city
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	\$ 706,806.31	Varies by Roadways	Varies by Roadways	1516	Planning	-				Walker County, San Jacinto County, Montgomery County, Liberty County; Cleveland city, Woodbranch city, Patton Village city, Roman Forest city, Splendora city
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	\$ 71,728.42	Varies by Roadways	Varies by Roadways	7487	Planning	7.556		Baseline average flood depth > 2ft	8	Grimes County, Harris County, Montgomery County, Waller County; Conroe city, Todd Mission city, Shenandoah city, The Woodlands CDP, Magnolia city, Spring CDP, Humble city, Houston city, Pinebrook CDP, Oak Ridge North city, Stagecoach town, Plantersville city, Pinehurst CDP, Tomball city, Waller city
City of Bayou Vista Regulations and Permit Requirements Update	\$ -	Unknown	0.01	1122	Planning	-				Galveston County; Hitchcock city, Bayou Vista city
City of League City Freeboard Ordinance	\$ -	Unknown	Unknown	5251	Planning	-				Galveston County, Harris County; Clear Lake Shores city, Webster city, Bacliff CDP, Friendswood city, Kemah city, Nassau Bay city, Texas City city, Dickinson city, League City city, Seabrook city

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	649,711	449	0.07%	<25% of project community affected	1	355	74.11%	Reduced risk to <75% of structures in floodplain	7	41	\$ 528,140	\$ -	100%	Flood damage reduction >95%	10
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	815,873	2,166	0.27%	<25% of project community affected	1	1146	75.59%	Reduced risk to >75% of structures in floodplain	10	98					
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	5,437,650	17,764	0.33%	<25% of project community affected	1	5479	73.18%	Reduced risk to <75% of structures in floodplain	7	680	\$ 83,365,541	\$ 78,052,424	6%	Flood damage reduction < 25%	2
City of Bayou Vista Regulations and Permit Requirements Update	350,682	1,476	0.42%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of League City Freeboard Ordinance	5,081,827	13,675	0.27%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					

Project Name	Score 5: Critical Facilities Damage Reduction			Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability					
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	0	0.00%	Reduced risk for 0 structures in floodplain	0	13.8		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.170		SVI between 0.01-0.25 (low vulnerability)	1
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	1	100.00%	Reduced risk for >95% of critical facilities in floodplain	10	-		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.589		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	8	53.33%	Reduced risk for >50% of critical facilities in floodplain	6	28.668		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.174		SVI between 0.01-0.25 (low vulnerability)	1
City of Bayou Vista Regulations and Permit Requirements Update	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.142		SVI between 0.01-0.25 (low vulnerability)	1
City of League City Freeboard Ordinance	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.187		SVI between 0.01-0.25 (low vulnerability)	1

Project Name	Score 9: Nature-Based Solution			Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M		
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 7,850,000	2.70%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 48,658,000	6.01%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 3 wider benefit categories	7	\$ 23,311,000	5.93%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
City of Bayou Vista Regulations and Permit Requirements Update	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of League City Freeboard Ordinance	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Bayou Vista Regulations and Permit Requirements Update		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of League City Freeboard Ordinance		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
City of Cleveland Floodplain Land-Use Ordinance	063000123	City of Cleveland Floodplain Land-Use Ordinance	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00
City of Manvel City Ordinance	063000129	City of Manvel City Ordinance	San Jacinto	Preparedness	1		Yes	\$ 103,000	5.00
City of Manvel Land-Use Ordinance Adoption	063000130	City of Manvel Land-Use Ordinance Adoption	San Jacinto	Preparedness	1		Yes	\$ 103,000	5.00
City of Manvel GIS Database Improvements	063000132	City of Manvel GIS Database Improvements	San Jacinto	Preparedness	1		No	\$ 21,000	0.00
Brazoria County NFIP Technical Material	063000136	Brazoria County NFIP Technical Material	San Jacinto	Other	1		Yes	\$ 21,000	0.00

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
City of Cleveland Floodplain Land-Use Ordinance	\$ -	Unknown	Unknown	261	Planning	-				San Jacinto County, Montgomery County, Liberty County; Cleveland city, North Cleveland city
City of Manvel City Ordinance	\$ -	Unknown	Unknown	1250	Planning	-				Brazoria County; Alvin city, Manvel city, Iowa Colony village, Pearland city
City of Manvel Land-Use Ordinance Adoption	\$ -	Unknown	0.01	1250	Planning	-				Brazoria County; Alvin city, Manvel city, Iowa Colony village, Pearland city
City of Manvel GIS Database Improvements	\$ -	Unknown	Unknown	1250	Planning	-				Brazoria County; Alvin city, Manvel city, Iowa Colony village, Pearland city
Brazoria County NFIP Technical Material	\$ -	Unknown	Unknown	18848	Planning	-				Wharton County, Brazoria County, Galveston County, Harris County, Fort Bend County, Matagorda County; Pasadena city, Missouri City city, Stafford city, South Houston city, Houston city, Pearland city

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
City of Cleveland Floodplain Land-Use Ordinance	739,473	1,037	0.14%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Manvel City Ordinance	372,031	6,741	1.81%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Manvel Land-Use Ordinance Adoption	372,031	6,741	1.81%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Manvel GIS Database Improvements	372,031	6,741	1.81%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
Brazoria County NFIP Technical Material	6,354,462	38,626	0.61%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
City of Cleveland Floodplain Land-Use Ordinance	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.748		SVI between 0.5-0.75 (moderate to high vulnerability)	7
City of Manvel City Ordinance	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.424		SVI between 0.25-0.5 (low to moderate vulnerability)	4
City of Manvel Land-Use Ordinance Adoption	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.424		SVI between 0.25-0.5 (low to moderate vulnerability)	4
City of Manvel GIS Database Improvements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.424		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Brazoria County NFIP Technical Material	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.358		SVI between 0.25-0.5 (low to moderate vulnerability)	4

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
City of Cleveland Floodplain Land-Use Ordinance	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Manvel City Ordinance	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.83%	Project will not require any ongoing operation and maintenance (low);	10
City of Manvel Land-Use Ordinance Adoption	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.83%	Project will not require any ongoing operation and maintenance (low);	10
City of Manvel GIS Database Improvements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 2,000	9.52%	Project will not require any ongoing operation and maintenance (low);	10
Brazoria County NFIP Technical Material	0		<25% of the project cost is nature-based	1	Public Education		Project does not deliver any wider benefits	0	\$ 2,000	9.52%	Project will not require any ongoing operation and maintenance (low);	10

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
City of Cleveland Floodplain Land-Use Ordinance		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Manvel City Ordinance		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Manvel Land-Use Ordinance Adoption		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Manvel GIS Database Improvements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Brazoria County NFIP Technical Material		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
City of Clear Lake Shores - Implement Stormwater Management Practices	063000139	City of Clear Lake Shores - Implement Stormwater Management Practices	San Jacinto	Preparedness	1		Yes	\$ 109,000	0.00
City of Clear Lake Shores - Improve Regulations and Permit Requirements	063000140	City of Clear Lake Shores - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00
City of Hitcock - Improve Regulations and Permit Requirements	063000142	City of Hitcock - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00
City of Jamicia Beach - Improve Regulations and Permit Requirements	063000143	City of Jamicia Beach - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00
City of Kemah - Improve Regulations and Permit Requirements	063000144	City of Kemah - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00

General Project Data						Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)			Score 2: Severity - Community Need (% Population)	
Project Name	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
City of Clear Lake Shores - Implement Stormwater Management Practices	\$ -	Unknown	0.01	633	Planning	-				Galveston County, Harris County; Clear Lake Shores city, Kemah city, League City city, Seabrook city
City of Clear Lake Shores - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	633	Planning	-				Galveston County, Harris County; Clear Lake Shores city, Kemah city, League City city, Seabrook city
City of Hitcock - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	2655	Planning	-				Brazoria County, Galveston County; Tiki Island village, Alvin city, Hitchcock city, Santa Fe city, Bayou Vista city, La Marque city
City of Jamaica Beach - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	1276	Planning	-				Galveston County; Jamaica Beach city, Galveston city
City of Kemah - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	562	Planning	-				Galveston County, Harris County; Clear Lake Shores city, Bacliff CDP, Kemah city, League City city, Seabrook city

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
City of Clear Lake Shores - Implement Stormwater Management Practices	5,081,827	2,597	0.05%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Clear Lake Shores - Improve Regulations and Permit Requirements	5,081,827	2,597	0.05%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Hitcock - Improve Regulations and Permit Requirements	722,713	5,294	0.73%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Jamicia Beach - Improve Regulations and Permit Requirements	350,682	275	0.08%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Kemah - Improve Regulations and Permit Requirements	5,081,827	2,792	0.05%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
City of Clear Lake Shores - Implement Stormwater Management Practices	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.203		SVI between 0.01-0.25 (low vulnerability)	1
City of Clear Lake Shores - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.203		SVI between 0.01-0.25 (low vulnerability)	1
City of Hitcock - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.546		SVI between 0.5-0.75 (moderate to high vulnerability)	7
City of Jamicia Beach - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-		Life/injury risk percentage >30%	6	NA				No impact on water supply	0	0.031		SVI between 0.01-0.25 (low vulnerability)	1
City of Kemah - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.421		SVI between 0.25-0.5 (low to moderate vulnerability)	4

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
City of Clear Lake Shores - Implement Stormwater Management Practices	0		<25% of the project cost is nature-based	1	Environmental		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Clear Lake Shores - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Hitcock - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Jamicia Beach - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Kemah - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit		Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
City of Clear Lake Shores - Implement Stormwater Management Practices		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Clear Lake Shores - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Hitcock - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Jamicia Beach - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Kemah - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
City of Kemah - Update Floodplain Ordinance	063000145	City of Kemah - Update Floodplain Ordinance	San Jacinto	Preparedness	1		No	\$ 109,000	5.00
City of La Marque - Improve Regulations and Permit Requirements	063000146	City of La Marque - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		Yes	\$ 109,000	5.00
City of Tiki Island - Improve Regulations and Permit Requirements	063000148	City of Tiki Island - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		No	\$ 109,000	5.00
City of Santa Fe - Improve Regulations and Permit Requirements	063000149	City of Santa Fe - Improve Regulations and Permit Requirements	San Jacinto	Preparedness	1		No	\$ 109,000	5.00
City of Galveston Land Use Mapping	063000152	City of Galveston Land Use Mapping	San Jacinto	Preparedness	1		No	\$ 11,000	0.00

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
City of Kemah - Update Floodplain Ordinance	\$ -	Unknown	0.01	562	Planning	-				Galveston County, Harris County; Clear Lake Shores city, Bacliff CDP, Kemah city, League City city, Seabrook city
City of La Marque - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	829	Planning	-				Galveston County; Hitchcock city, Santa Fe city, Texas City city, La Marque city
City of Tiki Island - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	1006	Planning	-				Galveston County; Tiki Island village
City of Santa Fe - Improve Regulations and Permit Requirements	\$ -	Unknown	0.01	400	Planning	-				Galveston County; Hitchcock city, Santa Fe city, Texas City city, Dickinson city, La Marque city
City of Galveston Land Use Mapping	\$ -	Varies by Roadways	Unknown	21858	Planning	-				Galveston County; Jamaica Beach city, Galveston city

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
City of Kemah - Update Floodplain Ordinance	5,081,827	2,792	0.05%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of La Marque - Improve Regulations and Permit Requirements	350,682	1,455	0.41%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Tiki Island - Improve Regulations and Permit Requirements	350,682	1,681	0.48%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Santa Fe - Improve Regulations and Permit Requirements	350,682	748	0.21%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Galveston Land Use Mapping	350,682	64,300	18.34%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
City of Kemah - Update Floodplain Ordinance	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.421		SVI between 0.25-0.5 (low to moderate vulnerability)	4
City of La Marque - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.666		SVI between 0.5-0.75 (moderate to high vulnerability)	7
City of Tiki Island - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.137		SVI between 0.01-0.25 (low vulnerability)	1
City of Santa Fe - Improve Regulations and Permit Requirements	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.355		SVI between 0.25-0.5 (low to moderate vulnerability)	4
City of Galveston Land Use Mapping	0	0.00%	Reduced risk for 0 structures in floodplain	0	-				NA				No impact on water supply	0	0.424		SVI between 0.25-0.5 (low to moderate vulnerability)	4

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
City of Kemah - Update Floodplain Ordinance	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of La Marque - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Tiki Island - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Santa Fe - Improve Regulations and Permit Requirements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	5.50%	Project will not require any ongoing operation and maintenance (low);	10
City of Galveston Land Use Mapping	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,000	9.09%	Project will not require any ongoing operation and maintenance (low);	10

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
City of Kemah - Update Floodplain Ordinance		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of La Marque - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Tiki Island - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Santa Fe - Improve Regulations and Permit Requirements		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Galveston Land Use Mapping		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	063000167	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	San Jacinto	Comprehensive	1		No	\$ 120,284,000	2.13
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	063000186	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	San Jacinto	Channel	3		No	\$ 19,917,000	1.23
City of Alvin Unified Development Ordinance	063000201	City of Alvin Unified Development Ordinance	San Jacinto	Preparedness	4		No	\$ 100,000	5.00
City of Galveston- 37th Street Improvement Project	063000311	City of Galveston- 37th Street Improvement Project	San Jacinto	Infrastructure	5		No	\$ 75,000,000	0.08

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	\$ 66,235.69	Unknown	Unknown	4420	Planning	-				Harris County; Atascocita CDP, Humble city, Houston city, Cloverleaf CDP, Aldine CDP
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	\$ 2,489,625.00	0.1	0.02	33	Planning	-				Harris County; City of Houston, City of West Univeristy Place, City of Southside Place
City of Alvin Unified Development Ordinance	\$ -	Unknown	Unknown	3445	Planning	-				Brazoria County, Galveston County, Fort Bend County; Alvin city, Hillcrest village, Manvel city, Iowa Colony village, Friendswood city, Hitchcock city, Pearland city, League City city, Rosharon CDP
City of Galveston- 37th Street Improvement Project	\$ 382,653.06	Unknown	Unknown	196	Planning	-				Galveston County; City of Galveston

Score 2: Severity - Community Need (% Population)					Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction						
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	4,731,145	49,996	1.06%	<25% of project community affected	1	1816	41.09%	Reduced risk to <50% of structures in floodplain	4	2076					
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	34,674	1,410	4.07%	<25% of project community affected	1	8	24.24%	Reduced risk to <50% of structures in floodplain	4	20					
City of Alvin Unified Development Ordinance	1,545,492	15,192	0.98%	<25% of project community affected	1	0	0.00%	Reduced risk to 0 structures in floodplain	0	0					
City of Galveston- 37th Street Improvement Project	1,428	468	32.77%	25%-50% of project community affected	4	196	100.00%	Reduced risk to >75% of structures in floodplain	10	0	\$ 205,233,445	\$ 168,191,767	18%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	21	23.86%	Reduced risk for <25% of critical facilities in floodplain	2	-								No impact on water supply	0	0.695		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	2	50.00%	Reduced risk for >50% of critical facilities in floodplain	6	6		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.026		SVI between 0.01-0.25 (low vulnerability)	1
City of Alvin Unified Development Ordinance	0	0.00%	Reduced risk for 0 structures in floodplain	0	6		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.505		SVI between 0.5-0.75 (moderate to high vulnerability)	7
City of Galveston- 37th Street Improvement Project	3	100.00%	Reduced risk for >95% of critical facilities in floodplain	10	6		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.679		SVI between 0.5-0.75 (moderate to high vulnerability)	7

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	0		<25% of the project cost is nature-based	1	Hike and Bike Trails to provide dual use for maintenance access and recreation along berms and under bridges.		Project does not deliver any wider benefits	0	\$ 7,288,000	6.06%	Project will not require any ongoing operation and maintenance (low);	10
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	0		<25% of the project cost is nature-based	1	None		Project does not deliver any wider benefits	0	\$ 721,000	3.62%	Project will not require any ongoing operation and maintenance (low);	10
City of Alvin Unified Development Ordinance	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000	6.00%	Project will not require any ongoing operation and maintenance (low);	10
City of Galveston- 37th Street Improvement Project	0		<25% of the project cost is nature-based	1	Improves accessibility of the Harborside evacuation route during pre-storm flood events.		Project does not deliver any wider benefits	0	\$ 290,000	0.39%	Project will not require any ongoing operation and maintenance (low);	10

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit		Score 14: Environmental Impact			Score 15: Mobility					
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a low level of environmental benefits (1 category)	3		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Alvin Unified Development Ordinance		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a low level of environmental benefits (1 category)	3		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Galveston- 37th Street Improvement Project		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a low level of environmental benefits (1 category)	3		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	063000313	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	San Jacinto	Detention Pond	2	Buffalo & North Galveston Bay	No	\$ 33,081,000	0.04
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	063000315	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	San Jacinto	Comprehensive	2	East & West Fork - San Jacinto	No	\$ 27,818,000	0.73
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	063000319	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	San Jacinto	Detention Pond	2	Spring	No	\$ 34,850,000	0.01
Warren Lake and Dam Retrofit	063000320	Warren Lake and Dam Retrofit	San Jacinto	Comprehensive	2	Buffalo	No	\$ 6,439,000	4.45
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	063000321	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	San Jacinto	Detention Pond	2	Buffalo & North Galveston Bay	No	\$ 9,450,000	0.81

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	\$ 787,642.88	Unknown	Unknown	306	Planning	0.57810748		Baseline average flood depth > 0.5ft	4	Harris County;
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	\$ 105,371.22	Unknown	Unknown	1015	Planning	1.29137772		Baseline average flood depth > 1ft	6	Harris County; City of Houston
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	\$ 2,323,333.25	Unknown	Unknown	1387	Planning	1.75595848		Baseline average flood depth > 1ft	6	Harris County; City of Nassau Bay, City of La Porte, City of Houston, City of Deer Park, City of Webster, City of Pasadena, City of Taylor Lake Village
Warren Lake and Dam Retrofit	\$ 137,000.00	Unknown	Unknown	47	Planning	0.69152864		Baseline average flood depth > 0.5ft	4	Harris County; City of Houston
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	\$ 41,086.96	Unknown	Unknown	6363	Planning	0.48962402		Baseline average flood depth < 0.5ft	2	Harris County; Deer Park, Pasadena

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	97,594	1,377	1.41%	<25% of project community affected	1	42	13.73%	Reduced risk to <50% of structures in floodplain	4	201	\$ 73,144,746	\$ 49,501,867	32%	Flood damage reduction > 25%	4
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	69277	3,403	4.91%	<25% of project community affected	1	264	26.01%	Reduced risk to <50% of structures in floodplain	4	0	\$ 10,367,704	\$ 2,288,321	78%	Flood damage reduction > 75%	8
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	137923	3,757	2.72%	<25% of project community affected	1	15	1.08%	Reduced risk to <10% of structures in floodplain	1	383	\$ 99,634,366	\$ 86,806,072	13%	Flood damage reduction < 25%	2
Warren Lake and Dam Retrofit	1,769	94	5.31%	<25% of project community affected	1	47	100.00%	Reduced risk to >75% of structures in floodplain	10	47	\$ 475,115,473	\$ 196,878,883	59%	Flood damage reduction > 50%	6
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	19,188	18,858	98.28%	>75% of project community affected (by population)	10	230	3.61%	Reduced risk to <10% of structures in floodplain	1	1256	\$ 13,582,849	\$ 2,915,600	79%	Flood damage reduction > 75%	8

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply				Score 8: Social Vulnerability					
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	0	0.00%	Reduced risk for 0 structures in floodplain	0	16.216043		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.368		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	2	50.00%	Reduced risk for >50% of critical facilities in floodplain	6	37.32204		Life/injury risk percentage >30%	6	NA				No impact on water supply	0	0.276		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	0	0.00%	Reduced risk for 0 structures in floodplain	0	38.98574		Life/injury risk percentage >30%	6	NA				No impact on water supply	0	0.413		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Warren Lake and Dam Retrofit	0	0.00%	Reduced risk for 0 structures in floodplain	0	17.36826		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.555		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	0	0.00%	Reduced risk for 0 structures in floodplain	0	10.4064		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.513		SVI between 0.5-0.75 (moderate to high vulnerability)	7

Project Name	Score 9: Nature-Based Solution			Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M		
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	0		<25% of the project cost is nature-based	1	67 acre-ft of retention volume, recreation		Project does not deliver any wider benefits	0	\$ 938,000	2.84%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,686,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in only 1 wider benefit category	1	\$ 2,112,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Warren Lake and Dam Retrofit	100		<25% of the project cost is nature-based	1	Restoring dam provides marsh vegetation		Project does not deliver any wider benefits	0	\$ 326,000	5.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 576,000	6.10%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Warren Lake and Dam Retrofit		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Blalock Road Drainage Improvement Project	063000327	Blalock Road Drainage Improvement Project	San Jacinto	Infrastructure	2	Spring & Buffalo	No	\$ 19,324,000	0.00
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	063000328	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 190,218,000	0.94
Goose Creek Flood Risk Reduction	063000334	Goose Creek Flood Risk Reduction	San Jacinto	Comprehensive	2	Buffalo	No	\$ 46,494,000	0.48
Willow Creek Watershed Plan - M120 Detention/Preservation Site	063000339	Willow Creek Watershed Plan - M120 Detention/Preservation Site	San Jacinto	Detention Pond	2	Buffalo & West Fork - San Jacinto	No	\$ 64,900,000	0.68
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	063000344	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	San Jacinto	Detention Pond	2	Buffalo & West Galveston Bay	No	\$ 42,600,000	1.89

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Blalock Road Drainage Improvement Project	\$ 357,851.88	Unknown	Unknown	364	Planning	1.1917304		Baseline average flood depth > 1ft	6	Harris County;
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	\$ 94,682.93	Unknown	Unknown	3717	Planning	0.69626354		Baseline average flood depth > 0.5ft	4	Fort Bend County, Harris County; Sugar Land, Missouri City, Houston, Meadows Place, Stafford
Goose Creek Flood Risk Reduction	\$ 172,840.16	Unknown	Unknown	980	Planning	0.709678		Baseline average flood depth > 0.5ft	4	Harris County; Baytown
Willow Creek Watershed Plan - M120 Detention/Preservation Site	\$ 511,023.63	Unknown	Unknown	916	Planning	0.793329		Baseline average flood depth > 0.5ft	4	Harris County; Houston, Tomball
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	\$ 60,683.77	Unknown	Unknown	5661	Planning	0.97377458		Baseline average flood depth > 0.5ft	4	Harris County; Jersey Village, Houston

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Blalock Road Drainage Improvement Project	1,973	1,519	76.99%	>75% of project community affected (by population)	10	54	14.84%	Reduced risk to <50% of structures in floodplain	4	97	\$ 841,167,711	\$ 723,577,014	14%	Flood damage reduction < 25%	2
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	132,127	20,045	15.17%	<25% of project community affected	1	2009	54.05%	Reduced risk to <75% of structures in floodplain	7	1446	\$ 13,850,239	\$ 10,194,013	26%	Flood damage reduction > 25%	4
Goose Creek Flood Risk Reduction	52,309	5,318	10.17%	<25% of project community affected	1	269	27.45%	Reduced risk to <50% of structures in floodplain	4	383	\$ 105,385,864	\$ 105,226,349	0%	Flood damage reduction < 25%	2
Willow Creek Watershed Plan - M120 Detention/Preservation Site	63,771	2,230	3.50%	<25% of project community affected	1	127	13.86%	Reduced risk to <50% of structures in floodplain	4	260	\$ 39,707,168	\$ 18,366,707	54%	Flood damage reduction > 50%	6
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	340,696	29,631	8.70%	<25% of project community affected	1	702	12.40%	Reduced risk to <50% of structures in floodplain	4	2115	\$ 616,472,826	\$ 505,643,242	18%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Blalock Road Drainage Improvement Project	0	0.00%	Reduced risk for 0 structures in floodplain	0	44.211829		Life/injury risk percentage >40%	8	NA				No impact on water supply	0	0.276		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	29	50.88%	Reduced risk for >50% of critical facilities in floodplain	6	19.435573		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.652		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Goose Creek Flood Risk Reduction	9	26.47%	Reduced risk for >25% of critical facilities in floodplain	4	22.206472		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.629		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Willow Creek Watershed Plan - M120 Detention/Preservation Site	0	0.00%	Reduced risk for 0 structures in floodplain	0	20.51313		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.257		SVI between 0.25-0.5 (low to moderate vulnerability)	4
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	2	6.67%	Reduced risk for <25% of critical facilities in floodplain	2	21.533557		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.348		SVI between 0.25-0.5 (low to moderate vulnerability)	4

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Blalock Road Drainage Improvement Project	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,171,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 11,585,000	6.09%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Goose Creek Flood Risk Reduction	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 2,832,000	6.09%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Willow Creek Watershed Plan - M120 Detention/Preservation Site	0		<25% of the project cost is nature-based	1	Environmental		Project does not deliver any wider benefits	0	\$ 3,953,000	6.09%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 2,595,000	6.09%	Project requires regular, ongoing operation and maintenance; and/or O&M requirements are well defined (Regular);	7

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Blalock Road Drainage Improvement Project		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Goose Creek Flood Risk Reduction		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Willow Creek Watershed Plan - M120 Detention/Preservation Site		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	063000357	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	San Jacinto	Detention Pond	2	Buffalo & West Galveston Bay	No	\$ 550,000,000	0.28
Kingwood Diversion Ditch (G103-38-00)	063000360	Kingwood Diversion Ditch (G103-38-00)	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 62,938,000	0.03
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	063000389	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 8,375,000	1.47
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	063000396	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 10,371,000	0.24
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	063000397	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 31,317,000	0.48

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	\$ 195,451.31	Unknown	Varies	16233	Planning	2.336		Baseline average flood depth > 2ft	8	Houston City
Kingwood Diversion Ditch (G103-38-00)	\$ 1,284,449.00	Unknown	Unknown	79	Planning	0.812		Baseline average flood depth > 0.5ft	4	Houston City, Southside Place City, West University Place City
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	\$ 348,958.34	Unknown	Unknown	14652	Planning	0.6302		Baseline average flood depth > 0.5ft	4	Galveston City
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	\$ 80,395.35	Unknown	Unknown	3412	Planning	0.5022		Baseline average flood depth > 0.5ft	4	Houston City
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	\$ 109,500.00	Varies	Varies	289	Planning	0.513		Baseline average flood depth > 0.5ft	4	Houston City

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	123,326	49,086	39.80%	25%-50% of project community affected	4	2814	17.34%	Reduced risk to <50% of structures in floodplain	4	5947	\$ 1,042,565,045	\$ 715,413,804	31%	Flood damage reduction > 25%	4
Kingwood Diversion Ditch (G103-38-00)	17,146	3,414	19.91%	<25% of project community affected	1	49	62.03%	Reduced risk to <75% of structures in floodplain	7	21	\$ 21,986,470	\$ -	100%	Flood damage reduction >95%	10
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	27,748	36,556	131.74%	>75% of project community affected (by population)	10	24	0.16%	Reduced risk to <10% of structures in floodplain	1	5042	\$ 13,652,685	\$ -	100%	Flood damage reduction >95%	10
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	97,594	740	0.76%	<25% of project community affected	1	129	3.78%	Reduced risk to <10% of structures in floodplain	1	557	\$ 7,111,009	\$ 3,877,638	45%	Flood damage reduction > 25%	4
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	1,769	1,108	62.63%	50%-75% of project community affected	7	286	98.96%	Reduced risk to >75% of structures in floodplain	10	3	\$ 2,203,522	\$ 1,623,473	26%	Flood damage reduction > 25%	4

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	18	11.39%	Reduced risk for <25% of critical facilities in floodplain	2	13.008		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.276		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Kingwood Diversion Ditch (G103-38-00)	10	55.56%	Reduced risk for >50% of critical facilities in floodplain	6	8.436		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.199		SVI between 0.01-0.25 (low vulnerability)	1
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	1	0.65%	Reduced risk for <25% of critical facilities in floodplain	2	7.8906		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.417		SVI between 0.25-0.5 (low to moderate vulnerability)	4
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	0	0.00%	Reduced risk for 0 structures in floodplain	0	7.5066		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.750		SVI between 0.75-1.00 (high vulnerability)	10
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	0	0.00%	Reduced risk for 0 structures in floodplain	0	4.539		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.660		SVI between 0.5-0.75 (moderate to high vulnerability)	7

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in only 1 wider benefit category	1	\$ 91,000	0.02%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Kingwood Diversion Ditch (G103-38-00)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 3,833,000	6.09%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in 2 wider benefit categories	4	\$ 511,000	6.10%	Project requires regular, ongoing operation and maintenance; and/or O&M requirements are well defined (Regular);	7
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in only 1 wider benefit category	1	\$ 415,000	4.00%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	0		>75% of the project cost is nature-based	10	0		Project delivers benefits in only 1 wider benefit category	1	\$ 1,898,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Kingwood Diversion Ditch (G103-38-00)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02		Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a high level of environmental benefits (4+ categories)	10		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	063000399	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 14,939,000	0.96
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	063000400	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	San Jacinto	Comprehensive	2	Buffalo & West Galveston Bay	No	\$ 23,680,000	2.18
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	063000402	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	San Jacinto	Comprehensive	2	North Galveston Bay	No	\$ 30,360,000	0.46
Houston Fifth Area Flood Mitigation	063000417	Houston Fifth Area Flood Mitigation	San Jacinto	Infrastructure	2	North Galveston Bay	No	\$ 89,754,000	1.87

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	\$ 15,692.23	Varies	Varies	13531	Planning	0.3714		Baseline average flood depth < 0.5ft	2	Pearland City, Friendswood City, Houston City, Alvin City, League City, Webster City
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	\$ 72,861.54	Varies	0.01	326	Planning	0.82		Baseline average flood depth > 0.5ft	4	Houston City
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	\$ 80,105.55	Unknown	Unknown	2569	Planning	0.48		Baseline average flood depth<0.5ft	2	Pearland City, Friendswood City
Houston Fifth Area Flood Mitigation	\$ 68,724.35	Unknown	Unknown	2162	Planning	0.44		Baseline average flood depth<0.5ft	2	Houston City

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	41,693	10,940	26.24%	25%-50% of project community affected	4	952	7.04%	Reduced risk to <10% of structures in floodplain	1	0	\$ 3,377,515	\$ 3,010,983	11%	Flood damage reduction < 25%	2
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	70,937	1,083	1.53%	<25% of project community affected	1	325	99.69%	Reduced risk to >75% of structures in floodplain	10	1	\$ 280,379,747	\$ 259,121,687	8%	Flood damage reduction < 25%	2
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	140,332	8,805	6.27%	<25% of project community affected	1	379	14.75%	Reduced risk to <50% of structures in floodplain	4	1346	64031128	6804582	89%	Flood damage reduction > 75%	8
Houston Fifth Area Flood Mitigation	111,856	6,289	5.62%	<25% of project community affected	1	1306	60.41%	Reduced risk to <75% of structures in floodplain	7	634	27056803	1207748	96%	Flood damage reduction >95%	10

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	3	3.26%	Reduced risk for <25% of critical facilities in floodplain	2	7.1142		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.776		SVI between 0.75-1.00 (high vulnerability)	10
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	5	100.00%	Reduced risk for >95% of critical facilities in floodplain	10	8.46		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.731		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	8	23.53%	Reduced risk for >50% of critical facilities in floodplain	6	10.184		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.575		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Houston Fifth Area Flood Mitigation	16	84.21%	Reduced risk for >75% of critical facilities in floodplain	8	15.67		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.903		SVI between 0.75-1.00 (high vulnerability)	10

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 906,000	6.06%	Project requires regular, ongoing operation and maintenance; and/or O&M requirements are well defined (Regular);	7
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	0		<25% of the project cost is nature-based	1	0		Project delivers benefits in only 1 wider benefit category	1	\$ 1,421,000	6.00%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,849,000	6.09%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Houston Fifth Area Flood Mitigation	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 5,438,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00		Project has a typical number of administrative, regulatory and limitations / requirements	6		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Houston Fifth Area Flood Mitigation	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Houston Port Area Flood Mitigation	063000418	Houston Port Area Flood Mitigation	San Jacinto	Infrastructure	2	North Galveston Bay	No	\$ 99,022,000	0.30
Danubina Drainage Improvements	063000422	Danubina Drainage Improvements	San Jacinto	Infrastructure	2	Buffalo-San Jacinto	No	\$ 18,468,000	0.96
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	063000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	San Jacinto	Detention Pond	2	Spring, Buffalo-San Jacinto	No	\$ 65,800,000	0.03
Houston Kashmere Gardens Area Flood Mitigation	063000434	Houston Kashmere Gardens Area Flood Mitigation	San Jacinto	Infrastructure	2	Buffalo-San Jacinto	No	\$ 94,880,000	1.09

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Houston Port Area Flood Mitigation	\$ 184,055.77	Unknown	Unknown	765	Planning	0.79		Baseline average flood depth>0.5ft	4	Nassau Bay, La Porte, Houston City, Deer Park, Webster, Pasadena, Taylor Lake Village
Danubina Drainage Improvements	\$ 166,378.38	Unknown	Unknown	137	Planning	0.22		Baseline average flood depth<0.5ft	2	Hedwig Village, Piney Point Village, Bunker Hill Village
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	\$ 382,558.13	Unknown	Unknown	4952	Planning	1.66		Baseline average flood depth>1ft	6	Houston City, Spring
Houston Kashmere Gardens Area Flood Mitigation	\$ 207,614.88	Unknown	Unknown	1221	Planning	1.44		Baseline average flood depth>1ft	6	Houston City

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Houston Port Area Flood Mitigation	111,856	2,550	2.28%	<25% of project community affected	1	538	70.33%	Reduced risk to <75% of structures in floodplain	7	193	25133098	24258218	3%	Flood damage reduction < 25%	2
Danubina Drainage Improvements	34,625	428	1.24%	<25% of project community affected	1	111	81.02%	Reduced risk to >75% of structures in floodplain	10	22	331884	157628	53%	Flood damage reduction > 50%	6
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	41,693	16,927	40.60%	25%-50% of project community affected	4	172	3.47%	Reduced risk to <10% of structures in floodplain	1	3088	1055450539	934916589	11%	Flood damage reduction < 25%	2
Houston Kashmere Gardens Area Flood Mitigation	79,178	2,985	3.77%	<25% of project community affected	1	457	37.43%	Reduced risk to <50% of structures in floodplain	4	238	239727081	235212624	2%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Houston Port Area Flood Mitigation	0	0.00%	Reduced risk for 0 structures in floodplain	0	18.667		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.754		SVI between 0.75-1.00 (high vulnerability)	10
Danubina Drainage Improvements	0	0.00%	Reduced risk for 0 structures in floodplain	0	6.1		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.790		SVI between 0.75-1.00 (high vulnerability)	10
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	2	1.06%	Reduced risk for <25% of critical facilities in floodplain	2	35.959		Life/injury risk percentage >30%	6	NA				No impact on water supply	0	0.236		SVI between 0.01-0.25 (low vulnerability)	1
Houston Kashmere Gardens Area Flood Mitigation	1	20.00%	Reduced risk for <25% of critical facilities in floodplain	2	32.648		Life/injury risk percentage >30%	6	NA				No impact on water supply	0	0.890		SVI between 0.75-1.00 (high vulnerability)	10

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Houston Port Area Flood Mitigation	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 6,000,000	6.06%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Danubina Drainage Improvements	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,125,000	6.09%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	0		<25% of the project cost is nature-based	1	None		Project does not deliver any wider benefits	0	\$ 10,000	0.02%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Houston Kashmere Gardens Area Flood Mitigation	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 5,749,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Houston Port Area Flood Mitigation	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Danubina Drainage Improvements	roadway storm sewer	Project has few administrative, regulatory and implementation limitations / requirements	10		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Houston Kashmere Gardens Area Flood Mitigation	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Rivershire West - Grand Lake Creek Watershed	063000453	Rivershire West - Grand Lake Creek Watershed	San Jacinto	Channel	2	Buffalo-San Jacinto	No	\$ 30,000,000	0.11
Houston Sunnyside Area Flood Mitigation	063000468	Houston Sunnyside Area Flood Mitigation	San Jacinto	Infrastructure	2	Buffalo-San Jacinto	No	\$ 111,282,000	1.20
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	063000469	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	San Jacinto	Detention Pond	2	Buffalo-San Jacinto	No	\$ 35,250,000	0.49
Halls Bayou Drainage Project Bond C-01	063000470	Halls Bayou Drainage Project Bond C-01	San Jacinto	Comprehensive	2	West Fork San Jacinto	No	\$ 22,386,000	2.32
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	063000471	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	San Jacinto	Comprehensive	2	Buffalo-San Jacinto	No	\$ 38,230,000	0.18

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Rivershire West - Grand Lake Creek Watershed	\$ 300,000.00	Unknown	Unknown	690	Planning	0.34		Baseline average flood depth<0.5ft	2	Houston City
Houston Sunnyside Area Flood Mitigation	\$ 78,923.41	Unknown	Unknown	7876	Planning	1.10		Baseline average flood depth>1ft	6	Houston City
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	\$ 120,719.18	Unknown	Unknown	13748	Planning	1.22		Baseline average flood depth>1ft	6	Houston City
Halls Bayou Drainage Project Bond C-01	\$ 33,066.47	Unknown	Unknown	677	Planning	0.84		Baseline average flood depth>0.5ft	4	Conroe City
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	\$ 503,026.31	Unknown	Unknown	886	Planning	1.16		Baseline average flood depth>1ft	6	Houston City

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Rivershire West - Grand Lake Creek Watershed	2737	1,890	69.05%	50%-75% of project community affected	7	100	14.49%	Reduced risk to <50% of structures in floodplain	4	415	650903	606159	7%	Flood damage reduction < 25%	2
Houston Sunnyside Area Flood Mitigation	77,340	22,844	29.54%	25%-50% of project community affected	4	1410	17.90%	Reduced risk to <50% of structures in floodplain	4	2704	826119420	807491874	2%	Flood damage reduction < 25%	2
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	23330	6,243	26.76%	25%-50% of project community affected	4	292	2.12%	Reduced risk to <10% of structures in floodplain	1	3731	40855492	23523236	42%	Flood damage reduction > 25%	4
Halls Bayou Drainage Project Bond C-01	3231	1,593	49.30%	25%-50% of project community affected	4	677	100.00%	Reduced risk to >75% of structures in floodplain	10	0	25174785	2054814	92%	Flood damage reduction > 75%	8
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	31	4	12.90%	<25% of project community affected	1	76	8.58%	Reduced risk to <10% of structures in floodplain	1	276	440725187	405454185	8%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Rivershire West - Grand Lake Creek Watershed	1	10.00%	Reduced risk for <25% of critical facilities in floodplain	2	10.542		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.364		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Houston Sunnyside Area Flood Mitigation	20	20.62%	Reduced risk for <25% of critical facilities in floodplain	2	29.64		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.814		SVI between 0.75-1.00 (high vulnerability)	10
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	1	1.10%	Reduced risk for <25% of critical facilities in floodplain	2	10.063		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.781		SVI between 0.75-1.00 (high vulnerability)	10
Halls Bayou Drainage Project Bond C-01	0	0.00%	Reduced risk for 0 structures in floodplain	0	11.43		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.749		SVI between 0.5-0.75 (moderate to high vulnerability)	7
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	0	0.00%	Reduced risk for 0 structures in floodplain	0	27.79		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.874		SVI between 0.75-1.00 (high vulnerability)	10

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Rivershire West - Grand Lake Creek Watershed	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,601,000	5.34%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Houston Sunnyside Area Flood Mitigation	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 552,000	0.50%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,784,000	5.06%	Project requires regular, ongoing operation and maintenance; and/or O&M requirements are well defined (Regular);	7
Halls Bayou Drainage Project Bond C-01	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 711,000	3.18%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 1,053,000	2.75%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Rivershire West - Grand Lake Creek Watershed	expect USACE coordination	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Houston Sunnyside Area Flood Mitigation	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Halls Bayou Drainage Project Bond C-01	likely coordination with Conroe and MoCo	Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a low level of environmental benefits (1 category)	3		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	not mentioned in memorandum	Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	063000472	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	San Jacinto	Detention Pond	2	Buffalo-San Jacinto	No	\$ 11,440,000	0.18
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	063000473	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	San Jacinto	Detention Pond	2	Buffalo-San Jacinto	No	\$ 2,553,000	0.05
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	063000474	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	San Jacinto	Comprehensive	2	Buffalo-San Jacinto	No	\$ 295,268,000	0.54
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	063000475	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	San Jacinto	Comprehensive	2	Buffalo-San Jacinto	No	\$ 40,780,000	0.21
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	063000476	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	San Jacinto	Detention Pond	2	Buffalo-San Jacinto	No	\$ 345,329,984	0.39

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	\$ 193,898.31	Unknown	Unknown	2339	Planning	0.59		Baseline average flood depth>0.5ft	4	Houston City
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	\$ 510,600.00	Unknown	Unknown	54	Planning	0.80		Baseline average flood depth>0.5ft	4	Houston City
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	\$ 383,464.94	Unknown	Unknown	18615	Planning	0.60		Baseline average flood depth>0.5ft	4	Katy, Houston City
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	\$ 10,195,000.00	Unknown	Unknown	642	Planning	1.03		Baseline average flood depth>1ft	6	Houston City
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	\$ 232,076.63	Unknown	Unknown	18530	Planning	1.80		Baseline average flood depth>1ft	6	Houston City

Score 2: Severity - Community Need (% Population)						Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction					
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	81324	8,067	9.92%	<25% of project community affected	1	59	2.52%	Reduced risk to <10% of structures in floodplain	1	928	78226950	52593648	33%	Flood damage reduction > 25%	4
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	2,852	356	12.48%	<25% of project community affected	1	5	9.26%	Reduced risk to <10% of structures in floodplain	1	22	7872875	4350775	45%	Flood damage reduction > 25%	4
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	452,107	57,612	12.74%	<25% of project community affected	1	770	4.14%	Reduced risk to <10% of structures in floodplain	1	8990	16365990	14292973	13%	Flood damage reduction < 25%	2
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	6973	1,750	25.10%	25%-50% of project community affected	4	4	0.62%	Reduced risk to <10% of structures in floodplain	1	48	4445835	3710786	17%	Flood damage reduction < 25%	2
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	766,613	36,147	4.72%	<25% of project community affected	1	1488	8.03%	Reduced risk to <10% of structures in floodplain	1	6382	269437617	263308328	2%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Losses of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	0	0.00%	Reduced risk for 0 structures in floodplain	0	6.06		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.255		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	0	0.00%	Reduced risk for 0 structures in floodplain	0	18.22		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.195		SVI between 0.01-0.25 (low vulnerability)	1
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	0	0.00%	Reduced risk for 0 structures in floodplain	0	12.096		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.343		SVI between 0.25-0.5 (low to moderate vulnerability)	4
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	0	0.00%	Reduced risk for 0 structures in floodplain	0	12.16		Life/injury risk percentage <20%	2	NA				No impact on water supply	0	0.787		SVI between 0.75-1.00 (high vulnerability)	10
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	10	6.94%	Reduced risk for <25% of critical facilities in floodplain	2	54.05		Life/injury risk percentage >50%	10	NA				No impact on water supply	0	0.244		SVI between 0.01-0.25 (low vulnerability)	1

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 694,000	6.07%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 155,000	6.07%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 583,000	0.20%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 482,000	1.18%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	0		<25% of the project cost is nature-based	1	0		Project does not deliver any wider benefits	0	\$ 20,922,000	6.06%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4

Score 12: Admin, Regulatory Obstacles				Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility			
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	not mentioned in memorandum	Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	multiple entities including USACE; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 1 environmental category	6			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	not mentioned in memorandum	Project has a typical number of administrative, regulatory and limitations / requirements	6		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 2-3 environmental categories	3			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

General Project Data									
Project Name	FMP	Project Description:	Flood Region	Project Type	FIUP Project Category	Project Watershed	Rural Applicant	Project Cost	Benefit Cost Ratio
P118-E006 (Hardy West) (2018 Bond Project C-41)	063000477	P118-E006 (Hardy West) (2018 Bond Project C-41)	San Jacinto	Detention Pond	2	Spring	No	\$ 32,053,000	0.38
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	063000064	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	San Jacinto	Channel	2	San Jacinto River Basin	No	\$ 994,000,000	0.10

Project Name	General Project Data					Score 1: Severity - Pre-Project Average Depth of Flooding (100-year)				Score 2: Severity - Community Need (% Population)
	Cost per Structure Removed	Pre-Project Level-of-Service	Post-Project Level-of-Service	# of Structures in 1% Annual Chance FP (Pre-Project)	Project Status	Average Flood Depth (100yr)	Notes	Severity Ranking: Pre-Project Average Depth of Flooding (100-year)	Score 1	Communities Served by Project
P118-E006 (Hardy West) (2018 Bond Project C-41)	\$ 525,459.00	Unknown	Unknown	3665	Planning	0.98		Baseline average flood depth>0.5ft	4	Jersey Village, Waller City, Houston City, Tomball, Spring
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	\$ 606,837.63	Varies by Roadways	Varies by Roadways	4364	Planning	7.55600023		Baseline average flood depth > 3.5ft	10	Harris County; City of Houston

Score 2: Severity - Community Need (% Population)					Score 3: Flood Risk Reduction				Score 4: Flood Damage Reduction						
Project Name	Community Population Served	Flood Plain Population	Notes 2	Severity Ranking: Community Need (% Population)	Score 2	# of Structures Removed from 1% Annual Chance FP	Notes 3	Flood Risk Reduction	Score 3	# of Structures with Reduced 1% Annual Chance Flood Risk	Pre-Project Damage \$	Post-Project Damage \$	Notes 4	Flood Damage Reduction	Score 4
P118-E006 (Hardy West) (2018 Bond Project C-41)	70,937	9,997	14.09%	<25% of project community affected	1	61	1.66%	Reduced risk to <10% of structures in floodplain	1	737	549243416	447568492	19%	Flood damage reduction < 25%	2
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	5,351,588	13,053	0.24%	<25% of project community affected	1	1638	37.53%	Reduced risk to <50% of structures in floodplain	4	1209	\$ 83,365,544	\$ 78,052,424	6%	Flood damage reduction < 25%	2

Project Name	Score 5: Critical Facilities Damage Reduction				Score 6: Life and Safety				Score 7: Water Supply					Score 8: Social Vulnerability				
	# of Critical Facilities Removed from 1% Annual Chance FP	Notes 5	Reduction in Critical Facilities Flood Risk	Score 5	Adjusted Injury Risk (%)	Notes 6	Life and Safety Ranking (Injury/Loss of Life)	Score 6	Water Supply Benefit in Acre-Feet	SourceID	WMS_ID	Notes 7	Water Supply Yield Ranking	Score 7	SVI Score	Notes 8	Social Vulnerability Ranking	Score 8
P118-E006 (Hardy West) (2018 Bond Project C-41)	0	0.00%	Reduced risk for 0 structures in floodplain	0	20.876		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.717		SVI between 0.5-0.75 (moderate to high vulnerability)	7
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	10	20.00%	Reduced risk for <25% of critical facilities in floodplain	2	28.668001		Life/injury risk percentage >20%	4	NA				No impact on water supply	0	0.245		SVI between 0.01-0.25 (low vulnerability)	1

Project Name	Score 9: Nature-Based Solution				Score 10: Multiple Benefits		Score 10: Multiple Benefits		Score 11: O&M		Score 11: O&M	
	% Nature Based Solution by Cost	Notes 9	Nature-Based Solutions Ranking	Score 9	Multiple Benefits Description	Notes 10	Multiple Benefit Ranking	Score 10	O&M Cost (Annual)	Notes 11	Operations and Maintenance Ranking	Score 11
P118-E006 (Hardy West) (2018 Bond Project C-41)	0		<25% of the project cost is nature-based	1	Potential for recreational benefits		Project does not deliver any wider benefits	0	\$ 710,000	2.22%	Project will require extensive and/or specialist operations and maintenance; project O&M needs are uncertain; and/or high annual O&M cost > 5% of project (extensive);	1
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	0		<25% of the project cost is nature-based	1	None		Project does not deliver any wider benefits	0	\$ 50,815,000	5.11%	Project will require ongoing operation and maintenance outside of the owner's regular maintenance practices; long-term O&M requirements are undefined; and/or high annual O&M cost > 1% of project (high);	4

Score 12: Admin, Regulatory Obstacles			Score 13: Environmental Benefit			Score 14: Environmental Impact			Score 15: Mobility				
Project Name	Notes 12	Administrative, Regulatory and Other Obstacle Ranking	Score 12	Notes 13	Environmental Benefit Ranking	Score 13	Notes 14	Environmental Impact Ranking	Score 14	Traffic Count for LWC Project	Notes 15	Mobility Ranking	Score 15
P118-E006 (Hardy West) (2018 Bond Project C-41)	multiple entities; large project	Project has a high number of administrative, regulatory and limitations / requirements	2		Project will deliver a moderate level of environmental benefits (2-3 categories)	6		Project will have adverse environmental impacts in 4+ categories	0			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4
West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization		Project has a high number of administrative, regulatory and limitations / requirements	2		Project does not provide any environmental benefits	0		Project has no adverse environmental impacts	10			Project will protect some major access routes in floodplain and the majority (>50%) of emergency service access. Some major and many minor access routes will remain flooded, and emergency services access may be restricted in some areas	4

**Appendix 9-1:
Survey Template**

Appendix 9-1 – Survey Template

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because **<Insert Sponsor Agency Here>** is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
<Insert ID>	<Insert Type>	<Insert Name>	<Insert Description>	<Insert Cost>	Choose an item.	Choose an item.
<Insert ID>	<Insert Type>	<Insert Name>	<Insert Description>	<Insert Cost>	Choose an item.	Choose an item.

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Friday, June 17, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

**Appendix 9-2:
Table 1 - Survey Results**

Appendix 9-2: Survey Results Table

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Bellaire	FMS	City of Bellaire Roadway and Drainage Improvements	062000001	-	\$3,000,000.00	\$0.00	\$3,000,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	League City	FMP	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Lower Clear Creek Alternative 3	063000026	-	\$0.00	\$1,150,000,000.00	\$1,150,000,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FMP	Brays Bayou Watershed Mitigation Project CDBG MIT Application - Bintliff Ditch Improvements D133-00-00 & Sharptown	063000027	-	\$0.00	\$107,061,000.00	\$107,061,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FMP	Sims Bayou CDBG MIT Application - South Post Oak SWDB C147/C547; South Shaver SWDB C506-01-00-E003; Salt Water Ditch SWDB & Channel Improvements C108-00-00	063000037	-	\$0.00	\$99,653,000.00	\$99,653,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FMP	Halls Bayou Watershed Mitigation Application 1 - CDBG MIT	063000040	-	\$0.00	\$99,653,000.00	\$99,653,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FMP	White Oak Bayou CDBG MIT Application Projects: Kolbe Road Drainage Improvements, Barwood, E132-00-00, Tower Oaks, & Little White Oak	063000046	-	\$0.00	\$120,015,000.00	\$120,015,000.00	N/A	0%	100%	100%	YES
06	Pearland	FMP	Mary's Creek Lower, Middle, and Upper Segment	063000056	-	\$0.00	\$154,040,000.00	\$154,040,000.00	Other	0%	100%	100%	YES

Appendix 9-2: Survey Results Table

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Montgomery	FMP	Caney Creek - Channelization at IH-69 & Detention at FM1097 + SH105	063000058	-	\$0.00	\$469,000,000.00	\$469,000,000.00	N/A	0%	100%	100%	NO
06	San Jacinto	FMP	East Fork San Jacinto River - Winters Bayou Detention	063000059	-	\$0.00	\$134,000,000.00	\$134,000,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FMP	Lake Creek - Detention on Garretts Creek, Little Caney Creek, & Caney Creek	063000060	-	\$0.00	\$291,000,000.00	\$291,000,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FMP	Peach Creek - Channelization at IH-69 & Detention at SH105 + Walker Creek	063000061	-	\$0.00	\$810,000,000.00	\$810,000,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FMP	Spring Creek - Woodland (200-ft) and I-45 Channelization with detention at Birch Creek and Walnut Creek	063000062	-	\$0.00	\$393,000,000.00	\$393,000,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	West Fork San Jacinto River - Kingwood Benching & HW 242 Channelization	063000064	-	\$0.00	\$994,000,000.00	\$994,000,000.00	N/A	0%	100%	100%	YES
06	Bayou Vista	FMP	City of Bayou Vista Regulations and Permit Requirements Update	063000114	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	League City	FMP	City of League City Freeboard Ordinance	063000115	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	YES
06	Cleveland	FMP	City of Cleveland Floodplain Land-Use Ordinance	063000123	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO

Appendix 9-2: Survey Results Table

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Cleveland	FMP	City of Cleveland Flooplain Ordinance Update	063000124	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Gulf Coast Protection District	FMP	Galveston Bay Surge Protection Coastal Storm Risk Management	063000127	-	\$0.00	\$24,107,064,000.00	\$24,107,064,000.00	Other	35%	65%	100%	YES
06	Manvel	FMP	City of Manvel City Ordinance	063000129	-	\$103,000.00	\$0.00	\$103,000.00	N/A	0%	100%	100%	NO
06	Manvel	FMP	City of Manvel Land-Use Ordinance Adoption	063000130	-	\$103,000.00	\$0.00	\$103,000.00	N/A	0%	100%	100%	NO
06	Manvel	FMP	City of Manvel GIS Database Improvements	063000132	-	\$21,000.00	\$0.00	\$21,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FMP	Brazoria County NFIP Technical Material	063000136	-	\$21,000.00	\$0.00	\$21,000.00	N/A	0%	100%	100%	NO
06	Clear Lake Shores	FMP	City of Clear Lake Shores - Implement Stormwater Management Practices	063000139	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Clear Lake Shores	FMP	City of Clear Lake Shores - Improve Regulations and Permit Requirements	063000140	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Hitchcock	FMP	City of Hitchcock - Improve Regulations and Permit Requirements	063000142	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Jamaica Beach	FMP	City of Jamaica Beach - Improve Regulations and Permit Requirements	063000143	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Kemah	FMP	City of Kemah - Improve Regulations and Permit Requirements	063000144	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Kemah	FMP	City of Kemah - Update Floodplain Ordinance	063000145	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO

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RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	La Marque	FMP	City of La Marque - Improve Regulations and Permit Requirements	063000146	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Tiki Island	FMP	City of Tiki Island - Improve Regulations and Permit Requirements	063000148	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Alvin	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 1	61000001	-	\$110,000.00	\$0.00	\$110,000.00	Bonds/Other Financing	100%	0%	100%	YES
06	Alvin	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 2	61000002	-	\$90,000.00	\$0.00	\$90,000.00	Bonds/Other Financing	100%	0%	100%	YES
06	Arcola	FME	City of Arcola Regional Drainage Improvements	61000003	-	\$233,000.00	\$0.00	\$233,000.00	N/A	0%	100%	100%	NO
06	Stafford	FME	Missouri City Estates Drainage Improvements	61000005	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	City of Galveston	FME	City of Galveston Master Drainage Study	61000011	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Bellaire	FME	City of Bellaire Local Drainage System Asset Management	61000013	-	\$300,000.00	\$0.00	\$300,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	Bellaire	FME	City of Bellaire Regional Detention Facilities Development	61000014	-	\$1,000,000.00	\$0.00	\$1,000,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	Bellaire	FME	City of Bellaire Cypress Ditch Drainage Improvements	61000015	-	\$1,000,000.00	\$0.00	\$1,000,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	Bunker Hill Village	FME	City of Bunker Hill Drainage Projects	61000016	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Bunker Hill Village	FME	City of Bunker Hill Master Drainage and Stormwater Management Plan	61000017	-	\$170,000.00	\$0.00	\$170,000.00	N/A	0%	100%	100%	NO

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
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06	League City	FME	Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Dickinson Bayou Alternative 2	61000022	-	\$1,090,000.00	\$0.00	\$1,090,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Williamsburg Subdivision Drainage Assessment	61000024	-	\$1,260,000.00	\$0.00	\$1,260,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Preliminary Drainage & Infrastructure Improvements Happy Hide A Way Subdivison	61000025	-	\$110,000.00	\$0.00	\$110,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Bridgewater Village & Enclave at Bridgewater Drainage Analysis	61000026	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Lake Shadows Subdivision Drainage Improvements	61000027	-	\$280,000.00	\$0.00	\$280,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Gum Gully Rd, W Stroker Rd, Wigwam Ln, and Related Infrastructure Drainage Improvements	61000028	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Spanish Cove Subdivision Drainage Assessment	61000029	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	YES
06	Shoreacres	FME	Shoreacres Drainage Assessment	61000031	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Willow Creek - Overflow Flooding between Burlington Northern Railroad and Hufsmith-Kohrville Rd. Analysis	61000032	-	\$590,000.00	\$0.00	\$590,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Galveston Bay Watershed Plan- Analysis of PA07 100-year Conveyance Project	61000034	-	\$400,000.00	\$0.00	\$400,000.00	N/A	0%	100%	100%	YES

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									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FME	Galveston Bay Watershed Plan- Analysis of PA08 100-year Conveyance Project	61000035	-	\$800,000.00	\$0.00	\$800,000.00	N/A	0%	100%	100%	YES
06	Alvin	FME	City of Alvin Flood Gauges	61000037	-	\$50,000.00	\$0.00	\$50,000.00	Other	50%	50%	100%	YES
06	Brazoria	FME	Brazoria County Costal River Flood Extent Analysis	61000038	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Alvin	FME	City of Alvin Master Drainage Plan	61000039	-	\$100,000.00	\$0.00	\$100,000.00	Entity/ Budget Funds	50%	50%	100%	YES
06	Alvin	FME	City of Alvin Open Space Preservation	61000040	-	\$500,000.00	\$0.00	\$500,000.00	Other	0%	100%	100%	YES
06	Manvel	FME	City of Manvel SH. 6 Drainage Improvements	61000041	-	\$3,000,000.00	\$0.00	\$3,000,000.00	N/A	0%	100%	100%	NO
06	Chambers	FME	Chambers County Dam and Levee Failure Inundation Map Update	61000042	-	\$25,000.00	\$0.00	\$25,000.00	N/A	0%	100%	100%	NO
06	Alvin	FME	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	61000043	-	\$200,000.00	\$0.00	\$200,000.00	Entity/ Budget Funds	25%	75%	100%	YES
06	Chambers	FME	Chambers County Property Protection	61000044	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Manvel	FME	City of Manvel Flora St. Drainage Improvements	61000045	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FME	Brazoria County Drainage Improvements	61000046	-	\$350,000.00	\$0.00	\$350,000.00	N/A	0%	100%	100%	NO
06	Manvel	FME	City of Manvel Various Drainage Improvements	61000047	-	\$460,000.00	\$0.00	\$460,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FME	Brazoria County Property Protection	61000048	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Hillcrest Village	FME	City of Hillcrest Village Drainage Improvements	61000049	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	NO

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06	Brazoria Drainage District 4	FME	West Chocolate Bayou (CR 383 Ditch)	61000050	-	\$253,000.00	\$0.00	\$253,000.00	N/A	0%	100%	100%	YES
06	Brazoria Drainage District 4	FME	West Fork Chocolate (Cold River Ranch Ditch)	61000051	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Brazoria Drainage District 4	FME	West Fork Chocolate Bayou	61000052	-	\$2,072,000.00	\$0.00	\$2,072,000.00	N/A	0%	100%	100%	YES
06	Brazoria Drainage District 4	FME	East Chocolate Bayou (E103-00-00)	61000053	-	\$48,000.00	\$0.00	\$48,000.00	N/A	0%	100%	100%	YES
06	Brazoria Drainage District 4	FME	Cannon Ditch Segment 2	61000054	-	\$932,000.00	\$0.00	\$932,000.00	N/A	0%	100%	100%	YES
06	Galveston	FME	City of Galveston Coastal Road Elevation	61000055	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Pearland	FME	Hickory Slough (Upper Segment)	61000057	-	\$1,136,000.00	\$0.00	\$1,136,000.00	Other	0%	100%	100%	YES
06	Manvel	FME	City of Manvel Gates Loop Subdivision Drainage Improvement	61000059	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Pearland	FME	Hickory Slough Middle Segment	61000060	-	\$864,000.00	\$0.00	\$864,000.00	Other	0%	100%	100%	YES
06	Brazoria Drainage District 4	FME	Mustang Bayou Middle Segment	61000064	-	\$1,212,000.00	\$0.00	\$1,212,000.00	N/A	0%	100%	100%	YES
06	Pearland	FME	Hickory Slough Lower Segment	61000065	-	\$1,048,000.00	\$0.00	\$1,048,000.00	Other	0%	100%	100%	YES

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06	Brazoria Drainage District 4	FME	Mustang Bayou Upper Segment	61000066	-	\$2,040,000.00	\$0.00	\$2,040,000.00	N/A	0%	100%	100%	YES
06	Alvin	FME	City of Alvin Dickinson Bayou Watershed Study	61000067	-	\$500,000.00	\$0.00	\$500,000.00	Entity/ Budget Funds	25%	75%	100%	YES
06	Galveston	FME	City of Galveston Shoreline Protection	61000069	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Pearland	FME	Cowart Creek Segment 16	61000070	-	\$40,000.00	\$0.00	\$40,000.00	Other	0%	100%	100%	YES
06	Galveston	FME	City of Galveston Dune Restoration	61000071	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Hillcrest Village	FME	City of Hillcrest Village Engineering Survey	61000072	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	NO
06	Chambers	FME	Dredging Cedar Bayou	61000076	-	\$7,070,000.00	\$0.00	\$7,070,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FME	Dam and Levee Failure Inundation Map Update	61000078	-	\$2,200,000.00	\$0.00	\$2,200,000.00	N/A	0%	100%	100%	NO
06	Tiki Island	FME	Replace the Tiki Drive bridge with improved, hardened bridge to withstand storm surge and debris.	61000080	-	\$220,000.00	\$0.00	\$220,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	Stream and River Flood Program	61000082	-	\$20,000.00	\$0.00	\$20,000.00	General Revenue	50%	50%	100%	YES
06	Liberty	FME	Liberty County Drainage Projects	61000083	-	\$2,000,000.00	\$0.00	\$2,000,000.00	N/A	0%	100%	100%	NO
06	Bayou Vista	FME	City of Bayou Vista Master Drainage Plan	61000084	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	Cane Island Branch- Alt 2	61000085	-	\$3,270,000.00	\$0.00	\$3,270,000.00	General Revenue	10%	90%	100%	YES
06	New Waverly	FME	Property Protection, Structural Project	61000086	-	\$2,500,000.00	\$0.00	\$2,500,000.00	N/A	0%	100%	100%	NO
06	La Marque	FME	City of La Marque - East Side Storm water detention	61000087	-	\$360,000.00	\$0.00	\$360,000.00	N/A	0%	100%	100%	NO

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06	League City	FME	City of League City - Kansas Street Drainage	61000088	-	\$580,000.00	\$0.00	\$580,000.00	N/A	0%	100%	100%	YES
06	Friendswood	FME	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	61000089	-	\$140,000.00	\$0.00	\$140,000.00	N/A	0%	100%	100%	YES
06	Santa Fe	FME	City of Sante Fe - Storm Water Detention & Widening Drainage System and Cuvlerts Study	61000094	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	NO
06	League City	FME	League City - Stormwater Drainage Improvement- Interurban & Newport ditch	61000097	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	YES
06	Galveston	FME	Study of Texas City Hurricane Flood Protection Project	61000098	-	\$1,590,000.00	\$0.00	\$1,590,000.00	N/A	0%	100%	100%	NO
06	Plum Grove	FME	Raise Road Surfaces in City of Plum Grove	61000102	-	\$35,000.00	\$0.00	\$35,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Highland Terrace Drainage	61000103	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	YES
06	Friendswood	FME	Sunmeadow Drainage Improvements Phase 2	61000104	-	\$160,000.00	\$0.00	\$160,000.00	N/A	0%	100%	100%	YES
06	Galveston	FME	Storm water detention ponds & Widening of drainage systems feasibility study	61000107	-	\$11,000,000.00	\$0.00	\$11,000,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Stormwater Drainage Improvement- Nottingham ditch	61000115	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	YES
06	New Waverly	FME	Remedy Data Deficiency in City of New Waverly	61000116	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO

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06	Bayou Vista	FME	City of Bayou Vista - Drainage Improvement Program	61000117	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Stormwater Drainage Improvement- Bradshaw Rd	61000118	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	YES
06	League City	FME	Shellside Drainage Improvements	61000119	-	\$580,000.00	\$0.00	\$580,000.00	N/A	0%	100%	100%	YES
06	Grimes	FME	Evaluation of Culvert Enlargement and Bridge Elevation in Grimes County	61000120	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	NO
06	Kemah	FME	Widen Drainage Systems and Culverts in City of Kemah	61000121	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Clear Lake Shores	FME	Widen Drainage Systems and Culverts in City of Clear Lake Shores	61000122	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Arcola	FME	Replace Existing Culverts in City of Arcola	61000124	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	NO
06	Liberty	FME	Update Liberty County Floodplain Maps	61000125	-	\$1,243,000.00	\$0.00	\$1,243,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	Waller County Flood Damage Prevention Planning	61000129	-	\$1,160,000.00	\$0.00	\$1,160,000.00	General Revenue	25%	75%	100%	YES
06	Walker	FME	Hostetter and Gourd Creek Bridges Elevation Evaluation	61000130	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	NO
06	Kemah	FME	Implementation Study of Storm Sewer System Re-engineering in City of Kemah	61000131	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO

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06	Galveston County	FME	Corp of Engineers study of the Galveston County Water Reservoir Dam and Levee system	61000134	-	\$1,590,000.00	\$0.00	\$1,590,000.00	N/A	0%	100%	100%	NO
06	Liberty	FME	Recanalization Feasibility Study	61000135	-	\$486,000.00	\$0.00	\$486,000.00	N/A	0%	100%	100%	NO
06	North Cleveland	FME	Elevate Existing Bridge - East Fork San Jacinto River	61000140	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Walker	FME	Southwood Forest Subdivision and Forgotten Forest Subdivision Evaluation	61000141	-	\$110,000.00	\$0.00	\$110,000.00	N/A	0%	100%	100%	NO
06	Friendswood	FME	Shadowbend Drainage Improvements Phase 2	61000142	-	\$950,000.00	\$0.00	\$950,000.00	Entity/ Budget Funds	0%	100%	100%	YES
06	Todd Mission	FME	City of Todd Mission Reduction of Floodplain Area Roads and Drainage Upgrade	61000143	-	\$220,000.00	\$0.00	\$220,000.00	N/A	0%	100%	100%	NO
06	Jamaica Beach	FME	Jamica Cove Rd. Survey	61000145	-	\$140,000.00	\$0.00	\$140,000.00	N/A	0%	100%	100%	NO
06	La Marque	FME	Implement Drainage Improvements in City of La Marque	61000147	-	\$360,000.00	\$0.00	\$360,000.00	N/A	0%	100%	100%	NO
06	Liberty	FME	Liberty County Culvert Replacement Project	61000148	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	La Marque	FME	Evaluatin of Increase Height of Existing Levee Wall System in City of La Marque	61000149	-	\$810,000.00	\$0.00	\$810,000.00	N/A	0%	100%	100%	NO
06	Arcola	FME	Evaluation of Reinforcement of Critical Facilities in the City of Arcola	61000150	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	NO

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06	Galveston	FME	Evaluation of Mitigation Alternatives for Repetitive Flood Claims Properties in Galveston County	61000151	-	\$11,000,000.00	\$0.00	\$11,000,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	Cane Island Branch- Alt 1	61000152	-	\$180,000.00	\$0.00	\$180,000.00	General Revenue	25%	75%	100%	YES
06	Cleveland	FME	Downtown Cleveland Drainage Line Installation	61000153	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Walker	FME	Flood Gates Evaluation at Walker County Annex #2	61000156	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Bayou Vista	FME	City of Bayou Vista Canal Dredging Study	61000158	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	NO
06	Liberty	FME	Liberty County Regional Flood Drainage Plan	61000160	-	\$486,000.00	\$0.00	\$486,000.00	N/A	0%	100%	100%	NO
06	North Cleveland	FME	City of North Cleveland Engineering Study	61000161	-	\$400,000.00	\$0.00	\$400,000.00	N/A	0%	100%	100%	NO
06	North Cleveland	FME	Elevation of Bridge Road in City of North Cleveland	61000162	-	\$120,000.00	\$0.00	\$120,000.00	N/A	0%	100%	100%	NO
06	Galveston	FME	Galveston County Drainage System Improvement Study	61000163	-	\$1,590,000.00	\$0.00	\$1,590,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FME	Storm Water Detention Ponds Evaluation in the City of Santa Fe	61000164	-	\$380,000.00	\$0.00	\$380,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FME	Drainage System Analysis for City of Santa Fe	61000165	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	NO
06	Stafford	FME	City of Stafford Run Creek Detention Pond Construction	61000166	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	NO
06	Cleveland	FME	City of Cleveland Drainage Improvements	61000167	-	\$410,000.00	\$0.00	\$410,000.00	N/A	0%	100%	100%	NO

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06	Montgomery	FME	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County Project	61000168	-	\$1,160,000.00	\$0.00	\$1,160,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FME	San Jacinto Watershed and Tributary Barrier and Flood Mitigation - West County Project	61000169	-	\$1,110,000.00	\$0.00	\$1,110,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project Near-Term Planning Project: PA03	61000170	-	\$600,000.00	\$0.00	\$600,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project- Near-term Planning Project: PA04	61000171	-	\$210,000.00	\$0.00	\$210,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project - Near-term planning project: PA05	61000172	-	\$170,000.00	\$0.00	\$170,000.00	N/A	0%	100%	100%	YES
06	Liberty	FME	Update Liberty County FIRMs to Include Bench Marks	61000173	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Carpenters Planing Study N110-00-00 Diversion to P103-00/P103-03	61000174	-	\$1,200,000.00	\$0.00	\$1,200,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Regional Implementation of Large Diameter Deep Tunnel Systems for Storm Water Management	61000175	-	\$20,000,000.00	\$0.00	\$20,000,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Lower Greens Feasibility Study	61000176	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Addicks Reservoir Watershed Study	61000177	-	\$670,000.00	\$0.00	\$670,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Barker Reservoir Watershed Study	61000178	-	\$620,000.00	\$0.00	\$620,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Buffalo Bayou Watershed Study	61000179	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Brays Bayou Watershed Study	61000180	-	\$620,000.00	\$0.00	\$620,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Cypress Creek Watershed Study	61000181	-	\$1,230,000.00	\$0.00	\$1,230,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Hunting Bayou Watershed Study	61000182	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Sims Bayou Watershed Study	61000183	-	\$470,000.00	\$0.00	\$470,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	White Oak Bayou Watershed Study	61000184	-	\$800,000.00	\$0.00	\$800,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Upper Greens Bayou Watershed Study	61000185	-	\$980,000.00	\$0.00	\$980,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Brays Bayou - Poor Farm Ditch	61000186	-	\$690,000.00	\$0.00	\$690,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Brays Bayou Restore Channel Conveyance Capacity Along D115-00-00	61000187	-	\$1,020,000.00	\$0.00	\$1,020,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Brays Bayou - Partnership Project with Fort Bend County on Right-of-Way Acquisition, Design, and Construction of General Drainage Improvements along Clodine Ditch	61000188	-	\$1,020,000.00	\$0.00	\$1,020,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Creek - Construction of a Reservoir along Spring Creek	61000191	-	\$870,000.00	\$0.00	\$870,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	White Oak Bayou - Turkey Gully E106-00-00	61000194	-	\$1,330,000.00	\$0.00	\$1,330,000.00	N/A	0%	100%	100%	YES
06	Houston	FME	White Oak Bayou - General Drainage Improvements along E105-00-00	61000196	-	\$120,000.00	\$0.00	\$120,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Harris County Wide - Investigation of City of Houston Properties for Conversion to Stormwater Detention Basins	61000197	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Little Cypress Creek - L109-00-00	61000201	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Little Cypress Creek - L113-00-00	61000202	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Little Cypress Creek - L103-00-00	61000203	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Greens Bayou - P130-05-02	61000204	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Greens Bayou - P142-00-00	61000205	-	\$250,000.00	\$0.00	\$250,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	San Jacinto River - G103-46-00	61000207	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	San Jacinto River - G103-33-04	61000208	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	San Jacinto River - G103-36-00	61000209	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	YES
06	Conroe	FME	City of Conroe Riverine Study and Mapping Improvements	61000213	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	April Sound Subdivision Evaluation	61000214	-	\$1,700,000.00	\$0.00	\$1,700,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	City of Conroe Downtown Master Drainage Plan	61000215	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Greens Bayou - P103-00-00	61000216	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Barker - T101-00-00	61000217	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Barker - T103-00-00	61000218	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Buffalo Bayou - W158-00-00	61000219	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Buffalo Bayou - W130-00-00	61000220	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Buffalo Bayou - W163-00-00	61000221	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	YES
06	Arcola	FME	City of Arcola Master Drainage Plan	61000222	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	NO
06	Baytown	FME	City of Baytown Master Drainage Plan	61000223	-	\$520,000.00	\$0.00	\$520,000.00	N/A	0%	100%	100%	NO
06	Beach City	FME	City of Beach City Master Drainage Plan	61000224	-	\$240,000.00	\$0.00	\$240,000.00	N/A	0%	100%	100%	NO
06	Bellaire	FME	City of Bellaire Master Drainage Plan	61000225	-	\$1,500,000.00	\$0.00	\$1,500,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	Brookside Village	FME	City of Brookside Village Master Drainage Plan	61000226	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Bunker Hill Village	FME	City of Bunker Hill Village Master Drainage Plan	61000227	-	\$170,000.00	\$0.00	\$170,000.00	N/A	0%	100%	100%	NO
06	Clear Lake Shores	FME	City of Clear Lake Shores Master Drainage Plan	61000228	-	\$140,000.00	\$0.00	\$140,000.00	N/A	0%	100%	100%	NO
06	Cleveland	FME	City of Cleveland Master Drainage Plan	61000229	-	\$400,000.00	\$0.00	\$400,000.00	N/A	0%	100%	100%	NO
06	Coldspring	FME	City of Coldspring Master Drainage Plan	61000230	-	\$180,000.00	\$0.00	\$180,000.00	N/A	0%	100%	100%	NO
06	Cut and Shoot	FME	City of Cut and Shoot Master Drainage Plan	61000232	-	\$210,000.00	\$0.00	\$210,000.00	N/A	0%	100%	100%	NO

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06	Dayton	FME	City of Dayton Master Drainage Plan	61000233	-	\$108,000.00	\$0.00	\$108,000.00	N/A	0%	100%	100%	NO
06	Deer Park	FME	City of Deer Park Master Drainage Plan	61000234	-	\$320,000.00	\$0.00	\$320,000.00	N/A	0%	100%	100%	NO
06	Dickinson	FME	City of Dickinson Master Drainage Plan	61000235	-	\$320,000.00	\$0.00	\$320,000.00	N/A	0%	100%	100%	NO
06	El Lago	FME	City of El Lago Master Drainage Plan	61000236	-	\$140,000.00	\$0.00	\$140,000.00	N/A	0%	100%	100%	NO
06	Friendswood	FME	City of Friendswood Master Drainage Plan	61000237	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	YES
06	Fulshear	FME	City of Fulshear Master Drainage Plan	61000238	-	\$340,000.00	\$0.00	\$340,000.00	N/A	0%	100%	100%	NO
06	Galena Park	FME	City of Galena Park Master Drainage Plan	61000239	-	\$250,000.00	\$0.00	\$250,000.00	N/A	0%	100%	100%	NO
06	Hedwig Village	FME	City of Hedwig Village Master Drainage Plan	61000241	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	NO
06	Hillcrest Village	FME	City of Hillcrest Master Drainage Plan	61000242	-	\$130,000.00	\$0.00	\$130,000.00	N/A	0%	100%	100%	NO
06	Hilshire Village	FME	City of Hilshire Village Master Drainage Plan	61000243	-	\$110,000.00	\$0.00	\$110,000.00	N/A	0%	100%	100%	NO
06	Hitchcock	FME	City of Hitchcock Master Drainage Plan	61000244	-	\$720,000.00	\$0.00	\$720,000.00	N/A	0%	100%	100%	NO
06	Humble	FME	City of Humble Master Drainage Plan	61000246	-	\$320,000.00	\$0.00	\$320,000.00	N/A	0%	100%	100%	NO
06	Hunters Creek Village	FME	City of Hunters Creek Village Master Drainage Plan	61000247	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Huntsville	FME	City of Huntsville Master Drainage Plan	61000248	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Iowa Colony	FME	City of Iowa Colony Master Drainage Plan	61000249	-	\$310,000.00	\$0.00	\$310,000.00	N/A	0%	100%	100%	NO
06	Jacinto City	FME	City of Jacinto City Master Drainage Plan	61000250	-	\$180,000.00	\$0.00	\$180,000.00	N/A	0%	100%	100%	NO

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06	Jamaica Beach	FME	City of Jamaica Beach Master Drainage Plan	61000251	-	\$140,000.00	\$0.00	\$140,000.00	N/A	0%	100%	100%	NO
06	Katy	FME	City of Katy Master Drainage Plan	61000253	-	\$360,000.00	\$0.00	\$360,000.00	N/A	0%	100%	100%	NO
06	Kemah	FME	City of Kemah Master Drainage Plan	61000254	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	La Marque	FME	City of La Marque Master Drainage Plan	61000255	-	\$360,000.00	\$0.00	\$360,000.00	N/A	0%	100%	100%	NO
06	La Porte	FME	City of La Porte Master Drainage Plan	61000256	-	\$410,000.00	\$0.00	\$410,000.00	N/A	0%	100%	100%	NO
06	League City	FME	City of League City Master Drainage Plan	61000257	-	\$580,000.00	\$0.00	\$580,000.00	N/A	0%	100%	100%	YES
06	Liverpool	FME	City of Liverpool Master Drainage Plan	61000258	-	\$160,000.00	\$0.00	\$160,000.00	N/A	0%	100%	100%	NO
06	Magnolia	FME	City of Magnolia Master Drainage Plan	61000259	-	\$210,000.00	\$0.00	\$210,000.00	N/A	0%	100%	100%	NO
06	Manvel	FME	City of Manvel Master Drainage Plan	61000260	-	\$460,000.00	\$0.00	\$460,000.00	N/A	0%	100%	100%	NO
06	Meadows Place	FME	City of Meadows Place Master Drainage Plan	61000261	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	NO
06	Missouri City	FME	City of Missouri City Master Drainage Plan	61000262	-	\$470,000.00	\$0.00	\$470,000.00	N/A	0%	100%	100%	NO
06	Mont Belvieu	FME	City of Mont Belvieu Master Drainage Plan	61000263	-	\$390,000.00	\$0.00	\$390,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FME	City of Montgomery Master Drainage Plan	61000264	-	\$250,000.00	\$0.00	\$250,000.00	N/A	0%	100%	100%	NO
06	Morgan's Point	FME	City of Morgan's Point Master Drainage Plan	61000265	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Nassau Bay	FME	City of Nassau Bay Master Drainage Plan	61000266	-	\$180,000.00	\$0.00	\$180,000.00	N/A	0%	100%	100%	NO
06	New Waverly	FME	City of New Waverly Master Drainage Plan	61000267	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO

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06	North Cleveland	FME	City of North Cleveland Master Drainage Plan	61000268	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Oak Ridge North	FME	City of Oak Ridge North Master Drainage Plan	61000269	-	\$170,000.00	\$0.00	\$170,000.00	N/A	0%	100%	100%	NO
06	Panorama Village	FME	City of Panorama Village Master Drainage Plan	61000270	-	\$160,000.00	\$0.00	\$160,000.00	N/A	0%	100%	100%	NO
06	Pasadena	FME	City of Pasadena Master Drainage Plan	61000271	-	\$550,000.00	\$0.00	\$550,000.00	N/A	0%	100%	100%	NO
06	Patton Village	FME	City of Patton Village Master Drainage Plan	61000272	-	\$200,000.00	\$0.00	\$200,000.00	N/A	0%	100%	100%	NO
06	Piney Point Village	FME	City of Piney Point Village Master Drainage Plan	61000274	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Plantersville	FME	City of Plantersville Master Drainage Plan	61000275	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Plum Grove	FME	City of Plum Grove Master Drainage Plan	61000276	-	\$230,000.00	\$0.00	\$230,000.00	N/A	0%	100%	100%	NO
06	Prairie View	FME	City of Prairie View Master Drainage Plan	61000277	-	\$290,000.00	\$0.00	\$290,000.00	N/A	0%	100%	100%	NO
06	Roman Forest	FME	City of Roman Forest Master Drainage Plan	61000278	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FME	City of Santa Fe Master Drainage Plan	61000279	-	\$380,000.00	\$0.00	\$380,000.00	N/A	0%	100%	100%	NO
06	Seabrook	FME	City of Seabrook Master Drainage Plan	61000280	-	\$420,000.00	\$0.00	\$420,000.00	N/A	0%	100%	100%	NO
06	Shenandoah	FME	City of Shenandoah Master Drainage Plan	61000281	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Shoreacres	FME	City of Shoreacres Master Drainage Plan	61000282	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	NO
06	South Houston	FME	City of South Houston Master Drainage Plan	61000283	-	\$210,000.00	\$0.00	\$210,000.00	N/A	0%	100%	100%	NO
06	Southside Place	FME	City of Southside Place Master Drainage Plan	61000284	-	\$110,000.00	\$0.00	\$110,000.00	N/A	0%	100%	100%	NO

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RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Splendor	FME	City of Splendor Master Drainage Plan	61000285	-	\$210,000.00	\$0.00	\$210,000.00	N/A	0%	100%	100%	NO
06	Spring Valley Village	FME	City of Spring Valley Village Master Drainage Plan	61000286	-	\$160,000.00	\$0.00	\$160,000.00	N/A	0%	100%	100%	NO
06	Stafford	FME	City of Stafford Master Drainage Plan	61000287	-	\$280,000.00	\$0.00	\$280,000.00	N/A	0%	100%	100%	NO
06	Stagecoach	FME	City of Stagecoach Master Drainage Plan	61000288	-	\$160,000.00	\$0.00	\$160,000.00	N/A	0%	100%	100%	NO
06	Sugar Land	FME	City of Sugar Land Master Drainage Plan	61000289	-	\$540,000.00	\$0.00	\$540,000.00	N/A	0%	100%	100%	NO
06	Taylor Lake Village	FME	City of Taylor Lake Village Master Drainage Plan	61000290	-	\$170,000.00	\$0.00	\$170,000.00	N/A	0%	100%	100%	NO
06	Texas City	FME	City of Texas City Master Drainage Plan	61000291	-	\$950,000.00	\$0.00	\$950,000.00	N/A	0%	100%	100%	NO
06	Tiki Island	FME	City of Tiki Island Master Drainage Plan	61000292	-	\$180,000.00	\$0.00	\$180,000.00	N/A	0%	100%	100%	NO
06	Todd Mission	FME	City of Todd Mission Master Drainage Plan	61000293	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Tomball	FME	City of Tomball Master Drainage Plan	61000294	-	\$350,000.00	\$0.00	\$350,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	City of Waller Master Drainage Plan	61000295	-	\$100,000.00	\$0.00	\$100,000.00	General Revenue	0%	100%	100%	YES
06	Webster	FME	City of Webster Master Drainage Plan	61000296	-	\$280,000.00	\$0.00	\$280,000.00	N/A	0%	100%	100%	YES
06	City of West University Place	FME	City of West University Place Master Drainage Plan	61000297	-	\$190,000.00	\$0.00	\$190,000.00	Internal CIP Dollars	20%	80%	100%	YES

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
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06	Willis	FME	City of Willis Master Drainage Plan	61000298	-	\$250,000.00	\$0.00	\$250,000.00	N/A	0%	100%	100%	NO
06	Woodbranch Village	FME	City of Woodbranch Master Drainage Plan	61000299	-	\$190,000.00	\$0.00	\$190,000.00	N/A	0%	100%	100%	NO
06	Woodloch	FME	Town of Woodloch Master Drainage Plan	61000300	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FME	Brazoria Flood Mapping Updates	61000301	-	\$6,440,000.00	\$0.00	\$6,440,000.00	N/A	0%	100%	100%	NO
06	Chambers	FME	Chambers Flood Mapping Updates	61000302	-	\$631,000.00	\$0.00	\$631,000.00	N/A	0%	100%	100%	NO
06	Galveston	FME	Galveston Flood Mapping Updates	61000304	-	\$2,960,000.00	\$0.00	\$2,960,000.00	N/A	0%	100%	100%	NO
06	Grimes	FME	Grimes Flood Mapping Updates	61000305	-	\$908,000.00	\$0.00	\$908,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FME	Montgomery Flood Mapping Updates	61000307	-	\$4,700,000.00	\$0.00	\$4,700,000.00	N/A	0%	100%	100%	NO
06	San Jacinto	FME	San Jacinto Flood Mapping Updates	61000308	-	\$1,419,000.00	\$0.00	\$1,419,000.00	N/A	0%	100%	100%	NO
06	Walker	FME	Walker Flood Mapping Updates	61000309	-	\$1,747,000.00	\$0.00	\$1,747,000.00	N/A	0%	100%	100%	NO
06	Waller	FME	Waller Flood Mapping Updates	61000310	-	\$2,300,000.00	\$0.00	\$2,300,000.00	N/A	10%	90%	100%	YES
06	Harris	FME	Arcadian Gardens Subdivision Drainage Improvements	61000317	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
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06	Fort Bend County Drainage District	FME	Fort Bend County Willow Fork Channel Improvements	61000318	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Jackson Bayou Watershed Planning Project- Immediate: First Street Crossing Mitigation	61000322	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	B106-WP01 & WP02 for Armand Bayou Watershed	61000323	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Willow Fork Drainage District	FME	Barker Reservoir Flood Risk Reduction and Park Project	61000324	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	I100-WP01 Vince Bayou Watershed Planning Project Recommendation	61000326	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	I100-WP06 for Vince Bayou Watershed Planning Project	61000329	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	I100-WP10 for Vince Bayou Watershed Planning Project	61000330	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	I100-WP07 for Vince Bayou Watershed Planning Project	61000331	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	I100-WP11 for Vince Bayou Watershed Planning Project	61000332	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Carpenters Planing Study Cloverleaf Community Flood Risk Reduction Project (Phase 1 and 2)	61000333	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Spring Creek Watershed Plan- Recommended Alternative for PA-02: J131-01-00 Storm Sewer improvements & channel modification	61000337	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Willow Creek Watershed Plan- Immediate: Selective Clearing BNRR to Mouth	61000338	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Willow Creek Watershed Plan- FM2920 Stormwater Detention Basin	61000340	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Willow Creek Watershed Plan- Kuykendahl Basin	61000341	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Willow Creek Watershed Plan- M121 Basin Stormwater Detention Basin	61000342	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Galveston Bay Watershed Plan- PA01 (N+6) Channel & Crossing Improvements	61000343	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project- Project Phase I	61000345	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project- Project Phase II	61000346	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Spring Gully Watershed Planning Project- Project Phase III	61000347	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F216-00-00	61000348	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Galveston Bay - Right-of-Way Acquisition, Design and Construction of General Drainage Improvements Along F101-06-00	61000349	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Galveston Bay Watershed Plan- PA04 (S+4) Crossing Improvements	61000350	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	TC Jester Detention Basin	61000353	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou Drainage Project Bond C-26 & C-27	61000354	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou Drainage Project Bond C-01	61000355	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Westador Stormwater Detention Basin	61000356	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Little Cypress Creek - Management, Right-of-Way Acquisition, Design and Construction of the Little Cypress Creek Frontier Program	61000358	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FME	G103-80-03.1B (Taylor Gully)	61000361	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Goose Creek O119-00-00-P001 (Alt 2A1)	61000362	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Goose Creek O119-00-00-P001 (Alt 2A3)	61000363	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Sims Bayou C116 Storm Sewer Improvement (C116-00-00-P001) From Mykawa Road to Telephone Road	61000364	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Greens Bayou - Planning, Right-of-Way Acquisition, Design and Construction of Channel Conveyance Improvements along P138-01-01	61000366	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from SH 146 to Galveston Bay along Cedar Bayou (Q100-00-00)	61000367	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Q130 Channel improvements from Crosby Eastgate Rd. to Q100 Confluence	61000368	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Property Acquisition in segment from IH-10 to SH 146 along Cedar Bayou (Q100-00-00)	61000369	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Tomball	FME	City of Tomball Drainage Improvements	61000373	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Q128 Channel Improvements from US 90 to Q100 Confluence	61000374	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Channel improvements from US 90 to FM 1942	61000376	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Cedar Bayou Flood Risk Reduction Study - Channel improvements upstream of FM 1960	61000379	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Houston	FME	Houston Braeburn Glen Area Flood Mitigation	61000384	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FME	Roman Forest Boulevard Bridge Elevation Project	61000388	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-08-00	61000394	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FME	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-09-00	61000395	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	61000397	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	61000399	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou - Design and Construction of a Stormwater Detention Basin in Brock Park	61000403	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Halls Bayou - Planning, Right-Of-Way, Design and Construction of Halls Bayou Flood Risk Management Project	61000404	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Hunting Bayou Wallisville Outfall (H103-00-00) - Gellhorn Drive	61000405	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Hunting Bayou Wallisville Outfall (H103-00-00) - Denver Harbor	61000406	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FME	Luce Bayou (Z100-00-00-P026) Bypass Channel	61000407	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Luce Bayou (Z100-00-00-P026) Channelization	61000412	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Luce Bayou (Z100-00-00-P026) Upstream Detention	61000413	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Manvel	FME	City of Manvel Rogers Rd. Drainage Improvements	61000415	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Houston	FME	Houston Huntington Village Area Flood Mitigation	61000419	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Clear Creek - Friendswood Detention Basin Near FM 528 in Friendswood	61000420	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FME	Clear Creek - Hughes Stormwater Detention (SWD) Basin	61000421	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Baytown	FME	North Alexander Drainage Improvements	61000423	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Clear Creek - Rehabilitation of the A214-00-00 channel to Restore Channel Conveyance Capacity	61000425	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Montgomery	FME	Sawdust Road Bridge Elevation Project	61000426	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Houston	FME	Spring Shadows South	61000433	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Southside Place	FME	City of Southside Place - Auden Street Drainage Improvement Project	61000435	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO

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06	Galveston	FME	Unincorporated Areas of Bacliff and San Leon Roadside Ditches & Driveway Culverts Improvements	61000436	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Evaluation of Dredging of Channels that Exit Into Lake Houston	61000437	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Greens Bayou, Jackson Bayou, White Oak Bayou, Cypress Creek and San Jacinto River Areas Subdivision Drainage Mitigation Project	61000438	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Harris	FME	Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project	61000439	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Brazoria	FME	Brazoria County Camp Mohawk County Park Development	61000440	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FME	Addicks Reservoir - Design and Construction of a Bridge Replacement for Greenhouse Road at South Mayde Creek	61000441	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Conroe	FME	Forest Estates - Live Oak Creek Watershed Artesian Forest 1 - Artesian Creek Watershed	61000442	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Artesian Forest 1 - Artesian Creek Watershed	61000443	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO

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06	Conroe	FME	Artesian Forest East - Artesian Creek Watershed	61000444	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Lilly - Alligator Creek Watershed	61000445	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	East Fork North - Alligator Creek Watershed	61000446	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	East Fork South - Alligator Creek Watershed "	61000447	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	West Branch - Alligator Creek Watershed	61000448	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Oak Hollow - Alligator Creek Watershed	61000449	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Cable - Alligator Creek Watershed	61000450	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	South Frazier - Grand Lake Creek Watershed	61000451	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Rivershire East - Grand Lake Creek Watershed	61000452	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Baretta - Grand Lake Creek Watershed	61000454	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Valley - Stewarts Creek Watershed	61000455	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Hunnington - Stewarts Creek Watershed	61000456	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Avenue M - Stewarts Creek Watershed	61000457	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	South 3rd - Stewarts Creek Watershed	61000458	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Toby - Little Caney Creek Watershed	61000459	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Southern Oak - Little Laney Creek	61000460	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO

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06	Conroe	FME	Rush Creek Lake - Lake Conroe Estates Watershed	61000461	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Conroe	FME	Longmire and SH-105 - Live Oak Creek Watershed	61000462	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Montgomery	FME	Southeast Montgomery County Master Drainage Plan	61000463	-	\$1,170,000.00	\$0.00	\$1,170,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Carpenters Bayou (West Acres, Shadowglen & Old River Terrace Neighborhood)	61000464	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Houston	FME	Catalina	61000465	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Houston	FME	Ledge Street Area Drainage and Paving	61000470	-	\$30,000.00	\$0.00	\$30,000.00	Entity Budget/Funds	100%	0%	100%	YES
06	Houston	FME	Scott Street (OST to Brays Bayou) Area Drainage and Paving Improvements (remove southland from it)	61000471	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES
06	Houston	FME	Freeway Manor North Area Drainage and Paving Improvements FMN, FMS, GWT and C106-10	61000472	-	\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	Richmond Plaza (South) Drainage and Paving Improvements (Chimney Rock -Burnett/Bayland Park)	61000473	-	\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	Southland Area Drainage and Paving Improvements	61000474	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES

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06	Houston	FME	Westbury Area Drainage and Paving Improvements Subproject 1 (+30%) -include entire Westbury	61000475	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES
06	Houston	FME	Chateau Forest Area Drainage and Paving (30%) Goforth	61000476	-	\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	Drainage and Paving Improvements for Cottage Grove East - Phase II	61000477	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES
06	Houston	FME	TIRZ17 Memorial City Area Detention Basin	61000478		\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	P518 Aldine West field	61000479		\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	Spring Shadows North	61000480		\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	Kirkwood/Nottingham	61000481	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES
06	Houston	FME	Gellhorn	61000482	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Houston	FME	Turkey Gully	61000483	-	\$30,000.00	\$0.00	\$30,000.00	N/A	100%	0%	100%	YES
06	Houston	FME	D-133 Sharpstown	61000484	-	\$30,000.00	\$0.00	\$30,000.00	N/A	50%	50%	100%	YES
06	Bellaire	FME	City of Bellaire Newcastle/Kilmarnock Area Drainage Improvements	61000485	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	YES
06	Bellaire	FME	City of Bellaire Loop 610 Area Drainage Improvements	61000486	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	YES
06	Bellaire	FME	City of Bellaire South Rice Area Drainage Improvements	61000487	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	YES
06	Bellaire	FME	City of Bellaire Chimney Rock Area Drainage Improvements	61000488	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Huntsville	FME	City of Huntsville - Elkins Lake Watershed	61000489	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES

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06	Huntsville	FME	City of Huntsville - Spring Lake Watershed	61000490	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES
06	Montgomery County MUD 83	FME	Montgomery County MUDs 83,84 - Alternative 4 and 6B PFR	61000491	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	YES
06	Montgomery County MUD 83, Montgomery County MUD 84	FME	Montgomery County MUDs 83,84 - Storm Sewer Improvements	61000494	-	\$650,000.00	\$0.00	\$650,000.00	N/A	0%	100%	100%	YES
06	Liberty County Water Control District #1	FME	Preliminary Engineering Design of Detention Pond & Conveyance System for Buddy Grass and Railroad Ditches	61000495	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	YES
06	Liberty County Water Control District #1	FME	Feasibility Study - Convert Enderli Reservoir into a Detention Pond	61000496	-	\$4,000,000.00	\$0.00	\$4,000,000.00	N/A	0%	100%	100%	YES
06	Liberty County Water Control District #1	FME	Preliminary Engineering Design of Detention Pond at intersection of HWY90 & Railroad near Cedar Bayou	61000497	-	\$3,000,000.00	\$0.00	\$3,000,000.00	N/A	0%	100%	100%	YES
06	Liberty County Water Control District #1	FME	Preliminary Engineering Design of Detention Pond at Gier Road & Cedar Bayou	61000498	-	\$3,500,000.00	\$0.00	\$3,500,000.00	N/A	0%	100%	100%	YES
06	Liberty County Water Control District #1	FME	Preliminary Engineering Design of Detention Pond at Hatcherville & Cedar Bayou Farm Ditches	61000499	-	\$3,500,000.00	\$0.00	\$3,500,000.00	N/A	0%	100%	100%	YES
06	Webster	FME	Green Acres Neighborhood Drainage Improvement Study	61000500	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO

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06	Harris	FME	Addicks Reservoir - Neighborhood Future Floodplain Analysis	61000501	-	\$31,022,000.00	\$0.00	\$31,022,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Armand Bayou - Neighborhood Future Floodplain Analysis	61000502	-	\$44,078,000.00	\$0.00	\$44,078,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Barker Reservoir - Neighborhood Future Floodplain Analysis	61000503	-	\$25,956,000.00	\$0.00	\$25,956,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Brays Bayou - Neighborhood Future Floodplain Analysis	61000504	-	\$66,091,000.00	\$0.00	\$66,091,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Buffalo Bayou - Neighborhood Future Floodplain Analysis	61000505	-	\$5,644,000.00	\$0.00	\$5,644,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Carpenters Bayou - Neighborhood Future Floodplain Analysis	61000506	-	\$32,227,000.00	\$0.00	\$32,227,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Cedar Bayou - Neighborhood Future Floodplain Analysis	61000507	-	\$5,340,000.00	\$0.00	\$5,340,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Clear Creek - Neighborhood Future Floodplain Analysis	61000508	-	\$75,233,000.00	\$0.00	\$75,233,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Greens Bayou - Neighborhood Future Floodplain Analysis	61000509	-	\$92,079,000.00	\$0.00	\$92,079,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Little Cypress Creek - Neighborhood Future Floodplain Analysis	61000510	-	\$13,778,000.00	\$0.00	\$13,778,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Luce Bayou - Neighborhood Future Floodplain Analysis	61000511	-	\$2,612,000.00	\$0.00	\$2,612,000.00	N/A	0%	100%	100%	NO

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06	Harris	FME	San Jacinto & Galveston Bay - Neighborhood Future Floodplain	61000512	-	\$15,316,000.00	\$0.00	\$15,316,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	San Jacinto River - Neighborhood Future Floodplain Analysis	61000513	-	\$52,736,000.00	\$0.00	\$52,736,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Sims Bayou - Neighborhood Future Floodplain Analysis	61000514	-	\$1,599,000.00	\$0.00	\$1,599,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Spring Creek - Neighborhood Future Floodplain Analysis	61000515	-	\$7,219,000.00	\$0.00	\$7,219,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Willow Creek - Neighborhood Future Floodplain Analysis	61000516	-	\$17,179,000.00	\$0.00	\$17,179,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Greens Bayou Local Drainage Study	61000517	-	\$21,649,000.00	\$0.00	\$21,649,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Carpenters Bayou Local Drainage Study	61000518	-	\$1,088,000.00	\$0.00	\$1,088,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	San Jacinto River Watershed Local Drainage Study	61000519	-	\$3,288,000.00	\$0.00	\$3,288,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Clear Creek Local Drainage Study	61000520	-	\$3,008,000.00	\$0.00	\$3,008,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Cypress Creek Local Drainage Study	61000521	-	\$10,768,000.00	\$0.00	\$10,768,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Cypress Creek - Neighborhood Future Floodplain Analysis	61000522	-	\$67,763,000.00	\$0.00	\$67,763,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	White Oak Bayou - Neighborhood Future Floodplain Analysis	61000523	-	\$46,676,000.00	\$0.00	\$46,676,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	White Oak Bayou Local Drainage Study	61000524	-	\$4,897,000.00	\$0.00	\$4,897,000.00	N/A	0%	100%	100%	NO

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06	Harris	FME	Spring Gully & Goose Creek Local Drainage Study	61000525	-	\$3,591,000.00	\$0.00	\$3,591,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Cedar Bayou Local Drainage Study	61000526	-	\$905,000.00	\$0.00	\$905,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Addicks Reservoir Local Drainage Study	61000527	-	\$7,151,000.00	\$0.00	\$7,151,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Little Cypress Creek Local Drainage Study	61000528	-	\$568,000.00	\$0.00	\$568,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Buffalo Baypu Local Drainage Study	61000529	-	\$195,000.00	\$0.00	\$195,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Spring Gully & Goose Creek - Neighborhood Future Floodplain Analysis	61000530	-	\$14,929,000.00	\$0.00	\$14,929,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Willow Creek Local Drainage Study	61000531	-	\$972,000.00	\$0.00	\$972,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Luce Bayou Local Drainage Study	61000532	-	\$328,000.00	\$0.00	\$328,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Barker Reservoir Local Drainage Study	61000533	-	\$2,369,000.00	\$0.00	\$2,369,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Brays Bayou Local Drainage Study	61000534	-	\$334,000.00	\$0.00	\$334,000.00	N/A	0%	100%	100%	NO
06	Baytown	FME	Briarwood Area Drainage Improvements	61000535	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Baytown	FME	North Alexander	61000536	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Baytown	FME	Rollingbrook Garth and Main	61000537	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Baytown	FME	West Baytown Phase 2	61000538	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	NO
06	Harris	FME	Spring Creek Local Drainage Study	61000539	-	\$343,000.00	\$0.00	\$343,000.00	N/A	0%	100%	100%	NO

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06	Galveston	FME	South Shore Drainage Pump Station	61000540	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	YES
06	Galveston	FME	51st Street Drainage Basin Pump Station Project	61000541	-	\$9,000,000.00	\$0.00	\$9,000,000.00	N/A	0%	100%	100%	YES
06	League City	FME	Kansas Street Drainage Project, Phase 2	61000542	-	\$580,000.00	\$0.00	\$580,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Gum Bayou Drainage Improvements	61000543	-	\$1,200,000.00	\$0.00	\$1,200,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Magnolia Creek & Cedar Gully Drainage Improvement Project	61000544	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Highland Terrace and Wesley Drive Drainage Improvements	61000545	-	\$600,000.00	\$0.00	\$600,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Benson Bayou Regional Mitigation Conveyance & Detention Pond Project	61000546	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Interurban Watershed Drainage Improvement Project	61000547	-	\$700,000.00	\$0.00	\$700,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Patton Subdivision Drainage Improvements Project	61000548	-	\$700,000.00	\$0.00	\$700,000.00	N/A	0%	100%	100%	NO

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06	League City	FME	St. Charles Street Drainage Improvements Project	61000551	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Columbia Memorial Parkway Drainage Improvement Project	61000552	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	League City	FME	Magnolia Creek & Cedar Gully Clearing and Desnagging Project	61000553	-	\$150,000.00	\$0.00	\$150,000.00	N/A	0%	100%	100%	NO
06	Webster	FME	Texas Avenue-Magnolia-MedicalCenterBlvd-Hwy3 Drainage Improvement Study	61000554	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Harris County MUD 365	FME	HCMUD365 Cole Crossing Stormwater Detention and Water Quality Improvement Project	61000555	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Brookshire Katy Drainage District	FME	Brookshire-Katy Drainage District Watershed Study	61000556	-	\$ 500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Houston	FME	Drainage and Paving Improvements for Cottage Grove East - Phase I	61000557	-	\$30,000.00	\$0.00	\$30,000.00	N/A	0%	100%	100%	YES
06	Bellaire	FMS	City of Bellaire Non-Structural Flood Risk Reduction Strategies	062000002	-	\$50,000.00	\$0.00	\$50,000.00	Other	25%	75%	100%	YES

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06	Bellaire	FMS	City of Bellaire Drainage Requirements and Flood Damage Prevention Ordinance	062000003	-	\$50,000.00	\$0.00	\$50,000.00	General Revenue	25%	75%	100%	YES
06	Bellaire	FMS	City of Bellaire Surrounding Area Drainage Improvements	062000004	-	\$100,000.00	\$0.00	\$100,000.00	General Revenue	25%	75%	100%	YES
06	Bellaire	FMS	City of Bellaire Floodwater Public Awareness Initiatives	062000005	-	\$50,000.00	\$0.00	\$50,000.00	General Revenue	25%	75%	100%	YES
06	Bunker Hill Village	FMS	City of Bunker Hill Community Outreach	062000006	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Bunker Hill Village	FMS	City of Bunker Hill Dam/Levee Maintenance and Monitoring Plan	062000007	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Harris	FMS	Harris County Hazard Mitigation Action AW-3	062000008	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	YES
06	Harris	FMS	Harris County Hazard Mitigation Action AW-4	062000009	-	\$300,000.00	\$0.00	\$300,000.00	N/A	0%	100%	100%	YES
06	Harris	FMS	Harris County Hazard Mitigation Action AW-5	062000010	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	YES
06	Harris	FMS	Harris County Hazard Mitigation Action AW-6	062000011	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	YES
06	Alvin	FMS	City of Alvin CRS Application	062000012	-	\$25,000.00	\$0.00	\$25,000.00	Entity Budget/Funds	100%	0%	100%	YES
06	Brazoria	FMS	Brazoria County Increased Cost of Compliance Education	062000013	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMS	City of Galveston NFIP CRS Rating	062000014	-	\$10,000.00	\$0.00	\$10,000.00	N/A	0%	100%	100%	NO

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06	Galveston	FMS	Develop Applicable Plans and Studies to Address Hazard Mitigation in Galveston County	062000015	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Waller	FMS	Waller County Elevation Certificate Requirement	062000016	-	\$50,000.00	\$0.00	\$50,000.00	General Revenue	50%	50%	100%	YES
06	Kemah	FMS	Develop Program to Optimize Operation of the Flood Gates at Second Cut Outlet in City of Kemah	062000017	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMS	Galveston County-wide Education and Outreach	062000018	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	New Waverly	FMS	Public Information and Awareness in City of New Waverly	062000019	-	\$10,000.00	\$0.00	\$10,000.00	N/A	0%	100%	100%	NO
06	Arcola	FMS	Promotion of Flood Insurance in City of Arcola	062000020	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Todd Mission	FMS	City of Todd Mission Public Outreach & Education	062000021	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Arcola	FMS	Increase Public Awareness of Hazards in City of Arcola	062000022	-	\$50,000.00	\$0.00	\$50,000.00	N/A	0%	100%	100%	NO
06	Liberty	FMS	Expand Development of Emergency Notification System in Liberty County	062000023	-	\$10,000.00	\$0.00	\$10,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMS	Galveston County Stormproof/Retrofit Infrastructure	062000025	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	NO
06	Bayou Vista	FMS	Implement Stormwater Management Plan in City of Bayou Vista	062000026	-	\$25,000.00	\$0.00	\$25,000.00	N/A	0%	100%	100%	NO

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06	Walker	FMS	Walker County Public Information and Awareness	062000027	-	\$122,720.00	\$0.00	\$122,720.00	N/A	0%	100%	100%	NO
06	Bayou Vista	FMS	City of Bayou Vista Severe Weather Warning Systems	062000028	-	\$35,000.00	\$0.00	\$35,000.00	N/A	0%	100%	100%	NO
06	Coastal Prairie Conservancy	FMS	Natural Infrastructure Project Barker Reservoir Headwater Acquisition and Restoration	062000029	-	\$33,000,000.00	\$0.00	\$33,000,000.00	N/A	0%	100%	100%	NO
06	Coastal Prairie Conservancy	FMS	Natural Infrastructure Project Mound Creek Conservation	062000030	-	\$32,000,000.00	\$0.00	\$32,000,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FMS	Brazoria County Structure Elevation	062000031	-	\$60,000,000.00	\$0.00	\$60,000,000.00	N/A	0%	100%	100%	NO
06	Brazoria	FMS	Brazoria County Non-structural Mitigation / Land Preservation	062000032	-	\$65,000,000.00	\$0.00	\$65,000,000.00	N/A	0%	100%	100%	NO
06	Bellaire	FMS	City of Bellaire Flood Rescue Plan	062000033	-	\$200,000.00	\$0.00	\$200,000.00	General Revenue	25%	75%	100%	YES
06	Brazoria	FMS	Brazoria County Dam and Levee Failure Outreach and Education campaign	062000034	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Grimes	FMS	Amending Grimes County Floodplain Ordinance	062000035	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Grimes	FMS	Grimes County Property Acquisition	062000036	-	\$95,000.00	\$0.00	\$95,000.00	N/A	0%	100%	100%	NO
06	Grimes	FMS	Property Acquisition Down-Stream of High Hazard Dams in Grimes County	062000037	-	\$1,000,000.00	\$0.00	\$1,000,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FMS	City of Santa Fe Stormproof/retrofit New Critical Infrastructure	062000039	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	NO

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06	Waller	FMS	Waller County Drainage System Maintenance	062000040	-	\$2,500,000.00	\$0.00	\$2,500,000.00	General Revenue	50%	50%	100%	YES
06	Waller	FMS	Waller County Flood Hazard Public Information Campaign	062000041	-	\$20,000.00	\$0.00	\$20,000.00	General Revenue	50%	50%	100%	YES
06	Waller	FMS	Waller County Freeboard Requirement Update	062000042	-	\$100,000.00	\$0.00	\$100,000.00	General Revenue	100%	0%	100%	YES
06	Walker	FMS	Install Outdoor Early warning System in Walker County	062000043	-	\$850,000.00	\$0.00	\$850,000.00	N/A	0%	100%	100%	NO
06	Walker	FMS	Walker County Public Hazard Information and Awareness Campaign	062000044	-	\$20,000.00	\$0.00	\$20,000.00	N/A	0%	100%	100%	NO
06	Walker	FMS	Retrofit and Harden the Emergency Operations Center Serving Walker County	062000045	-	\$4,000,000.00	\$0.00	\$4,000,000.00	N/A	0%	100%	100%	NO
06	Cleveland	FMS	City of Cleveland Drainage Maintenance	062000046	-	\$5,000,000.00	\$0.00	\$5,000,000.00	N/A	0%	100%	100%	NO
06	Hillcrest Village	FMS	City of Hilcrest Village Land Acquisition	062000047	-	\$250,000.00	\$0.00	\$250,000.00	N/A	0%	100%	100%	NO
06	Manvel	FMS	City of Manvel Property Acquisition	062000048	-	\$1,700,000.00	\$0.00	\$1,700,000.00	N/A	0%	100%	100%	NO
06	Bellaire	FMS	City of Bellaire Flood Early Warning System Improvements	062000049	-	\$150,000.00	\$0.00	\$150,000.00	General Revenue	25%	75%	100%	YES
06	Bayou Vista	FMS	City of Bayou Vista Management Practices for Securing Windblown Debris in Canals.	062000050	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Friendswood	FMS	Maintain Drainage Systems and Culverts in City of Friendswood	062000051	-	\$1,400,000.00	\$0.00	\$1,400,000.00	N/A	0%	100%	100%	YES

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06	League City	FMS	City of League City Property Acquisition and Relocation	062000052	-	\$300,000,000.00	\$0.00	\$300,000,000.00	N/A	0%	100%	100%	YES
06	Santa Fe	FMS	City of Santa Fe - Harden Existing Critical Facilities and Infrastructure	062000053	-	\$2,000,000.00	\$0.00	\$2,000,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FMS	City of Santa Fe - Drainge System Maintenance	062000054	-	\$5,000.00	\$0.00	\$5,000.00	N/A	0%	100%	100%	NO
06	Liberty	FMS	Liberty County Floodplain Acquistion	062000055	-	\$750,000.00	\$0.00	\$750,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMS	City of Galveston Floodplain Manager Increase	062000056	-	\$10,000.00	\$0.00	\$10,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMS	City of Galveston SRL and RL Property Mitigation	062000057	-	\$80,000.00	\$0.00	\$80,000.00	N/A	0%	100%	100%	NO
06	Bunker Hill Village	FMS	City of Bunker Hill Village Non-Structural Mitigation Projects	062000058	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Todd Mission	FMS	Hardening of Critical Facilities in City of Mission Todd	062000059	-	\$25,000.00	\$0.00	\$25,000.00	N/A	0%	100%	100%	NO
06	Harris	FMS	Harris County Mitigation Buyout and Relocation Program	062000060	-	\$75,000,000.00	\$0.00	\$75,000,000.00	N/A	0%	100%	100%	YES
06	Alvin	FMS	City of Alvin Full Time Floodplain Administrator	062000061	-	\$100,000.00	\$0.00	\$100,000.00	Entity Budget/Funds	100%	0%	100%	YES
06	Pearland	FMS	City of Pearland SRL and RL Property Acquisition	062000062	-	\$100,000.00	\$0.00	\$100,000.00	Other	0%	100%	100%	YES
06	Harris County Flood Control District	FMS	Harris County Wide Voluntary Buyout Program	062000063	-	\$500,000,000.00	\$0.00	\$500,000,000.00	N/A	0%	100%	100%	YES

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06	Galveston	FMS	Mitigate Repetitive Flood Claim & Severe Repetitve Loss Properties in Galveston County	062000064	-	\$30,000,000.00	\$0.00	\$30,000,000.00	N/A	0%	100%	100%	NO
06	Liberty	FMS	Liberty County Regional Coordination	062000065	-	\$500,000.00	\$0.00	\$500,000.00	N/A	0%	100%	100%	NO
06	Coastal Prairie Conservancy	FMS	Warren Ranch Preservation	062000066	-	\$0.00	\$50,000,000.00	\$50,000,000.00	N/A	0%	100%	100%	NO
06	Coastal Prairie Conservancy	FMS	Cypress Creek Headwater Acquisition and PReservation	062000067	-	\$18,000,000.00	\$0.00	\$18,000,000.00	N/A	0%	100%	100%	NO
06	Santa Fe	FMP	City of Santa Fe - Improve Regulations and Permit Requirements	063000149	-	\$109,000.00	\$0.00	\$109,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMP	City of Galveston Land Use Mapping	063000152	-	\$11,000.00	\$0.00	\$11,000.00	N/A	0%	100%	100%	NO
06	Galveston	FMP	City of Galveston Freeboard Requirement Enforcement	063000153	-	\$100,000.00	\$0.00	\$100,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Greens CDBG MIT Applicatoin Projects, including the following local drainage improvements: Castlewood, Fountainview, Humble Rd Place, North Forest, and the larger channelization and detention along Greens Bayou known as the Mid-Reach project.	063000167	-	\$0.00	\$120,284,000.00	\$120,284,000.00	N/A	0%	100%	100%	YES

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06	Harris County Flood Control District	FMP	Poor Farm Ditch (D111-00-00) Conveyance Improvements between Bellaire and University Boulevards	063000186	-	\$0.00	\$19,917,000.00	\$19,917,000.00	N/A	0%	100%	100%	NO
06	Alvin	FMP	City of Alvin Unified Development Ordinance	063000201	-	\$100,000.00	\$0.00	\$100,000.00	Entity/ Budget Funds	100%	0%	100%	YES
06	Galveston	FMP	37th Street Improvement Project	063000311	-	\$0.00	\$75,000,000.00	\$75,000,000.00	Other	25%	75%	100%	YES
06	Harris County Flood Control District	FMP	Design and Construction of Dinner Creek Stormwater Detention Basin (2018 Bond project C-38)	063000313	-	\$0.00	\$33,081,000.00	\$33,081,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Addicks Reservoir - Right-Of-Way Acquisition, Design and Construction of Channel Conveyance Improvements, Bypass Channel, and Detention for South Mayde Creek	063000315	-	\$0.00	\$27,818,000.00	\$27,818,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Design and Construction of the B509-03-00 and B509-04-00 Stormwater Detention Basins (2018 Bond Project C-07)	063000319	-	\$0.00	\$34,850,000.00	\$34,850,000.00	N/A	0%	100%	100%	NO
06	Coastal Prairie Conservancy	FMP	Warren Lake and Dam Retrofit	063000320	-	\$0.00	\$6,439,000.00	\$6,439,000.00	N/A	0%	100%	100%	NO

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						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FMP	Right-Of-Way, Design and Construction of Conveyance Improvements along Armand Bayou B500-04-00-E004 and Channel Conveyance Improvements along B115-00-00 (2018 Bond Project F-99)	063000321	-	\$0.00	\$9,450,000.00	\$9,450,000.00	N/A	0%	100%	100%	NO
06	Piney Point Village	FMP	Blalock Road Drainage Improvement Project	063000327	-	\$0.00	\$19,324,000.00	\$19,324,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Brays Bayou - Keegans Bayou (D118-00-00) Flood Risk Reduction	063000328	-	\$0.00	\$190,218,000.00	\$190,218,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Goose Creek Flood Risk Reduction	063000334	-	\$0.00	\$46,494,000.00	\$46,494,000.00	HCFC	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Willow Creek Watershed Plan - M120 Detention/Preservation Site	063000339	-	\$0.00	\$64,900,000.00	\$64,900,000.00	2018 Bond Fund	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	White Oak Bayou - Design and Construction of Woodland Trails Stormwater Detention Basin	063000344	-	\$0.00	\$42,600,000.00	\$42,600,000.00	HCFC	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Cypress Creek Program Implementation Plan, 23 Stormwater Detention Basin Plan (Includes 2018 Bond Projects CI-36 and CI-20)	063000357	-	\$0.00	\$550,000,000.00	\$550,000,000.00	N/A	0%	100%	100%	NO

Appendix 9-2: Survey Results Table

RFGP Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FMP	Kingwood Diversion Ditch (G103-38-00)	063000360	-	\$0.00	\$62,938,000.00	\$62,938,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Design and Construction of E116 tributary modifications and detention (2018 Bond project Z-02)	063000389	-	\$0.00	\$8,375,000.00	\$8,375,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	P518-11-E002 (P118-21 Phase II Detention) (2018 Bond Project C-41)	063000396	-	\$0.00	\$10,371,000.00	\$10,371,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-23-00 and P118-23-02	063000397	-	\$0.00	\$31,317,000.00	\$31,317,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-25-00 & P118-25-01	063000399	-	\$0.00	\$14,939,000.00	\$14,939,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Halls Bayou - Right-Of-Way, Design, and Construction of Channel Conveyance Improvements on P118-27-00	063000400	-	\$0.00	\$23,680,000.00	\$23,680,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Design and Construction of Carpenters Bayou mainstem channel modifications and detention (2018 Bond project F-124)	063000402	-	\$0.00	\$30,360,000.00	\$30,360,000.00	N/A	0%	100%	100%	NO

Appendix 9-2: Survey Results Table

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Houston	FMP	Houston Fifth Area Flood Mitigation	063000417	-	\$0.00	\$89,754,000.00	\$89,754,000.00	N/A	0%	100%	100%	YES
06	Houston	FMP	Houston Port Area Flood Mitigation	063000418	-	\$0.00	\$99,022,000.00	\$99,022,000.00	N/A	0%	100%	100%	YES
06	Baytown	FMP	Danubina Drainage Improvements	063000422	-	\$0.00	\$18,468,000.00	\$18,468,000.00	CDBG-MIT	0%	100%	100%	NO
06	Friendswood	FMP	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	063000424	-	\$0.00	\$65,800,000.00	\$65,800,000.00	Bonds/Other Financing	25%	75%	100%	YES
06	Houston	FMP	Houston Kashmere Gardens Area Flood Mitigation	063000434	-	\$0.00	\$94,880,000.00	\$94,880,000.00	N/A	0%	100%	100%	YES
06	Conroe	FMP	Rivershire West - Grand Lake Creek Watershed	063000453	-	\$0.00	\$30,000,000.00	\$30,000,000.00	N/A	0%	100%	100%	NO
06	Houston	FMP	Houston Sunnyside Area Flood Mitigation	063000468	-	\$0.00	\$111,282,000.00	\$111,282,000.00	N/A	0%	100%	100%	YES
06	Harris County Flood Control District	FMP	Mainstem Evaluation Projects - Veterans Memorial (2018 Bond Project C-41)	063000469	-	\$0.00	\$35,250,000.00	\$35,250,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Halls Bayou Drainage Project Bond C-01	063000470	-	\$0.00	\$22,386,000.00	\$22,386,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Mainstem Evaluation Projects - Parker Basin (2018 Bond Project C-41)	063000471	-	\$0.00	\$38,230,000.00	\$38,230,000.00	N/A	0%	100%	100%	NO

Appendix 9-2: Survey Results Table

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS or FMP or FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Estimated percent (share) of total FMS, FMP, or FME				Survey Response Received?
						Non-construction costs	Construction-related costs	Total estimated cost	Sponsor Funding		Other Funding Needed (including state, federal and/ or other funding)	Total (auto) sum must = 100%	
									ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)			
06	Harris County Flood Control District	FMP	Right-Of-Way Acquisition, Design and Construction of a Stormwater Detention Basin on South Mayde Creek near the Grand Parkway (2018 Bond Project C-48)	063000472	-	\$0.00	\$11,440,000.00	\$11,440,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Design and Construction of Little York Stormwater Detention Basin (2018 Bond Project C-37)	063000473	-	\$0.00	\$2,553,000.00	\$2,553,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Clear Creek Mid reach (Based on 2012 GRR) Updated Plan (2018 Bond Projects C-03 and F-02)	063000474	-	\$0.00	\$295,268,000.00	\$295,268,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Mainstem Evaluation Projects - Hahl Basin (2018 Bond Project C-41)	063000475	-	\$0.00	\$40,780,000.00	\$40,780,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	Cypress Creek Watershed Major Tributaries Regional Drainage Plan Update, Alternative 1 Basins K500-01 and Stuebner Airline Road (2018 Bond Projects CI-36 and CI-20)	063000476	-	\$0.00	\$345,330,000.00	\$345,330,000.00	N/A	0%	100%	100%	NO
06	Harris County Flood Control District	FMP	P118-E006 (Hardy West) (2018 Bond Project C-41)	063000477	-	\$0.00	\$32,053,000.00	\$32,053,000.00	N/A	0%	100%	100%	NO

**Appendix 10-1:
Communications and Media Engagement Plan**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

R E G I O N 6

**Region 6 San Jacinto
Regional Flood Planning Group**

Communications and Media Engagement Plan

June 2022

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1. Introduction

In the wake of historic flooding in Texas, the 2019 Texas Legislature passed legislation to create the state's first-ever regional and state flood planning process. The Legislature created a state flood planning framework and charged the Texas Water Development Board (TWDB) with creating flood planning regions based on river basins and with administering the ongoing work of flood planning.

The Region 6 San Jacinto Regional Flood Planning Group (SJRFPG) is one of the 15 Regional Flood Planning Groups (RFPGs) formed by the TWDB. The SJRFPG includes all or part of 11 counties and extends from the Huntsville area in the north south to Galveston.

Through this groundbreaking, first-of-its-kind flood planning effort, the SJRFPG received a flood planning grant from the TWDB to help identify specific flood risks and strategies to reduce flood risks in the coming years. This effort represents a bottom-up approach to flood planning and is intended to be a transparent process that relies on public input.

The SJRFPG consists of a planning group sponsor (Harris County), voting and non-voting members, and a technical consultant team led by Freese & Nichols, Inc. (FNI). The group is responsible for developing a Regional Flood Plan (RFP) for the SJRFPG by January 2023 in compliance with the TWDB's First Planning Cycle Documents (May 2020 - April 2021).

The RFP for the SJRFPG is required to be based on the best available science, data, models, and flood risk mapping. The SJRFPG is responsible for the following:

- Posting and holding regular public meetings in accordance with the Texas Open Meetings Act, Texas Government Code Chapter 551.
- Adding additional voting or non-voting members as considered necessary.
- Selecting and directing the work of its technical consultant.
- Soliciting and considering public input and making all necessary decisions to develop and adopt its RFP.
- Identifying specific flood risks and the need for assessing those risks and setting flood risk reduction goals. The three-step flood risk analysis comprises of the following:
 - Flood hazard analyses that determine the location, magnitude, and frequency of flooding.
 - Flood exposure analyses to identify who and what might be harmed by flooding within the region.
 - Vulnerability analyses to identify vulnerable communities and critical facilities within the region.
- Identifying and recommending flood management evaluations and strategies and flood mitigation projects to reduce flood risk.
- Focusing both on floodplain management and reducing existing flood risks to life and property to avoid increasing future flood risk.

2. Purpose and Goals

The strategy outlined by this Communications and Media Engagement Plan (Plan) will see that members of the public and SJRFPG stakeholders are proactively included in the development of the SJRFPG's RFP in compliance with TWDB's First Planning Cycle Documents (May 2020 - April 2021), the Texas Open Meetings Act, and best practices for public involvement, engagement, collaboration, and coordination.

Furthermore, this Plan is intended to formalize the interfaces between all parties involved in the SJRFPG, including Harris County, SJRFPG voting and non-voting members, the SJRFPG's technical consultant team led by FNI, the TWDB, members of the public, and other SJRFPG stakeholders. This will be accomplished by informing and engaging the various key audience groups (e.g., elected officials, governmental entities, special interest groups, businesses, communities, and the public) throughout the development of the RFP. The objective of this Plan is to provide consistent information to key audiences so that they feel heard and informed, and thus build trust in the SJRFPG and its long-term goals.

2.1. Goals

The communications approach for the SJRFPG aims to provide meaningful opportunities for the SJRFPG to interact and engage with members of the public and SJRFPG stakeholders. This Plan will accomplish the following goals:

- Identify communication strategies, methods, and tools to facilitate stakeholder participation and meet the evolving needs of stakeholders throughout the San Jacinto planning region.
- Communicate information consistently and efficiently so that it reaches and engages as many audiences as possible throughout the San Jacinto planning region.
- Drive overall awareness of the SJRFPG and its efforts to develop an RFP to reduce existing flood risks to life and property and avoid increasing flood risk in the future.
- Provide opportunities for interested stakeholders to provide input and participate in the development of the RFP.
- Track and report regularly on public engagement activities and public input to allow for adjustments that reach and accommodate stakeholders.

3. Roles and Responsibilities

Several entities are involved in the SJRFPG planning process, including the SJRFPG voting and non-voting members, the SJRFPG's planning group sponsor, the technical consultant, and the TWDB.

As the SJRFPG sponsor and administrative agent, Harris County has contracted with FNI to support the SJRFPG as the technical consultant. Led by FNI, the technical consultant team includes Halff Associates, Inc. (Halff), Torres & Associates, LLC (Torres), Hollaway Environmental + Communications Services (Hollaway), Knudson LP (Knudson), and Stuart Consulting Group.

Roles and responsibilities for each entity involved in the SJRFPG are outlined in the following sections:

Voting Members

The core functions of the regional flood planning process revolve around the SJRFPG voting members, the variety of expertise and representation they bring to the SJRFPG, and the decisions that they make in developing the RFP. Each voting member is appointed to represent one of the 12 required interest group categories. The SJRFPG may add voting positions to additional interest categories or additional representatives of the 12 required interest categories, as necessary.

SJRFPG voting members participate in the regional flood planning process through the following key responsibilities:

- Regularly attend RFPG meetings.
- Actively participate in and contribute supporting information to the development of their RFP.
- Represent their associated interest group as it exists throughout the entire region, considering regionwide stakeholders when making decisions.
- Understand and follow the flood planning framework, rules, guidelines, and process, and review the various materials to be considered by the SJRFPG.
- Become familiar with and follow the bylaws of the SJRFPG.
- Make the difficult decisions and recommendations regarding flood management goals, evaluations, strategies, and flood mitigation projects for the San Jacinto Region.
- Complete the Office of the Attorney General’s Open Meetings Act and Public Information Act training (due to statutory requirements, the SJRFPG is subject to both acts).
- Participate in directing work that the technical consultant team will perform on the SJRFPG’s behalf to develop the RFP.
- Cooperate and share information with other RFPGs for data consistency and to avoid conflicts where possible. For example, when two planning groups share a watershed or flood management strategies.
- Solicit and consider stakeholder input in a transparent manner.
- Develop and adopt an RFP that meets all requirements, including the criterion that that no neighboring area may be negatively affected by an element of the RFP.

Non-Voting Members

The SJRFPG is statutorily required to include non-voting members from seven state agencies:

- TWDB.
- Texas Commission on Environmental Quality (TCEQ).
- Texas General Land Office (GLO).
- Texas Parks and Wildlife Department (TPWD).
- Texas Department of Agriculture (TDA).
- Texas State Soil and Water Conservation Board (TSSWCB).
- Texas Division of Emergency Management (TDEM).
- Texas Department of Transportation (TxDOT).
- Gulf Coast Protection District (GCPD).
- United States Army Corp of Engineers (USACE).

Additionally, since the SJRFPG shares a split river basin and touches the Gulf Coast, the SJRFPG must designate non-voting members to coordinate between the upstream and downstream regions and other coastal regions. These non-voting ‘liaison’ position requirements may be a dual role met by members already serving in existing voting positions. The SJRFPG may add additional non-voting positions in accordance with SJRFPG approved bylaws at any time.

Key responsibilities of non-voting members include the following:

- Attend meetings, represent, and act as a resource and/or liaison for their affiliated entities in the regional flood planning process.
- Provide input on their areas of expertise and familiarize themselves with planning issues.
- Support the voting membership in the development of the RFP.

Planning Group Sponsor (Harris County)

As the planning group sponsor, Harris County is responsible for overseeing the administration of the regional flood planning process on behalf of the SJRFPG. Key responsibilities of the SJRFPG sponsor include the following:

- Execute and administer the regional flood planning grant contract with the TWDB, including invoicing and payment for eligible activities.
- Maintain contact information for SJRFPG voting and non-voting members.
- Organize the SJRFPG meeting locations and/or virtual meeting platforms.
- Prepare and post public notices, including agendas and other relevant meeting documents/presentations.
- Organize meeting presentations, prepare handouts, prepare meeting minutes, and solicit new members.
- Ensure all regular, committee, and subcommittee meetings of the SJRFPG are posted and held following the Texas Open Meetings Act, the Texas Public Information Act, statute, and flood planning rules.
- Deliver the first RFP on behalf of the SJRFPG no later than January 10, 2023, and every five years thereafter.

Technical Consultant Team (led by FNI)

The technical consultant team is responsible for leading the development and delivery of the SJRFPG RFP through execution of the Scope of Work (March 2021) included in the TWDB’s First Planning Cycle Documents (May 2020 - April 2021). Key responsibilities of the technical consultant team include the following:

- Solicit, receive, and follow direction from the SJRFPG.
- Present work at SJRFPG meetings for consideration and approval by the SJRFPG.
- Provide the SJRFPG sponsor with documentation of, and invoices for, the work performed.
- Develop the complete RFP under the direction of the SJRFPG.
- Produce all final contract products to be submitted to the TWDB, in accordance with statute, rule, and contract requirements.

- Participate in SJRFPG meetings, committees, and sub-committees as requested by the SJRFPG.

Additional roles and responsibilities specific to each entity on the technical consultant team are outlined below:

- **FNI**
 - Overall management of the Scope of Work (March 2021) included in the TWDB's First Planning Cycle Documents (May 2020 - April 2021).
 - Review and oversight of technical deliverables as well as communication activities, tools, and messaging.
 - Regular internal coordination with the technical consultant team, the planning group sponsor, and other relevant internal audiences.
 - Development of technical and other presentations and handout materials for regular and special meetings to provide technical and explanatory data to the SJRFPG and its subcommittees, including follow-up activities.
 - Technical support and administrative activities associated with periodic and special meetings of the SJRFPG.
 - Provision of status reports to TWDB for work performed.
 - Development of draft and final responses to public questions or comments as well as SJRFPG approval of the final responses to comments on RFP documents.
 - Intraregional and interregional coordination and communication, and facilitation required within the SJRFPG and with other RFPGs to develop the RFP.
 - Incorporation of all required data and reports into the RFP document.
 - Modifications to the RFP documents based on SJRFPG, public, and/or agency comments.
 - Development and inclusion of executive summaries in both the draft and final RFP.
 - Assembling, compiling, and production of the completed draft RFP and final RFP document(s) that meet all requirements of statute, 31 TAC Chapters 361 and 362, Contract and associated guidance documents.
 - Submittal of the RFP documents in both hard copy and electronic formats to TWDB for review and approval; and all effort required to obtain final approval of the RFP by TWDB.
- **Halff, Torres, Knudson, and Stuart Consulting Group**
 - Regular coordination with the technical consultant team, the planning group sponsor, and other relevant internal audiences.
 - Development of technical and other presentations and handout materials for regular and special meetings to provide technical and explanatory data to the SJRFPG and its subcommittees, including follow-up activities.
 - Technical support and administrative activities associated with periodic and special meetings of the SJRFPG.
 - Development of draft and final responses for SJRFPG approval to public questions or comments.

- **Hollaway**
 - Development of and updates to this Plan.
 - Regular coordination with the technical consultant team, the planning group sponsor, and other relevant internal audiences.
 - Key messaging development and updates.
 - Communication and outreach tool development and updates, including fact sheets, brochures, frequently asked questions (FAQs), maps, infographics, online surveys, a stand-alone website for the SJRFPG, other tools as needed and requested.
 - Graphic design support, as needed.
 - Planning, facilitation, and documentation of public meetings to identify flood risk in the region and receive feedback on general suggestions and recommendations from the public.
 - Administrative and technical support and participation in SJRFPG activities, and documentation of any SJRFPG workshops, work groups, and subgroup and/or subcommittee activities.
 - Technical support and administrative activities associated with periodic and special meetings of the SJRFPG.
 - Development and maintenance of a stakeholder contact database.
 - Implementation of a stakeholder comment/response management and tracking system, including development of draft and final responses for SJRFPG approval to public questions or comments.
 - Preparation of a chapter in the RFP that summarizes public participation activities, including review by the SJRFPG and modification of documents, as necessary.

Texas Water Development Board

The TWDB is the state agency designated by the Texas Legislature to provide technical and financial assistance to the regional flood planning process. The SJRFPG's assigned project manager from the TWDB will serve as the liaison between the TWDB and the SJRFPG. Key responsibilities of the TWDB liaison include the following:

- Serve as a non-voting member of the SJRFPG.
- Provide and clarify administrative and technical guidance to the SJRFPG, planning group sponsors, and the technical consultant team in developing the RFP.
- Orient new SJRFPG members and facilitate communication.
- Administer the TWDB contract with the SJRFPG planning group sponsor.
- Help to ensure that the final RFP meets statute, rule, and contract requirements.

3.1. Internal Communications Protocol

The following personnel are identified as the main points of contact to support consistent, efficient, and effective internal communication, and will be copied on internal communications correspondence as necessary:

Voting Members

- **Timothy E. Buscha**, SJRFPG Chair, tbuscha@idseg.com
- **Alia Vinson**, SJRFPG Vice Chair, avinson@abhr.com
- **Erwin Burden**, SJRFPG Secretary, erwin.burden@eng.hctx.net

Planning Group Sponsor (Harris County)

- **Fatima Berrios**, Harris County Engineering Department, fatima.berrios@eng.hctx.net
- **Claudia Garcia**, Harris County Engineering Department, claudia.garcia@eng.hctx.net
- **San Jacinto RFPG Sponsor distribution list**, sanjacfldpg@eng.hctx.net

Technical Consultant Team (led by FNI)

- **Cory Stull**, FNI, cory.stull@freese.com
- **Maggie Puckett**, FNI, maggie.puckett@freese.com
- **San Jacinto RFPG Technical Consultant distribution list**, SJRFPG.TechCon@freese.com
- **Andrew Moore**, Halff, amoore@halff.com
- **Jacob Torres**, Torres, jmtorres@torresassociatesllc.com
- **Connor Stokes**, Hollaway, connor@hollawayenv.com
- **Patti Joiner**, Knudson, pjoiner@knudsonlp.com
- **Chris Fenner**, Stuart Consulting Group, chrisf@stuartconsultinggroup.com

Texas Water Development Board

- **Megan Ingram**, TWDB, megan.ingram@twdb.texas.gov

Internal Team Coordination

The following methods will be used internally to communicate as identified in coordination with the SJRFPG voting and non-voting members, the SJRFPG sponsor, the technical consultant team, and the TWDB. The technical consultant team will be responsible for documenting all decisions and outcomes identified during these routine meetings.

- **In-person meetings:** In-person meetings will be scheduled as necessary to enable efficient and effective communication across each entity involved in the SJRFPG (dependent on local government pandemic restrictions, public health guidelines, and the availability of appropriate safety precautions).
- **Virtual meetings:** Regular team-wide virtual meetings will be scheduled as necessary to provide a forum for information exchange, data requests, topic-specific clarification, and progress updates.
- **Email:** Email will be used as necessary to transfer documents, records, and progress updates.
- **Written correspondence:** Hard copy, written communication and transmittal via the U.S. Postal Service will be used as necessary for official documentation requiring an original signature, such as contracts and agreements.

3.2. Review Process for Publicly Distributed Information

Before public distribution, Hollaway will provide all communications products (including website content, educational materials, etc.) first to FNI and other members of the technical

consultant team as necessary for review and approval. Then the communications products will be provided to the Harris County for final review and approval.

All deliverables developed by Hollaway to support the SJRFPG communications and public outreach goals will be considered internal, administrative draft documents until the Project Sponsor officially declares it suitable for public review. Harris County will make the final determination to release study information to the public.

Hollaway/FNI will provide complete drafts of such information to Project Sponsor at least five (5) business days in advance for review and comment prior to public distribution deadlines. The necessary members of the technical consultant team will review and vet all information prior to submittal for Harris County review.

Hollaway will maintain responsibility for establishing a reasonable review period for FNI and the Harris County to review and finalize documents. If it is identified that the public information approvals process is conflicting with delivery schedules, a more regimented review process will be established and implemented in accordance with Harris County guidance.

4. Key Audiences

Key audiences for the San Jacinto Planning Group Region must be clearly defined to accomplish the stated communications goals in this Plan. Therefore, the following key audience groups have been identified.

- Residents and property owners within the San Jacinto Planning Group Region.
- Elected officials.
- Floodplain administrators.
- Insurance professionals.
- Business owners.
- Realtors.
- Developers.
- Planners.
- Engineering professionals.
- Community ambassadors, e.g., local community leaders, homeowner association (HOA) presidents, citizen coalition leaders, regional/local influencers.
- Neighborhood and civic associations, e.g., civic clubs, HOAs, Super Neighborhoods, boards of municipal and public utility districts (MUDs/PUDs).
- Special interest groups, such as advocacy groups and chambers of commerce.
- Grassroot community organizations that represent diverse stakeholders
- Neighboring county/watershed elected officials, municipalities, organizations, and residents.
- Regional governmental/regulatory agencies, e.g., the Texas Department of Transportation (TxDOT), the U.S. Army Corps of Engineers (USACE), and others.
- Media representatives (local, state, national).
- Academia.
- Other interested individuals and groups, as identified.

To support this Plan, Hollaway will develop and maintain a stakeholder database comprehensive of each of these stakeholder groups throughout the life of the SJRFPG. This database includes contact information for each stakeholder group on an individual basis. It will be updated continuously and housed utilizing cloud-based database software. To maintain consistent and accurate stakeholder databases between Hollaway and Harris County, Hollaway will provide up-to-date database information to Harris County monthly or upon request.

These databases will include all known existing datasets and contain the following information for each key audience listed in this Plan:

- Stakeholder name (First, Last).
- Stakeholder/group affiliation, e.g., HOA, MUD, environmental group, community organization, county (multiple may apply).
- Stakeholder title (if applicable).
- Mailing address.
- Physical address (if applicable).
- Email address.
- Phone number.
- Known communication preferences (email, phone, mail).

Hollaway will maintain and update the stakeholder database continuously by keeping up-to-date names and contact information of persons attending regular SJRFPG meetings, public meetings, committee meetings, sub-committee meetings, and any interested individuals wishing to be added to the database. The database will be maintained online utilizing a real-time, cloud-based data management service with Microsoft Excel compatibility (including sorting and mail merge capability).

5. Public Participation in the SJRFPG

The SJRFPG RFP development process will be transparent and include many opportunities for public input throughout the planning cycle. The SJRFPG and any committee or subcommittee of the SJRFPG are subject to the Open Meetings Act and the Public Information Act. In addition to meeting the public notice requirements of the Open Meetings Act, the SJRFPG must follow public notice requirements outlined in the TWDB's regional flood planning rules in the SJRFPG adopted bylaws. Public notice requirements will vary depending on the activity or action to be taken at the SJRFPG meeting. The SJRFPG must adhere to specific notice requirements for certain public input opportunities, such as:

- Changes to SJRFPG membership.
- Pre-planning meetings to obtain input on the development of the RFP.
- Determining flood mitigation and floodplain management goals.
- Approving the process for identifying Flood Management Evaluations (FMEs), Flood Management Strategies (FMSs), and Flood Mitigation Projects (FMPs).
- Submission of the draft RFP, adoption of the final RFP, and amendments to the adopted RFP.

In the adopted RFP, the SJRFPG will be required to include summaries of all public comments received, with explanations of how the RFP was revised or why changes were not warranted.

6. Communications Tools and Tactics

This section describes the communication tools and tactics that will be implemented to support the SJRFPG. This section of the Plan is intended to be dynamic, and it will be updated and revised, as necessary. All public engagement events will be implemented in alignment with local government pandemic guidance and follow appropriate safety precautions.

In coordination with the technical consultant team and Harris County, Hollaway will be responsible for creating and distributing/implementing communication tools and tactics. Hollaway also will produce all products for public consumption in English and Spanish and other languages as required by local, state, and federal guidance including, but not limited to, TWDB and Harris County regulations.

6.1. Key Messaging

Key messaging refers to relevant project information that provides a concise overview of the project scope of work, goals and work products developed over the project lifecycle and may be tailored to fit the needs of different stakeholder groups.

Key messaging for the SJRFPG will promote this Plan's goals and be refined, as necessary. In coordination with the technical consultant team and Harris County, Hollaway will use this messaging to develop communications collateral to enable engagement of the SJRFPG's key audiences.

Hollaway will maintain and update primary and secondary key messaging to support communication with the various key audiences. Primary messages convey broader, less detailed information, and secondary messages include more detailed information supporting the primary message. Key messaging will be consistent across all communications. An example of **Key Messaging** can be found in **Appendix B**.

6.2. Educational Communications Tools

The development and distribution of accessible bilingual (English and Spanish) communications tools will be critical to achieving the goals of this Plan and the SJRFPG. In coordination with the technical consultant team and Harris County, Hollaway will produce the following educational materials to support the various needs that may arise throughout the life of the SFRFPG and the RFP development:

- Print and digital collateral, e.g., fact sheets, FAQs, self-mailing comment forms, email notices, informational exhibits, and others.
- PowerPoint presentation development and/or reviews and revisions.
- Digital tools, e.g., educational graphics for presentations, social media, website, other platforms.
- Electronic surveys.
- Other items identified, as necessary.

6.3. Website Development and Management

A website dedicated to the SJRFPG will serve as an easily accessible forum for obtaining and sharing public information. The technical consultant team will develop, host, and manage a design-forward, interactive, mobile-friendly, and accessible web platform. Hollaway will create this website in an easy-to-use content management system to allow for as-needed, just-in-time updates.

Website features will include:

- Resources and information about the SJRFPG.
- Interactive maps and survey tools.
- Calendar of upcoming SJRFPG meetings and access information.
- Documentation of previous SJRFPG meetings.
- A document library.
- Embedded content, including social media feeds, etc.
- A comment portal and opportunity to sign up for the SJRFPG distribution list.

No content will be added to the website without prior review and approval from FNI and Harris County.

6.4. Social Media Establishment and Management

The SJRFPG will establish social media platforms (Facebook and Twitter) to:

- Drive awareness through accessible and free information channels;
- Announce upcoming SJRFPG meetings and provide access information; and
- Promote the transparency and authenticity of the SJRFPG.

Throughout the SJRFPG planning cycle, these social media accounts will be monitored, managed, and maintained by the Hollaway team in close coordination with the FNI and Harris County. Hollaway will develop a targeted social media and content strategy and update it throughout the SJRFPG planning cycle.

Content will be developed and customized for each platform with the intent of informing and engaging key audiences. Examples of content include:

- General safety, preparedness, and flood risk awareness messaging.
- Educational information and graphics.
- Information about/documentation of public engagement efforts.
- Opportunities for the public to participate and engage with SJRFPG representatives.

6.5. In-person/Virtual Public Meetings

In-person or virtual large-scale public meetings will be held at key milestones throughout the planning cycle to identify flood risk in the region and receive feedback on general suggestions and recommendations from the public. As identified in previous sections of this Plan, these large-scale public meetings are subject to and will adhere to requirements set forth in the Open Meetings Act and Public Information Act. Additionally, each large-scale public meeting (in-person or virtual) will be accessible for English and Spanish speakers.

Hollaway will be responsible for planning, facilitating, and documenting each large-scale public meeting. Virtual meetings will be hosted and scheduled on Hollaway's Zoom virtual meeting platform. Each virtual meeting platform will provide accessibility via both computer login and call-in information.

6.6. In-person/Virtual Briefings and Meetings

In-person or virtual briefings and meetings will serve elected officials, appointed officials, floodplain administrators, and regional governmental/resource agencies. These briefings and meetings will be intended to inform and engage those key audience members for the SJRFPG.

Hollaway will support these meetings by preparing agendas, providing meeting documentation, and leading any follow-up items identified during these targeted meetings.

Hollaway also will schedule and host these types of virtual meetings/briefings on one of the following Hollaway-managed virtual meeting platforms as needed:

- Cisco WebEx.
- Zoom.
- Microsoft Teams.

Hollaway will determine the most suitable virtual meeting platform based on the needs of the stakeholders/agencies invited to attend. Each virtual meeting platform will provide accessibility via both computer login and call-in information.

6.7. Meetings-in-a-Box

To support public and elected official requests for SJRFPG presentations, the most up-to-date communications tools described in this section (presentations, fact sheets, registration documents, comment forms, informational exhibits, etc.) will be provided to the technical consultant team and Harris County for their use as needed. Hollaway will replenish these materials upon request.

Hollaway will track, respond to, and document presentation requests, and help schedule speakers to support these requests for presentations.

7. Delivery Timeline: Communications Tools and Tactics

The communications tools and tactics described in Section 6 will be implemented according to the schedule in [Appendix A](#). This Plan will be modified and updated, as necessary, based upon the success tracking of this Plan and other unforeseen events which may impact the delivery of the various deliverables required in the Scope of Work (March 2021) included in the TWDB's First Planning Cycle Documents (May 2020 - April 2021).

8. Public Comment Management System

Hollaway will develop and maintain a Public Comment Management System (PCMS) to document, monitor, and provide timely responses to public comments and inquiries. It is anticipated that public comments will be received through several channels, including the SJRFPG website, the SJRFPG email address (SanJacFldPG@eng.hctx.net), public engagement events and forums, in-person/virtual briefings and meetings, and written or emailed comments to the various entities involved in the SJRFPG. All comments, inquiries, and requests for information received through these channels will be tracked through the PCMS. The platform for this database is cloud-based software; however, reports may be exported and provided at any time to the technical consultant team and Harris County via Microsoft Excel or Microsoft Word.

The following information will be collected and tracked in the PCMS:

- Name of individual.
- Physical address.
- Mailing address.
- Phone number(s).

- Email address.
- Subject matter/topic.
- Specific comment, question, or request to include date received.
- Comment resolution status updates through coordination with the technical consultant team.
- Date of comment resolution.

The following public comment tracking, documentation, and response procedures will be followed by Hollaway:

- Hollaway will continuously monitor the PCMS database associated with the SJRFPG website’s “Contact Us” page.
- Upon a comment or inquiry from a stakeholder, Hollaway staff will respond with an automated “thank you” message within one business day of receipt.
- Hollaway will partner with FNI and Harris County to formulate an appropriate response to the inquiry.
 - Hollaway will first evaluate the comment or inquiry to confirm if it could be resolved with a standard FAQ or redirection to pages of the SJRFPG website.
 - If the comment/inquiry cannot be answered by a FAQ or website redirection, Hollaway will draft a proposed response and forward the comment and draft response to FNI/Harris County for input and review.
 - Once a response is approved, Hollaway will respond to the stakeholder. Responses will be provided to the stakeholder within one business day upon finalization with FNI/Harris County.

9. Success Tracking, Metrics and Documentation

The success of this Plan can be assessed in a variety of ways throughout the life of the SJRFPG. Hollaway will implement the following activities to gauge necessary improvements and/or changes to improve the effectiveness and efficiency of this Plan:

- **Stakeholder database and public comment tracking.** Hollaway will develop a monthly report for FNI and Harris County review. This report will document the quantity and the nature of public inquiries received online, the SJRFPG email address, public engagement events and forums, in-person/virtual briefings and meetings, and written comment forms and letters.
- **Website and social media analytics.** Hollaway will continuously monitor and provide monthly reports to FNI and Harris County on the following analytics to gauge effectiveness of messaging, website design, and information presented: number of people visiting site/social media platforms, time spent on site/social media platforms, comments, and other pertinent information posted by the public.

10. Media Engagement

Mandatory policies, procedures, and protocols for media communication must be in place so that the SJRFPG has effective, timely, accurate and responsible communications in response to media requests and coverage.

The SJRFPG will endeavor to provide progress updates and information to stakeholders seeking information; however, having different sources providing information to media representatives increases the risk that inaccurate or incomplete information is unintentionally disseminated. Avoiding inaccuracies in communication requires strict adherence to the following protocol, which restricts media communications to the designated spokespersons for the SJRFPG.

Therefore, as part of a formal media communications process, the SJRFPG will designate the Chair of the SJRFPG as the Public Information Officer for the SJRFPG. The SJRFPG Chair, as the official spokesperson for the SJRFPG, is the only person who will respond to media inquiries. In the event that SJRFPG Chair is not available, the SJRFPG Vice Chair will serve as deputy spokesperson for the SJRFPG. Hollaway will coordinate with the designated spokespersons to satisfy any Spanish media requests.

Should any representative of the SJRFPG be contacted by a member of the media or receive a media inquiry, the following response is **required**:

- I. Inform the media that the SJRFPG Chair is the Public Information Officer for the SJRFPG and is the official spokesperson. The SJRFPG Chair is the only person who can comment. If a representative of the SJRFPG receives a call from or is approached by a reporter, the SJRFPG representative must politely decline to answer any questions and let them know that the message will be delivered to the SJRFPG Chair immediately.
- II. Anyone receiving a media inquiry must take down the reporter's name, affiliation, phone number, and a summary of the reporter's inquiry to convey to the spokesperson. This will enable Hollaway to keep a record of who calls so that information can be provided to the spokesperson for a response.
- III. After steps I and II are complete, the person receiving the inquiry must call the SJRFPG Chair immediately using the contact information set forth below. If the SJRFPG Chair is not available, the person will call the SJRFPG Vice Chair. If the Vice Chair is not available, the SJRFPG's sponsor will be called. The spokesperson needs to receive the reporter's name, affiliation, phone number, and a summary of the inquiry that the reporter is calling about so that the spokesperson can respond to the reporter promptly. If the SJRFPG Chair, Vice Chair, or the SJRFPG sponsor cannot be reached, the person handling the inquiry must leave a message with each and continue to call until contact is made.

10.1. Designated Spokespersons and Media Relations Contact Information

Contact information for the SJRFPG's primary, designated spokesperson, backup spokespersons, and the media consultant is as follows:

Primary Spokesperson for the SJRFPG:

- The SJRFPG's Chair (currently Tim Buscha)
 - Main: 832-590-7255

First Backup Spokesperson:

In the absence of the SJRFPG Chair, the Backup Spokesperson for the SJRFPG is:

- The SJRFPG's Vice Chair (currently Alia Vinson)
 - Main: 713-860-6449

Second Backup Spokesperson:

In the absence of the SJRFPG Chair and Vice Chair, the Second Backup Spokesperson for the SJRFPG is:

- SJRFPG Sponsor (currently Fatima Berrios)
 - Main: 713-270-3914

Media Relations Consultant:

- Technical Consultant Team (Hollaway)
 - Connor Stokes
 - Main: (713) 868-1043
 - Mobile: (713) 705-3880
 - Mariah Najmuddin (Bilingual spokesperson)
 - Main: (713) 868-1043
 - Mobile: (832) 668-4020
 - Leslie Hollaway
 - Main: (713) 868-1043
 - Mobile: (409) 789-9993

Appendix 10.1.a: Delivery Timeline: Communications Tools and Tactics

Appendix 10.1.b: Key Messaging

SJRFPG Key Messaging

What is the State Flood Plan?

In 2019, the Texas Legislature passed Senate Bill 8 directing the creation of the first-ever State Flood Plan for Texas. The preparation of this new flood plan is being led by the Texas Water Development Board (TWDB) and follows a similar regional approach used for water supply planning in Texas for the past 20 years. As part of this effort, TWDB will establish a clearinghouse of information about state and federal flood planning, mitigation, and control programs that may serve as sources of funding for flood projects.

The TWDB has designated fifteen (15) flood planning regions within the state based on the corresponding river basins. The overarching goal of regional flood planning, and the comprehensive state flood plan that will result from the plans created by these regions, is to protect against loss of life and property from flooding. The first State Flood Plan is due to the Legislature by September 1, 2024, and will be updated every five years thereafter.

What is the Texas General Land Offices Combined River Basin Flood Studies?”

The Texas GLO is currently conducting the Combined River Basin Flood Studies across the counties that received a presidential disaster declaration due to the impact of Hurricane Harvey. This one-time study is focusing on the following goals in order to better prepare communities for future flood impacts associated with extreme weather events:

- Evaluates flood risk information;
- Develops cost-effective mitigation strategies; and,
- Identifies possible funding sources for future mitigation projects to support resiliency and growth.

This study complements and will work in conjunction with TWDB’s Regional Flood Planning Groups, including the sharing of flood data through the Texas Disaster Information System (TDIS), a critical tool used by the state to assist communities. Information collected for this regional flood plan will be shared with the GLO study consultant to avoid the duplication of data collection efforts. The target completion date for the Texas GLO Combined River Basin Flood Studies is Summer 2024.

What is the Texas Water Development Board (TWDB)?

The TWDB is a state agency formed in 1957 in response to Texas’ record-breaking drought. Based on the most recent legislative session, the agency’s main responsibilities include the following: assisting with regional water planning and preparing the state water plan every five years; assisting with regional flood planning and preparing the state flood plan every five years; collecting, analyzing, and distributing water-related and geographic data; and providing loan and grant money for Texas water, wastewater, and flood projects.

What is the San Jacinto Regional Flood Planning Group?

The San Jacinto Regional Flood Planning Group (Region 6) includes all or part of 11 counties and extends from Galveston in the south to Huntsville in the north. Fifteen (15) voting members, appointed by the TWDB Executive Director, serve on the San Jacinto Regional Flood Planning Group and represent the following interest categories: Agriculture, Industries, Counties, Electric Generating Utilities, Flood Districts, Industries, Municipalities, General Public, River

Authorities, Small Businesses, Water Districts, Water Utilities, Environmental Interests, and Coastal Communities. The primary role of the San Jacinto Regional Flood Planning Group is to develop a regional flood plan for the Region 6 San Jacinto Flood Planning Region that identifies flood risks, establishes flood mitigation and floodplain management goals, and recommends evaluations, strategies, and projects to reduce flood risks.

The San Jacinto Region is the second most populous flood planning region, despite being the second smallest region by area, and is subject to many sources of flooding, including:

- Fluvial or riverine flooding, where floodwater escapes channel banks.
- Pluvial flooding caused by water trying to reach a stream via overland flow paths.
- Urban flooding, where local drainage systems are overwhelmed or unable to drain.
- Coastal flooding, caused by storm surge and extreme tidal conditions.
- Flooding caused by dam or levee failure.

What are the goals of the San Jacinto Regional Flood Planning Group?

The ultimate goal of conducting regional flood planning is to protect the public against loss of life and property damage from flooding events; the comprehensive state flood plan will be based on the flood plans created by each of the 15 regions. The San Jacinto Regional Flood Planning Group will develop a regional flood plan that meets TWDB requirements and also establishes a solid foundation for future TWDB flood planning cycles, based on flood-related characteristics in the San Jacinto Region.

The key tasks to be accomplished through the Regional Flood Plans include, but are not limited to the following:

- Gather and analyze data to create an accurate depiction of the region's characteristics;
- Identify existing and future flood risks across the region;
- Evaluate current floodplain management practices by entities within the region (regulations to prevent future flood problems); and,
- Recommend flood mitigation strategies and projects to address existing and future flood issues in the region.

What are the responsibilities of the San Jacinto Regional Flood Planning Group?

The San Jacinto Regional Flood Planning Group is responsible for developing a regional flood plan by January 2023. Based on the 15 regional flood plans, the TWDB will prepare and adopt the Texas' first-ever state flood plan and present it to the Texas Legislature in September 2024.

More specifically, the San Jacinto Regional Flood Planning Group is responsible for the following:

- Holding regular public meetings and adding additional voting or non-voting members if they are considered necessary.
- Choosing a planning group sponsor as its administrative agent.
- Selecting and directing the work of its technical consultant (to be procured by the planning group sponsor).
- Soliciting and considering public input and making all necessary decisions to develop and adopt its regional flood plan.

- Identifying specific flood risks and the need for assessing those risks as well as setting flood risk reduction goals. The three-step flood risk analysis comprises:
 - Flood hazard analyses that determine location, magnitude, and frequency of flooding;
 - Flood exposure analyses to identify who and what might be harmed within the region; and
 - Vulnerability analyses to identify vulnerabilities of communities and critical facilities.
- Identifying and recommending flood management evaluations and strategies and flood mitigation projects to reduce flood risk in their regions.
- Focusing both on reducing existing flood risks to life and property and on floodplain management in general to avoid increasing flood risk in the future by keeping future populations out of the way of flood flows.

Who is the planning group sponsor for the San Jacinto Regional Flood Planning Group and what are their responsibilities?

Harris County serves as the sponsor for the San Jacinto Regional Flood Planning Group. The planning group sponsor is responsible for the following:

- Preparing and submitting grant funding applications to the TWDB on behalf of the regional flood planning group.
- Entering and managing a contract with the TWDB for the management of the grant funds.
- Procuring and managing a contract with a technical consultant(s) selected by the regional flood planning group to support the development or revision of a regional flood plan.
- Serving as the regional flood planning group's administrative agent by organizing planning group meetings, public notices, agendas, meeting presentations, handouts, and meeting minutes.
- Delivering the first regional flood plan, on behalf of the planning group, no later than January 10, 2023.

Will floodplain modeling be included in the Scope of Work by the technical consultant for the San Jacinto Regional Flood Planning Group?

No, floodplain modeling is not included in the Scope of Work developed by TWDB for this first State Flood Plan for the San Jacinto Flood Planning Region. This regional plan will include recommendations for flood management evaluations (engineering studies), flood management strategies and flood mitigation projects based on the information collected from stakeholders across the flood planning region.

Will the State Flood Plan produce Flood Insurance Rate Maps (FIRMS)?

No, the State Flood Plan will not produce new FIRMS. FIRMS are official maps approved by the Federal Emergency Management Agency (FEMA) that delineate special insurance-related flood hazard areas and risk zones within communities. Activities conducted to produce FIRMS follow a four-phase process according to FEMA's guidelines and standards and typically take a minimum of five years to complete. However, modeling and other technical activities that will support development of the state flood plan will result in tools and preliminary maps that could be used by communities to support and complement FEMA's existing process for producing updated FIRMS.

Why should I participate in the planning process?

The San Jacinto Regional Flood Planning Group is seeking participation and input from everyone knowledgeable of and affected by flooding issues in the San Jacinto Region. Visit the San Jacinto Regional Flood Planning Group's interactive web map, <https://freese.mysocialpinpoint.com/san-jacinto-flood-plan/>, to provide information

This regional plan will serve as a roadmap for flood planning in the San Jacinto Region; its success depends on your involvement! The plan will assess flood risk in your community and potential mitigation strategies and measures. The plan will recommend studies, where needed, to evaluate flooding problems and identify potential solutions in greater detail. More importantly, proposed flood mitigation projects must be included in the Regional and State Flood Plans in order to be eligible for State financial assistance.

What is a flood management evaluation (FME)?

A flood management evaluation is a proposed study, with an associated cost, of a specific, flood-prone area that is needed in order to assess flood risk and/or determine whether there are potentially feasible flood management strategies or flood mitigation projects.

What is the difference between a flood management strategy and a flood mitigation project (FMP)?

A flood management strategy is a proposed plan to reduce flood risk or mitigate hazards to life or property that are caused by flood. A flood management strategy may or may not require infrastructure projects to be implemented.

A flood mitigation project is a proposed project, both structural and non-structural, that may be required to implement a flood management strategy. Flood mitigation projects have capital costs or other non-recurring costs and are designed to reduce flood risk and mitigate flood hazards to life or property. A single flood mitigation project may be associated with multiple flood management strategies or vice versa. As part of the flood planning process, regional flood planning groups will identify and recommend flood management strategies and flood mitigation projects.

What is the difference between a flood mitigation project and a water supply project that is in the State Flood Plan?

Flood mitigation projects tend to focus on avoiding or reducing the negative impacts from flood water during and shortly after high rainfall events. Water supply projects focus on providing reliable water supply throughout periods of extremely low rainfall. A potential project that would capture flood water and store it to be used later for water supply could be evaluated as part of water supply planning, as well as flood management.

How will the San Jacinto Regional Flood Plan be implemented?

Eventual implementation of adopted regional flood plan policies and projects will rely on local and regional entities and specific project sponsors in cooperation with participating entities, as necessary.

How are other flood planning activities considered in the state's regional flood planning process?

Regional flood planning groups are expected to consider a wide variety of available, relevant information and tools when developing regional flood plans, including other regional and local flood planning studies. The planning groups will be expected to work cooperatively with other entities conducting flood planning activities in the region to avoid duplication of effort and to make the best and most efficient use of local, state, and federal resources. Additionally, no funds will be provided by the TWDB to regional flood planning groups for activities for which the TWDB determines existing information, data, or analyses are sufficient for the planning effort.

How are regional projects considered in the planning process?

The development of regional flood mitigation projects is a potentially feasible flood management strategy that must be considered in accordance with Texas Water Code §16.062(e). The decision whether to recommend a particular flood management strategy or flood mitigation project is the responsibility of the regional flood planning groups.

Are San Jacinto Regional Flood Planning Group Meetings open to the public?

All meetings of regional flood planning group and their committees or subcommittees are open to the public and subject to the Texas Open Meetings Act, Chapter 551 of the Texas Government Code. The minimum public notice for planning group meetings is 7 days in accordance with the TWDB's regional flood planning rules, which require additional notice and public comment periods for some regional flood planning group activities.

Who should I contact for more information about the San Jacinto Regional Flood Planning Group?

For more information about the San Jacinto Regional Flood Planning Group, please submit an inquiry on our website, <https://sanjacintofloodplanning.org/contact-us/>.

How can I learn about upcoming San Jacinto Regional Flood Planning Group meetings or other opportunities to participate in the planning process?

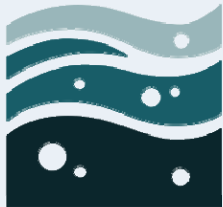
To be notified of upcoming meetings and other opportunities to participate, join our distribution list, <https://sanjacintofloodplanning.org/distribution-list/>.

**Appendix 10-2:
Monthly E-Blasts**

Mariah Najmuddin

From: Marketing Email Preview Send <noreply@hubspot.com>
Sent: Wednesday, March 30, 2022 4:04 PM
To: Mariah Najmuddin
Subject: Preview - SJRFPG - Future Funding Eligibility for Projects

CAUTION: Email from outside Hollaway



SAN JACINTO REGIONAL FLOOD PLANNING GROUP R E G I O N 6

Greetings Margaret:

The Regional Flood Plan is truly a bottom-up effort and we continue to solicit community feedback and project information from regional stakeholders. **The projects recommended in the Regional Flood Plan will define eligibility for future state funding for studies and flood mitigation projects. Therefore, it is critical that regional stakeholders submit their projects and supporting data for consideration by the San Jacinto Regional Flood Planning Group (SJRFPG).** If you have not provided your projects and input to the SJRFPG, please contact the Technical Consultant Team directly at SJRFPG.TechCon@freese.com. Please also take our survey to submit feedback and data about flooding in your community.

[Submit Projects to be Considered in the Regional Flood Plan](#)

The development of the state-wide flood plan is a multi-year, cyclical project, but deadlines are fast approaching. **The final date to submit projects for inclusion in the draft Regional Flood Plan is April 15, 2022.** Data collection will continue

after April 15, but it is not guaranteed that projects will be included in the draft Plan due August 1, 2022. Don't miss out! Submit your projects now.

Submit Projects to be Considered in the Regional Flood Plan

We are excited to announce that the full SJRFPG voted to submit the March Technical Memorandum (Memo) to the Texas Water Development Board (TWDB). The March Tech Memo acts as a preliminary check on the SJRFPG's progress towards the complete Regional Flood Plan.

Review the March Tech Memo

Finally, we encourage everyone to participate in the development of the San Jacinto Regional Flood Plan. Head to our website to learn more about the planning process and register for upcoming meetings.

Learn More About the SJRFPG

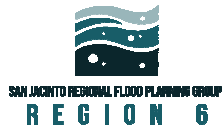
If you have any questions about the SJRFPG, please reach out to our project team at SJRFPG.TechCon@freese.com or respond directly to this email.



San Jacinto Regional Flood Planning Group, 1001 Preston, 7th Floor, Houston, TX 77002, (713) 274-3914

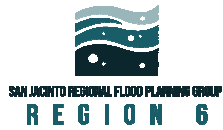
[Unsubscribe](#) [Manage preferences](#)

**Appendix 10-3:
SJRFPG Distribution List**



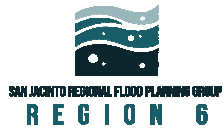
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
*Butch	Davis	John	Ford
*Darren	Hess	John	Graf
*David	Brandon	John	H. Scott
*David	Lilly	John	Headrick
*Elizabeth	Jan	John	Kelly
*Fritz	Faulkner	John	Mahon
*Jason	Millsaps	John	Maresh
*Judy	Eaton	John	Paul Listowski
*KP	George	John	Pennington
*L.M. Matt	Sebesta Jr.	John	Rambo
*Mark	Henry	John	Skelton
*Mark	Vogler	John	White
*Michael	Shannon	John	Wright
*Stacy	Slawinski	John	Zgourides
1993	1992	John Anthony	Brown
A.J.	Jenkins	John Graziano	
Aaron	Groff	John R. Blount	
Abbie	Kamin	John Whitmire	
Abraham	Rubinsky	Johnnie	B. Stone
Adam	Arendel	Johnny Kopecky	
Adrian	Garcia	Johnson Burton	
Adrian	Hernandez	Jon	Keeney
Al Green		Jon	Keeney
Alan	Smith	Jon	Powell
Alem Gebriel		Jon	Powell
Alex	BeMent	Jon	Stiloble
Alex	Jones	Jon (J.B.)	Baker
Alex	Kamkar	Jon Rosenthal	
Alfred Garcia		Jonathan	Marks
Alia	Vinson	Jonathan Cowen	



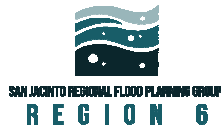
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Alice	Chen	Jonathon	Randle
Alisa	Max	Jordan	Blegen
Allen	Carpenter	Jordan	Buras
Allen	Lee	Jordan	Furnans
Allison	Bynum	Jorge	Flores
Alma Allen		Jose	Coronilla
Alun	Honey	Jose	Coronilla
Amanda	Benzman	Jose Coronilla	
Amanda	Davenport	Jose Coronilla	
Amanda	Fenwick	Joseph	Bartlett
Amanda Hafemeister		Joseph	Peart
Amber	Alfred	Joseph	Raia
Amy	Beck	Joseph Sosa	
Amy	Bly	Josh	Abernathy
Ana	Diaz	Josh	Fultz
Ana Hernandez		Josh	Krause
Andre	Perkins	Joshua	Christie
Andrea	Giamfortone Wilson	Joy	Dawson
Andres Salazar		Joy	McCormack
Andrew	Bohac	Joyce	Raines
Andrew	Friedberg	Julie	Davis
Andrew	Isbell	Junru	Roland
Andrew	Mitcham	Justin	A. Hicks
Andrew	Rutherford	Justin	Beckendorff
Andrew Moore		Justin	Hicks
Andy	Brauninger	Justin	Mills
Andy	Chan	Justin Bower	
Andy	Conner	JW	Washington
Andy	Mann	Kacey	Roman
Andy	Meyers	Kacy	Smajstrla



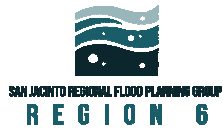
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Andy Palermo		Karen	McDuffie
Andy Yung		Kari	Osbourne
Angela Uoo	Blackwell	Karla	Cisneros
Angie	Terrell	Kason	Menges
Ann	Colina	Katherine	Ragston
Ann	Minnick	Katherine Culbert	
Ann	Snyder	Kathie	Reyer
Ann Johnson		Kathlie	Jeng-Bulloch
Anne	Stark	Kathy	Holcomb
Anne Grzanka		Kathy	Huebner
Annelie	Lentz	Kathy	Pierpolivy
Annette	Arriaga	Katie	Johnson
Anthony	G. Maroulis	Katie S	
Anthony	Solomon	Kay	Young
Anthony	Talluto	Kay Ann	Jorgenson
Arbutus "Arby"	Nolasco	Kaye	Kahlich
Armando Walle		Kayleen	Huffman
Arnetta	Hicks-Murray	Kayleen	Rosser
Aron	Kulhavy,	Keith	Bell
Arthur	Fuhrmann	Keith	Brown
Asdrubal Gutierrez		Keith	Henry
Ashley	Graves	Keith	Smathers
Augustus Campbell		Keith	Thompson
Austin	Bleess	Kelle	K. Mills
Barbara	Haffelfinger	Kelli	Gallagher
Barbara	Walker	Kelly	Belmore
Barbara	Whelton	Kelly	Johnson
Barrett	Shepherd	Kelly	McDonald,
Barry	C. Beard	Kelly Mills	
Becky	Burden	Ken	Clark



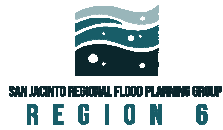
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Belinda	Hackleman	Ken	DeMerchant
Ben	Tibbs	Ken	Green
Ben Leman		Ken	Kreger
Bernie	Gessner	Ken	Mathew
Bert	Lyle	Ken	Spalding
Bessie	White	Kendric	Jones
Betsy	Radtke	Kendric	Jones
Bevelria	Doyle	Kenneth	Lentz
Beverly	Gaines	Kent	Pool
Bill	Adams	Keven Sandoval	
Bill	Bentley	Kevin	Cole
Bill	Benton	Kevin	Lacy
Bill	Daugette	Kevin	Raines
Bill	Green	Kevin	Taylor
Bill	Parker	Kevin	Trautner
Bill	Pittman	Kevin	White
Bill	Ragle	Kevin	Yackly
Bill	Richard	Kevin Brady	
Bill	Strickland	Kim	Branch
Bill	Thompson	Kim Nygren	
Billie	Nikolaus	Kimberly	Holland
Billy	Crittenden	Kris	Kuehnel
Billy	Philio	Kristi	Ayers
Billy Combs		Kristin	Gauthier
Blake	Irving	Kristin	Lambrech
Blake Bourne		Kur	Kopczynski
Bo	Bothe	Kurt	Otten
Bo	Bunker	Kurt	Quinn
Bob	Bartlett	Kyle	Burks
Bob	Davee	Kyle	Currie



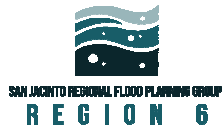
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Bob	Higley	Kyle	Jung
Bob	Kosar	Lacey Hull	
Bob	Kosar	Laddie	McAnally
Bob	Milner	Lance	Bertolino
Bob	Warters	Lance	LaCour
Bob Jester		Lara	Rook
Bob Rehak		Larry	Akery
Bobby	Lieb	Larry	Bitner
Bobby	Pennington	Larry	Millican
Bobby	Warren	Larry	Reams
Brad	Richards	Larry	Tosto
Brad	Stafford	Larry Taylor	
Brad Wilber		Laura	Alvarado
Brandon	Capetillo	Laura	Davis
Brandon	Lunsford	Lauri	Lankford
Brandon	Wade	Laurian	Cuba
Brandon Creighton		Laurie	B. Kincannon
Brenda	Hoppe	Laurie	Boudreaux
Brenda	Milligan	Laurie	Rosenbaum
Brenda	Teykl	Lee	Jones
Brent	Erenwert	Leon	Wilson
Brent	Spier	Leonard	Reed
Bret	Raley	Leonard	Scarcella
Brett	Bratcher	Leroy Stevens	
Brian	Brooks	Lesley	Briones
Brian	Cantrell	Lester	Adlridge
Brian	Edmondson	Letitia	Plummer
Brian	Halligan	Libby	Simonson
Brian	Mansfield	Lina	Hidalgo
Brian	Maxwell	Linda	Harnist



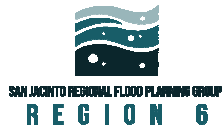
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Brian	Maxwell	Lindsay	Carr
Brian	Muecke	Lisa	Evans
Brian	Rowland	Lisa	Kettler Martin
Brian	Schneider	Lisa	McCracken Mairs
Brian	Thompson	Liv Haselbach	
Brian Babin		Lizeth	Hernandez
Brian Bickford		Lizzie Fletcher	
Brian Koch		Llarance	L. Turner
Briscoe Cain		Lois Kolkhorst	
Brittany	B.	Lon	Squyres
Brooke Bacuetes		Lonnie	Garfield
Brooks	Bass	Lorenzo	Wingate
Bruce	Karowski	Lori	Klein Quinn
Bruce	Leamon	Lorraine	Hehn
Bruce	Reiser	Lou	Wortham
Bryan	Stocher	Louis	Byars
Bryce	Klug	Louis	Marinos
Buddy	Hammann	Louis	Martinez
Butch	Peterson	Louis	Rigby
Byron	J. Herbert	Luke	Orlando
Caitlin	Heller	Lynda	Fairchild
Calvin	Lee	Lyndon	Stamps
Calvin	Shiflet	Lynn	Clouser
Carbett Trey J.	, III	Mac Martin	
Carey	Cobb	Mack	Eisenberg
Carl	Drozd	Maggie	Puckett
Carl	Pickett	Manuel	Cantu, Jr.
Carlos	Simonson Orellana	Manuel Martinez	
Carmela	Garcia	Marc	Churchman
Carmen	Loor	Marc	Morales



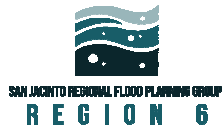
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Carnell	Carrell	Marci	Kurtz
Carol	Delac	Marcos	Vajdos
Carol	Gubbles	Marcus	Rabren
Carol	K. McCutcheon	Marcus	Rabren
Carol	Langley	Marcus	Stuckett
Carol Alvarado		Marcus	Stuckett
Caroline	Wadzeck	Maria	Johnson
Carolyn	Evans-Shabazz	Maricela	Serna
Carolyn	Kindred-Jenkins	Marie	Gelles
Carolyn	McWaters	Marilyn	Clay
Carolyn	Stachey	Marilyn	Vaughn
Cary	Bass	Mario	Gonzales
Casey	Christman	Mark	Bitz
Casey	McAuliffe	Mark	Denman
Cassandra	Gill	Mark	Gongora
Catherine	Lewis	Mark	Keough
Catherine Foley		Mark	Kobelan
Cecil	Booth	Mark	Kramer
Cecil	Willis	Mark	Morgan, Sr.
Cecil Bell, Jr.		Mark	Nettuno
Chad	Mallett	Mark	Roller
Chad	Nesvadba	Mark	Schaaf
Chad	Tressler	Mark	Stelly
Chad	Wilsey	Mark	Stoll
Chad Huff		Mark	Thompson
Chadd	Degges	Mark	Wilson
Chaise	Cary	Mark Mitchell	
Charlene	Warren	Mark Tice	
Charles	A. Kalkomey	Mark Yentzen	
Charles	Cappel	Marlene	Clanton



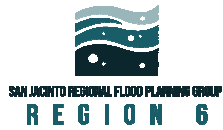
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Charles	D. Jessup, IV	Marsha	Porter
Charles	Johnson	Martha	Castex-Tatum
Charles	Kalkomey	Martin	Graves
Charles	Kalkomey	Martin	Meador
Charles Cunningham		Martin	Murdock
Charles Schwertner		Martin	Vela
Charles Shumate		Marty	Hughes
Charley	Tindol	Mary	Castillo
Charlie	Bradt	Mary	Combs Demby
Charlie	Musgrove	Mary	Robles
Charlie	Riley	Mary Ann Perez	
Charlie Henry		Mary Anne Piacentini	
Charlotte	Smith	Mashal Awais	
ChaVonne	Sampson	Matt	Hanks
Cherry	Hartig	Matt	Woodruff
Cheryl	McBeth	Matt	Yarborough
Cheryl	Sterling	Matt	Zeve
Chip	Cowell	Matt Lopez	
Chipper	Smith	Matt Nelson	
Chloe	Sanco	Matthew	Barrett
Chris	Armacost	Matthew	Berg
Chris	Campbell	Matthew	Broaddus
Chris	Fenner	Matthew	Chastain
Chris	Harris	Matthew	Doc Dantzer
Chris	Holcomb	Matthew	Greening
Chris	Kalman	Mauro	Barrera
Chris	Lane	Mayes Middleton	
Chris	McDonald	Mayra	Gonzales
Chris	Mueller	Megan	Ingram
Chris	Nunes	Melinda	Johnston



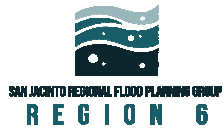
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Chris	Parr	Melinda	Strong
Chris	Presley	Melinda Salazar	
Chris	Riggs	Melissa	Byers
Chris	Whittaker	Melissa	Knop
Christian	Hernandez	Melissa	Strawn
Christina	Lindsay	Merle Don	Aaron, Sr.
Christina	Quintero	Michael	Byrum-Bratsen
Christina Morales		Michael	Fife
Christina Petersen		Michael	Giovinazzo
Christopher	Bloch	Michael	Herminghaus
Christopher	Waddle	Michael	John
Christy	Bryant	Michael	Keck
Christy	Lyons	Michael	Kubosh
Chuck	Engelken	Michael	McGovern
Chuck	Engelken Jr	Michael	McLeod
Chuck	Pate	Michael	Terraso
Cindy	Clark	Michael	ward
Cindy	Kuykendall	Michael Bloom	
CJ	Snipes	Michael McCaul	
Clarrissa Perez		Michael Turco	
Claudia	Garcia	Michelle	Earhart
Claudia	Harrison	Michelle	Powless
Claudia	Morales	Michelle	Segovia
Clay	Chew	Mike	Cassata
Clay	Forister	Mike	Collard
Clay	Morris	Mike	Eubank
Clay	Pearson	Mike	Fletcher
Clint	McClaren	Mike	Foreman
Clyde	Reeves	Mike	Garrett
Cndy	Olivieri	Mike	Goodrum



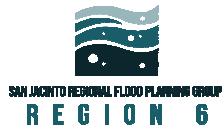
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Coby	Pruitt	Mike	Gordy
Cody Ray	Wheeler	Mike	Johnson
Cody Vasut		Mike	Knox
Colleen Gilbert		Mike	Leech
Colleen Jones		Mike	McCormick
Connor	Stokes	Mike	Tyson
Corey	Jannett	Mike Dach	
Corey	Kelly	Mike Schofield	
Cory	Stull	Mikey	Svoboda
Cory Taylor		Modesto	Mundo
Craig	Brown	Mohamed	Bagha
Craig	Kartye	Morad	Kabiri
Craig	Meyers	Morgan White	
Craig Kalkomey		Nancy	Arnold
Crista	Beasley-Adams	Nancy	Ojeda
Cristy	Pendley	Nancy	Robb
Cynthia	Ashdown	Natalie	Johnson
Cynthia	Pina	Natalie	Picha
Daiquiri	Beebe	Nate Dickson	
Dale	Dodds	Nathan	Vessey
Damon	Kuhn	Nathan	Wesely
Dan	Davis	Naushad	Kermally
Dan Crenshaw		Neal	Bess, Jr
Dan Huberty		Neal	Thornton
Dane	Johnson	Neal	Wendele
Daniel	Johnson	Neil	Moyer
Daniel	Miller	Neil	Moyer
Danielle	Goshen	Neil	Verma
Danny	Earp	Neil Gaynor	
Danny	Kuykendall	News	Editor



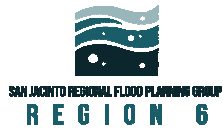
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Danny	Marburger	Nick	Haby
Danny	Pierce	Nick	Kondejewski
Darell	Branch	Nick	Long
Darin	Boot Clark	Nicole	Tyson
Darrell	Apffel	Norm	Carlegis
Darryl	K. Humphrey, Sr.	Norman	Funderburk
Daryl	Alford	Norman	Schroeder
Dave	Martin	Nyla	Akin Dalhaus
Dave	Shelburne	Nyla	Dalhaus
David	Abraham	Odis	Jones
David	Aden	Ornaldo	Ybarra
David	Allen	Oscar	Greek
David	Arnold	Oscar	Lazaro
David	Brown	Paige	Sommer
David	Collins	Pat	Graham
David	Dobyanski	Pat	Hallisey
David	Dominy	Pat	Patterson
David	Ewald	Patricia	Knudson Joiner
David	Himsel	Patrick	Donart
David	Hollman	Patrick	Hughes
David	Jennings	Paul	Bond
David	Leyendecker	Paul	Hershey
David	Leyendecker	Paul	Hoffmann
David	Linder	Paul	Horn
David	Little	Paul	Lock
David	M. Young	Paul	Maddock
David	Moss	Paul	Morris
David	Parkhill	Paul	Virgadamo, Jr.
David	Reagan	Paul Bettencourt	
David	Robinson	Peggie Zahler	



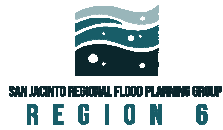
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
David	Schwarz	Penny Morales Shaw	
David	Sharp	Peter	F. Martin
David	W. Douglas	Phil	Cayten
David	Whitmire	Phil Stephenson	
David Brandon		Philip	Loving
David Lowe		Philip	Meadows
David Parkhill		Philip	Prine
David Ray	Pierce	Philip	Ratisseau
Dawn	Candy	Phillip	Cox
Dawn	McDonald	R. Jack	Cagle
Deacon	Tittel	Rachel	Herr
Dean	Gristy	Rachel	Powers
Dean	Spencer	Rachel	Schnakenberg
Deanna	Schmidt	Ralph	Leino, Jr.
Debbie	Meyer-Cobb	Ralph "Buster"	Buell, III
Debbie	Sutherland	Ramona	Neal
Debra	Cates	Randall	Parr
Debra	Marz Davison	Randy	L. Stroud
Debra	Zagala	Randy	Stricklind
DeBra Edwards		Randy Weber	
Dedrick	Johnson	Raquel	Reams
Dee	Howard Mullins	Raul	Villarreal
Delores	Compean, III	Ray	Dell'Osso
Delores	Terry	Ray	Pearson
Dena	Green	Ray	Wagner
Dena	Mahan	Raymond	Cantu
Denis	DeLuca	Raymond	McDonald
Dennis	Albrecht	Rebecca	Johnston
Dennis	Beasley	Rebecca	K. Haas
Dennis	Naeger	Rebecca Andrews	



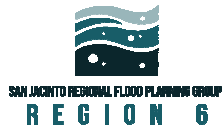
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Dennis	Thornton	Reese	Cook
Dennis Paul		Reid Mrsny	
Derek	Townsend	Rhomari	Leigh
Derrell	Travis	Ric	Bogue
Diana	Foss	Ricardo	Villagrande
Diane	Driggers	Richard	Boyett
Diane	Scoggins	Richard	Carby
Diane Cooper		Richard	Helmle
Dick	Tyson	Richard	L. Davis
Dietrich	von Biedenfeld	Richard	Sommer
Disa	Schulze	Rick	J. Staigle
Divya	Rani	Rick	Sinclair
Don	Doering	Ricky	Bowles
Don	Harrison	Ritch	Wheeler
Don	Jones	Robert	Bartlett
Don	Matter	Robert	Bellon
Don	McDaniel	Robert	Byrne
Donald	Flynn	Robert	Evans
Donna	Rogers	Robert	Gallegos
Donny	Marrs	Robert	Gillispie
Dorothy	Johnson	Robert	Hawn
Dorthea	Jones	Robert	Hoskins
Doug	McEntire	Robert	J. Griffon
Doug	Peterson	Robert	L. Thomas
Douglas	Corbett	Robert	Lira
Douglas	K. Kneupper	Robert	Lord
Douglas	Mangum	Robert	MacCallum
Douglas	OwYang	Robert	Michetich
Douglas	Round	Robert	Swanson
Dr. Shelley	Sekula-Gibbs	Robert	Upton



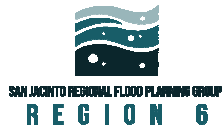
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Drew	Wasson	Robert	Vanderpool
Duane	Barrett	Robert	Walker
Duave	Barrett	Robert Adams	
Dude	Payne	Robert Kosar	
Duke	Coon	Robert Nichols	
Dustin Spinks		Robin	Bradbery
Dwayne	Hajek	Robin	Collins
Earl	Zachry	Robin	Green
Ebany	Sanco	Robin	J. Elackatt
Ed	Klein	Rod	McCrary
Ed	Sobash	Roderick	Hainey
Ed	Wolff	Rodney	Ellis
Ed Thompson		Roger	Gaskamp
Edna	Eaton	Roger	Nelson
Edward	Lapeyre	Roger	Shugart
Edward	Pollard	Roland	Agrella
Edwin	Friedrichs	Ron	Lovely
Efrain	Him	Ron	Raymaker
Einar	Goerland	Ron	Schmitz
Elie Alkhoury		Ron	Walkoviak
Elisa	Donovan	Ron Reynolds	
Elizabeth Miller		Ronnie	White
Emily	Shields	Rory	Escalante
Emily Schwartz		Rosalind Wyatt	
Emmett	Albro	Rosemary	Bartee
Eric	Foerster,	Rosie	Fonseca
Eric	Green	Rosie	Rojas
Eric	Thode	Roy	E. Maynor, Jr.
Erica	Molina	Roy	Yates
Erich	Pen	Russ	Poppe



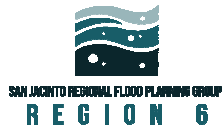
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Erick	Aguilar	Russ Poppe, P.E.	
Erik Silvey		Russel	Rupertus
Erin	Walley	Russell	Herron
Ernest	DeLeon	Russell	Humphrey
Ernest Bailes		Ruth	Mohn
Esmeralda	Moya	Ryan	Cade
Etta Marie	Patterson	Ryan	Edghill
Evan	Duvall	Ryan	Tinsley
Evelyn	Jones	Ryan	Wallace
fatima	berrios	Ryan Dagley	
Felicia	Ramos	Ryan Holzaepfel	
Felix	Herrera	Sallie	Alcorn
Felix	Vargas	Sally	Bakko
Fidel	Sapien	Sally	Branson
Fidencio	Leija	Sam	Lovely
Florence	Jackson	Sam	Risoli
Floyd	Emery	Sam Harless	
Frances	Aguilar	Sam Hinojosa	
Frances	Planchard	Samantha	Haritos
Frances	Vaughn	Samantha	Humphery
Frank	Cobio, Jr.	Sammy	Casados
Frank	Quinty,	Sandra	Blaine
Frank	Resch	Sandra	Dorr
Frank	Weary	Sandra	Loeza
Fred	Branch	Sara	Brown
Fred	Burton	Sara	Countryman
Fred	Kunzinger	Sara	Hart
Frederick	Sunderman	Sarah	Bernhardt
Gabe	Adame	Satya	Pilla
Gail	Logsdon	Satya Pilla	



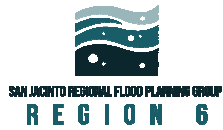
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Galen	Mansee	Scott	Anderson
Garnet Coleman		Scott	Bird
Garry	Hershman	Scott	Harris
Gary	Kersh	Scott	Shrader
Gary	Wubbenhorst	Scott	Tafari
Gary Gates		Scott Saenger	
Gary Struzick		Sean	Eglinton
Gene	Fisseler	Sean	Hutchinson
Gene	Schmidt	Sean	Robertson
Gene Wu		Sean	Skipworth
Geoff	Horn	Senfronia Thompson	
George	C. Coulam	Seth	Stokes
George	Peckham	Shana	Paulson
George	Starks	Shari	Wright
Gerald	Mink	Sharon	Valiante
Gerald	Roznovsky	Shashi	Kumar
Glen	Adams	Shaun	Dean
Glen	Barnhill	Shawn	Findley
Glen	Barnhill	Shawn Thierry	
Glenda	Callaway	Sheila	Williams
Glenn	LaMont	Sheila Jackson Lee	
Glenn	Starkey	Shelby	Dill
Glenna Sloan		Shelley	McGregor
Gordon	Johnson	Shelley	Sekula-Gibbs
Gordy	Bunch	Shepard	Perrin
Grady	Perdue	Sherial	Lawson
Grady	Prestage	Sherwood (Woody)	Green
Grant	Holt	Sirley	Rouse
Greg	Arthur	Sonia	Phillips
Greg	Goedecker	Sonya	Runyon



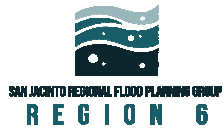
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Greg	Holden	Sophia	Guevara
Greg	Leslie	Sparkle Bell	
Greg	Piegari	Srinivas Chintalapati	
Greg	Travis	Stacy	Adams
Greg Bonnen		Stephan	Gage
Gregg	Bisso	Stephanie	Vessey
Gregg	Robinson	Stephanie Ruediger	
Gretchen	Fagan	Stephanie Zertuche	
Gus	Pappas	Stephen	Costello
Gwendolyn	Tealer	Stephen	D. Holmes
H.	Scott Apley	Stephen	Smith
Hal	Merritt	Stephen Sparks	
Hank	Dugie	Steve	Alongis
Harold	Minor	Steve	Boykin
Harold Dutton		Steve	Byington
Harry	B. Walker	Steve	Gillett
Harry	Folloder	Steve	Nagy
harry	ward	Steve	R. Porter
Harry	Ward,	Steve	Rockey
Harvey	Finley	Steve	Rosa
Heather	Betancourth	Steve	Spicer
Heather	Martin	Steve Toth	
Heather	Moon	Steven	Horelica
Heather	Neeley	Stewart	Jacobson
Helen	Lane	Stuart	Marks
Henry	Kollenberg	Sue	Chapman
HoJin	Lim	Susan	Blevins
Holm	Larsen	Susan	Bobrick
Hope	Zubek	Susan	Cottrell
Hubert Vo		Susan	Euton



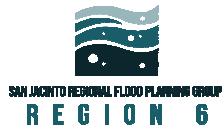
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Iby	Rico	Susan	Mathews
Iris	Gonzalez	Susan	Parker
Isaac	Davila	Susan	Schwartz
Isaac	Saldana	Susan Chadwick	
Iv	Hoke	Susan Chadwick	
J.D.	Hollier	Sylvester	Turner
Jacey Jetton		Sylvia Garcia	
Jack	Christiansen	T.J.	Wilkerson
Jack	Fryday	Tammi	Cimiotta
Jack	Harper	Tammy	Mutina
Jack	Yates	Tanvi	Sharma
Jackie	Cole	TBA	TBA
Jackie Chance		Ted	Case
Jacob	Balderas	Ted	Fletcher
Jae	Barkalow	Teresa	Vazquez-Evans
Jake Hollingsworth		Terri	Gale
James	Beach	Terri	Vela
James	Birdwell	Terry	Jeffers
James	Franklin	Terry	Matthews
James	Guthrie	Terry	Mitcell
James	L. Cook, III	Terry	R. Gaul
James	Metts	Terry	Rizzo
James	Noack	Thelma	Bowie
James	Nykaza	Theo	Melancon
James	Singleton	Thom	Kolupski
James	Stewart	Thomas	Belinoski
James "Jamie"	Walker	Thomas	Garza
James Koch		Thomas	Kirn
JAMES M	STINSON	Thomas	Luster
Jami	Clark	Thomas	Robinson



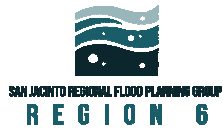
San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Jamie	Crawford	Thomas	Schoenbein
Jan	Bailey	Thomas	Schoenbein
Jan	Irving	Thomas P	Milburn
Jan	Vacek	Tia	Baker
Janet	Canton	Tiffany	Thomas
Janet	Diaz	Tiffany Cartwright	
Janet Hampton		Tim	Kelty
Jarvis Johnson		Tim	Pettigrew
Jason	Albert	Tim	Tietjens
Jason	Hardcastle	Timothy	Anders
Jason	J. Nelson	Timothy	Buscha
Jason	Katkoski	Timothy	Pylate
Jason	O'Brien	Tina	Hendon
Jason	Perez	Tina	Petersen
Jason	Stuebe	Toby	Guenter
Jason	Tabor	Toby	Guenter
Jason	Tones	Todd	Burrer
Jason	Wieghat	Todd	Kana
Javier	Infante	Todd	Stephens
Jay	Carlton	Tom	Belmore
Jay	H. Knight	Tom	Coale
Jay	H. Knight	Tom	Cronin
Jay	Martin	Tom	Donaho
Jay	Muschenheim	Tom	Ehlers
Jay	Smyre	Tom	Fullen,
Jeannette	Freeman	Tom	Heidt
Jeff	Campbell	Tom	Munoz
Jeff	Crisp	Tom	Ramsey
Jeff	Farley	Tom	Waller
Jeff	Larson,	Tom	Warner



San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Jeff	Michalak	Tom	Wilson
Jeff	Taebel	Tom Oliverson	
Jeff	Wagner	Tomika	R. Lewis
Jeffrey	Boney	Tommy Hammond	
Jenna	Armstrong	Toni	Capretta
Jenni	McJunkin	Tony	Carbone
Jennie	Green-Prats	Tony	Gonzalez
Jennifer	Anderson	Trae Camble	
Jennifer	Bergman	Travis	Quinn
Jennifer	Heidt	Travis	Townsend
Jennifer	J. Lane	Trent	Perez
Jennifer	Jones Ward	Trent	Thomas
Jennifer	Mays	Trey	Wren
Jennifer	Morrow	Trish	Hanks
Jennifer	Sheridan	Troy	Barton
Jennifer	Thayer	Troy	Harrison
Jennifer	Winans	Troy Nehls	
Jennifer Hundl		Vacant	
Jerome	Hudson	Vacant	
Jerome	McKown	Vacant	
Jerry	Cain	Vacant	
Jerry	Davis	Vacant	
Jerry	Hayslip	Vacant	
Jerry	Mouton, Jr.	Valoree Swanson	
Jesse	Morales	Vanessa Holt	
Jill	Carlson	Vashaundra	Edwards
Jill Boullion		Vernon Goldie	Teltschick
Jim	Beaird, Jr.	Veronica	Garcia
Jim	Dewhirst	Vicki	McKenzie
Jim	Pappas	Victor	Lovuola



San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
Jim	Robertson	Victor	Sanchez
Jim Murphy		Vinay	Singhania
Jimmy	Henry	Vince	DeCapio
Jimmy (JJ)	Rivas	Vincent	Morales
Jimmy Gore		Virginia	Rosas
Jimmy Sylvia		Wade	Goates
Jing Chen		Wade	Smith
Jishnu	Nair	Wally	Deats
Joan Huffman		Wally	Wieghat
Jocory Brewer		Walter	Gant
Jody	Czajkoski	Walter	Simms
Joe	Dickson	Walter	Smith
Joe	Dusek	Walter	Wilson
Joe	Fauth, III	Wanda	Zimmer
Joe	Garcia	Wayne	Kircher
Joe	Giusti	Wayne	Newton
Joe	K. Ripple	Wen	Guerra
Joe	Machol	Wendy	Williams
Joe	Mento	Will Metcalf	
Joe	R. Zimmerman	Will Sherman	
Joe	Rodriguez	William	Brown
Joe	Sherwin,	William	Ferguson
Joe	Soto	William	King, III
Joe	Spence	William	Schuster
Joe	Supak	William	Tidwell
Joel	Bender	William (Bill)	Hastings
Joel	Castro	William Bert	Miller, III
Joel	Clark	Willie	Rios
Joel	Ita	Woody	Owens
Joel	M. Patterson	Xante'	Wallace



San Jacinto Regional Flood Planning Group Distribution List

First Name	Last Name	First Name	Last Name
John	Amsler	Yancy	Scott
John	Barnes	Yellambalsi	Ramachandra
John	Bleyl,	Zach Holland	
John	Bowen	Zachary	Meadows
John	Delac	Zenaida	Granados
John	Dervin	Zina Schwartz	
John	F. Isbell		

**Appendix 10-4:
Technical Committee Meeting Minutes and Materials**

APPENDIX 10-4 TECHNICAL COMMITTEE MEETING MINUTES AND MATERIALS

Minutes and materials from all San Jacinto Regional Flood Planning Group meetings and committee meetings can be accessed through the website at <https://sanjacintofloodplanning.org/meetings/>.

**Appendix 10-5:
Public Engagement Meeting Minutes and Materials**

APPENDIX 10-5 PUBLIC ENGAGEMENT COMMITTEE MEETING MINUTES AND MATERIALS

Minutes and materials from all San Jacinto Regional Flood Planning Group meetings and committee meetings can be accessed through the website at <https://sanjacintofloodplanning.org/meetings/>.

**Appendix 10-6:
May 2021 Pre-Planning Meeting Minutes**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Meeting Minutes

Region 6 San Jacinto Regional Flood Planning Group Pre-Planning Meeting
May 18, 2021, 6:30 - 7:30 p.m.
Zoom Virtual Meeting

Agenda Item 1: Welcome and Call to Order

Connor Stokes, Meeting Facilitator for the Region 6 San Jacinto Regional Flood Planning Group (SJRFPG) Pre-Planning Meeting, welcomed attendees and provided instructions for attendee participation during the meeting and designated public comment period.

Russ Poppe, Chair of the SJRFPG, expressed appreciation toward attendees and called the meeting to order at 6:34 p.m. The meeting was presented in both English and Spanish via the live interpretation function in Zoom.

A total of 84 attendees participated in the SJRFPG Pre-Planning Meeting. An [Attendee List](#) is located in [Appendix 10.6.a](#). The [meeting public notice and flyer](#) are located in [Appendix 10.7.b](#).

Agenda Item 2: Roll Call and Introductions

Alisa Max, Secretary of the SJRFPG, determined attendance of Voting and Non-voting Members and a quorum was established.

Quorum: Yes

Voting members or alternates present: 11

Number required for quorum per current voting membership of 14: 8

The following tables indicate attendance for SJRFPG Voting Members, Non-voting Members, and Liaisons:

Voting Member Attendance

Voting Member	Interest Category	Present (X) / Absent () / Alternate (*)
Russ A. Poppe	Chair, Flood Districts	X
Alia Vinson	Vice Chair, Water Districts	X
Alisa Max	Secretary, Counties	X
Gene Fisseler	Public	X
Matthew Barrett	River Authorities	
Elisa Macia Donovan	Agricultural Interests	X
Jenna Armstrong	Small Business	X
Paul E. Lock	Electric Generating Utilities	X
Sarah P. Bernhardt	Environmental Interests	*Jill Boullion
Stephen Costello	Municipalities	
Timothy E. Buscha	Industries	X
Todd Burrer	Water Utilities	
Brian Maxwell	Coastal Communities	X
Christina Quintero	Public	X

Non-Voting Member Attendance

Non-Voting Member	Agency	Present (X) / Absent () / Alternate (*)
Bill Adams	Texas Parks and Wildlife Department	
Natalie Johnson	Texas Division of Emergency Management	
Kristin Lambrecht	Texas Department of Agriculture	
Joel Clark	Texas State Soil and Water Conservation Board	
Colleen Jones	General Land Office	X
Megan Ingram	Texas Water Development Board	
Kelly Mills	Texas Commission on Environmental Quality	X
Jeff Taebel	Houston-Galveston Area Council	
Ellie Alkhoury	Texas Department of Transportation	*Alfred Garcia
Tom Heidt	Port Houston	
Michael Turco	Harris-Galveston Subsidence District	X

Liaison Attendance

Liaison	Region	Present (X) / Absent () / Alternate (*)
Mark Vogler	Lower Brazos—Region 8	
Michael Turco	Lower Brazos—Region 8	X
Todd Burrer	Trinity—Region 3	
Scott Harris	Trinity—Region 3	X
Timothy E. Buscha	Neches—Region 5	
Brandon Wade	Region H	

Agenda Item 3: Region 6 San Jacinto Regional Flood Planning Group Presentation

Cory Stull, Technical Consultant for the SJRFPG, provided a presentation on the background and formation of the SJRFPG, including:

- The creation of the first regional and state flooding planning process led by the Texas Water Development Board (TWDB).
- Formation of the 15 Regional Flood Planning Groups (RFPGs).
- An overview of the San Jacinto Region.
- An overview and the SJRFPG scope.
- A timeline for the San Jacinto Regional Flood Plan.

A copy of the [SJRFPG Pre-Planning Meeting Presentation](#) is located in [Appendix 10.7.c](#).

Agenda Item 4: Public Comment Period

Connor Stokes reiterated instructions for attendee participation during the meeting and designated public comment period before opening the meeting to public comments.

A total of seven (7) comments were received during the meeting. A summary of the comments received is included below and a **Comment Matrix** is located in **Appendix 10.7.d**.

- Public Comment #1 (Neil Gaynor):
 - Expressed concern regarding flood planning, water quality, and sedimentation in The Woodlands.
- Public Comment #2 (Catherine Foley):
 - Expressed the need to acquire flood-prone land before it is developed.
 - Expressed the need to channel water towards areas where it is needed rather than to the Gulf of Mexico.
- Public Comment #3 (Susan Chadwick):
 - Emphasized the need for a science-based management strategy to reduce flooding.
 - Expressed concern that current flood management policies and practices are contradictory and counterproductive.
- Public Comment #4 (Mike Dach):
 - Expressed concern regarding desilting in the channels and tributaries leading to Addicks Reservoir.
 - Expressed concern regarding impacts of U.S. Army Corps of Engineers' (USACE) flood pool management practices in Addicks Reservoir on surrounding communities.
- Public Comment #5 (John Graziano):
 - Expressed concern about the use of eminent domain to acquire farm and ranch land in Montgomery County.
- Public Comment # 6 (Jackie Chance):
 - Expressed concern regarding continued subsidence in Montgomery County from pumping ground water.
- Public Comment #7 (Mary Anne Piacentini):
 - Expressed appreciation for the opportunity to participate in the SJRFPG.
 - Emphasized the need for nature-based solutions and natural infrastructure.

Agenda Item 5: Meeting Recap and Adjournment

Connor Stokes provided attendees with contact information to submit written comments and thanked attendees for their participation and interest in the SJRFPG.

Russ Poppe adjourned the meeting at 7:14 p.m.

Appendix 10.6.a: Attendee List

Appendix 10.6.a: Pre-Planning Meeting Public Attendee List

Alem Gebriel	Jocory Brewer
Alfred Garcia	John Graziano
Amanda Hafemeister	Johnny Kopecky
Andres Salazar	Jonathan Cowen
Andrew Moore	Joseph Sosa
Andy Palermo	Katherine Culbert
Andy Yung	Katie S.
Anne Grzanka	Kelly Mills
Asdrubal Gutierrez	Keven Sandoval
Blake Bourne	Laurian Cuba
Bob Jester	Margaret Puckett
Bob Rehak	Mary Anne Piacentini
Brian Bickford	Mashal Awais
Brooke Bacuetes	Matt Lopez
Catherine Foley	Matt Nelson
Chad Huff	Melinda Salazar
Charles Cunningham	Michael Turco
Charles Shumate	Mike Dach
Christina Lindsay	Mohamed Bagha
Colleen Gilbert	Neil Gaynor
Colleen Jones	Reid Mrsny
Connor Stokes*	Robert Kosar
Cory Stull*	Rosalind Wyatt
Danielle Goshen	Ryan Kelly
David Brandon	Sally Bakko
David Lowe	Sam Hinojosa
David Parkhill	Satya Pilla
DeBra Edwards	Scott Saenger
Diane Cooper	Shea Sullivan
Dustin Spinks	Sophia Guevara
Elizabeth Miller	Sparkle Bell
Emily Schwartz	Srinivas Chintalapati
Emily Woodell	Stephanie Zertuche
Erik Silvey	Stephen Sparks
Fatima Berrios	Susan Chadwick
Flor Dimassi*	Thomas Lacombe*
Gary Struzick	Todd Stephens
Jackie Chance	Will Sherman
Janet Hampton	Zina Schwartz
Jennifer Hundl	4 Unknown (call-in attendees)
Jing Chen	

*Meeting Facilitator/Presenter

Appendix 10.6.b: Noticing Collateral

Noticing Collateral for the May 2021 Virtual Pre-Planning Meeting can be found on the SJRFPG website by following the links below or scanning the corresponding QR codes.

- Meeting Notice

https://www.twdb.texas.gov/flood/planning/doc/Region%206_Agenda_05_18_21.pdf?d=181363.5



- Meeting Flyer

https://www.twdb.texas.gov/flood/planning/doc/Region%206_PreplanningFlyer_05_18_21.pdf?d=181363.5



Appendix 10.6.c: Pre-Planning Meeting Presentation

The Meeting Presentation for the May 2021 Virtual Pre-Planning Meeting can be found on the SJRFPG website by following the links below or scanning the corresponding QR codes.

- Meeting Presentation
https://www.twdb.texas.gov/flood/planning/doc/Region%206_PreplanningPresentation_05_18_21.pdf?d=181363.5



Appendix 10.6.d: Comment Matrix

Appendix 10.6.d: Pre-Planning Meeting Comment Matrix

<p>Neil Gaynor</p> <p>Thank you for the opportunity to make public comment at today's San Jacinto Regional Flood Planning Group planning meeting. I'm representing One Water [Drainage Task Force] in the Woodlands. I wish to discuss two concerns regarding flood planning, water quality, and sedimentation. As I'm unable to show my slide material, I believe the members of the planning group will have my slide pack for reference. So, referring to the first slide, The Woodlands does indeed flood in extreme events, like many parts of The Woodlands. These floodwaters do indeed carry a significant load of sediment. However, hidden therein is potentially greater threat, a dangerous bacterial load. Within the boundaries of Spring Creek Watershed, which are shared amongst four counties, we find that Spring Creek has been impaired for some time due to its high bacterial content.</p> <p>Modeling and monitoring have documented the huge volume of colony-forming units as shown on the slide once you get them. Flooding increases Spring Creek bacterial loads, and these waters flow into Lake Houston. On a third slide that you will have, there is a series of Google Earth time-lapse images, which unequivocally document significant sedimentation in Lake Houston. The dates of the images are 1985, the start of the time-lapse sequence, 1995, a year after a major flood, and 2018, several months after Hurricane Harvey. We see the development of a small delta in Lake Houston, evidence of sand deposition after major flood events and eventual stabilization of those sediments by vegetation. This sedimentation is happening in a water supply reservoir downstream from areas with sand money and residential and commercial development.</p> <p>Finally, I just want to summarize the key points. The first take-home message is that flood planning should incorporate wetland and floodplain restoration. These habitats will naturally mitigate bacterial and other contamination in addition to moderating floods. Secondly, because sediments are filling Lake Houston, upstream riparian buffers and floodplains should also be included in flood planning to minimize erosion and sediment transport during flood events. Thank you for your time and attention.</p>	<p>Catherine Foley</p> <p>The major goal is to, I would think, cooperate with Mother Nature and have far less concrete on the ground. So, we know where a lot of the places in the whole Section 6 area that flood, and so I would think that before we waste more time trying to figure out where that is, we already know, to have land acquisition more than waiting for people to build things and then have a buyout after flooding occurs. Another would be something I brought up with another group. If you're going to channel water away, don't just channel it to the Gulf, channel it to where it might be needed as it comes down. There has been talk about underground channels, pipelines. We can move oil from Canada. We surely should be able to move water in Texas.</p> <p>We've had covered storage, not just open-air storage for mosquitoes, because there are places where sometimes we end up with droughts and then we have no water. Another thing to consider is non-potable water. I know people in California hire companies to do their lawns because they don't want to be fined for using potable water. I've never found a plan in Texas that does that, where you can purchase it for home ownership. I would also think that you would have some kind of recommendation for the actual usage of land so that parking lots would be tiered rather than take up every amount of available space, because we know that's very, very dangerous. I don't know what kind of connection there is with the Coastal Texas Study. I haven't seen that in the list of people with whom you're associated. So those are some of the points I would like to make for consideration when you all get together. Thank you.</p>
<p>Susan Chadwick</p>	<p>The San Jacinto region and the state of Texas need a coherent, science-based management strategy to reduce flooding. Our flood planners need to agree on a set of working principles in order to guide policy as outlined in the technical guidelines recently released by the Texas Water Development Board. Right now, the policy and practices are contradictory and counterproductive, working across purposes. Frankly, there are too many engineers running the show. Engineers are fine people, but they work to make</p>

Appendix 10.6.d: Pre-Planning Meeting Comment Matrix

money. Engineering is not always the best or most cost-effective way to reduce flooding. The recently named technical consultants for the regional flood planning process seem to be exclusively engineers. Where are the geologists and scientists? As an example of the contradictory policies regarding our natural drainage system, both the Corps of Engineers and the Harris County Flood Control District want to improve conveyance by deepening and widening our bayous and tributary streams. The Corps has proposed deepening and widening Buffalo Bayou from the dams to Downtown Houston. But when Buffalo Bayou naturally deepens and widens in order to accommodate increased flows, the Corps allows property owners to build a bank back out into the channel, effectively narrowing the channel again. Other jurisdictions, the state of Vermont, for instance, don't allow that unless lives and property are directly threatened. Our flood planners need to decide whether they want to improve conveyance to speed up storm water, which has been proven to cause more flooding and erosion, or whether their priority should be slowing and holding, spreading out and stopping storm waters before they flood the stream.

The proposed regional master drainage plan relies too heavily on channelizing streams. Analyzing even grass channels can be a counterproductive approach that only increases flooding. Fort Worth and other places have policies in managing flooding in place. That should be the primary focus. Denton County has a program to protect greenbelts along streams that includes explaining to the public why that is important. The focus on the impact of development in the technical guidelines is excellent. Flood funds should be used to buy and conserve lands needed for holding and soaking up storm water. That does not mean scraping trees and bulldozing the land. The priority should be on nature-based flood reduction, which has the greatest cost benefit.

To address what seems to be an unfortunate misunderstanding that came up in a recent regional meeting, open ditches are a form of nature-based flood management. There are open ditches all over Houston and Harris and Montgomery counties. They work better. It makes no sense to argue for nature-based flood management at the same time argue for burying drainage ditches and concrete pipes and putting curbs on streets. I'd just like to vote in favor of continued virtual meetings.

**Mike
Dach**

I'm the coordinator of the Addicks Flood Mitigation Network, which is located on the perimeter of Addicks Reservoir. I wanted to address the increased flood threat to the perimeter communities resulting from the massive desilting that Harris County Flood Control has done in the channels and tributaries leading to the reservoir, as compared to the non-desilting that the Corps of Engineers has resisted to the comparable channels inside the reservoir boundaries. The question is how will the Corps' continued use of limiting the pool rate of rise to minimize the safety concerns affect the Corps and Harris County Flood Control's support for the following components of counter proposals that have been made, such as the KPC and the Houston Stronger plans? They proposed massive excavation in the reservoir—63,000- to 75,000-acre feet in Addicks Reservoir.

Also, the KPC plan has proposed in the Upper Cypress Creek watershed and Upper Addicks watershed widespread retention and detention storage of approximately 135,000 acre-feet. So how will the Corps' continued use of limiting the flood pool rise affect the flood threat to these perimeter communities from major tributary forward flow, overbank flooding due to the undesilted reservoir channels? In case people are not familiar with what the safety concerns are that the Corps is using limiting the pool rate of rise are, there are four of them. There's high pool level concern with overtopping, which can lead to levee wash out. The second one is local rise in pool level due to wind set up. Standing waves can lead to levee overtopping and wash out. The third is the Addicks North spillway cracked and separated concrete armor. Uncontrolled discharge can lead to failures from erosion, breaching, lifting of the slabs, the concrete slabs, and washout.

Appendix 10.6.d: Pre-Planning Meeting Comment Matrix	
	<p>The fourth safety concern for the Addicks Reservoir is the Addicks North spillway discharge around or over the spillway and the uncontrolled discharge can scour the ditch that's on the embankment side and you can have embankment tow, undercutting, and failure, massive failure.</p>
John Graziano	<p>My only comment is I want to make sure we don't use these studies to advance the use of eminent domain to local farms and ranches in Montgomery County. That is my only concern, and I would like somebody on the board from Montgomery County who actually owns a farm and ranch because it's hard enough already to maintain a farm and ranch and being pressured from eminent domain—it's not a good thing. That's all I have to say.</p>
Jackie Chance	<p>I'll give you a little background upfront. A lot of people may not know me. I'm Jackie Chance, I'm the general manger for Montgomery County WCID #1. We have several wells and wastewater treatment plants and whatnot in the Spring Creek reservoir area. I'd like to comment on one of the chief problems with this study, as I said, is the continued subsidence from pumping ground water is going to continually change the surface elevations. Unless we can get a handle on subsidence and get some cooperation out of Lone Star and some other people like the City of Conroe or people that are not really all that fond of surplus water to take some pressure off that. Everything we're doing here and everything you're doing here is subject to change in 15 or 20 years just from pumping ground water. So, I'll relinquish my time there, but I do believe there's got to be more leverage to get these other agencies involved with correcting this problem.</p>
Mary Anne Piacentini	<p>I'm the president and CEO of the Katy Prairie Conservancy. First of all, I want to thank you for having this public meeting and the series of meetings that you're having to develop the flood plan. But I also want to also apply the hope that you're going to place an emphasis on the triple bottom line of economic environmental and ... environmental social benefits. I hope that in looking at the definition of natural infrastructure that you'll use a much broader definition than I think that you've already identified and work with the National Wildlife Federation and the Community Flood Mitigation Group, which has put together a natural infrastructure brochure that really talks about elements of natural infrastructure and why using nature is really important.</p> <p>It's awfully hard to replicate nature and I know a lot of us talk about the use of nature-based solutions if you can't keep the natural infrastructure, but I hope we first look at the natural infrastructure, which would include land conservation, not just, say, forest, but forested wetlands, natural depression of wetlands, grasslands. Also, an emphasis on protecting our riparian corridors. Floodplains and floodways are excellent ways to store water, hold back water, to slow down water, along with all of the land preservation opportunities that there are. But if we have them basically filled up with buildings, it's a lot more difficult to allow that benefit. Last, but not least, I want to echo the gentleman's comment about farmers and ranchers. They really are already protecting our land and they should be incentivized to do so or rewarded, given opportunities to maintain that land, especially floodplain, floodway lands. Thank you.</p>

**Appendix 10-7:
August 2021 Existing Flood Risk Meeting Minutes**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Meeting Minutes

Region 6 San Jacinto Regional Flood Planning Group Existing Flood Risk Meeting
Aug. 31, 2021, 6:30 - 7:30 p.m.
Zoom Virtual Meeting

Agenda Item 1: Welcome and Call to Order

Connor Stokes, Meeting Facilitator for the Region 6 San Jacinto Regional Flood Planning Group (SJRFIG) Existing Flood Risk Meeting, welcomed attendees and provided instructions for attendee participation during the meeting and designated public comment period.

Timothy Buscha, Chair of the SJRFIG, expressed appreciation toward attendees and called the meeting to order at 6:30 pm.

A total of 49 attendees participated in the SJRFIG Existing Flood Risk Meeting. An [Attendee List](#) is located in [Appendix 10.7.a](#). The [meeting public notice and flyer](#) are located in [Appendix 10.7.b](#).

The meeting was presented in both English and Spanish via the live interpretation function in Zoom.

Agenda Item 2: Roll Call and Introductions

Alisa Max, Secretary of the SJRFIG, determined attendance of Voting and Non-voting Members and a quorum was established.

Quorum: Yes

Voting members or alternates present: 8

Number required for quorum per current voting membership of 14: 6

The following tables indicate attendance for SJRFIG Voting Members, Non-voting Members, and Liaisons:

Voting Member Attendance

Voting Member	Interest Category	Present (X) / Absent () / Alternate (*)
Timothy E. Buscha	Chair, Industries	X
Alia Vinson	Vice Chair, Water Districts	X
Alisa Max	Secretary, Counties	X
Gene Fisseler	Public	
Matthew Barrett	River Authorities	X
Elisa Macia Donovan	Agricultural Interests	X
Jenna Armstrong	Small Business	X
Paul E. Lock	Electric Generating Utilities	
Rachel Powers	Environmental Interests	
Stephen Costello	Municipalities	
Neil Gaynor	Upper Watershed	X
Todd Burrer	Water Utilities	
Brian Maxwell	Coastal Communities	
Christina Quintero	Public	X

Non-Voting Member Attendance

Non-Voting Member	Agency	Present (X) / Absent () / Alternate (*)
Hope Zubek	Texas Parks and Wildlife Department	X
Natalie Johnson	Texas Division of Emergency Management	
Kristin Lambrecht	Texas Department of Agriculture	
Joel Clark	Texas State Soil and Water Conservation Board	
Colleen Jones	General Land Office	*Brooke Bacuetes
Megan Ingram	Texas Water Development Board	X
Melinda Johnston	Texas Commission on Environmental Quality	X
Jeff Taebel	Houston-Galveston Area Council	*Justin Bower
Ellie Alkhoury	Texas Department of Transportation	
Tom Heidt	Port Houston	
Michael Turco	Harris-Galveston Subsidence District	X

Agenda Item 3: Region 6 San Jacinto Regional Flood Planning Group Presentation

Cory Stull, Technical Consultant for the SJRFPG, provided a presentation on the background of the SJRFPG and how the public could provide input in the Regional Flood Planning (RFP) process, including:

- The creation of the first regional and state flooding planning process led by the Texas Water Development Board (TWDB).
- Formation of the 15 Regional Flood Planning Groups (RFPGs).
- An overview of the San Jacinto Region.
- An overview of the Existing Flood Risk in the San Jacinto Region.
- An overview and live demonstration of the SJRFPG’s data collection method and interactive web map.

A copy of the **SJRFPG Pre-Planning Meeting Presentation** is located in **Appendix 10.7.c**.

Agenda Item 4: Public Comment Period

Connor Stokes reiterated instructions for attendee participation during the meeting and designated public comment period before opening the meeting to public comments.

A total of four (4) comments were received during the meeting. A summary of the comments received is included below and a **Comment Matrix** is located in **Appendix 10.7.d**.

- Public Comment #1 (David Henderson):
 - Expressed concern regarding flood planning around Caney Creek.
- Public Comment #2 (Chuck Stilwell):
 - Expressed a need for clarification on how the SJRFPG works with other entities.
- Public Comment #3 (Linda Shead):
 - Emphasized a need for a nature-based flood mitigation strategy to reduce flooding.

- Public Comment #4 (Diane Scoggins)
 - Expressed a concern about the flood prone mapping tool user interphase
 - Requested more information on the comment response process
 - Requested more information on the funding process for the RFPs.

Agenda Item 5: Adjournment

Connor Stokes provided attendees with contact information to submit written comments and thanked attendees for their participation and interest in the SJRFPG.

Timothy Buscha adjourned the meeting at 7:02 p.m.

Timothy E. Buscha, Chair

Appendix 10.7.a: Attendee List

Appendix 10.7.a: Pre-Planning Meeting Public Attendee List

Todd Stephens

Jennifer Hundl

Landrum Wise

Andres Salazar

Chris Kalman

Larry Millican

Reid Mrsny

Russell Kracht

Jill Boullion

Rebecca Quantz

Colleen Gilbert

Charles Penland

Golam Mohiuddin

Peggy Zahler

Craig Maske

Rachel Jordan

Linda Shead

William McCabe

Jim Robertson

Kennedy Purser

Robert Kosar

Marcus Stuckett

Diane Scoggins

Andy Palermo

Hannah Zedaker

Chuck Stilwell

Christine Wright

Patricia Joiner

Mike Dach

Jonathan Cowen

Andy Yung

Alan Smith

William Wells

Carol Oeller

Charles Place

Jamila Johnson

Susan Chadwick

Tina Petersen

Mark & Gerri Berens

Jenna Armstrong

Appendix 10.7.a: Pre-Planning Meeting Public Attendee List

David Henderson
William Dwyer
Kevin Muraira
Kevin Shanley
Neel Salvi
Janet Wilson
Jack Christiansen
Laurian Cuba
Emil Shebelbon

Appendix 10.7.b: Public Notice and Flyer

Noticing Collateral for the Aug. 31, 2021 Existing Flood Risk Meeting can be found on the SJRFPG website by following the links below or scanning the corresponding QR codes.

- Meeting Notice

<https://sanjacintofloodplanning.org/wp-content/uploads/2021/08/Public-Notice-1.pdf>



- Meeting Flyer

<https://sanjacintofloodplanning.org/wp-content/uploads/2021/08/Flyer-1.pdf>



Appendix 10.7.c: Existing Flood Risk Meeting Presentation

The Meeting Presentation for Aug. 31, 2021 Existing Flood Risk Meeting can be found on the SJRFPG website by following the links below or scanning the corresponding QR codes.

- Meeting Presentation
<https://sanjacintofloodplanning.org/wp-content/uploads/2021/08/Existing-Flood-Risk-Public-Meeting-August-31-2021.pdf>



Appendix 10.7.d: Comment Matrix

Appendix 10.7.d: Existing Flood Risk Meeting Comment Matrix

David Henderson	<p>I'm just wondering, I live in the Caney Creek watershed and I'm just wanting to know when we have a problem is only floods around here when the water from West Fork comes right into Lake Houston and then Lake Houston backs up all the tributaries and water comes back up Caney Creek. Is this something that has been recognized by the San Jacinto River Authority and is this something that will be rectified with this plan?</p>
Chuck Stilwell	<p>I'm not clear how this group fits into all the other groups in terms of making decisions about how to manage floods in the greater Houston area. That's generally what I'm trying to understand how governmental agencies this word kind of fits together in deciding how they're going to do flood control over time.</p>
Linda Shead	<p>I am here mostly to speak to the notion that natural infrastructure is a better solution in many cases than gray infrastructure for protecting needs in identified and unidentified flood risk areas. The planning process doesn't give enough strength to the analysis of natural infrastructure solutions, which often are cheaper than gray infrastructure and provide many more co-benefits.</p> <p>So, I would like for the regional flood planning process to expand its consideration in its goal setting process. Right now, it's a little limited and doesn't give them some lip service to national infrastructure and saying that should be considered. But we all know that considering something doesn't mean that something happens.</p>
Diane Scoggins	<p>I filled out the survey and provided input on the interactive map (including 7-8 pictures) that further depicts the flooding on Carriage View Lane in Huffman but do not see those picture in the interactive map. Have they been archived somewhere? One of my neighbors, whom I told about the survey and the map, went in and said they didn't see any of the pictures I uploaded. That is PERFECTLY ok - I just want to ensure SOMEONE has them.</p> <p>During the Public Comment portion of the meeting, a gentleman asked how this group fits into all of the other groups that are managing flood control? Can you answer this for me?</p> <p>Since the Public Comment portion of the meetings is just that - an opportunity for comment or to ask a question - is there a place on your website that will aggregate and publish the comments and responses?</p> <p>I understand that \$793M was allocated by the state legislature to the TWDB. Were these funds (or a portion of them) then disbursed to the 15 different regional groups? Would like to see how that funding was allocated.</p>

**Appendix 10-8:
May 2022 Open Houses Meeting Minutes**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Meeting Minutes

Region 6 San Jacinto Regional Flood Planning Group Public Open House Meetings May 2022

In-Person Open House #1
Tuesday, May 24, 2022
5:30 - 7:30 pm

Rob Fleming Recreation Center
6464 Creekside Forest Dr
The Woodlands, TX 77389

Virtual Open House
Thursday, May 26, 2022
5:30 - 7:30 pm
Zoom

In-Person Open House #2
Tuesday, May 31, 2022
5:30 - 7:30 pm

Clear Lake Shores Clubhouse
931 Cedar Rd
Clear Lake Shores, TX 77565

Meeting Overview

The May 2022 Public Open Houses were held to solicit public input and collect further information to be used to develop the draft regional flood plan for the San Jacinto region. Three open house-style public meetings were offered—two in-person and one virtual. A total of 63 members of the public attended the open houses, and 20 comments were received during and after the open houses. [The Attendee Database](#) is located in [Appendix 10.8.a](#).

Noticing

The public notice was sent to the SJRFPG stakeholder database to inform the public of the three open houses. The database included 1275 regional contacts and 17 additional contacts identified by the SJRFPG members. Additionally, three (3) e-blasts reminding stakeholders were sent leading up to the open houses. A press release was sent two weeks before the Open Houses to 47 local news contacts. Social media and the SJRFPG website were updated to promote the open houses. Examples of [public noticing collateral](#) are located in [Appendix 10.8.b](#).

Meeting Structure

The in-person open houses consisted of three project specific stations—Flood Risk, Flood Management Practices and Goals, and Project, Studies, and Strategies. Additionally, a comment station was set up to solicit additional public engagement. The stations were self-paced, and the public was able to learn more about the RFPG process and projects from the open house website, informational handouts, and have an open dialogue with project team members at each station.

The virtual open house format was modeled after the in-person meetings to provide equal opportunity to members of the public who participated online. The virtual open house offered three breakout rooms in different rotations, which mirrored the three stations offered at the in-person open houses. Each rotation was approximately 30 minutes. During the breakout sessions, participants were able to navigate between any of three project specific stations at their own pace. Participants were given a brief orientation on how to use Zoom to support the public in navigating breakout rooms. Additional project team members were available to help troubleshoot any technical issues.

In addition, to station specific materials, handouts were developed to provide background information on the Regional Flood Planning process. [Informational handouts](#) on the SJRFPG can be viewed in [Appendix 10.8.c](#)

Station One - Flood Risk

The purpose of this station was to solicit public input regarding flood prone areas within the region. Using the Comment Survey, members of the public were able to map flood concerns within their community. Information regarding flood risk and the Existing Condition Flood Hazard Index was also shared with the public. [Station handouts and exhibits](#) can be found in [Appendix 10.8.d](#)

Station Two - Flood Management Practices and Goals

The purpose of this station was to inform the public about the ongoing work of the SJRFPG, including an overview of the RFPG process, goals, and the identified residual risks. [The station handouts and exhibits](#) can be found in [Appendix 10.8.e](#).

Station Three - Projects, Studies, and Strategies

The purpose of this station was to share projects, studies and strategies identified in the regional flood plan. Draft data was presented to the public to provide a high-level overview of the existing flood infrastructure, existing flood mitigation practices, and flood risk reduction actions. Additionally, the public had the opportunity to explore identified projects, studies and strategies more in-depth using the Region 6 projects, studies and strategies dashboard. [The station handouts and exhibits](#) can be found in [Appendix 10.8.f](#).

Social Pinpoint

A Social Pinpoint site was established to provide equal access and project information to the online open house participants and to support the stations at the in-person open houses. The site included all station information in English and Spanish. [The Social Pinpoint landing page and a link to the site](#) can be found in [Appendix 10.8.g](#).

Public Comments

In addition to the three stations at the open houses, a separate comment station was set up to encourage additional input from the public. The SJRFPG website contact page was linked to the Social Pinpoint to allow for additional input. Members of the public were able to submit written comment cards and virtual comments through the SJRFPG website. During the virtual open house, public comments were received through the Zoom chat feature and the website contact form.

In total, 20 comments were received in writing. Sixteen (16) comments were received via comment card and four (4) comments were received via the SJRFPG website. Additional questions and comments were provided verbally during the virtual public meeting. A summary of the comments received is included below and a [Comment Matrix](#) is located in [Appendix 10.8.f](#).

Comments received during the public open houses included the following topics:

- Addressing development in the 100-year floodplain as a flood mitigation strategy.
- Prioritizing and protecting the natural environment in flood mitigation.
- Request for more collaboration and transparency with the San Jacinto River Authority (SJRA) and their role in the SJRFPG.
- Request for more localized information regarding projects, funding and the SJRFPG.

Meeting Minutes: May 2022 Open House Meetings
Region 6 San Jacinto Regional Flood Planning Group

- Questions regarding the funding process for projects.
- Requests for more transparency on the partner process and decision makers regarding projects.
- Recommendation to increase noticing to include Homeowner Associations (HOAs), local news outlets and elected officials.

Appendix 10.8.a: Project Background Materials

All handouts, exhibits and project background information for the May 2022 Open Houses can be found via the meeting website, Social Pinpoint. This direct link is available below and on the SJRFPG Website.

- Meeting Materials

<https://hollawayenviromental.mysocialpinpoint.com/sanjacintofloodplanning>



Appendix 10.8.b: Noticing Collateral

The flyer for the May 2022 Open Houses can be found on the SJRFPG website by following the links below or scanning the corresponding QR codes.

- Meeting Flyer

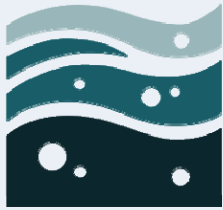
<https://sanjacintofloodplanning.org/wp-content/uploads/2022/05/public-mtg-flyer-May-2022.pdf>



Mariah Najmuddin

From: Marketing Email Preview Send <noreply@hubspot.com>
Sent: Thursday, May 5, 2022 12:49 PM
To: Mariah Najmuddin
Subject: Preview - Join Us for the May SJRFPG Open Houses!

CAUTION: Email from outside Hollaway



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
R E G I O N 6

Greetings Margaret:

The work continues for the [San Jacinto Regional Flood Planning Group \(SJRFPG\)](#). At the end of the month, there will be multiple opportunities — in-person and virtual — for you to provide feedback on the draft Regional Flood Plan, as well as to learn more about flood risk, stormwater management, and different flood mitigation projects.



JOIN US FOR THE UPCOMING SAN JACINTO REGIONAL FLOOD PLANNING GROUP OPEN HOUSES!

The San Jacinto Regional Flood Planning Group is offering three opportunities for public open houses, with virtual and in-person options. The public is invited to provide feedback on the Draft Regional Flood Plan and learn more about flood risk, stormwater management, and different projects for flood mitigation.

For more information about the San Jacinto Regional Flood Planning Group, visit our website: www.sanjacintofloodplanning.org or contact SanJacFldPG@eng.hctx.net (713) 274-3914



Share the SJRFPG Open Houses on Twitter

In addition to the upcoming Open Houses, the SJRFPG continues to identify recommended flood mitigation projects throughout the region, as well as identify minimum standards for flood management.

This process includes recommending flood management standards, implementing minimum standards to be required by local entities, and evaluating how these standards compliment the goals adopted by the RFPG.

Check out the meeting materials from the last SJRFPG meeting to learn more about minimum standards and see the preliminary list of identified standards!

Learn More About Minimum Standards

Finally, we encourage everyone to participate in the development of the San Jacinto Regional Flood Plan. Head to our website to learn more about the planning process and register for upcoming meetings.

[Learn More About the SJRFPG](#)

If you have any questions about the SJRFPG, please reach out to our project team at SJRFPG.TechCon@freese.com or respond directly to this email.



San Jacinto Regional Flood Planning Group, 1001 Preston, 7th Floor, Houston, TX 77002, (713) 274-3914

[Unsubscribe](#) [Manage preferences](#)

Appendix 10.8.c: Attendee List

DRAFT

Appendix 10.8.c: Attendee List

Appendix 10.8.c: Public Open Houses Attendee List	
Ann Synda (Dr.)	Open House Meeting #1
Betty Daugbertz	Open House Meeting #1
Betsy Radtke	Open House Meeting #1
Bob Lux	Open House Meeting #1
Brian Beebe	Open House Meeting #1
Bryon Forbes	Open House Meeting #1
Chris Kalman	Open House Meeting #1
Chris Nunes	Open House Meeting #1
Cindy Mountain	Open House Meeting #1
David Nock	Open House Meeting #1
David Smith	Open House Meeting #1
Diana Philpot	Open House Meeting #1
Donald Sickafrose	Open House Meeting #1
Dua Gustarson	Open House Meeting #1
Elizabeth Capps Bullock	Open House Meeting #1
Emil Shebelbon	Open House Meeting #1
Fabian Maldonado	Open House Meeting #1
George Newman	Open House Meeting #1
George Peckham	Open House Meeting #1
James M. Stinson	Open House Meeting #1
Jeff Hodges	Open House Meeting #1
Jeff Mountain	Open House Meeting #1
Jerry King	Open House Meeting #1
Jim Pflugrath	Open House Meeting #1
John Geiger	Open House Meeting #1
John Gizaiano	Open House Meeting #1
John Stacy	Open House Meeting #1
Julie Forbes	Open House Meeting #1
Keith Schoonner	Open House Meeting #1
Kim Dinh	Open House Meeting #1
Kyle Noyes	Open House Meeting #1
Lou Ann Montana	Open House Meeting #1
Paul R. Nelson	Open House Meeting #1
Penny Prater	Open House Meeting #1
Robert Leshiewski	Open House Meeting #1
Salvador Bruno	Open House Meeting #1
Shelley Sekula-Gibbs (Dr.)	Open House Meeting #1
Suellen Myers	Open House Meeting #1
Teri MacArthur	Open House Meeting #1
Wendy Shebelbon	Open House Meeting #1
Jay Sullivan	Open House Meeting #2
Rick Burtchfield	Open House Meeting #2
Monica Ledet	Open House Meeting #2
Samantha Haritos	Open House Meeting #2
J W Washington	Open House Meeting #2
Ronald Jones	Open House Meeting #2
Jishnu Nair	Virtual Open House
Douglas Wehring	Virtual Open House

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Kim Kay	Virtual Open House
Katherine Summerlin	Virtual Open House
Jim Robertson	Virtual Open House
Chris Allen	Virtual Open House
Claudia Morales	Virtual Open House
Mary Ellen Wahlheim	Virtual Open House
Karla Freyre Stripling	Virtual Open House
Jeff Ottmann	Virtual Open House
Laura Norton	Virtual Open House
Susan Chadwick	Virtual Open House *

**Five additional members of the public joined the virtual open house by phone. Names were not recorded for these individuals.*

Appendix 10.8.d: Station One: Flood Risk - Handouts and Exhibits

All handouts, exhibits and project background information for Station One - Flood Risk can be found via the meeting website, Social Pinpoint.

- Meeting Materials
<https://hollawayenviromental.mysocialpinpoint.com/sanjacintofloodplanning/station-one-flood-risk>



Appendix 10.8.e: Station Two: Flood Management Practices and Goals - Handouts and Exhibits

All handouts, exhibits and project background information for Station Two - Flood Management Practices and Goals can be found via the meeting website, Social Pinpoint.

- Meeting Materials
<https://hollawayenviromental.mysocialpinpoint.com/sanjacintofloodplanning/flood-management-practices-goals/>



Appendix 10.8.f: Station Three: Projects, Studies, and Strategies - Handouts and Exhibits

All handouts, exhibits and project background information for Station Three - Projects, Studies and Strategies can be found via the meeting website, Social Pinpoint.

- Meeting Materials
<https://hollawayenviromental.mysocialpinpoint.com/sanjacintofloodplanning/projects-studies-strategies/>



Appendix 10.8.g: Social Pinpoint

[Link to Social Pinpoint](#)



San Jacinto Regional Flood Planning Group - Open House

The public is invited to provide feedback on the Draft Regional Flood Plan and learn more about flood risk, stormwater management, and different projects for flood mitigation.

Use the links below to identify flood prone areas in your community, learn more about the San Jacinto Region flood management practices and goals, as well as provide feedback on flood mitigation projects, studies, and strategies in the region.



How to Get Involved

The Regional Flood Planning Process is driven by public input and we can't do it without you!
Please see below for how you can inform flood mitigation solutions in your community.



Station #1: Flood Risk

The San Jacinto Region is the second most populous flood planning region, despite being the second smallest region by area, and is subject to many sources of flooding.

Identify flood prone areas in your community using the link below.



Station #2: Flood Management Practices and Goals

The goal of conducting regional flood planning is to protect the public against loss of life and property damage from flooding events.

Learn more about the flood practices and goals at the link below.



Station #3: Projects, Studies and Strategies

The Regional Flood Plan will recommend flood mitigation strategies and projects to address existing and future flood issues in the region.

Explore the identified projects and strategies at the link below.

[Identify Flood Prone Areas](#)

[Review Flood Practices & Goals](#)

[Explore Identified Projects](#)

Appendix 10.8.h: Comment Matrix

Appendix 10.8.h: Open House Comment Matrix

John Stacy	Make the study available on the SJRA website. Hot links from all entities involved. We want to see the actual study not one-page handouts.
John Stacy	The 16 recommended projects all are technologies from 1950. Dry bottom in-line detention; straight channels? Really? Those technologies are proven to fail.
John Stacy	Why not more than one paragraph addressing dry outs? Much more cost effective.
John Stacy	The cost of these projects needs to consider social and environmental costs. I chose to live here to enjoy the wetlands and woods. I don't want a grass channel. Who pays for maintenance?
Robert Leshiewski	Though providing very high-level information regarding the need for water and flood management, this open house did not provide any details about specific projects that would affect local residents.
Robert Leshiewski	Though I am sympathetic to the need for flood control, the proposed "Spring Creek Woodlands channelization (zoo)" project (FMP ID 063000065) is an extreme measure that would carve a scar through a nature preserve that is of increasingly popularity to the community. This drainage ditch would obliterate the Spring Creek Nature Trail built by Bayou Land Conservancy as well as the soon to be Spring Creek Greenway extension. I strongly urge the SJRA to consider other less extreme steps to slow down runoff, so it is absorbed by the soil instead of building a superhighway for flood water through the Mitchell Nature Preserve.
Donald Sickafrose	Must stop building in 100-year Floodplain! You can't fix this problem no matter how much you spend. Harris County prohibits building in the 100-year floodplain, Montgomery County must do the same. Spring Creek up dip reservoirs will likely do more harm than good and the cost versus benefits are NOT WORTH the enormous price tag. Better to regulate where houses are built in the first place versus trying to correct for that mistake later. Most mitigation steps move the problem to another location! This is not cost effective! Must stop building in the 100-year floodplain! Must consider NOT building in the 50-year floodplain next!
Lou Ann Montana	I live in the Spring Creek watershed and visit the Spring Creek Greenway often. I think it is an incredibly, valuable natural resource. Many groups and individuals have worked hard to put it together. My concern is that some of the SJRFPG proposed improvements will negatively impact the greenway. I cannot tell how significant the impact will be because they not detailed in the exhibits and resources provided at the meeting. I found the information at this meeting to be very "global" and not specific at all with regard to proposed flood mitigation structural improvements, I am concerned that the SJRFPG will present/recommend these undetailed such that I can specifically comment.
Elizabeth Bullock	Study needs to be updated. Concrete and destroy each forest do not work. Houses in floodplains need to be torn down.

Appendix 10.8.h: Open House Comment Matrix

<p>David Nock</p>	<p>I am concerned about the environmental damage that will result from dredging nine miles of Spring Creek near Kuykendahl and Gosling roads. Have less destructive strategies been considered? Overall, I am opposed to any project that will destroy natural habitat to reduce flood risk for a small number of structures in the 1% flood plain. It would be better to buyout those properties. The public meeting held in Creekside on 5/24 was very unhelpful since had no details about a plan that is supposed to be nearly complete.</p>
<p>Brian Beebe</p>	<p>The number presented for cost analytics are not in line with the benefits expected. Who is going to pay for this? Is there to be more public input before presenting to the legislature? Why is the funding for the project not being presented directly to the public in a referendum so the people have a direct impact on the money?</p>
<p>Kyle Neyes</p>	<p>I am a resident of the Woodlands. Moved here in 1985. Left in the late 1990's but came back as soon as I could. One of the main attractions of the Woodlands is the green space. It is what makes this place special. I am also an avid mountain biker and use the Spring Creek Nature Trail on a weekly basis. I am concerned with the plans to create a beached channel 200'-300' wide along Spring Creek that will ruin our last remaining green space and take away our trails and do very little to alleviate flooding issues in our area.</p>
<p>Jerry King</p>	<p>Do not build in the 100-year floodplain. We continue spending taxpayer money on properties that should not ever been built in the floodplain area. Cement channels, dirt, etc. is not going to resolve the problem. Only build in areas that are above the 100-year floodplain. Do not allow builders to build up lots to pass the standards.</p>
<p>Jeff Hodges</p>	<p>Change the ability of developers to build in the 100' year floodplain! Many houses have been built in locations should have never been built. Channeling a creek or river does not fix a flood problem. It just moves it down stream. If a house floods 3 times, or more buy and bulldoze it and make it part of the natural floodplain. I will be writing the county commissioners to tell them to stop developers from building in the 100-year floodplain. \$3 billion is a lot of money to spend that taxpayer will pay for and it doesn't address the systemic issue which is the state is allowing developer to build in locations that they shouldn't.</p>
<p>Jeff Hodges</p>	<p>I would like to understand what other alternatives were evaluated. What I saw in this project is old civil engineering. You need to look at allowing the creeks and streams to meander and slow down the drainage not speed it up with channeling. I expect much better solutions than what is being proposed.</p>

Appendix 10.8.h: Open House Comment Matrix

<p>Diana Philpot</p> <p>I'm gratified to see planning taking place; I want to see an end to 1960's flood mitigation techniques and a move toward techniques that are proven to be effective. Buyouts and wetland preservation are proven. More concrete = more flooding (just further downstream in someone else's neighborhood). The ecological services provided to the region by the many streams and wetlands for outweighs retention basins and channelized streams.</p> <p>My bottom line: \$3B (or \$5B, or \$8B, depending on who is speaking) is FAR TOO EXPENSIVE A SOCIETAL PRICETAG, when buy-outs and keeping wetlands as wetlands is so effective.</p> <p>To be completely honest, I'm not happy that I came to a public forum on regional flooding and not one elected official is present. Only an engineering consulting firm. I believe that is duplicitous at best.</p>
<p>Betsy Radtke</p> <p>Your flood impact data does not seem to reflect reality in this area with its tremendous residential growth. Please provide information on who the decision makers are. Yes, the legislature commissioned this, but who should we contact, by county, to discuss individual proposed project or approaches to flood control projects.</p> <p>As the process moves along, we would like a workshop, on Spring Creek, with decision makers to discuss proposed projects</p>
<p>Betsy Radtke</p> <p>Channelization does not work; deepening channels should be the last resort. Please discuss/and recommend the use of natural processes as a preferred alternative to choosing and funding flood control projects.</p> <p>Funding should prioritize those projects that widen the floodplains, mimic natural processes, protect existing habitat and provide open space and recreation to local citizens.</p>
<p>Betsy Radtke</p> <p>Please try to increase your outreach to local people. I found out about this from a mountain biking Facebook page, and I live in the area. Contact HOAs, Woodlands News, and ask elected officials to send this out on their pages. Otherwise, it all lacks transparency.</p> <p>Provide news/media and emails to all interested parties concerning projects in their region that are being funded under this program.</p> <p>Need to better delineate who all of the participating partners are, their responsibilities and how they interact</p>
<p>George Peckham</p> <p>I would like to be informed about the funding of proposed projects, particularly regarding Cypress Creek watershed.</p>

**Appendix 10-9:
Example Questionnaire**

San Jacinto Regional Flood Plan

¿Sin tiempo? Esta encuesta acepta respuestas incompletas (parciales). Provea respuesta a las preguntas que pueda. Por favor también provea comentarios acerca de las áreas susceptibles a inundaciones y proyectos de control de inundaciones en su región usando este [Mapa](#).

Introducción

Díganos acerca de usted.

1. Correo Electrónico*

*requerido

2. Número Telefónico

3. Código Postal

4. ¿En qué ciudad vive?*

*requerido

- Alvin
- Arcola
- Bayou Vista
- Baytown
- Beach City
- Bellaire
- Brookside Village
- Bunker Hill Village
- Clear Lake Shores
- Cleveland
- Coldspring
- Conroe
- Cut and Shoot

San Jacinto Regional Flood Plan General Public Short - Spanish

- Dayton
- Deer Park
- Dickinson
- El Lago
- Friendswood
- Fulshear
- Galena Park
- Galveston
- Hedwig Village
- Hillcrest Village
- Hilshire Village
- Hitchcock
- Houston
- Humble
- Hunters Creek Village
- Huntsville
- Iowa Colony
- Jacinto City
- Jamaica Beach
- Jersey Village
- Katy
- Kemah
- La Marque
- La Porte
- League City
- Liverpool
- Magnolia
- Manvel
- Meadows Place
- Missouri City
- Mont Belvieu
- Montgomery
- Morgan's Point
- Nassau Bay
- New Waverly
- North Cleveland
- Oak Ridge North
- Panorama Village
- Pasadena

San Jacinto Regional Flood Plan General Public Short - Spanish

- Patton Village
- Pearland
- Piney Point Village
- Plum Grove
- Prairie View
- Roman Forest
- Santa Fe
- Seabrook
- Shenandoah
- Shoreacres
- South Houston
- Southside Place
- Splendora
- Spring Valley
- Stafford
- Stagecoach
- Sugar Land
- Taylor Lake Village
- Texas City
- Tiki Island
- Todd Mission
- Tomball
- Waller
- Webster
- West University Place
- Willis
- Woodbranch Village
- Woodloch
- No está listada (porfavor añada)

5. ¿En qué condado vive?

- Brazoria
- Chambers
- Fort Bend
- Galveston
- Grimes
- Harris
- Liberty

- Montgomery
- San Jacinto
- Walker
- Waller
- No está listado (por favor añada)

6. 1. ¿Vive bajo jurisdicción de un organismo que ejerza responsabilidad sobre infraestructura contra inundaciones?, tal como, un distrito de drenaje (drainage district), un distrito de diques (levee district), distrito municipal de servicios públicos (municipal utility district), etc.

- No sé
- No
- Sí, especifique debajo.

Áreas Susceptibles a Inundaciones

El Plan Regional de Control de Inundaciones identificará el riesgo de inundación y vulnerabilidades de la región. La siguiente sección nos ayudará a identificar quién que pueden ser afectados por las inundaciones en nuestra comunidad

7. 2. Provea una lista de inundaciones históricas (récord) que afectaron su área. Identifique áreas susceptibles a inundación en el mapa (vínculo debajo).

3. Por favor identifique áreas susceptibles a inundación en el mapa (vínculo debajo).

Manejo de Inundaciones

El Plan Regional de Control de Inundaciones considerará cómo el actual manejo de inundaciones y regulaciones gubernamentales influyen en el

8. 4. El objetivo general de el Plan de Control de Inundaciones es reducir el riesgo de daño a la vida y a la propiedad. Además de este objetivo general, ¿cuáles de las siguientes acciones deben tener la máxima prioridad al abordar los objetivos regionales?

Seleccione al máximo 3

- Recaudar mejores datos
- Mejorar la regulaciones gubernamentales
- Mejorar la infraestructura para el control de inundaciones
- Expandir financiación
- Expandir programas de educación y divulgación
- Otro (Especifique)

9. 5. ¿Debería el Comité del Plan Regional de Control de Inundaciones recomendar estándares mínimos para el manejo del riesgo de inundaciones en toda la región?

Los estándares recomendados se considerarían mejores prácticas regionales para ayudar a guiar a las comunidades a mejorar sus prácticas de manejo de áreas inundables. Los estándares mínimos tendrían que ser adoptados por parte de las comunidades dentro de la Región para que los proyectos en esas comunidades se incluyan en el Plan Regional de Inundaciones. Algunos ejemplos de estándares mínimos incluyen depósitos de detención pluvial, requisitos de elevación, la prohibición de desarrollos dentro de áreas inundables, etc.

- Sí - Recomendar
- Sí - Requerir
- No (Por favor elabore)

10. 6. ¿Alguna otra sugerencia o recomendación que el Comité del Plan Regional de Control de Inundaciones debería considerar respecto a su región?

11. Email*

San Jacinto Regional Flood Plan

In the wake of historic flooding in Texas, the 2019 Texas Legislature passed legislation to create Texas' first-ever regional and state flood planning process. The Region 6 San Jacinto Regional Flood Planning Group was established by the Texas Water Development Board on October 1, 2020. The RFPG is responsible for developing the first regional flood plan by January 2023, which will culminate in the first-ever state flood plan for Texas.

Introduction

Tell us about yourself.

1. Email*

*required

2. Phone number

3. ZIP Code

4. In which city are you located?*

*required

- Alvin
- Arcola
- Bayou Vista
- Baytown
- Beach City
- Bellaire
- Brookside Village
- Bunker Hill Village
- Clear Lake Shores
- Cleveland
- Coldspring
- Conroe

San Jacinto Regional Flood Plan General Public Short UPDATED

- Cut and Shoot
- Dayton
- Deer Park
- Dickinson
- El Lago
- Friendswood
- Fulshear
- Galena Park
- Galveston
- Hedwig Village
- Hillcrest Village
- Hilshire Village
- Hitchcock
- Houston
- Humble
- Hunters Creek Village
- Huntsville
- Iowa Colony
- Jacinto City
- Jamaica Beach
- Jersey Village
- Katy
- Kemah
- La Marque
- La Porte
- League City
- Liverpool
- Magnolia
- Manvel
- Meadows Place
- Missouri City
- Mont Belvieu
- Montgomery
- Morgan's Point
- Nassau Bay
- New Waverly
- North Cleveland
- Oak Ridge North
- Panorama Village

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- Pasadena
- Patton Village
- Pearland
- Piney Point Village
- Plum Grove
- Prairie View
- Roman Forest
- Santa Fe
- Seabrook
- Shenandoah
- Shoreacres
- South Houston
- Southside Place
- Splendora
- Spring Valley
- Stafford
- Stagecoach
- Sugar Land
- Taylor Lake Village
- Texas City
- Tiki Island
- Todd Mission
- Tomball
- Waller
- Webster
- West University Place
- Willis
- Woodbranch Village
- Woodloch
- Not listed (please specify)

5. In which county are you located?

- Brazoria
- Chambers
- Fort Bend
- Galveston
- Grimes
- Harris

- Liberty
- Montgomery
- San Jacinto
- Walker
- Waller
- Not listed (please specify)

6. 1. Do you live in a jurisdiction with flood-related responsibilities in your area, such as a drainage district, levee district, flood control district, utility/improvement district (MUD, SUD, LID), etc?

- I don't know
- No
- Yes, please specify below

Flood Prone Areas

The Regional Flood Plan will identify flood hazards and vulnerabilities in the

7. 2. Provide a list of historical flood events that have affected you or your area.

3. Please identify flood prone areas on the web map (link provided below).

Floodplain Management

The Regional Flood Plan will consider how current floodplain management practices and regulations impact flood risks. The following section will help us evaluate these practices and identify specific flood mitigation and management goals.

8. 4. The overall goal of the Regional Flood Plan is to reduce the risk to life and property. In addition to the overarching goal, which 3 of the following actions should be the highest priority when addressing regional goals?

Select up to 3

- Improve data
- Improve policy & regulations
- Improve flood infrastructure
- Expand funding
- Expand education & outreach
- Other (please specify)

9. 5. Should the Regional Flood Planning Group Recommend or Require consistent minimum floodplain management standards across the entire region?

Recommended standards would be considered non-binding regional best practices to help guide communities in elevating their floodplain management practices. Required minimum standards would require adoption by local communities within the Region in order for projects in those communities to be included in the Regional Flood Plan. Some examples of minimum standards include detention mitigation, finished floor elevation requirements, prohibition of development in the floodplains, etc.

- Yes - Recommend
- Yes - Require
- No (please explain below)

10. 6. Any other suggestions/recommendations for the Regional Flood Planning Group to consider in regard to flooding in the region?

11. Email*

San Jacinto Regional Flood Plan

In the wake of historic flooding in Texas, the 2019 Texas Legislature passed legislation to create Texas' first-ever regional and state flood planning process. The Region 6 San Jacinto Regional Flood Planning Group (RFPG) was established by the Texas Water Development Board (TWDB) on October 1, 2020. The RFPG is responsible for developing the first Regional Flood Plan (RFP) by January 2023, which will culminate in the first-ever state flood plan for Texas.

Introduction

Tell us about yourself and your community.

1. Email *

*required

2. Phone number

3. 1. Which of the following best describes you?

Select only one.

- I am a representative of a non-governmental organization with flood-related interests.
- I am the floodplain manager for a community participating in the National Flood Insurance Program (NFIP).
- I am a public-sector employee with flood-related responsibilities.
- I am an elected or appointed official with flood-related responsibilities.
- I am a person interested in the regional flood planning process.
- Other (describe)

4. 2. What type of entity do you represent?

Select only one.

- Council of Governments
- County
- Municipality
- Industrial Interests
- Agricultural Interests

San Jacinto Regional Flood Plan Stakeholder Survey

- Environmental Interests
- Small Business Interests
- Electric Utilities
- Water Utilities
- Water Districts
- River Authorities
- Flood Districts
- State/Federal
- Other (please specify)

5. 3. What is the name of your entity?

6. 4. What is your job title?

7. 5. In which county is your entity located?

- Brazoria
- Chambers
- Fort Bend
- Galveston
- Grimes
- Harris
- Liberty
- Montgomery
- San Jacinto
- Walker
- Waller
- Not listed (please specify)

8. 6. In which city is your entity located?

- Alvin
- Arcola
- Bayou Vista
- Baytown
- Beach City
- Bellaire
- Brookside Village

San Jacinto Regional Flood Plan Stakeholder Survey

- Bunker Hill Village
- Clear Lake Shores
- Cleveland
- Coldspring
- Conroe
- Cut and Shoot
- Dayton
- Deer Park
- Dickinson
- El Lago
- Friendswood
- Fulshear
- Galena Park
- Galveston
- Hedwig Village
- Hillcrest Village
- Hilshire Village
- Hitchcock
- Houston
- Humble
- Hunters Creek Village
- Huntsville
- Iowa Colony
- Jacinto City
- Jamaica Beach
- Jersey Village
- Katy
- Kemah
- La Marque
- La Porte
- League City
- Liverpool
- Magnolia
- Manvel
- Meadows Place
- Missouri City
- Mont Belvieu
- Montgomery
- Morgan's Point

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- Nassau Bay
- New Waverly
- North Cleveland
- Oak Ridge North
- Panorama Village
- Pasadena
- Patton Village
- Pearland
- Piney Point Village
- Plum Grove
- Prairie View
- Roman Forest
- Santa Fe
- Seabrook
- Shenandoah
- Shoreacres
- South Houston
- Southside Place
- Splendora
- Spring Valley
- Stafford
- Stagecoach
- Sugar Land
- Taylor Lake Village
- Texas City
- Tiki Island
- Todd Mission
- Tomball
- Waller
- Webster
- West University Place
- Willis
- Woodbranch Village
- Woodloch
- Not listed (please specify)

9. 7. Are you aware of any other jurisdiction beyond cities and counties with flood-related responsibilities in your area, such as a drainage district, levee district, flood control district, etc?

Yes

No

10. 8. If yes, please provide the name of the entity, the name of the contact person, contact information for that entity.

Inventory

The RFP will develop an inventory of natural features and major flood infrastructure within the region. The following section will help us identify and evaluate key features in your community.

11. 9. Does your entity maintain GIS datasets or other digital inventories for any of the following natural features in your jurisdiction?

Select all that apply.

If so, please provide this information by utilizing the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

Rivers, creeks, tributaries, and functioning floodplains

Wetlands

Alluvial fans

Vegetated dunes

Designated open space

No digital inventory of natural features

Other (please specify)

12. 10. Does your entity maintain GIS datasets or other digital inventories of the following constructed features in your jurisdiction?

Select all that apply. If so, please provide this information by utilizing the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

Levees

Sea barriers, walls, and revetments

Tidal barriers and gates

Stormwater tunnels

Stormwater canals

Flood protection dams

Detention/retention ponds

San Jacinto Regional Flood Plan Stakeholder Survey

- Weirs
- Storm drain systems
- Green infrastructure
- Designated open space
- No digital inventory of constructed features
- Other (please specify)

13. 11. If available, provide a link to the location of the data on your entity's website.

14. 12. What percentage of the following infrastructure or natural feature within your jurisdiction would you consider non-functional?

Non-functional: The infrastructure is not providing its intended or design level of service.

Stormwater tunnels

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Stormwater canals

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Flood protection dams

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

San Jacinto Regional Flood Plan Stakeholder Survey

Weirs

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Storm drain systems

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Levees

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Sea barriers, walls, and revetments

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Tidal barriers and gates

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

San Jacinto Regional Flood Plan Stakeholder Survey

Rivers, creeks, tributaries, and functioning floodplains

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Wetlands

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Alluvial fans

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Vegetated dunes

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Green infrastructure

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Designated open space

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

15. 13. What is the main reason your infrastructure is non-functional?

Stormwater tunnels

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Stormwater canals

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Flood protection dams

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Weirs

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

San Jacinto Regional Flood Plan Stakeholder Survey

Storm drain systems

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Levees

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Sea barriers, walls, and revetments

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Tidal barriers and gates

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Rivers, creeks, tributaries, and functioning floodplains

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

San Jacinto Regional Flood Plan Stakeholder Survey

Wetlands

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Alluvial fans

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Vegetated dunes

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Green infrastructure

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

Designated open space

- N/A
- Lack of adequate standards during original construction
- Inherited due to ownership change or annexation
- Impacts from development
- Inadequate budget to construct proper or sufficient system
- Uncontrolled erosion or scour

16. 14. What percentage of the following infrastructure or natural features within your jurisdiction would you consider deficient (in poor structural or non-structural condition and needs replacement, restoration, or rehabilitation)?

Stormwater tunnels

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Stormwater canals

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Flood protection dams

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Weirs

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

San Jacinto Regional Flood Plan Stakeholder Survey

Storm drain systems

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Levees

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Sea barriers, walls, and revetments

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Tidal barriers and gates

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Rivers, creeks, tributaries, and functioning floodplains

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

San Jacinto Regional Flood Plan Stakeholder Survey

Wetlands

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Alluvial fans

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Vegetated dunes

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Green infrastructure

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

Designated open space

- N/A
- 0%
- 25%
- 50%
- 75%
- 100%

17. 15. What is the main reason your infrastructure is deficient?

Stormwater tunnels

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Stormwater canals

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Flood protection dams

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Weirs

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

San Jacinto Regional Flood Plan Stakeholder Survey

Storm drain systems

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Levees

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Sea barriers, walls, and revetments

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Tidal barriers and gates

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

San Jacinto Regional Flood Plan Stakeholder Survey

Rivers, creeks, tributaries, and functioning floodplains

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Alluvial fans

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Vegetated dunes

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Green infrastructure

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

San Jacinto Regional Flood Plan Stakeholder Survey

Designated open space

- N/A
- Lack of adequate standards during original construction
- Infrastructure has reached its useful life
- Impacts from development
- Damage from flood or other natural event
- Inadequate budget to maintain system
- Uncontrolled erosion or scour

Flood Prone Areas

~~The BEP will identify flood hazards and vulnerabilities in the region. The~~

16. Provide a list of historical flood events that have affected your jurisdiction. Please provide as much information as possible, such as the date(s), specific location(s) (if appropriate), newspaper articles, the financial value of damages (if known), number of swift water rescues, injuries and/or fatalities (if known). Identify areas on the web map, and/or provide historical information

18. You may provide written feedback here.

Floodplain Management

~~The BEP will consider how current floodplain management practices and~~

19. 17. Does your community participate in the following programs?

Select all that apply

- National Flood Insurance Program (NFIP)
- Community Rating System (CRS)
- Do not participate but interested in National Flood Insurance Program (NFIP)
- Do not participate but interested in Community Rating System (CRS)
- Do not participate in the National Flood Insurance Program (NFIP) or the Community Rating System (CRS) but have equivalent standards
- I don't know
- Do not participate in either program and not currently interested (Please Explain)

20. 18. Does your community participate in the following floodplain management activities?

Select all that apply

- Development review/regulation
- Floodplain or drainage capital projects
- Local assistance with home elevation
- Acquisition of repetitive loss properties
- Flood risk communication campaigns and public outreach
- Flood warning systems (Examples: flashers or staff gages)
- Emergency alert systems
- Priority evacuation areas
- Identification of vulnerable populations
- Programmed operations & maintenance
- Reactive maintenance following complaints or damages after a storm
- Programmed inspection/repair/rehab
- Asset inventory and comprehensive condition assessments
- Ordinance enforcement
- Non-structural regulation
- Open space requirements
- Green infrastructure programs
- Other (please specify)

Does your community have any of the following floodplain management regulation and policies?

Select all that apply.

21. 19. Development standards

- Floodplain ordinance
- Drainage ordinance
- Stormwater management ordinances
- Building standards for flood proofing and flood protection
- Consideration for fully developed or future conditions land use
- Zoning/land use regulations
- Open space requirements
- Green infrastructure requirements
- None of the above

- Other (please specify)

22. 20. Infrastructure engineering design standards or drainage criteria manual

- Roadway
- Crossings (bridges and culverts)
- Storm drainage systems
- Detention facilities
- Dams
- Levees/Floodwalls
- Green infrastructure
- Non-structural
- None of the above
- Other (please specify)

23. 21. Higher standards - Standards that exceed National Flood Insurance Program (NFIP) or other regulatory requirements

- Freeboard
- Detention policy
- Fill restrictions
- None of the above
- Other (please specify)

24. 22. What future conditions scenarios are required to be evaluated for flood protection projects in your jurisdiction?

Please utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- Existing development
- Projected development over a future time horizon
- Fully developed areas
- 0.2% ACE or 500-year Floodplain as a proxy
- We do not use future conditions considerations for flood protection projects.
- Other (please specify)

25. 23. Identify the resources your jurisdiction uses to predict future land use and development.

Please utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- TX Demographic Center Population Projections
- Future Land Use Plan from Comprehensive Plan
- Annexation Plans

San Jacinto Regional Flood Plan Stakeholder Survey

- Utility CCNs
- Public Improvement Districts
- Texas Enterprise Zones
- Transportation Plans
- None of the above
- Other (please specify)

26. 24. Which of the following best describes how your community enforces its Floodplain Management practices?

Select one

- We actively enforce the entire floodplain management ordinance, perform frequent inspections throughout the construction process, issue fines, violations, and Section 1316s where appropriate, and enforce substantial damage and substantial improvement regulations.
- We enforce much of the ordinance, perform limited inspections and are limited in issuance of fines and violations.
- We provide permitting of development in the floodplain, may not perform inspections, may not issue fines or violations.
- We do not currently enforce floodplain management regulations.
- Additional comments on enforcement:

The RFBG will consider recommending or adopting consistent minimum standards across the entire region. “Recommended” standards would not require the communities and other entities in the region to adopt the minimum standards to have projects included in the Regional Flood Plan and to be eligible for TWDB funding. “Adopted” standards would require the communities and other entities in the region to adopt the minimum standards to have projects included in the Regional Flood Plan and to be eligible for

27. 25. Should the RFBG “recommend” consistent minimum flood risk management standards across the entire Region?

These standards would be considered regional best practices, but would not be required to be adopted by local communities to participate in the Plan and be eligible for TWDB funding.

28. Yes (please describe)

29. No (please describe)

30. 26. What are some minimum flood risk management standards the RFPG should consider recommending?

Select all that apply

- Participation in the NFIP or require equivalent standards
- Regulate development in the FEMA floodplain or other floodplains designated by the RFPG
- Establish higher standards for development. One example includes requiring freeboard (additional feet above known floodplain) for structures developed near or in the floodplain.
- Establish infrastructure protection standards. Examples include: property acquisition for repeatedly flooded structures, open space requirements, or minimum design criteria for buildings, hospitals, schools, fire stations, roadways, culverts, bridges, storm drains, detention facilities, dams, or levees.
- The RFPG should not recommend minimum flood risk management standards.
- Other (please specify)

31. 27. Should the RFPG “adopt” consistent minimum flood risk management standards across the entire Region?

Communities would be required to adopt these standards to have projects included in the plan or to be eligible for TWDB funding.

32. Yes (please describe)

33. No (please describe)

34. 28. What are some minimum flood risk management standards the RFPG should consider adopting?

Select all that apply

- Participation in the NFIP or require equivalent standards
- Regulate development in the FEMA floodplain or other floodplains designated by the RFPG
- Establish higher standards for development. One example includes requiring freeboard (additional feet above known floodplain) for structures developed near or in the floodplain.
- Establish infrastructure protection standards. Examples include: property acquisition for repeatedly flooded structures, open space requirements, or minimum design criteria for buildings, hospitals, schools, fire stations, roadways, culverts, bridges, storm drains, detention facilities, dams, or levees.
- The RFPG should not adopt minimum flood risk management standards.
- Other (please specify)

35. 29. Please provide any additional thoughts on minimum flood risk management standards for the RFPG to consider.

36. 30. The overall goal of the Regional Flood Plan is to reduce the risk to life and property. In addition to the overarching goal, which 3 of the following actions should be the highest priority when addressing regional goals?

Select up to 3

- Improve data
- Improve policy & regulations
- Improve flood infrastructure
- Expand funding
- Expand education & outreach
- Other (please specify)

37. 31. Are there certain areas within the region that have especially unique circumstances that warrant their own sub-regional goals?

For example, the RFPG may wish to consider the unique needs of coastal vs. inland, urban vs. rural areas, areas with detailed vs. approximate floodplain mapping and modeling, or upstream vs. downstream areas.

- No
- Yes (please describe)

32. Do you have any suggestions in the categories of Legislative, Regulatory/Administrative, or Revenue Generation that could improve the region's floodplain management and flood mitigation and/or reduce

38. Legislative

39. Regulatory/Administrative

40. Revenue Generation

Flood Planning

The RFP will identify potential study needs and potentially feasible flood management strategies and projects. The following section will help us incorporate the needs of your community.

41. 33. What types of local and regional flood planning information does your jurisdiction have?

Check all that apply and utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- Hazard Mitigation Plan
- Master Drainage Plans/Stormwater Drainage Plans
- Flood Protection Plans
- Flood Studies/Flood Risk Assessments
- Watershed Plans
- CRS Plan
- Floodplain Management Plan
- Green Infrastructure
- Flood risk screening tools
- Models, including hydrology, hydraulics or any available screening level models
- None of the above

42. 34. What additional relevant planning documents or information does your jurisdiction have?

Check all that apply and utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- Flood disaster reports
- Coastal resiliency master plans
- Transportation plans
- Substantial Damage Estimation (SDE) forms
- Emergency Action Plans (flood-related portions)
- None of the above
- Other information relevant to the RFPG (please describe)

43. 35. Are there priority areas in your community with no inundation maps or detailed studies that could benefit from a flood study? If yes, please describe the reason for the need.

- No - No areas in need of study
- Yes - Limited or no existing inundation maps
- Yes - Outdated maps in need of updated study
- Yes - Need maps to identify flooding for urban areas, low lying areas, and/or streets.
- Yes - Other (please describe)

Please use the [web map](#) to identify specific areas.

44. 36. Is there funding in your community for the necessary flood studies?

- No funding identified
- Local funding identified / secured
- Partial funding identified
- Partial funding secured
- Full funding identified
- Full funding secured
- Other (please specify)

45. 37. Have grants or loans been secured for all or a portion of this funding?

- No
- Yes (please specify)

46. 38. Identify the resources your jurisdiction uses to identify how physical changes to the land might affect future flood risk.

Please utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- Subsidence studies
- Sea level rise studies
- Analysis of sedimentation impacts
- Studies on geomorphic changes
- Watershed studies with future conditions analysis
- None of the above
- Other (please specify)

47. 39. What has your jurisdiction done to address flooding concerns?

- Nothing yet
- Performed existing drainage system maintenance
- Performed project identification and planning activities
- Performed more detailed analyses of areas to identify the source of the flooding
- Upgraded existing drainage infrastructure
- Constructed new drainage systems
- Buyout programs
- Implemented low impact development practices or green infrastructure programs
- Wetland/floodplain/open space restoration/preservation
- Implemented and enforced drainage design criteria/floodplain management policies
- Other (please specify)

48. 40. What, if any, major infrastructure or flood mitigation projects are currently under development?

Select all of the projects that apply. If so, please utilize the Provide Data engagement tool on the homepage to provide any supporting data and documentation.

- Levees
- Sea barriers, walls, and revetments
- Tidal barriers and gates
- Stormwater tunnels
- Stormwater canals
- Flood protection dams
- Detention/retention ponds
- Weirs
- Storm drain systems
- Non-structural
- Green infrastructure
- Other (please specify)

49. 41. What is the current status of the major infrastructure or flood mitigation projects currently under development?

- Project identified
- Project in conceptual planning phase
- Project in feasibility analysis phase
- Project in Preliminary Design
- Project in Final Design

- Project in Construction
- Other or multiple projects in different phases (please describe)

42. Describe the project location(s) using the web map feature.

50. 43. Is there funding in your community for the necessary engineering evaluations and/or design and construction of proposed flood mitigation projects?

- No funding identified
- Local funding identified / secured
- Partial funding identified
- Partial funding secured
- Full funding identified
- Full funding secured
- Other (please specify)

51. 44. Have grants or loans been secured for all or a portion of this funding?

- No
- Yes (please specify)

52. 45. Are there non-structural flood mitigation projections in your community with funding needs? If so, what level of funding is there in your community for these projects?

- No non-structural flood mitigation projects are needed in my community
- There is a need to identify non-structural flood mitigation projects in my community
- Projects are identified with no funding identified
- Projects are identified with partial funding identified
- Projects are identified with partial funding secured
- Projects are identified with full funding identified
- Projects are identified with full funding secured
- Other (please specify)

Funding

Flood studies (evaluations), management strategies, and projects identified in the RFP will be eligible for TWDB funding through grants and loans. The following section will help us understand the current funding mechanisms in your community and identify the proposed role of State financing.

53. 46. Which of the following describes your local funding sources for flood management activities?

Select all that apply

- General Fund
- Bond Program
- Stormwater utility or drainage fee
- Special Tax Districts
- Impact Fees
- Permitting Fees
- Ad Valorem Tax
- I don't know
- No current dedicated funding but interested
- We do not have a local funding source for flood management activities
- Other (please specify)

54. 47. Have you ever applied for Federal or State grants or loan programs?

If yes, please select which ones below.

- Flood Infrastructure Fund (FIF) [TWDB]
- Building Resilient Infrastructure and Communities Program (BRIC) [FEMA]
- Hazard Mitigation Grant Program (HMGP) [FEMA, TDEM]
- Pre-Disaster Mitigation (PDM) [FEMA, TDEM]
- Flood Mitigation Assistance (FMA) [FEMA, TWDB]
- U.S. Department of Agriculture - Natural Resources Conservation Service (NRCS)
- Community Development Block Grant-Disaster Recovery (CDBG-DR) [HUD, GLO]
- Community Development Block Grant Mitigation Program (CDBG-MIT) [HUD]
- U.S. Army Corps of Engineers Small Continuing Authorities Program (USACE CAP)
- Cooperating Technical Partners Program (CTP) [TWDB]
- State Water Implementation Fund for Texas (SWIFT) [TWDB]
- Flood Protection Planning Grant [TWDB]
- Texas Water Development Fund (DFund) [TWDB]
- Clean Water State Revolving Fund (CWSRF) [TWDB]

San Jacinto Regional Flood Plan Stakeholder Survey

- I don't know
- Other (please specify)

55. 48. If you have not considered applying for Federal or State grant/loan programs, please state the main reasons below

Flood Response

The RFP will document the existing flood response preparations in the region. The following section will help us understand your communities' emergency response practices.

56. 49. Select your jurisdiction's emergency response measures:

Select all that apply

- Public Emergency Alert System (i.e. reverse 911)
- Flood warning signs
- Flood warning signs with flashing lights
- Flood gauges
- Rain/stream gauges with alerts
- Public-facing website
- Portable/temporary traffic message boards
- Coordination with TxDOT message boards
- Flood forecasting tool
- Crew(s) set up barricades or close gates
- Automatic low water crossing gates
- Outdoor siren/message speaker system
- Swift water rescue team
- Cameras
- None of the above
- Other (please specify)

57. 50. If your jurisdiction plans to implement changes or additions to the emergency response system over the next five years, select the measures that you anticipate implementing:

- Public Emergency Alert System (i.e. reverse 911)
- Flood warning signs
- Flood warning signs with flashing lights

San Jacinto Regional Flood Plan Stakeholder Survey

- Flood gauges
- Rain/stream gauges with alerts
- Public-facing website
- Portable/temporary traffic message boards
- Coordination with TxDOT message boards
- Flood forecasting tool
- Crew(s) set up barricades or close gates
- Automatic low water crossing gates
- Outdoor siren/message speaker system
- Swift water rescue team
- Cameras
- None of the above
- Other (please specify)

58. 51. Does your community have staff dedicated to flood response activities during emergency situations?

- No
- Yes (Please describe)

59. 52. Are the staff embedded within the emergency operations center (or similar centralized location) during the emergency flood event?

- No
- Yes (Please describe)

60. 53a. Indicate the entities with whom you coordinate actions BEFORE a flood event (preparation, response, recovery, and cleanup).

Select all that apply

- | | | | | | |
|---|---|---------------------------------|--|---|--|
| <input type="checkbox"/> Flood Control District | <input type="checkbox"/> City | <input type="checkbox"/> County | <input type="checkbox"/> USACE | <input type="checkbox"/> TxDOT | <input type="checkbox"/> NOAA/NWS |
| <input type="checkbox"/> Local dam owner/operator | <input type="checkbox"/> Local levee owner/operator | <input type="checkbox"/> TDEM | <input type="checkbox"/> Ag Extension Agents | <input type="checkbox"/> Brush/bulk debris contractor (on-call) | <input type="checkbox"/> Consultant engineer (on-call) |

San Jacinto Regional Flood Plan Stakeholder Survey

- | | | | |
|---|--|-------------------------------|---|
| <input type="checkbox"/> Local or regional assistance through existing MOUs | <input type="checkbox"/> River Forecast Center | <input type="checkbox"/> None | <input type="checkbox"/> Other (describe) |
|---|--|-------------------------------|---|

61. 53b. Indicate the entities with whom you coordinate actions DURING a flood event (preparation, response, recovery, and cleanup).

- | | | | | | |
|---|---|---------------------------------|--|---|--|
| <input type="checkbox"/> Flood Control District | <input type="checkbox"/> City | <input type="checkbox"/> County | <input type="checkbox"/> USACE | <input type="checkbox"/> TxDOT | <input type="checkbox"/> NOAA/NWS |
| <input type="checkbox"/> Local dam owner/operator | <input type="checkbox"/> Local levee owner/operator | <input type="checkbox"/> TDEM | <input type="checkbox"/> Ag Extension Agents | <input type="checkbox"/> Brush/bulk debris contractor (on-call) | <input type="checkbox"/> Consultant engineer (on-call) |
| <input type="checkbox"/> Local or regional assistance through existing MOUs | <input type="checkbox"/> River Forecast Center | <input type="checkbox"/> None | | | |

62. 53c. Indicate the entities with whom you coordinate actions AFTER a flood event (preparation, response, recovery, and cleanup).

- | | | | | | |
|---|---|---------------------------------|--|---|--|
| <input type="checkbox"/> Flood Control District | <input type="checkbox"/> City | <input type="checkbox"/> County | <input type="checkbox"/> USACE | <input type="checkbox"/> TxDOT | <input type="checkbox"/> NOAA/NWS |
| <input type="checkbox"/> Local dam owner/operator | <input type="checkbox"/> Local levee owner/operator | <input type="checkbox"/> TDEM | <input type="checkbox"/> Ag Extension Agents | <input type="checkbox"/> Brush/bulk debris contractor (on-call) | <input type="checkbox"/> Consultant engineer (on-call) |

San Jacinto Regional Flood Plan Stakeholder Survey

- Local or regional assistance through existing MOUs
- River Forecast Center
- None

63. 54. Any other suggestions/recommendations for the RFPG to consider in regard to flooding in the region?

64. Email*

**Appendix 10-10:
TFMA Conference Materials**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP REGION 6

ABOUT THE SAN JACINTO REGIONAL FLOOD PLAN

In the wake of historic flooding in Texas, the 2019 Texas Legislature passed legislation to create Texas' first-ever regional and state flood planning process. The Legislature created a state flood planning framework and charged the Texas Water Development Board (TWDB) with creating flood planning regions based on river basins and with administering the ongoing work of flood planning.

The San Jacinto Regional Flood Planning Group (San Jacinto Region) is one of the 15 Regional Flood Planning Groups (RFPGs) formed by the TWDB. The San Jacinto Region includes all or part of 11 counties and extends from Galveston in the south to Huntsville in the north.

Through this groundbreaking, first of its kind flood planning effort, the San Jacinto Region received a flood planning grant from the TWDB to help identify specific flood risks as well as strategies to reduce flood risks in coming years. This effort represents a bottom-up approach to flood planning and is intended to be a transparent process which relies on public input.

The Texas Water Code requires RFPGs to deliver regional flood plans to the TWDB by January 10, 2023, and every five years thereafter. The state flood plan, to be based on adopted regional plans, must be prepared and adopted by the TWDB by September 1, 2024, and every five years thereafter.

STAY UP-TO-DATE

Visit Our Website:
sanjacintofloodplanning.org

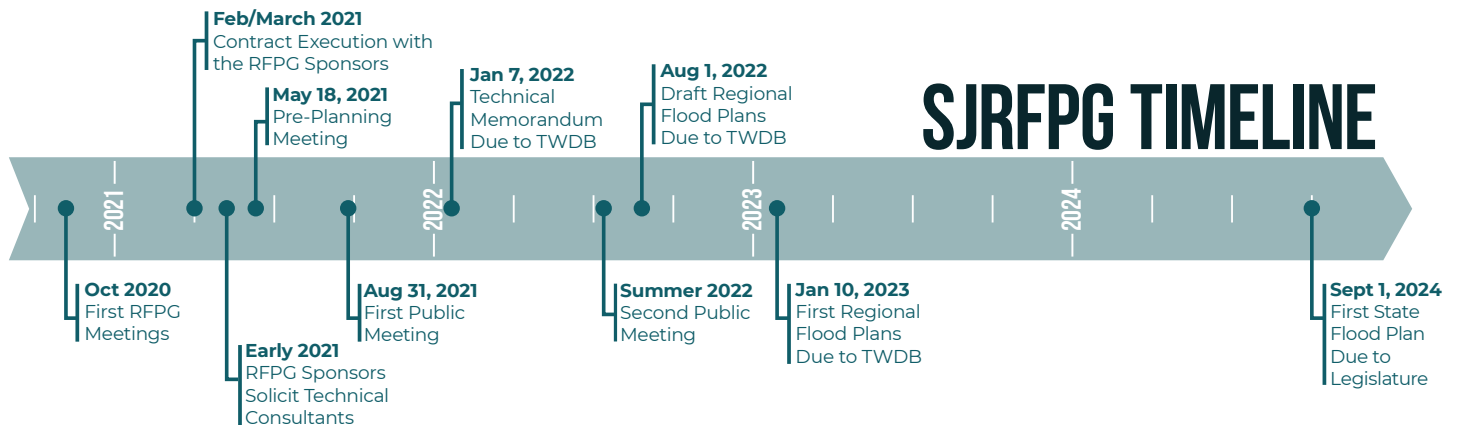


Follow Us On Social Media:
Facebook Twitter @SanJacintoRFPG

For Questions & Comments:
SJRFPG.TechCon@freese.com

TWDB Contact:
Megan Ingram
megan.ingram@twdb.texas.gov

Take the Regional Survey:





DATA OUTREACH

The San Jacinto Regional Flood Planning Group (SJRFPG) is collecting data from public entities and stakeholders across the region to assist in developing a comprehensive understanding of flood risk and identifying solutions that address flooding issues.

TYPES OF DATA:

Historical Flood Data	Stormwater Management Data	Geospatial Data
<ul style="list-style-type: none"> • High-water marks or documentation of past floods • Flooded road closures • High water rescue data • Low water crossings • Repetitive loss/Severe repetitive loss properties 	<ul style="list-style-type: none"> • Applications for grant assistance • Flood mitigation projects • Local engineering studies/reports • Municipal stormwater asset inventories • Riverine or coastal engineering models 	<ul style="list-style-type: none"> • Bathymetry or stream survey • Building footprints (critical and non-critical) • Extraterritorial Jurisdictions (ETJ) • LiDAR/terrain data or aerial imagery • Zoning and land use

HOW TO PROVIDE DATA:

1. Complete the data request survey freese.mysocialpinpoint.com/san-jacinto-flood-plan/provide_data

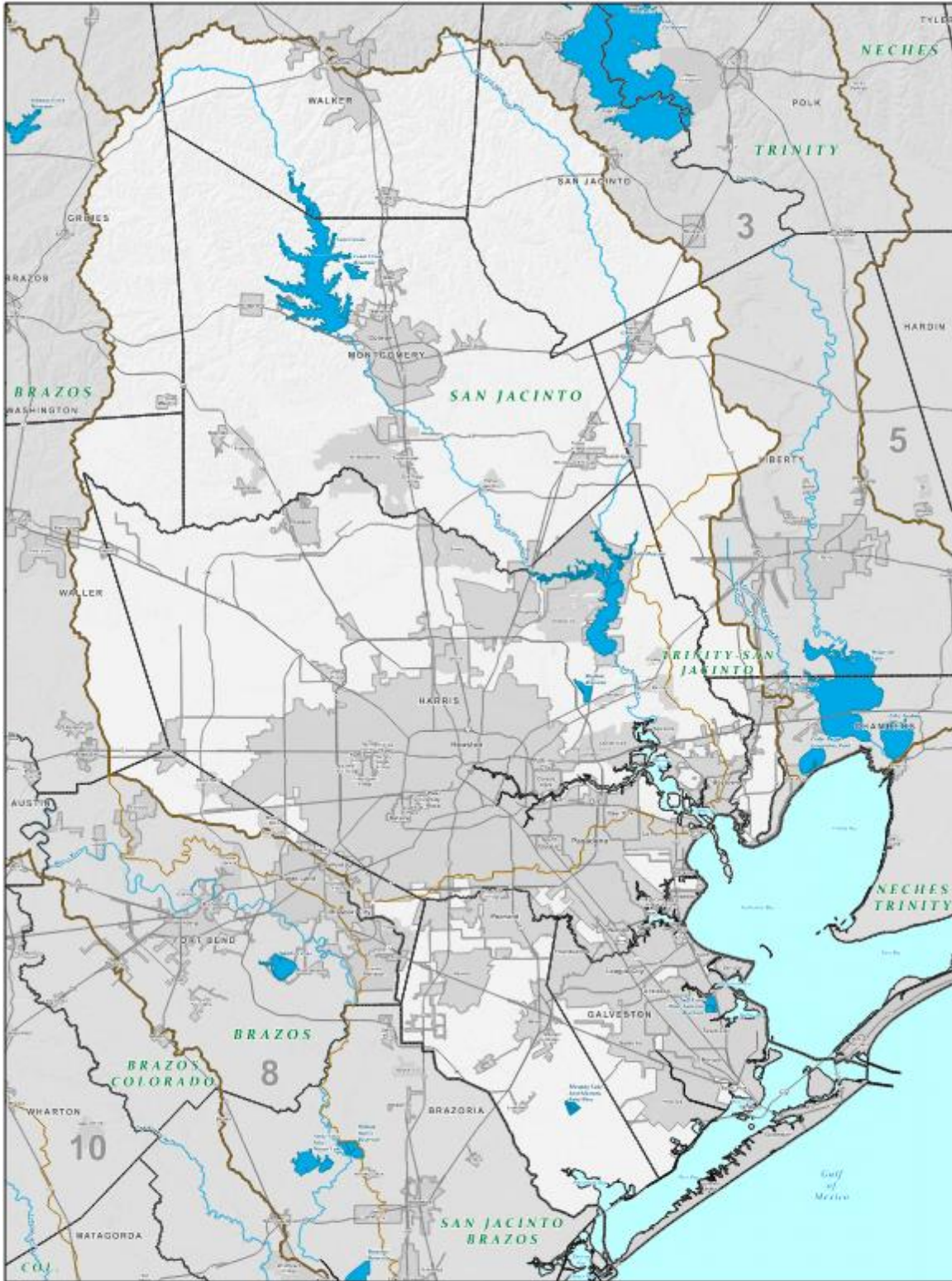
OR

2. Send an email to SJRFPG.TechCon@freese.com including preferred contact information and the type of data you plan to provide to the RFPG



OTHER WAYS TO GET INVOLVED:

Please visit SanJacintoFloodPlanning.org for more information.



SAN JACINTO

Flood Planning Region - 6

Legend

- County Boundaries
- Major Water Bodies
- Major Road Networks
- City Boundaries
- Major Flood Planning Regions
- Major Water Bodies
- Major Road Networks
- City Boundaries

Scale

0 10 20 Miles

0 10 20 Kilometers

Legend

- Major Flood Planning Regions
- Major Water Bodies
- Major Road Networks
- City Boundaries



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

REGION 6

Take the Survey

Please use the QR code to view and provide input via the interactive webmap and questionnaire survey.



SANJACINTOFLOODPLANNING.ORG

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**Appendix 10-11:
Public Engagement Presentation**



SAN JACINTO REGIONAL FLOOD PLANNING GROUP

R E G I O N 6

1

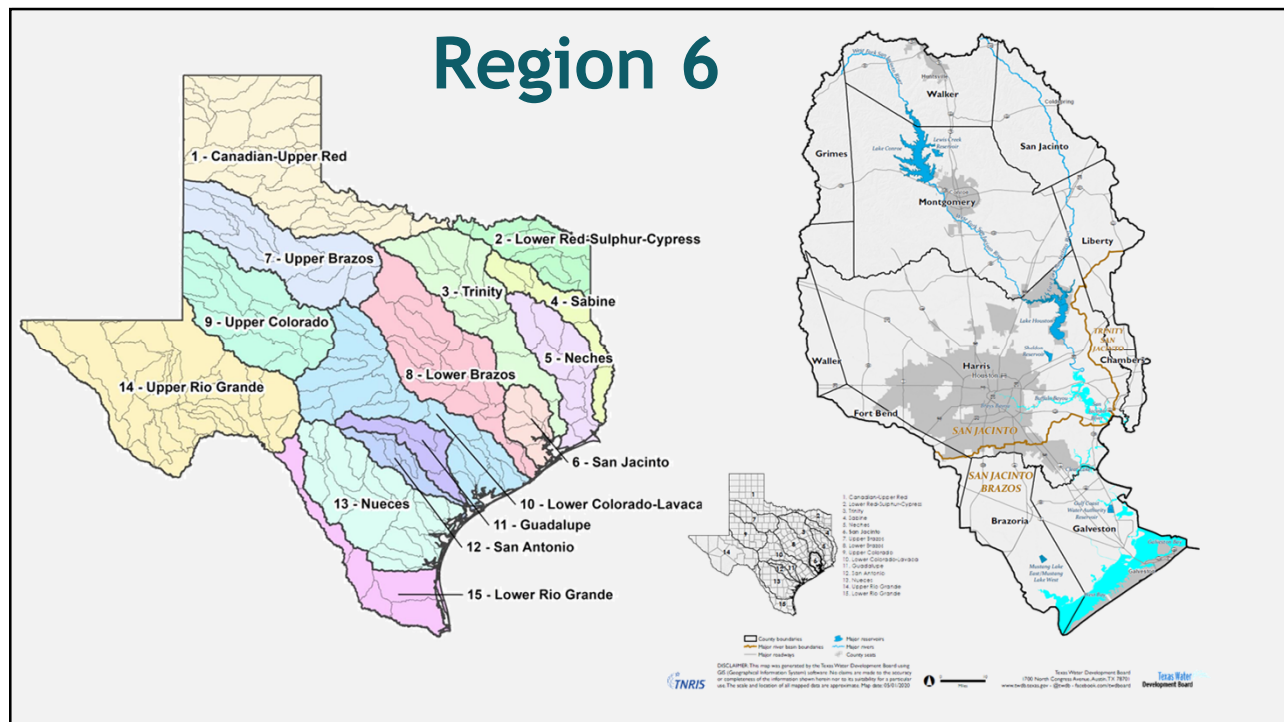
Texas Water Development Board - Regional Flood Planning Grant

The Region 6 San Jacinto RFPG was established by the TWDB on October 1, 2020, with the purpose of carrying out the responsibilities placed on regional flood planning groups as required by Texas Water Code Chapter 16 and TWDB rules, including 31 Texas Administrative Code (TAC) Chapters 361 and 362.

The main goal of the SJRFPG is to develop a regional flood plan by: identifying flood risks, establishing flood mitigation and floodplain management goals; and, recommending evaluations, strategies, and projects to reduce flood risks.

- TWDB Grant is \$19.5 million in funds allocated between 15 regions
- Region 6 - SJRFPG will receive a total of \$3,073,500

2



3

Region 6 - San Jacinto Regional Flood Planning Group

The SJRFPG is the second most populated flood planning region in Texas and is home to the fourth largest city in the United States: Houston.

- **Population Estimate:** 6,297,609
- **Approximate Area:** 5,089 Square Miles
- **Approximate Stream Miles:** 3,969
- **Counties Represented:** Brazoria*, Chambers*, Fort Bend*, Galveston*, Grimes*, Harris, Liberty*, Montgomery, San Jacinto*, Walker* and Waller*

**indicates this county is partially within this RFPG and is also represented by at least one other RFPG*

4

Region 6 Voting Members

***Timothy Buscha**, Chair, Industries Voting Member Representative

***Alia Vinson**, Vice Chair, Water Districts Voting Member Representative

***Alisa Max**, Secretary, Counties Voting Member Representative

Planning Group Sponsor: Harris County

Technical Consultant: Freese and Nichols, Inc.

Voting Members	Stakeholder Category
*Gene Fisseler	At-Large, Public
*Matthew Barrett	A-Large, River Authorities
Christina Quintero	Public
Elisa Macia Donovan	Agricultural Interests
Constance Pothier	Small Business
TBA	Flood Districts
Paul E. Lock	Electric Generating Utilities
Rachel Powers	Environmental Interests
Stephen Costello	Municipalities
Neil Gaynor	Upper Watershed
Todd Burrer	Water Utilities
Brian Maxwell	Coastal Communities

Note: an (*) indicates Executive Committee member



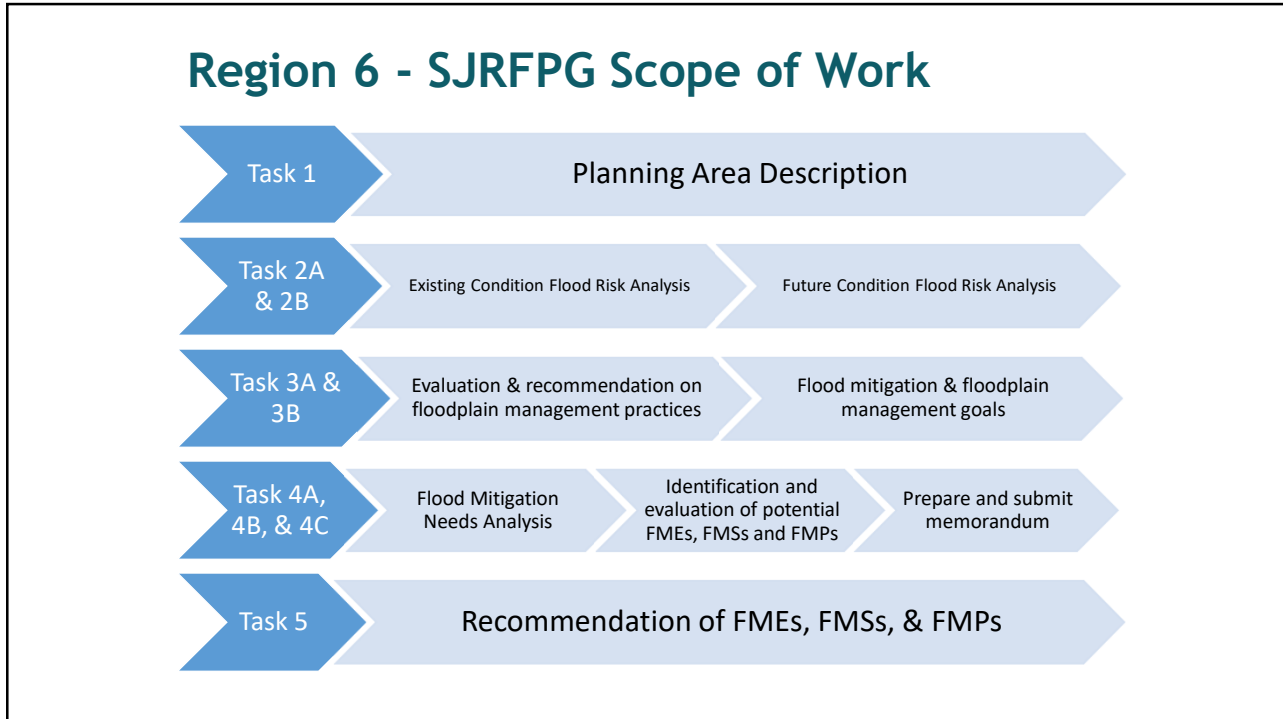
West Fork San Jacinto River near Humble, Texas after Hurricane Harvey Image: Steve Fitzgerald, Harris County Flood Control District

5

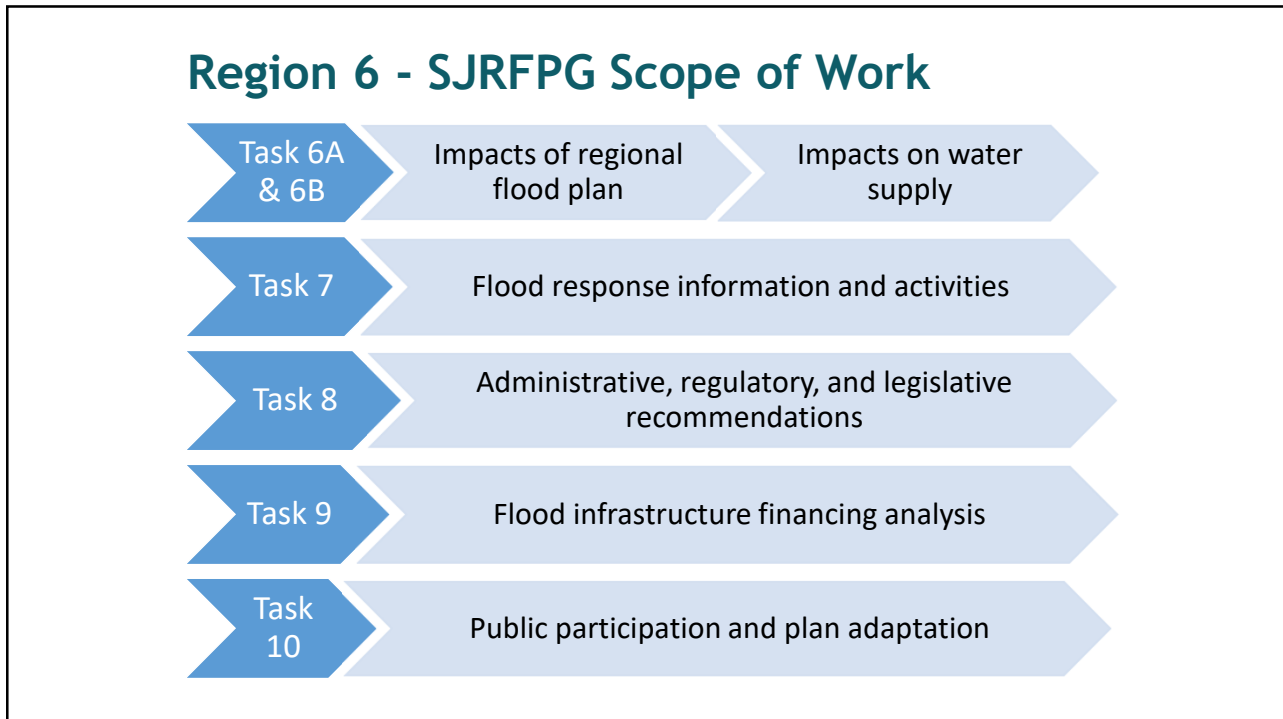
Region 6 Non-Voting Members

Non-Voting Member	Organization/Entity
Hope Zubek	Texas Parks and Wildlife Department
Michelle Ellis	Texas Division of Emergency Management
Kristin Lambrecht	Texas Department of Agriculture
Joel Clark	Texas State Soil and Water Conservation Board
Karla Freyre-Stripling	Texas General Land Office
Megan Ingram	Texas Water Development Board
Melinda Johnston	Texas Commission on Environmental Quality
Justin Bower	Houston-Galveston Area Council
Elie Alkhory	Texas Department of Transportation
Tom Heidt	Port of Houston
Eric Stephens	U.S. Army Corps of Engineers
Sally Bakko	Gulf Coast Protection District

6

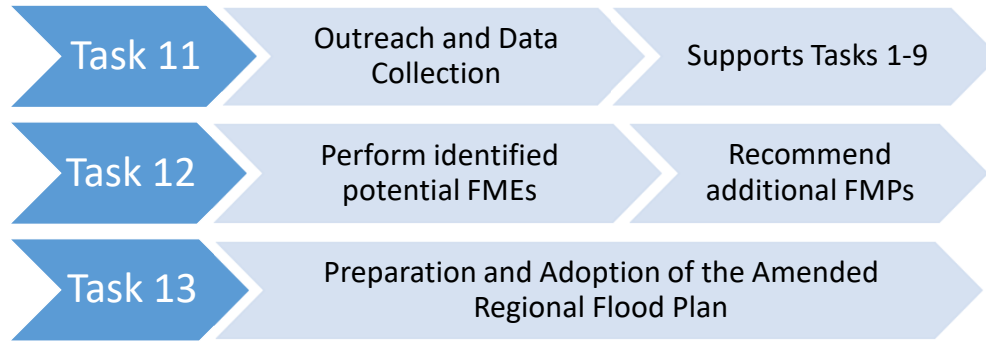


7



8

Region 6 - SJRFPG Additional Tasks per Contract Amendment



9

Region 6 - Key Deliverable Timeline



10

**Appendix 10-12:
Notice and Summary of the Draft Regional Flood Plan**

ABOUT THE SAN JACINTO REGIONAL FLOOD PLAN



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

BACKGROUND

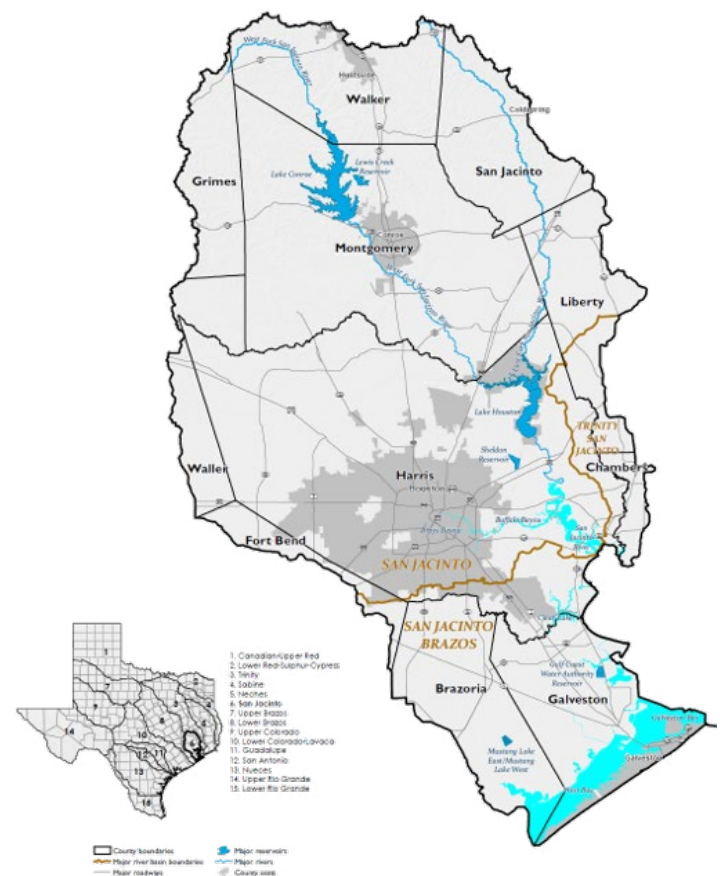
In the wake of historic flooding in Texas, the 2019 Texas Legislature passed legislation to create Texas' first-ever regional and state flood planning process. The Legislature created a state flood planning framework and charged the Texas Water Development Board (TWDB) with creating flood planning regions based on river basins and with administering the ongoing work of flood planning.

The San Jacinto Regional Flood Planning Group (San Jacinto Region) is one of the 15 Regional Flood Planning Groups (RFPGs) formed by the TWDB. San Jacinto Region includes all or part of 11 counties and extends from Galveston in the south to Huntsville in the north.

Through this groundbreaking, first of its kind flood planning effort, the San Jacinto Region received a flood planning grant from the TWDB to help identify specific flood risks as well as strategies to reduce flood risks in coming years. This effort represents a bottom-up approach to flood planning and is intended to be a transparent process which relies on public input.

The San Jacinto region encompasses 5,089 square miles, making it the second smallest flood planning region in the state by area. However, the region is the second most populous, with an estimated population in 2020 of 6.4 million. With a population density of 1,200 people per square mile, the San Jacinto region is also the most densely populated region in the state, with double the population density of any other region. The extensive development and proximity to the coast makes flooding a particular issue of interest and need;

the San Jacinto region has the highest amount of National Flood Insurance Program (NFIP) claims of any region in the state (1975-2019). Approximately 21% of Texas residents live in the area. It is a geographically diverse region where the needs of rural stakeholders must be balanced with those of rapidly developing urban population centers.



SANJACINTOFLOODPLANNING.ORG



OVERVIEW OF THE DRAFT REGIONAL FLOOD PLAN

The overarching goal of regional flood planning is to reduce the risk of flooding that currently exists and preventing creation of new flood risk through responsible floodplain management practices.

As part of this effort, the San Jacinto Region submitted a DRAFT Regional Flood Plan to the TWDB on Aug. 1, 2022. The DRAFT plan will be available for public comment until Oct. 29, 2022. After the public comment period, the Final Regional Flood Plan for the San Jacinto Region will be submitted to the TWDB in January 2023. During this initial round of regional flood planning, the San Jacinto RFPG conducted the following tasks:


- Developed mapping of existing and future flood risk and exposure.
- Leveraged local knowledge to identify flood prone areas.
- Identified regional goals and minimum flood management standards for recommendation across the region.
- Estimated the overall impact of the Regional Flood Plan, like potential impacts to flood prone areas, future flood risks and the environment.

Nearly \$30 billion in funding is needed to implement flood risk reduction actions in the San Jacinto Region, including:

- **374 recommended Flood Management Evaluations**, with a total cost of approximately \$198 million;
- **34 recommended Flood Mitigation Projects** with a total cost of approximately \$28 billion;
- **64 recommended Flood Management Strategies** with a total cost of more than \$1.1 billion

For more information about the San Jacinto Regional Flood Planning Group or to provide comments on the DRAFT Regional Flood Plan, visit our website at sanjacintofloodplanning.org.

TO VIEW THE DRAFT REGIONAL FLOOD PLAN, VISIT ONE OF THE FOLLOWING LOCATIONS:

Online	The Woodlands	Houston	Galveston
tinyurl.com/ReadSanJacFloodPlan 	George and Cynthia Woods Mitchell Library 8125 Ashlane Way The Woodlands, TX 77382	McGovern-Stella Link Neighborhood Library 7405 Stella Link Road Houston, TX 77025	Rosenberg Library 2310 Sealy Avenue Galveston, TX 77550

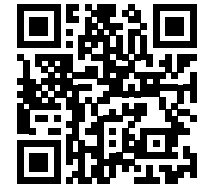
JOIN US AT OUR PUBLIC MEETINGS

IN-PERSON OPEN HOUSE
TUESDAY, SEPT. 27, 2022
5:30 – 7:30 PM

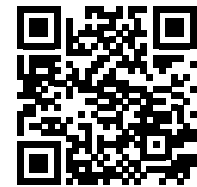
White Oak Conference Center
 7603 Antoine Dr.
 Houston, TX 77088

VIRTUAL MEETING
THURSDAY, SEPT. 29, 2022
5:30 – 7:30 PM

tinyurl.com/SanJacFloodPlan



Visit Our Linktree for Easy Access to Project Resources:
linktr.ee/sanjacintofloodplanning



Link Includes:
 Project Website
 Facebook
 Twitter
 Contact Us

**Appendix 10-13:
Responses to Comments on the Draft Regional Flood Plan**

Addicks Flood Mitigation Network

From: Mariah@hollawayenv.com
Sent: Monday, October 31, 2022 11:44 AM
To: dachmike1@outlook.com
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good morning,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

Please reach out if you have any questions.

Best,

Mariah

From: HubSpot Forms <noreply@hubspot.com>
Sent: Saturday, October 29, 2022 2:18 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



**New submission on HubSpot Form
"Comments on the DRAFT Regional Flood
Plan"**

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

Michael

Last name:

Dach

City:

Houston

County:

Harris

Email:

dachmike1@outlook.com

Comment on the DRAFT Regional Flood Plan:

Date: October 29, 2022

From: Mike Dach, Coordinator, Addicks Flood Mitigation Network

6014 Ballina Canyon Ln, Houston, TX 77041

Ph: 281-787-2322;EMA: dachmike1@outlook.com

Subject: San Jacinto Regional Flood Planning Group – Region 6

Comments on the DRAFT Regional Flood Plan Plan for Protecting Addicks Reservoir Perimeter Communities

There is no Consensus Comprehensive Plan for Protecting the more than 10,000 Addicks Reservoir Perimeter Community Residences that were flood damaged by Houston Tax Day Storm (April 18, 2016), and Hurricane Harvey (Aug 28, 2017). Impediments to such a Plan include:

- USACE BBTRS Interim Report (Oct 2020) suggested key Alternatives (construction of Upstream 3rd Reservoir, more Channelization of Buffalo Bayou) were rejected by HCFCD and Community Organizations.
- USACE BBTRS continues studies, far past initial deadline, with no end in sight.
- City of Houston has rejected the HCFCD recommendation to raise the new Clay Road Bridge elevation over Langham Creek, to minimize stormwater flow resistance caused by the roadway large-span support beams.
- CoH refuses to replace the “solid” concrete Bridge Guard Walls, which do not meet TXDOT “open” Guard Rail standards.
- HCFCD Tunnel Study Phase 2 Report (Jun 2022) (regarding 40 ft dia x 23 mile Tunnel from the Reservoirs to Ship Channel) was rejected by Harris County Commissioners Court.
- HCFCD and USACE are stalling “One Creek Wests” proposed South Mayde Creek Bypass from the Greenhouse Road Bridge to the Barker-Cypress Road Bridge.
- USACE continues to resist Desilting major Conveyance Channels on Government Property, even where they connect with upstream Channels extensively Repaired, Desilted, and Improved by HCFCD.
 - o USACE BBTRS Study Report (Oct 2020) reported significant onsite channel silting, and proposed new Settling Basins as Alternatives.
 - o USACE only permits "manual Selective Clearing". This procedure proved impractical during the removal of the Langham Creek Bypass 1.1 Acre Sandbar (started Mar 2018).
 - o HCFCD by agreeing to use “manual Selective Clearing”, enables USACE to restrict the flow of Heavy Rain Event stormwater into the Reservoirs, and subjects

the Perimeter Communities to repeated Channel Conveyance forward-flow over-bank flooding.

- USACE is actively buying "forever" Flowage Easements on private properties (containing no significant structures) at Addicks Reservoir's west side.
- Federal Claims Court has issued rulings in the Liability Phase (June 2022) and Damage Claims Phase (Oct 2022), that are favorable to the Plaintiffs.
- However, the rulings contain no Flood Mitigation components or relief for Perimeter Residents.
- The 2 distinct efforts of "Upstream Litigation" and of "Perimeter Communities Flood Mitigation Planning" appear to be converging. The likely outcome is that there will be no timely and/or significant Flood Mitigation Projects for the Perimeter Communities.
- The "default" Reservoir Perimeter Community Protection Plan appears to recommend Repeat Stormwater Storage and Flooding of Reservoir Perimeter Private Properties, rather than Flood Mitigation for such Properties.

No wonder there is a lot of apathy among Perimeter Community Residents, and Initial Flood Mitigation Activists ... there has been little significant Consensus Building among Residents and our Local Institutions.

Cheers,
Mike Dach

[View in HubSpot](#)



- **CONTACT**
- Michael Dach

This message was sent to mariah@hollawayenv.com because your preferences are set to receive notifications like this. You can change it in your [notification preferences](#) page.

sanjacstudy.com (Hub ID: 20336393)

HubSpot, Inc.
25 First Street, 2nd Floor
Cambridge, MA 02141



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Michael Dach
Addicks Flood Mitigation Network
6014 Ballina Canyon Lane
Houston, Texas 77041

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Michael,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Addicks Flood Mitigation Network on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

As mentioned, there was not a comprehensive plan for the Addicks Reservoir communities proposed in the existing draft plan. However, inclusion may be considered by the RFPG during future planning cycles pending a project sponsor for the efforts. We encourage the Addicks Flood Mitigation Network to continue to engage in the flood planning process and direct local sponsors to submit proposed flood mitigation actions for inclusion in future flood plans.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of Alvin

Maggie Puckett

From: Michelle Segovia <mlira@psf.cityofalvin.com>
Sent: Tuesday, July 19, 2022 9:12 AM
To: Mariah@hollawayenv.com
Cc: San Jacinto RFPG Technical Consultant
Subject: RE: CTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Follow Up Flag: Follow up
Flag Status: Flagged

Some people who received this message don't often get email from mlira@psf.cityofalvin.com. [Learn why this is important](#)

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Good Morning Mariah,

Please see my responses below.

Thank You,



From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Tuesday, June 14, 2022 8:49 AM
To: Michelle Segovia <mlira@psf.cityofalvin.com>
Cc: 'San Jacinto RFPG Technical Consultant' <SJRFPG.TechCon@freese.com>
Subject: RE: CTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Hi Michelle,

Thank you for the quick response. When you hit "reply" on the email it should allow you to choose the items via the drop down in the body of the email. I have repasted the table below.

If that doesn't work, I have attached a word document with the same information.

Please let me know if you have any questions.

Best,

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
061000001	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	\$110000	Bonds/Other Financing	100%
061000002	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 2	Further study of Durant Street Phase 2 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	\$90000	Bonds/Other Financing	100%
061000037	FME	City of Alvin Flood Gauges	Study to identify areas where best to purchase additional flood gauges to be placed at bayous and key high water areas within City of Alvin.	\$50000	Other	50%
061000039	FME	City of Alvin Master Drainage Plan	Comprehensive review of current drainage, studies and recommendations for future projects and studies to create a Master Drainage Plan for the City of Alvin.	\$100000	Entity Budget/Funds	50%
061000040	FME	City of Alvin Open Space Preservation	Study for open space preservation with within adjacent development, dedication of	\$500000	Other	0%

			conservation easements or fee simple acquisition of land along Mustang Bayou.			
061000043	FME	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	Further assessment and design of detention ponds needed on Mustang and Dickinson Bayous to reduce flood risk in the City of Alvin.	\$200000	Entity Budget/Funds	25%
061000067	FME	City of Alvin Dickinson Bayou Watershed Study	Study of Dickinson Bayou Watershed to determine drainage improvement alternatives.	\$500000	Entity Budget/Funds	25%
062000012	FMS	City of Alvin CRS Application	Apply and once accepted maintain and/or improve CRS status. Cost is time, data and preparation of a CRS application. Benefit, if approved homeowner with flood insurance could receive a discount based on the City's CRS score.	\$25000	Entity Budget/Funds	100%
062000061	FMS	City of Alvin Full Time Floodplain Administrator	Hire a full-time floodplain administrator who can support CRS application, NFIP, mapping and community floodplain support. A dedicated employee could help the community obtain CRS status and full time flood plain support.	\$100000	Entity Budget/Funds	100%
063000201	FMP	City of Alvin Unified Development Ordinance	A unified land development code combines all land use controls into a single document with a logical	\$100000	Entity Budget/Funds	100%

			structure that is user friendly. Cost is time, data and preparation of a unified land development code.			
--	--	--	---	--	--	--

From: Michelle Segovia <mlira@psf.cityofalvin.com>
Sent: Tuesday, June 14, 2022 8:43 AM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Cc: SJRFPG.TechCon@freese.com; Michelle Segovia <mlira@psf.cityofalvin.com>
Subject: RE: CTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

CAUTION: Email from outside Hollaway

Good Morning,

At this time 100% of the cost for all actions shown in the table below will need other funding (including State, Federal and/or other funding). The “drop-down” menu in the table below did not work.

Thank You,



Michelle H. Segovia, P.E., CFM
City of Alvin Engineering
City Engineer

(281) 388-4341 Work
msegovia@cityofalvin.com
1100 W. Highway 6
Alvin, TX 77511
www.alvin-tx.gov
Office Hours: Mon-Thurs 7a.m.-6 p.m.
Serving with Pride!

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Monday, June 13, 2022 4:46 PM
To: Michelle Segovia <mlira@psf.cityofalvin.com>
Cc: SJRFPG.TechCon@freese.com
Subject: CTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because Alvin is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood

Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
061000001	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 1	Further study of Durant Street Phase 1 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	\$110000	Choose an item.	Choose an item.
061000002	FME	Durant Street Storm Sewer and Pavement Improvements - Phase 2	Further study of Durant Street Phase 2 to reduce flood risk with upgrades to storm sewer system, concrete curb, gutter, pavement, and sidewalk.	\$90000	Choose an item.	Choose an item.
061000037	FME	City of Alvin Flood Gauges	Study to identify areas where best to purchase additional flood gauges to be placed at bayous and key high water areas within City of Alvin.	\$50000	Choose an item.	Choose an item.
061000039	FME	City of Alvin Master Drainage Plan	Comprehensive review of current drainage, studies and recommendations	\$100000	Choose an item.	Choose an item.

			for future projects and studies to create a Master Drainage Plan for the City of Alvin.			
061000040	FME	City of Alvin Open Space Preservation	Study for open space preservation with within adjacent development, dedication of conservation easements or fee simple acquisition of land along Mustang Bayou.	\$500000	Choose an item.	Choose an item.
061000043	FME	City of Alvin Detention Pond Construction - Mustang and Dickinson Bayou	Further assessment and design of detention ponds needed aon Mustang and Dickinson Bayous to reduce flood risk in the City of Alvin.	\$200000	Choose an item.	Choose an item.
061000067	FME	City of Alvin Dickinson Bayou Watershed Study	Study of Dickinson Bayou Watershed to determine drainage improvement alternatives.	\$500000	Choose an item.	Choose an item.
062000012	FMS	City of Alvin CRS Application	Apply and once accepted maintain and/or improve CRS status. Cost is time, data and preparation of a CRS application. Benefit, if approved homeowner with flood insurance could receive a discount based on the City's CRS score.	\$25000	Choose an item.	Choose an item.
062000061	FMS	City of Alvin Full Time Floodplain Administrator	Hire a full-time floodplain administrator who can support CRS application, NFIP, mapping and community floodplain support. A dedicated employee could help the	\$100000	Choose an item.	Choose an item.

			community obtain CRS status and full time flood plain support.			
063000201	FMP	City of Alvin Unified Development Ordinance	A unified land development code combines all land use controls into a single document with a logical structure that is user friendly. Cost is time, data and preparation of a unified land development code.	\$100000	Choose an item.	Choose an item.

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Friday, June 17, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)
San Jacinto Regional Flood Planning Group

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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Michelle Segovia, City Engineer
City of Alvin
1100 W. Highway 6
Alvin, TX 77511

Re: ACTION REQUEST: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Michelle,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Alvin on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The responses provided to the flood financing survey have been incorporated into the plan.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Bayou Land Conservancy



Bayou Land Conservancy
10330 Lake Road, Bldg J
Houston, Texas 77070



October 27, 2022

To: San Jacinto Regional Flood Planning Group (via website)

Bayou Land Conservancy’s Comment Letter to Region 6 Regional Flood Planning Group Promoting the Protection of Natural Flood Mitigation Features, and Use of Nature Based Flood Mitigation Solutions

Region 6, along with all the other Regional Flood Planning Groups, have had to work under a tight timeline during the initial planning round—and we appreciate the work the Region has put into making a holistic flood plan. Thank you to the appointed voting members, and the consultant team, for months of hard work.

Bayou Land Conservancy (BLC) is a non-profit, accredited land trust, working to preserve land along streams for flood control, clean water, and wildlife. We have conserved over 14,000 acres since 1996, utilizing conservation agreements with willing landowners. Our comments will be narrowly focused to the upper San Jacinto watershed (area of drainage into Lake Houston) because this is our area of conservation focus. In the draft plan these projects are described in Section 5.D.4.c. San Jacinto Master Drainage Plan. Bayou Land Conservancy participated in public input during the development of the San Jacinto Master Drainage Plan and submitted comments to the plan in August of 2020.

We will not address specific comments to each stream with planned projects in the upper watershed as they follow a similar design: upstream detention/downstream channelization. The comments submitted will focus on the impacts of the proposed channelization of Spring Creek.

Impacts to Conserved Lands and Wetlands Mitigation

BLC protects land within the upper San Jacinto watershed primarily through land ownership and conservation easements. Conservation easements are voluntary, perpetual legal agreements with landowners to preserve the land and prevent development. Of greatest importance to BLC is the impact that the proposed projects could have on conserved lands. These lands provide valuable ecosystem services, including but not limited to, maintaining water quality and quantity, and flood protection.

In addition to ecosystem services, many of BLC’s conservation easements were initiated to provide wetlands mitigation for Clean Water Act permitting. As mitigation sites, these lands are providing an additional service. If these mitigation lands are impacted with a proposed channelization project, they would require additional federal permitting and mitigation costs.

These conserved lands also provide important community spaces that are safe and open to all at no cost. BLC is extremely concerned about two proposed project locations: Spring I-45 Channelization and Spring Woodlands Channelization. These projects are proposed in areas with conservation easements that serve as both wetlands mitigation sites and public outdoor recreation spaces. Both projects are along Spring Creek where the Spring Creek Greenway is located.

The Spring Creek Greenway is a multi-decade project beginning in 1979 with land purchases for public use that continues today with creation of the largest, continuous forested urban green space in the United States. The Spring Creek Greenway is championed by both Harris and Montgomery counties, of which Spring Creek is the liquid boundary. This greenway connects and protects approximately 7,000 acres of forest along Spring Creek, preserving this ecological gem as a mecca for ecotourism, education, and outdoor recreation just north of Houston. Both Spring Creek Channelization projects appear to threaten this vital community asset.

The Woodlands Channelization project is proposed along both the Spring Creek Greenway and BLC's Spring Creek Nature Trail. The Spring Creek Nature Trail is a 14-mile unpaved, earthen, trail that complements the greenway. It is a keystone project for BLC that highlights our natural ecology and provides quiet solace in one of the largest cities in America. This trail was constructed with the aid of numerous funding sources including federal highway funds through Texas Parks & Wildlife Department, charitable endowments, foundations, grants, corporate and member donations. It's construction and maintenance required partnerships with Harris County, Montgomery County, The Woodlands Township, and the Howard Hughes Corporation. This trail was built for the community, by the community. BLC volunteers contributed over 2,500 hours to the construction of this trail. After its completion, additional volunteers have dedicated their time, energy, and donations to upkeep of the trail. Since trail construction, there have been over 3,000 volunteer hours spent on improvements and maintenance. The community is invested in this natural recreation space.

Impact of Channelization on Erosion

The level of data collection and analysis regarding erosion in the original study appeared to be high-level and lacking detailed analysis. Erosion and downstream sedimentation are known issues in many watersheds throughout the study area. BLC is concerned that projects along Spring Creek and the West Fork of the San Jacinto River, in particular, do not adequately consider erosion. Detention and channelization projects within an area prone to erosion risks destabilization of the entire system.

BLC strongly suggests additional studies of erosion and sedimentation in the study area, with an analysis of the project impacts over the next 50 years.

Cost/Benefits of Green Infrastructure and Nature Based FMPs

Only projects with significant amounts of details are incorporated as FMPs in the Draft Regional Flood Plans. We are concerned that natural infrastructure projects could be downgraded to Flood Management Strategies (FMS) due to lack of data provided to the Region. It is important to note that analyses like the BCR are not always tailored for natural infrastructure projects. For example, while preserving open space within the floodplain (such as the Spring Creek Greenway) helps protect land from development which could negatively impact flooding, a traditional BCR may not adequately account for protection of development that hasn't occurred yet. *We recommend the RFPG to provide discretion to potential FMPs that are largely nature-based. We also encourage the Region to provide an administrative recommendation to the TWDB to provide guidance to the Regions on how to apply potential FMP requirements to nature-based projects.*

According to the RFPG Region 6 draft plan: "Updated construction cost estimates and estimates of project benefits must also be available to define a benefit-cost ratio (BCR) for each recommended Flood

Management Project (FMP). The Texas Water Development Board (TWDB) recommends that proposed projects have a BCR greater than one, but the San Jacinto RFPG may recommend FMPs with a BCR lower than one with proper justification.”

Even though the RFPG was given discretion to propose projects with a BCR below the TWDB recommended floor of “greater than 1”, it’s worth noting that the BCR for the Spring Creek portion of the upper San Jacinto watershed FMPs is 0.76, and the aggregate for all the projects recommended from the San Jacinto Master Drainage study would be between 0.29 and 0.34. This points to an urgent need to acknowledge the benefits of nature-based FMPs that include floodplain protection, and removing structures at highest level of risk, because the justification for spending more than \$3b for projects that will provide, at best, less than \$1b in benefits has not been addressed in the draft plan.

In addition, potential negative impacts to downstream communities were not addressed in the San Jacinto Master Drainage Plan. **Because of this, and the unfavorable BCR for the Master Drainage Plan projects, we recommend that the San Jacinto Master Drainage Plan projects be removed from the Region 6 plan.**

Since the inception of flood planning in Region 6 a number of public meetings and opportunities for public comment have taken place. Overwhelmingly people have asked for flood plain preservation and nature-based infrastructure (NBI) projects because they recognize the multi benefits provided by connected green spaces along our bayous, creeks, and rivers. Bayou Land Conservancy joins with those members of our community in asking the Region 6 Flood Planning Group to consider the opportunities in approaching flood mitigation in ways that work with nature.

Sincerely,

A handwritten signature in black ink that reads "Jill Boullion". The signature is written in a cursive, flowing style.

Jill Boullion
Executive Director



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Jill Boullion, Executive Director
Bayou Land Conservancy
10330 Lake Road
Building J
Houston, Texas 77070

Re: Bayou Land Conservancy's Comment Letter to Region 6 Regional Flood Planning Group Promoting the Protection of Natural Flood Mitigation Features, and Use of Nature Based Flood Mitigation Solutions

Dear Jill,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Bayou Land Conservancy on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The purpose of the regional flood plan is to collect projects and studies and make recommendations based on criteria developed by the TWDB. Please note that projects included in the RFP are not guaranteed to receive funding assistance and the sponsor must demonstrate that projects meet applicable regulations and criteria, including land acquisition and environmental constraints. Furthermore, documentation provided within the San Jacinto Master Drainage Plan included language stating the project would not have negative impacts – a requirement specified by the TWDB. Therefore, no changes were made to the regional flood plan. Any further comments regarding project specifics can be directed to the project sponsor.

The San Jacinto RFPG has recognized and discussed how the current requirements for a project to qualify as an FMP (including requirement of a BCR) and how the TWDB is currently measuring the portion of a project that is nature-based, require improvement. Several recommendations have been made to the state in Chapter 8 that speak to these concerns. However, the RFPG encourages the Bayou Land Conservancy to remain an active participant in the flood planning process to continue to help inform approaches moving forward.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

City of Bellaire

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Thursday, October 27, 2022 12:38 PM
To: Ross Gordon
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good afternoon,

On behalf of the Technical Consultant, I want to thank you and the City of Bellaire for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

Mariah Najmuddin, MPP (she/her/ella)
Communications Specialist
Hollaway Environmental + Communications
2500 Summer Street, Suite 1130
Houston, TX 77007
O: 713.868.1043 | D: 346.223.1064
www.hollawayenv.com



HUB + DBE + WBE + WOSB CERTIFIED

De: HubSpot Forms <noreply@hubspot.com>

Enviado el: Thursday, October 27, 2022 12:25 PM

Para: Mariah Najmuddin <Mariah@hollawayenv.com>

Asunto: Contact reconversion by submitting on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



Contact reconversion by submitting on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

Ross

Last name:

Gordon

City:

Bellaire

County:

Harris

Email:

rgordon@bellairetx.gov

Comment on the DRAFT Regional Flood Plan:

General Comment:::

While we understand the exact mechanics may not

have been finalized yet, the City of Bellaire requests that the following be taken into consideration as policies are developed and projects are considered for Flood Infrastructure Funding (FIF) in the future. Specifically, the City of Bellaire wants to ensure that projects classified as FMEs at the date of Regional Flood Plan / State Flood Plan adoption are not limited to applying for Category 1 FIF funding. If, in the intervening time, a local entity advances a project to the point where it has sufficient information to substantiate an FMP (e.g. benefit cost analysis, no adverse impact analysis, cost estimate), that it be eligible to apply for and receive Category 2 FIF funding (acquisition, design, and construction). This should be independent of any amendments to the Regional Flood Plan / State Flood Plan, which may formally transition the status of a project from FME to FMP, as these amendments may not occur in a timely manner.

This is highly important, because penalizing a local entity for advancing a project on their own would be contrary to the goals of the State's flood risk management goals. For hard hit communities, the ability to act with urgency is critical. Furthermore, the ability to access construction funds, rather than only study funds, is also critical for smaller municipalities. And a five-year planning cycle is too long for entities wishing to advance smaller but still very meaningful flood risk management projects on an accelerated schedule. Accordingly, this highlights the importance of quickly accommodating Regional Flood Plan / State Flood Plan amendments, post adoption, in addition to the above request that projects be able to apply for FIF funding at the appropriate category, reflecting their current stage of project development, and not just the stage of project development when the Regional Flood Plan / State Flood Plan was adopted.

FMX Specific Comments::::

In an effort to better reflect the City of Bellaire's anticipated future flood mitigation actions, we request

that the FMXs including in the Draft Regional Flood Plan be replaced with the attached information. We have provided a revised summary spreadsheet (with one tab for information currently in the Draft Regional Flood plan, and with another tab for the City of Bellaire's proposed revisions). This should provide the information necessary to update all FMX information related to the City of Bellaire in the Regional Flood Plan. Most importantly, this provides additional granularity on specific flood risk reduction projects currently underway or anticipated to start soon, which will align these efforts better for funding from TWDB in the future. The City of Bellaire stands ready to assist the RFPG and provide any additional information which would be necessary to complete these updates. Thank you so much for your willingness to work with the City of Bellaire.

Submitted by:::
Ross Gordon
City of Bellaire
Council Member Position 3

File upload:

[Bellaire_SJRFP_Draft_FMXs-COB-Comments.xlsx](#)

View in HubSpot

[City of Bellaire](#)

- **CONTACT**
- Ross Gordon

Found site via:

<https://sanjacintofloodplanning.org/technical-documents/>

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sanjacstudy.com (Hub ID: 20336393)

HubSpot, Inc.
25 First Street, 2nd Floor
Cambridge, MA 02141

Maggie Puckett

From: Cory Stull
Sent: Friday, May 6, 2022 6:07 PM
To: Maggie Puckett; Brian Edmondson
Subject: FW: San Jacinto Regional Flood Plan
Attachments: Bellaire MDCP_Report_20220414.pdf

Cory J. Stull, P.E., CFM
Principal and Vice President
Stormwater Management

Freese and Nichols, Inc.
713-600-6809 direct
713-359-8560 mobile

From: Michael Leech <mleech@bellairetx.gov>
Sent: Friday, May 6, 2022 1:22 PM
To: Cory Stull <Cory.Stull@freese.com>
Cc: Deacon Tittel <dtittel@bellairetx.gov>
Subject: San Jacinto Regional Flood Plan

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Cory,

Ross Gordon recommended that I touch base with you. I'm writing to get some insight on how the City of Bellaire can get some of the drainage projects that were identified through our recently completed Master Drainage Concept Plan (MDCP) incorporated into the San Jacinto Regional Flood Plan. The gist of the MDCP is that it is was a cooperatively funded effort by HCFC, TxDOT and Bellaire to identify causes of flooding as well as potential projects to minimize flooding impacts in the Bellaire area. The MDCP is attached if you'd like to have a look. Our thinking is that the projects identified in the MDCP might be a good fit as "Flood Mitigation Projects (FMP's)" in the San Jacinto Regional Flood Plan.

I'd love to chat with you about this when you have some time. Also, I appreciate and understand the time sensitive nature of this request. We are prepared to jump on this and get you what you need ASAP.

Thanks,
Mike

Michael Leech
Director, Public Works and Development Services

City of Bellaire
4440 Edith Street | Bellaire, TX 77401
O: (713) 662-8154 | C: (713) 201-3379



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Michael Leech
Director, Public Works and Development Services
City of Bellaire
4440 Edith Street
Bellaire, Texas 77401

Re: City of Bellaire Projects for the San Jacinto Regional Flood Plan

Dear Michael,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Bellaire on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

In regards to requests for inclusion of additional actions in the plan:

At this time, additional projects, studies, and evaluations are not able to be included in the Final Plan. Therefore, no changes were made at this time to the flood plan. However, the RFPG will be engaging entities during the amended planning cycle in 2023 to acquire additional projects, studies, and evaluations and will be updating the plan accordingly. The FME's provided by Bellaire will be considered for inclusion in the Amended Plan due in July 2023.

In regards to updates and revisions to actions currently sponsored by Bellaire

Requested updates to descriptions of actions, cost estimates, and sponsor funding have been updated in the plan.

In regards to the question about future state funding opportunities

The San Jacinto RFPG has received and considered the inquiry submitted by the City of Bellaire as to whether a sponsor can elevate an FME to an FMP between flood planning cycles and be eligible for Category 2 FIF funding. The suggestion that this be allowable independent of the need for formal amendments to the Regional or State Flood Plan will be documented within Chapter 10 of the Final Flood Plan and submitted to the TWDB for consideration.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
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Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB
Ross Gordon | Council Member Position 3, City of Bellaire

Blue Bonnet Groundwater

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Tuesday, October 4, 2022 4:29 PM
To: zholland@bluebonnetgroundwater.org
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for your comment on the DRAFT Regional Flood Plan!

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Good afternoon,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

From: HubSpot Forms <noreply@hubspot.com>
Sent: Tuesday, September 27, 2022 5:00 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: New submission on HubSpot Form "New contact us form (July 6, 2021 1:34:23 PM) "

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "New contact us form (July 6, 2021 1:34:23 PM) "

Page submitted on: [Contact Us - San Jacinto Regional Flood Planning](#)

First name:

Zach

Last name:

Holland

Street address:

303 E. Washington Avenue, Suite D

City:

Navasota

County:

Grimes

Postal code:

77868

Email:

zholland@bluebonnetgroundwater.org

Your comment:

Flooding presents a host of planning, action, response, and recovery this group and others have been tasked with fitting into a single source of information for the State of Texas. I believe a unique piece of information pertinent to the Region 6 flood plan should be a documentation of the processes and procedures to treat

and test a flooded water well. These efforts were incredibly vital post Hurricane Harvey for our region. The Texas Well Owners Network was tabbed as a hub for this information and working with local entities to distribute treatments and testing to well owners. I believe our individual regional plan, as well as the State Flood Plan as a whole, would be significantly benefited by including such information for individuals or entities to reference in planning and future flood events.

[View in HubSpot](#)



- **CONTACT**
- Zach Holland

This message was sent to mariah@hollawayenv.com because your preferences are set to receive notifications like this. You can change it in your [notification preferences](#) page.

sanjacstudy.com (Hub ID: 20336393)

HubSpot, Inc.
25 First Street, 2nd Floor
Cambridge, MA 02141



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Zach Holland
Blue Bonnet Groundwater
303 East Washington Avenue
Suite D
Navasota, Texas 77868

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Zach,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Blue Bonnet Groundwater on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

While information as presented regarding testing for flooded well water is not specifically mentioned within the RFP, this comment will be documented in the Final Regional Flood Plan and will be passed along to the Texas Water Development Board for future consideration.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Coastal Prairie Conservancy

5615 Kirby Drive, Suite 867
Houston, Texas 77005-2458

713.523.6135 P
713.583.0683 F

www.coastalprairieconservancy.org
info@coastalprairieconservancy.org



October 27, 2022

San Jacinto Regional Flood Planning Group
Texas Water Development Board
via email to sanjacfldpg@eng.hctx.net

Re: Region 6 Draft Regional Flood Plan

Ladies and Gentlemen,

The San Jacinto Regional Flood Planning Group has requested input on the draft Regional Flood Plan. The Coastal Prairie Conservancy, which owns over 13,500 acres of agricultural and natural lands and protects an additional 5,012 acres through voluntary conservation easements with private landowners in Harris and Waller Counties within the San Jacinto watershed, has reviewed the draft plan and offers suggestions to the SJRFPG to better reflect the community's interest in incorporating nature-based solutions. The SJRFPG adopted a goal that 35% of all FMSs and FMPs identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053. We are disappointed to see that the draft plan has included structural projects, some of which have negative impacts to the environment. In addition, the plan has not included any nature-based projects as FMPs.

One of the key methods of achieving nature-based flood mitigation is the preservation of floodplains, as allowing floodwaters to access their natural floodplains and spread where they do not cause damage also reduces peak flows downstream. However, none of the FMPs included in the plan relate to the preservation of the floodplain. We ask that HCFCD's buyout program, which would remove repeat flooding structures from the floodplain, be included as an FMP, as this is one method that completely eliminates any residual flood risk. It also ensures that new structures are not built again in the floodplain. Public acquisition of these lands would allow for these spaces to be available for public use, to provide wildlife habitat, and to offer other community benefits. Additional low-interest programs to support voluntary city and county buy-back of lands for county parks and flood mitigation should also be included.

Floodplain preservation can be achieved more cost effectively and efficiency on lands that have not yet been developed through the use of purchased conservation easements which restrict development in the floodplain. These floodplain easements would allow private landowners to retain ownership of the floodplain, while being compensated for the fair market value of the development rights that are relinquished. By preserving undeveloped floodplains, land will continue to be available for agricultural production, wildlife habitat and recreation, and can contribute to water quality enhancements. We request that floodplain preservation through public

buyout programs and/or floodplain easements also be included as an FMP. If additional data is required to develop these projects, we ask that funds be allocated to identify these data points.

There are multiple river channelization projects under the San Jacinto Master Drainage Plan included as FMPs. Surprisingly, however, we are concerned that there were no negative impacts identified as associated with the channelization of Caney Creek, Peach Creek, Spring Creek, and the West Fork of San Jacinto river. The channel widening and construction of detention basins in the identified projects have a clear negative impact on some of the few remaining natural habitats within a highly urbanized area. We are disappointed to see these projects included while no nature-based projects were included. Section 6.A.6.a acknowledges that there is the potential to impact wetlands, threatened and endangered species, and the functionality of natural areas, but there are no elements of the plan that aim to remedy those impacts or identify projects that provide similar flood risk reduction while also providing community benefits. We ask that the channelization projects be removed as FMPs.

We are also concerned regarding the inclusion of the Galveston Bay Surge Protection Coastal Storm Risk Management, which involves multiple projects with varying degrees of costs and impacts. We ask that each element be considered independently. The plan noted that one of the requirements for inclusion as an FMP is that the "RFPG must be able to demonstrate that each recommended FMP...is a discrete project (not an entire capital program or drainage master plan)." Despite being made up of multiple storm risk reduction projects, it is included under Region 6's draft plan as one FMP. We believe that inclusion of the Galveston Bay Surge Protection Coastal Storm Risk Management as a single FMP goes against the requirement of submitting discrete projects as an FMP.

The Texas Legislature is urged to make funds available to support nature-based practices through land conservation, restoration programs, and participation in landowner incentive programs to encourage voluntary land stewardship practices to manage floodwaters by slowing runoff and dissipating flood energy to include riparian, wetland, forest, upland, and other habitat protection programs. We also request land coverage studies be performed to effectively identify riparian corridors that should be protected for floodplain mitigation and erosion reduction.

We thank you for your work in addressing flooding in the San Jacinto watershed and look forward to working collaboratively to advancing nature-based projects, especially as they can reduce flood risk and increase regional resilience.

Thank you,

A handwritten signature in black ink, appearing to read "Mary Anne Piacentini". The signature is fluid and cursive, with a prominent initial "M" and "A".

Mary Anne Piacentini
President and CEO



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mary Anne Piacentini, President and CEO
Coastal Prairie Conservancy
5615 Kirby Drive
Suite 867
Houston, Texas 77005

Re: Region 6 Draft Regional Flood Plan

Dear Coastal Prairie Conservancy,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Coastal Prairie Conservancy on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The purpose of the regional flood plan is to collect projects and studies and make recommendations based on criteria developed by the TWDB. If structural projects met specific criteria as outlined by the TWDB, they were presented for consideration by the RFPG. With regards to the actions sponsored by other entities discussed in the submitted comment letter, all of these actions were included in the RFP following close coordination with the project sponsors or in compliance with project implementation guidance documented in accompanying reports. Please note that projects included in the RFP are not guaranteed to receive funding assistance and the sponsor must demonstrate that projects meet applicable regulations. Any further comments regarding project specifics can be directed to the project sponsor.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

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Rachel Powers
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Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Danielle Goshen on behalf of the National Wildlife Federation, Bayou Land Conservancy, Bayou City Waterkeeper, Coastal Prairie Conservancy, and Galveston Bay Foundation

Maggie Puckett

From: Mariah@hollawayenv.com
Sent: Monday, October 31, 2022 11:34 AM
To: goshend@nwf.org
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

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Good morning,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region. We received both comment submissions.

Please reach out if you have any questions.

Best,

Mariah

From: HubSpot Forms <noreply@hubspot.com>
Sent: Saturday, October 29, 2022 11:29 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: Contact reconversion by submitting on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



**Contact reconversion by submitting on
HubSpot Form "Comments on the DRAFT
Regional Flood Plan"**

First name:
Danielle

Last name:
Goshen

City:
Austin

County:
Texas

Email:
goshend@nwf.org

Comment on the DRAFT Regional Flood Plan:
Additional document providing more background on concerns regarding the Coastal Texas Study.

File upload:
[2021.10.12-Comments-to-coastal-barrier-final-EIS.pdf](#)

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- **CONTACT**
- Danielle Goshen

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Air Alliance Houston
Bayou City Waterkeeper
Christmas Bay Foundation
Coalition for Environment, Equity, and
Resilience
Coastal Conservation Association, Texas
Environment Texas

Galveston Bay Foundation
Healthy Gulf
Healthy Port Communities Coalition
Lower Brazos Riverwatch
Port Arthur Community Action Network
Public Citizen
Save Buffalo Bayou

Sierra Club Lone Star Chapter
Texas Campaign for the Environment
Texas Health & Environment Alliance
Texas Housers
Turtle Island Restoration Network
West Street Recovery

VIA EMAIL

October 12, 2021

Lt. Gen. Scott A. Spellmon
Chief of Engineers and Commanding General
U.S. Army Corps of Engineers
scott.a.spellmon@usace.army.mil

Coastal Texas Study
CoastalTexas@usace.army.mil

**Re: Comments to Final Feasibility Report & Final Environmental Impact Statement (FEIS)
for the Coastal Texas Protection and Restoration Study [Coastal Texas Study]**

To Lt. Gen. Spellmon:

Nicholas made landfall last month as a Category 1 hurricane and unleashed heavy rains and intense winds, which caused more than \$1 billion in damage for communities along the Upper Texas Coast. Most storms to have hit this region over the last decade have brought a similar combination of heavy rain and wind, like Tropical Storm Beta (2020), Tropical Storm Imelda (2019), the Memorial Day flood (2016), and the Tax Day flood (2015). Hurricane Harvey (2017), the worst, directly killed close to 100 people,¹ displaced tens of thousands more, destroyed key infrastructure, infused floodwaters with sewage and toxic chemicals as wastewater treatment plants and Superfund sites were flooded, and caused an estimated \$125 billion in damage—primarily from flooding, through rain that lasted nearly a week.

The coastal gate system proposed by the Coastal Texas Study would not have protected us from the heavy rains and high winds characterizing these recent storms. The system also does not adequately account for sea-level rise and intensifying weather patterns associated with climate change and may not protect us from storm surges associated with Category 3+ storms. The structures will take years to build, cost billions of dollars, and offer protection for only a generation or two. And yet its effects, despite not fully being studied, will be permanent; the gate structure will forever change our coast and the ecology of Galveston Bay.

¹ In the years following Hurricane Harvey, many more people have died as a result of the storm and obstacles to recovery. This tragic loss of life is not reflected in official counts and is currently the subject of a longitudinal study.

Hurricane Ike (2009), which killed more than 100 people in the United States and caused \$30 billion in damage to our coast, made clear that we must address storm surge. But by focusing on that single threat, the Coastal Texas Study lost sight of the questions that must drive our planning forward: How will those of us living along the Texas coast stay out of harm's way as climate change intensifies over the next several decades? And how will we do this without losing the things that make this place that we call home special?

With those questions in mind, we urge the USACE to return to the drawing board and address gaps in its analysis. The USACE must fully consider:

- Environmental impacts, including those on Galveston Bay's oysters, fish, shrimp, and crab species;
- Alternatives to the coastal gate system, such as a full non-structural, nature-based alternative that minimizes risk to communities, local economies, and the environment;
- Alternatives that will impose a fair share of the cost on the multi-billion dollar industries in need of protection; and
- How to reduce, rather than exacerbate, impacts of disasters on vulnerable communities.

In the meantime, solutions are needed now. Decision-makers at the federal, state, and local levels must work together and invest in shorter-term solutions on a more rapid timeline than contemplated by the Coastal Texas Study. We must embrace the goal of moving people out of harm's way as rapidly as possible, and Harris County's Harris Thrives prioritization framework and the city of Houston's Resilient Houston plan offer models for the region as a whole to build and expand on. By taking a holistic, multi-faceted approach, our region's leaders can lay the groundwork for the resilience of our coastal communities. We must:

- Upgrade homes to withstand high winds, heavy rains, and storm surge, on a rapid timeline;
- Help frontline communities move to safer areas in a proactive, coordinated, equitable, and sustainable way;
- Continue to strengthen building regulations across the watershed to avoid exacerbating existing risks, including identifying at-risk industrial facilities and requiring upgrades in order to protect neighboring communities;
- Preserve wetlands, prairies, floodplains, and the natural flood protection they offer; and
- Center equity, so the most vulnerable among us are not pushed further behind with each disaster our region faces.

The organizations joining together to submit this letter work across the greater Houston region and along the Texas coast on a range of issues relevant to the Coastal Texas Study: land conservation, environmental justice, reducing sources of air, land, and water pollution, climate resilience and disaster recovery, and affordable housing. The recommendations embodied in this letter build on the previous comments submitted by many of these organizations over the past three years. We fully incorporate our previous comments and as more fully discussed below, reiterate the need for a more thorough analysis of the impacts of the project and consideration of proposed alternatives.

Comments

1. The FEIS too narrowly defines the project purpose and fails to adequately consider alternatives

This FEIS does not meet the requirements for an initial tiered EIS. The NEPA directive for agencies includes in part that the Federal Government shall, “include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on... any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.”² Tiering is, “the coverage of general matters in broader environmental impact statements or environmental assessments (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basin-wide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.”³ It is encouraged when used to move from a broad review to a narrower one and it will help the agency focus on the issues ripe for discussion.⁴

That being said, when the USACE tiers, “[t]he initial broad or programmatic EIS must present sufficient information regarding overall impacts of the proposed action so that the decision-makers can make a reasoned judgment on the merits of the action at the present stage of planning or development and exclude from consideration issues already decided or not ready for decision.”⁵ This FEIS selects the suite of measures that will be used to meet the goals of the Water Resources Development Act. As such it must provide a sufficient analysis of the possible alternatives and impacts of those alternatives to support a reasoned decision to select the identified measures in lieu of other possibilities. Because this FEIS will support over \$28 billion in spending, it is vitally important that a careful decision is made considering both the opportunity costs of projects not selected and of the significant timeframe for project implementation and accelerating impacts of climate change. The Final EIS does not provide an analysis of project alternatives and their impacts that is sufficient to allow such reasoned decision making.

a. USACE improperly narrowed the objectives for the Coastal Texas Study by restricting its purposes to storm surge mitigation and ecosystem restoration.

Agencies bear responsibility for outlining the objectives of a major federal action, and those objectives determine the range of feasible alternatives required for consideration in an EIS.⁶ While courts afford agencies discretion in setting the objectives of an action, “an agency may

² 42 U.S.C. § 4332(c).

³ 40 C.F.R. § 1508.1(ff).

⁴ 40 C.F.R. § 15011.11

⁵ 33 C.F.R. § 230.13.

⁶ *City of Alexandria, Va. v. Slater*, 198 F.3d 862, 867 (D.C. Cir. 1999).

not define the objectives of its action in terms so unreasonably narrow,” that the range of feasible alternatives shrinks to only those that fit the agency’s policy preference.⁷

In defining objectives “agencies must look hard at the factors relevant to the definition of purpose.”⁸ When an agency acts pursuant to express statutory authorization, “the statutory objectives of the project serve as a guide by which to determine the reasonableness of objectives outlined in an EIS.”⁹ This confines agency action to the general principle that agency power “is limited to the authority delegated by Congress.”¹⁰

USACE prepared the Coastal Texas Study under the standing authority granted by section 4091 of the Water Resources Development Act of 2007 (“the Act”).¹¹ The Act provides the following mandate:

- a) In General. — The Secretary shall develop a comprehensive plan to determine the feasibility of carrying out projects for flood damage reduction, hurricane and storm damage reduction, and ecosystem restoration in the coastal areas of the State of Texas.
- b) Scope. — The comprehensive plan shall provide for the protection, conservation, and restoration of wetlands, barrier islands, shorelines, and related lands and features that protect critical resources, habitat, and infrastructure from the impacts of coastal storms, hurricanes, erosion, and subsidence.¹²

These express objectives charge USACE with developing a “comprehensive plan” to protect the Texas coast from both flooding and coastal storms, in addition to providing ecosystem restoration efforts. Hurricanes and storms impact the coast in multiple ways, most significantly from rainfall, high wind speeds, and storm surge.¹³ The Final EIS, however, limited damage reduction objectives to storm surge measures only.¹⁴ Excluding the impacts of rainfall, which causes both storm damage and flooding, and high wind speeds, which cause storm damage, improperly narrowed the objectives of the EIS and departed from the statutory mandate outlined in the Act.

The first Draft EIS signaled impacts from rainfall and high wind speeds would be excluded. Although the initial notice of intent and scoping promulgated in 2016 tracked the broad

⁷ *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991).

⁸ *Id.*

⁹ *Westlands Water Dist. v. U.S. Dep’t of Interior*, 376 F.3d 853, 866 (9th Cir. 2004).

¹⁰ *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988).

¹¹ U.S. Army Corps of Engineers, Coastal Texas Protection & Restoration Feasibility Study Final Environmental Impact Statement (“Coastal Texas Study”) 1-3 (August 2021).

¹² Water Resources Development Act of 2007 § 4091.

¹³ *Hurricane Damage*, UCAR Center for Science Education, <https://scied.ucar.edu/learning-zone/storms/hurricane-damage>.

¹⁴ Coastal Texas Study, 1-12.

objectives of the Act,¹⁵ all seven damage reduction objectives listed in the 2018 Draft EIS purport to mitigate storm surge.¹⁶ Both the 2020 Draft EIS and 2021 Final EIS carried this narrow purpose forward and limited the Study's scope to "measures primarily related to the management of storm surges."¹⁷

Excluding impacts from rainfall and high wind speeds from the risk reduction objectives belies USACE's own recognition of the multiple risks posed by coastal storms. The 2018 Draft EIS noted that "the intensity of precipitation events is likely to increase [with rising sea level],"¹⁸ and both the 2020 Draft EIS and 2021 Final EIS warned "[t]he damages from hurricanes and tropical storms could become more severe as wind speed is projected to increase with higher sea levels and rising ocean temperatures."¹⁹ The Final EIS also described the impacts of Hurricane Harvey in 2017, which brought primarily rainfall to the upper coast and a mixture of impacts from rain, storm surge, and high wind speeds to the mid-coast.²⁰

Each EIS provided only vague rationales for excluding rainfall and wind mitigation from its objectives. The 2018 Draft EIS notes that USACE considered rainfall impacts but "determined that adequate authorities exist to address flood risk management in the study area outside of the Coastal Texas Study, and specific legislation will revisit the opportunities to address those vulnerabilities to precipitation."²¹ Without further explanation of what authorities and legislation were meant by this, it is impossible to determine whether impacts from rainfall will in fact be addressed, as called for by the Act's directive to assess flood damage reduction as part of a comprehensive plan.

The Final EIS adopted the same posture as the initial Draft EIS, acknowledging that, while flood risk management was authorized as an objective for the Coastal Texas Study, it would not be addressed specifically.²² The only additional details in the Final EIS pointed to section 216 of the Rivers and Harbors Flood Control Act of 1970 as a potential source for flood risk mitigation.²³ Mere reference to another statutory authority, however, fails to explain how flood risk will be managed as required by the Act authorizing this Study.

Moreover, just because flood risk could be addressed under other authority, USACE must still describe how those measures would interact with other flood control measures proposed in this EIS. Both storm surge and rainfall mitigation measures address flooding but from different root causes. It is possible these different objectives could either complement or detract from each

¹⁵ Intent To Prepare a Draft Environmental Impact Statement for the Coastal Texas Protection and Restoration Feasibility Study, 81 FR 18601-01.

¹⁶ U.S. Army Corps of Engineers, Coastal Texas Protection & Restoration Feasibility Study Draft Environmental Impact Statement, 1-13 (Oct. 2018) ("October 2018 Draft EIS").

¹⁷ U.S. Army Corps of Engineers, Coastal Texas Protection & Restoration Feasibility Study Draft Environmental Impact Statement, 1-11 (Oct. 2020) ("October 2020 Draft EIS"); Coastal Texas Study at 1-12.

¹⁸ October 2018 Draft EIS, at 1-6.

¹⁹ October 2020 Draft EIS, at 1-11; Coastal Texas Study, at 1-12.

²⁰ Coastal Texas Study, at 1-12.

²¹ October 2018 Draft EIS, at 1-12.

²² Coastal Texas Study, at 1-12.

²³ *Id.*

other and analyzing those interactions must be part of USACE's comprehensive plan for mitigating flood risk on the Texas coast.

b. Narrowing the objectives of the EIS resulted in an inadequate consideration of feasible alternatives.

By not considering any measures for mitigating rainfall or high wind speed impacts, this EIS failed to consider the full range of feasible alternatives required under NEPA.

An agency preparing an EIS must evaluate reasonable alternatives to its proposed action.²⁴ Reasonable alternatives must be objectively feasible and “reasonable in light of [the agency’s] objectives.”²⁵ The first question, however, is “whether the agency has reasonably identified and defined its objectives.”²⁶ An “impermissibly narrow purpose” for a proposed action renders the subsequent analysis of alternatives within the EIS inadequate.²⁷

The alternatives analysis is also shaped by the scope of the proposed action; larger projects require consideration of a larger range of alternatives.²⁸ For large, complicated projects, reasonable alternatives may also include measures outside of the agency’s jurisdiction and control.²⁹ This reflects that an EIS is not just for the agency’s own decision-making process but provides a full accounting of the environmental impacts of a project to inform the President, Congress, and the public.³⁰

When USACE narrowed the objectives for the Coastal Texas Study to address storm surge only, an impermissible limitation on the alternatives considered became inevitable. All seven damage risk reduction objectives in the Final Feasibility Report address storm surge specifically; none pertain to rainfall or high wind speeds.³¹ As a result, each alternative considered in the Final EIS presented a variation on the same theme—structural and nonstructural barriers designed to blunt the impact of coastal storm surge.

The Final EIS’s failure to include any discussion of possible flood risk mitigation projects, the benefits and the environmental impacts of such projects, or information about the extent to which other programs will address coastal flooding, makes it impossible for the public to evaluate the environmental costs and benefits of the Corp’s decision to spend over \$28 billion on storm surge mitigation and minimal ecosystem restoration in lieu of flood mitigation.³² The unprecedented scope of this project, spanning hundreds of miles across the entirety of the Texas coast, necessitates legitimate consideration of flood risk mitigation measures that fall within the express authorization of the Coastal Texas Study.

²⁴ 40 CFR § 1502.14(a).

²⁵ *Theodore Roosevelt Conservation P’ship v. Salazar*, 661 F.3d 66, 72 (D.C. Cir. 2011) (quoting *City of Alexandria, Va. v. Slater*, 198 F.3d 862, 867 (D.C. Cir. 1999)).

²⁶ *City of Alexandria, Va.*, 198 F.3d at 867.

²⁷ *Simmons v. U.S. Army Corps of Engineers*, 120 F.3d 664, 667 (7th Cir. 1997).

²⁸ *Nat. Res. Def. Council, Inc. v. Morton*, 458 F.2d 827, 835 (D.C. Cir. 1972).

²⁹ *Id.*

³⁰ *Id.*

³¹ Coastal Texas Study, Appendix A: Plan Formulation.

³² Coastal Texas Study, Executive Summary at 21.

Even if USACE proves correct in its prediction that flood risk mitigation will receive adequate consideration under other authorities or legislation, the analysis of alternatives here is deficient without an in-depth explanation of what those projects are, how they would interact with measures proposed in this EIS, and whether those projects in toto will contribute to a comprehensive plan for protecting the Texas coast from the full impacts of coastal floods and storms. A full EIS for a project of this scope must consider even measures that will not be constructed by USACE. More importantly, however, an examination of specific flood mitigation measures in this EIS would reveal whether those measures are likely to be constructed at all. Without this information, Congress and the public cannot understand the environmental impacts and tradeoffs inherent in the Corps decision to focus largely on hard infrastructure to address storm surge in lieu of other coastal protection measures.

Although USACE conducted an examination into storm surge measures to benefit the Texas coast, the scale, cost, and complexity of this project demands more. Until the Final EIS for the Coastal Texas Study includes full consideration of measures that would provide protection from all the impacts of coastal floods and storms, the alternatives analysis will be incomplete.

c. Additional Study of Project Alternatives and Impacts Should Be Required

An EIS is normally required for “[f]easibility reports for authorization and construction of major projects.” The independent review of this FEIS concluded that the review conducted did not rise to the level of a feasibility review. A detailed feasibility review of the coastal project is needed and should be accompanied by a full-scale EIS.

If the Corps issues a Record of Decision based on the existing Final EIS, before any funds are committed to the selected projects, the USACE should conduct a supplemental analysis that analyzes alternatives that would address storm impacts due to rainfall and wind and that compares the benefits and costs of such alternatives to those identified in the Final EIS.

In addition, the Corps should conduct an EIS, rather than an EA for the selected Tier 1 alternatives, including:

- B2 - Follets Island Gulf Beach and Dune Restoration
- Bolivar Roads Gate System
- Bolivar and West Galveston Beach and Dune System
- Galveston Ring Barrier System
- Clear Lake Gate System and Pump Station
- Dickinson Bay Gate System and Pump Station
- Nonstructural Improvements

2. The FEIS does not provide sufficient information regarding overall project impacts

Corps regulations require that an initial tiered EIS, “present sufficient information regarding overall impacts of the proposed action so that the decision-makers can make a reasoned judgment.”³³ The FEIS fails to sufficiently analyze project impacts. When an independent

³³ 33 C.F.R. § 230.13(c).

analysis of the Corps' approach was conducted it concluded that the review was only a reconnaissance level look and did not rise to the level of a feasibility review.³⁴

Commenters raised many issues regarding specific deficiencies in comments on the Draft EIS. Those deficiencies were largely unaddressed in the Final EIS, which is insufficient in several respects, including the following.

- The Bolivar Road Gate system's impacts have been under-examined
- The dune system analysis is insufficient and fails to note the sources of the sand

Full impact of the gate system has not been properly analyzed to determine impacts to shrimp, oysters, fish, crab, dolphins and sea turtles.

We, along with the Independent External Peer Review panel, do not believe that the FEIS rises to a feasibility level investigation. Instead, the Coastal Texas Study FEIS only represents a reconnaissance level investigation, that does not provide sufficient analysis to make a reasoned decision on the merits.

a. The FEIS does not adequately analyze environmental impacts on Galveston Bay's oysters, fish, shrimp, and crab species

While we acknowledge that the refinements to the project, most notably the gate design, have reduced some physical and hydrological impacts to Galveston Bay, the Corps has not provided an adequate analysis of the impacts to the direct and indirect environmental impacts to habitat and the ecologically and economically critical living species of Galveston Bay, most notably to its oysters, fish, shrimp, and crab species. Nor have impacts on other important species such as dolphins or sea turtles been adequately addressed.

On page 136, FR notes the following substantive impacts from the gate structures (emphasis added):

"Species and their habitats in and around Galveston Bay could be altered by changes in the rate of flow of water in and out of the Bay during normal tides and/or rainfall events. Water characteristics such as salinity could affect species that thrive in a narrow range of fresh or saline conditions, such as oysters, vegetation, and marine mammals. Furthermore, **the physical obstruction of the water column could create velocities around the gate as water is driven through a constricted area. Certain velocities could create hazards that could affect species' mobility and ability to feed and could also potentially impact habitat used for breeding.**

Preliminary studies conducted by the USACE also show that navigation gate structures, proposed as features of the Galveston Bay Storm Surge Barrier System, may affect wetland functions by constricting tidal exchange and the associated sediment transport and altering salinity gradients. This could potentially impact the ecology of the Galveston

³⁴ Battelle, Coastal Texas Independent External Peer Review, Final IEPR Report (Jan. 2019).

Bay estuary by decreasing the available habitat that can serve as nurseries, food, and refuge for various fish and shellfish species and could negatively impact birds and other wildlife species, which depend on the resources provided by wetland and marsh habitats. Additionally, two-dimensional and three-dimensional hydraulic modeling conducted by the USACE shows that **construction of the gate structures would impact flow into and out of Galveston Bay by causing a constriction in the channel that would increase velocities along the opening of the gates. These effects could have long-term impacts on estuarine habitats and fauna within the bay.**

Given these impacts, we do not accept the results of rudimentary particle modeling as sufficient to state that there will be no significant difference in larval transport between “with” and “without” project conditions. These results are extremely limited and have not been adequately reviewed by fisheries biologists, thus we are not convinced they simulate known responses of larval transport and recruitment patterns. In addition, none of the project’s effects on adult fish or shellfish movement have been studied. State and federal resource agencies have recommended such studies³⁵, which makes their absence all the more unacceptable. Again, the impacts to Galveston Bay’s fisheries could be substantial, resulting in a loss of jobs, negative local economic impacts as well as a loss of quality of life.

While the Corps states that additional modeling will be conducted in preliminary design phase once refinements are made to the gate design, at that point it will be too late to change the design appreciably.

We are concerned about the project’s impacts on Galveston Bay’s dolphin populations. Galveston Bay Foundation has endeavored to develop a dolphin research and conservation program to protect these important and charismatic marine mammals. It is very troubling that the final EIS can still only speak of the project’s potential to impact dolphins from stressors such as noise, dredging, presence of the barrier, and prey source. It does not appear that any additional details on the potential impacts, as was requested by our organizations in a 2019 letter, have been developed.

In addition, given the likelihood that the Corps will not be able to construct or maintain a dune levee system which would necessitate a change to that portion of the Coastal Barrier to an earthen levee or seawall, the environmental impacts to habitats on Bolivar Peninsula and Galveston Island will fundamentally change. Such a change would affect species which depend on functioning Gulf beach/dune habitats such as the endangered Kemp’s ridley sea turtle, Green sea turtle, Loggerhead sea turtle and Piping plover.

The Corps has not provided detailed mitigation strategies including appropriate adaptive management for any of these impacts to habitat or living species. The only mitigation that is described in detail is for the direct and indirect impacts to jurisdictional wetlands. The Corps has not addressed the impacts to wetlands due to a reduction or cessation of sediment transport from the Gulf side of Bolivar Peninsula and Galveston Island to the Bay side of each that will

³⁵ See e.g., Coastal Texas Study, at 6-25.

result from the placement of a fixed levee system. Such a structure will impact natural transport of sediment by aeolian forces and over wash events.

We understand that land used as compensatory mitigation for habitat impacts from the FR is not required to remain protected in perpetuity. This deficiency must be remedied. A perpetual conservation easement, held by a local land trust, should be placed on all wetland mitigation components of the FR. We recommend that a conservation easement be held by a local land trust that has formally adopted and adheres to the national Standards and Practices protocol of the National Land Trust Alliance. Funding for this land trust should be in place so that the appropriate monitoring can be conducted in perpetuity.

The Corps must work with the state and federal resource agencies to ensure that any mitigation plans do not impact or replace other critical habitats such as oyster reefs, seagrass meadows, and mudflats. In general, restoration of any habitat such as wetlands or oyster reefs should be coordinated with the state and federal resource agencies.

One area of particular environmental concern is San Luis Pass. Existing flow patterns are such that San Luis Pass captures only about 12 percent of the flow between the main body of Galveston Bay and the Gulf of Mexico, as stated in the EIS itself. The Corps acknowledges the increased velocity, flow, and scour through San Luis Pass that would occur if the surge gates were closed during a storm. However, we maintain that the surge gates could malfunction and remain closed for longer than intended, and that a storm could affect the freshwater inputs into Galveston Bay, pushing water out of San Luis Pass if Bolivar Roads was constricted. Also, the gate structures themselves, even in the open position, will create a detrimental constriction. The structures would restrict flow through Bolivar Roads, and even under normal conditions significantly more water would be shunted through the West Bay toward San Luis Pass.

In a storm scenario, with the Bolivar Roads gates closed, in addition to intense scour from high-velocity water forced out of San Luis Pass, sediment and fresher water are more likely to be entrained in the West Bay or wetlands, because of the restriction of flow already present due to the bridge structure over the Pass. The geomorphology, salinity, and hydrologic regimes of San Luis Pass and the West Bay would be significantly altered, and the DFR pays alarmingly little attention to this impact. While the Corps acknowledges some of the geomorphological changes that could occur, a full account of the effects of the Coastal Texas Study system, including sediment modeling and budgeting, is essential before an adequately comprehensive review of the FR can be completed.

Finally, we note the following passage from pages 4-83 of the EIS on impacts (emphasis added):

Potential long-term direct impacts to fish and shellfish with larval and juvenile life stages that depend largely on passive transport could result from the cumulative impacts of the Coastal Barrier. These impacts would include losses resulting from 1) reduced numbers entering the bay proportional to the reduced volume flowing into the bay, 2) loss of individuals trapped in eddies that could form on the backside of the gate structures; 3)

increased exposure to predation while migrating across the open bay to the marshes due to reduced velocities and increased transport times; and 4) reduced area of accessible marsh caused by reduced tidal amplitude. Many of these species are important forage species for other species of fish, birds, and dolphins. These other species could experience indirect impacts resulting from reduced access to forage. **It is difficult to predict what those impacts could be because few gate structures have been constructed in the world and no studies have been conducted on the ecological impacts these gate structures could cause. Therefore, the exact long-term impacts to the Galveston Bay complex are uncertain and additional studies would be required to best predict the impacts the structure may cause.**

This strikes at the heart of our objection to the project. We simply do not have the environmental impact analysis needed that would allow the public to provide informed comment. This project should not proceed until that information is available.

b. The FEIS misrepresents impacts on endangered sea turtles

All five species of sea turtles that use Texas shores are threatened or endangered of becoming extinct are protected under the Endangered Species Act.

The FEIS claims that there would be no significant impact to these protected sea turtles, when in reality the proposed actions of dredging, sand sourcing, shoreline alteration with the dune system and extended shoreline, and the Bolivar Gate System will have massive impacts on sea turtle's nesting, migration, and foraging behaviors. The details of those impacts for each sea turtle species are outlined in Turtle Island Restoration Network's public comments on the DEIS submitted January 13th, 2021.

The FEIS states that because of "insufficient" nesting habitat, that sea turtles are unlikely to nest in the project area and that construction would likely happen during nesting season. Even if the habitat isn't sufficient, annual nest data proves that Kemp's ridley sea turtles, the most endangered species of sea turtle, do indeed nest on the Upper Texas Coast every year. With scientific consensus stating that each egg in each nest is vital to the survival of the species, it is imperative that the construction of the beach and dune system not occur during nesting season.

There is insufficient information on the environmental impacts of the gate system on endangered sea turtles and marine mammals. Construction of navigational and environmental gates across the bay could impair and prevent sea turtle migration, feeding, and reproductive behavior between the Gulf and Galveston Bay. Construction can disrupt such behaviors by producing underwater vibrations and noise at frequencies which could disrupt sea turtles. The configuration of the gates could also increase vehicle construction traffic, increasing the likelihood of ship strikes. Dredging activities can injure and kill sea turtles, and increased turbidity from dredging can impair their ability to find prey. Construction activities on land can disturb nesting behaviors, and artificial lighting associated with beach construction can disorient nesting and hatchling sea turtles, leading to higher levels of sea turtle mortality. The gate

structures, which will also make it increasingly difficult for species to navigate through eddies and differing velocities near the structure.

Eighty percent of tidal flow into and out of Galveston Bay occurs at Bolivar Roads, and any reduction in volume of tidal flow or restriction of this pass will increase shoreline erosion. Any hard structure placed on the Gulf side of this structure will eventually erode and become a shoreface. Kemp's ridley sea turtles nest on shores of Follet's island, Galveston Island and Bolivar peninsula every year, and anticipated increase in shoreline erosion will negatively impact nesting areas. While the ambitious goals of the dune creation system would purportedly create more nesting habitat, the current iteration of this plan is such that construction would not begin for at least 10-15 years. During the interim there are unknown and potentially devastating effects to sea turtle nesting ground. Additionally, renourishment plans are left up to the local sponsors, leaving no guarantee that nesting habitat will be protected in perpetuity. If clay or hard cores are used in the construction of these dunes, the hard structure barrier system and inner clay cores of sand dunes will eventually become the new shoreline without constant beach renourishment plans. In addition, average beach slope is an important parameter influencing nest site selection for Kemp's ridley nests with far less nest density on beaches with a steep average slope or those that are relatively flat. Changes to the beach and dune profile could decimate the only nesting habitat for sea turtles on the Upper Texas Coast.

The Beach renourishment plan can also have adverse effects on sea turtles, even if proper and timely renourishment occurs. If the beach profile or sediment type is not compatible with existing shorelines or reference shorelines, this can lead to a disturbance in sea turtle nesting and breeding activities, temporary elevated turbidity levels, changes in near shore bathymetry and associated changes in wave action, burial of intertidal and bottom plants and animals in the surf zone, and/or increased sedimentation in areas seaward of the surf zone as fill material redistributes to a more stable beach profile. These effects must be fully analyzed and disclosed prior to any further action or approval of the Coastal Texas Study.

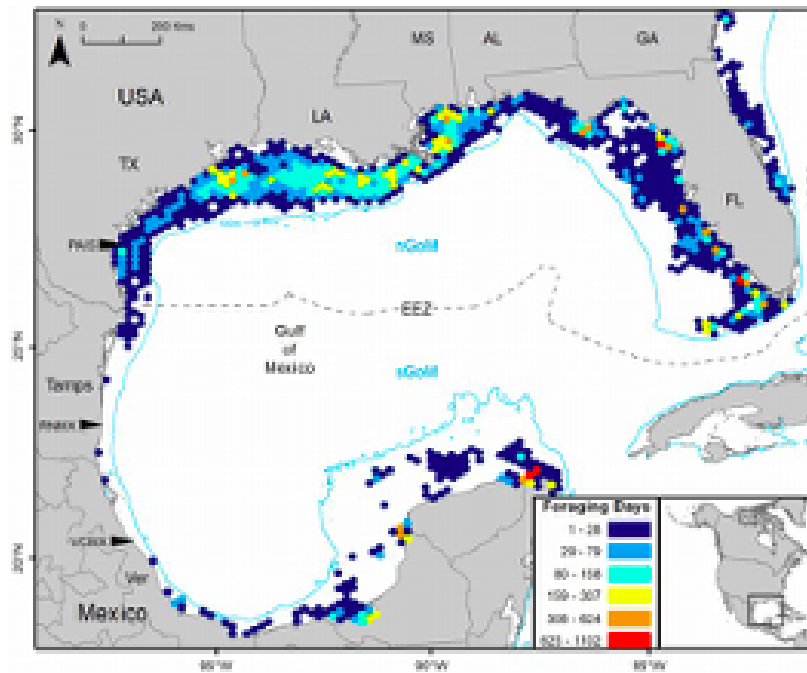
Effects of dredging on the marine ecosystem is discussed above, but dredging will also have adverse impacts to endangered species that utilize potential areas to be dredged. For example, sand sources identified for dredging include critical habitat for Kemp's ridley sea turtles.³⁶ Removing this sand could detrimentally affect their ability to forage, and impacts from such a massive dredging project would have unknown effects on their overall population level.³⁷ Dredging is also likely to adversely affect Sargassum habitat, which is crucial to the survival of Loggerheads.³⁸

³⁶ Gredzens, C. and Shaver, D.J. (2020) Satellite Tracking Can Inform Population-Level Dispersal to Foraging Grounds of Post-nesting Kemp's Ridley Sea Turtles. *Mar. Sci.* 7:559. doi: 10.3389/fmars.2020.00559

³⁷ Shaver, et al. (2013) Foraging area fidelity for Kemp's ridleys in the Gulf of Mexico. *Ecology and Evolution.* 3(7):

2002-2012 doi: 10.1002/ece3.594

³⁸ See NOAA Fisheries Critical Habitat for Loggerhead Sea Turtle, available at <https://www.fisheries.noaa.gov/action/critical-habitat-loggerhead-sea-turtle> ; see also Loggerhead Critical Habitat map, available at:



Figure, Foraging areas for Kemp's ridley sea turtles³⁹



Figure 17, Known Foraging Areas for Kemp's ridley sea turtles⁴⁰

<https://www.fisheries.noaa.gov/resource/map/loggerhead-turtle-northwest-atlantic-ocean-dps-critical-habitat-map>

³⁹ Gredzens, C. and Shaver, D.J. (2020) Satellite Tracking Can Inform Population-Level Dispersal to Foraging Grounds of Post-nesting Kemp's Ridley Sea Turtles. *At 6. Mar. Sci.* 7:559. doi: 10.3389/fmars.2020.00559

⁴⁰ Shaver, et al. (2013) Foraging area fidelity for Kemp's ridleys in the Gulf of Mexico. *Ecology and Evolution*, at 2006. 3(7): 2002-2012 doi: 10.1002/ece3.594

So many unknowns are associated with the dredging portion of the Coastal Texas Study that it is impossible to evaluate the full extent this could have on endangered sea turtles, and these effects must be fully analyzed and disclosed before any further actions or decisions are made. For example, how often will dredging occur? How long will dredging take place in order to obtain the massive amounts of sand needed for the proposed dune and beach restoration system? How long will the anticipated "temporary" effects to the surrounding ecosystem last for years or longer? USACE Galveston District has recorded 113 incidental takes of sea turtles and openly states that dredging of fill material for levees can injure or kill sea turtles and increased turbidity from dredging can impede their foraging ability. We ask USACE to reconcile this and provide greater clarity and analysis of dredging impacts on sea turtles in the Gulf.

It is estimated that only one in a thousand sea turtle hatchlings survive to adulthood, and protection must be ensured for every hatchling at every following life stage. Thousands of federal dollars are budgeted each year to the recovery program for endangered sea turtles and every animal is critical to the program's success. Along the upper Texas coast, the sea turtle recovery program has been successfully running since the mid-1980s and ensures the recovery of the critically endangered Kemp's ridley.

There is a wide array of construction activities that can adversely affect sea turtles at every life stage, from lighting to compaction, to changes in sediment and slope, the presence of large machinery and utilization of drift net fences, to name a few. Although mitigation actions are and should be part of the project description, there is still a high likelihood of sea turtle take that can never be eliminated. This is particularly true given the unknown length and intensity of the project at this time.

c. The proposed Bolivar and West Galveston Beach and Dune nourishment system poses unacceptable environmental risks

The proposed Bolivar and West Galveston beach and dune nourishment system is extremely problematic and poses unacceptable environmental risks. This portion of the Coastal Texas Study would require an initial volume of 22.1 million cubic yards of sand material with a 6- to 10-year renourishment cycle, depending on erosion rates, including an additional 1.9 million cubic yards of sand material for each cycle. The identified sediment sources would be Sabine and Heald Banks, located approximately 30 miles offshore from Bolivar Peninsula. The environmental effects of dredging and moving such massive amounts of sand are highly concerning, and the identified sand sources are located in crucial habitat for endangered sea turtles.

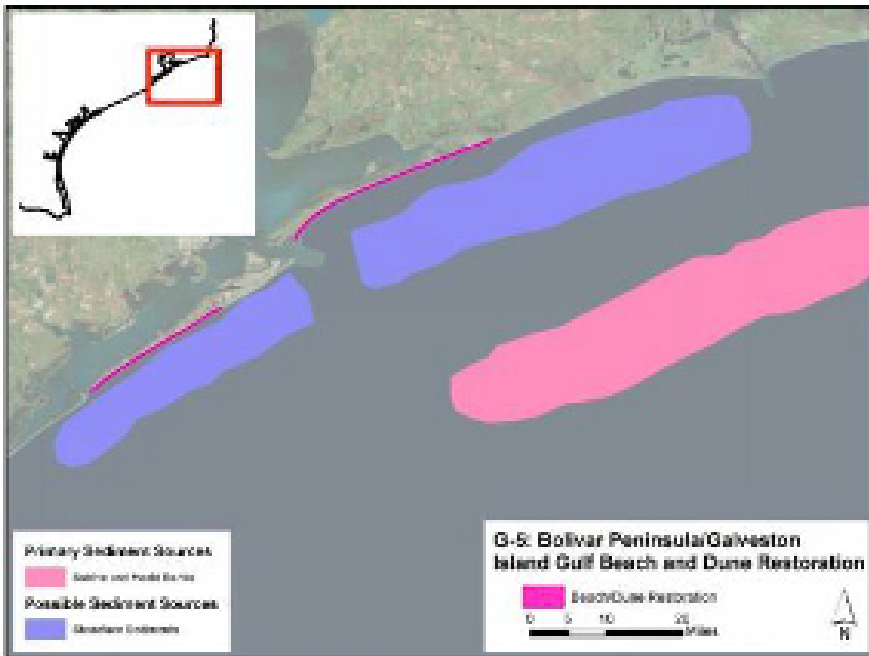


Figure 2-10. Location of the Dual Purpose Beach and Dune Measure for Bolivar Peninsula and Galveston Island with Borrow Sources

Figure 2-10, Location of dune system for Bolivar Peninsula and Galveston Island with borrow sources.

The proposed locations for sediment include Sabine and Heald Banks. Sabine Bank is a crucial foraging area for the critically endangered Kemp's ridley sea turtle. Endangered sea turtles are known to be caught in dredges, and because of their frequent use of this area, the Sabine bank should be off-limits for proposed dredging. Dredging Sabine and Heald Banks not only places the Kemp's ridley at risk, but the multitude of other species that rely on this habitat. Offshore sand deposits are important for fish that preferentially forage on sand banks off the Texas coast. Dredging these areas would involve taking over 60 million cubic yards of sand that is already acting as part of the sediment transport system. This amount of offshore sand to create an onshore beach system has never been attempted before, and prior to taking any steps for approval or Congressional authorization, the USACE must analyze and disclose all potential environmental effects of undertaking such a project.

High-resolution seismic data and sediment cores from the Sabine, Trinity, and Lavaca incised valleys show that sand is typically confined to the lower portion of these valleys and buried beneath several meters of bay and marine mud. (Ongoing study by UTIG)

The beach dune system would consist of approximately 25 miles of Gulf shoreline from High Island on Bolivar Peninsula to Galveston East Jetty and about 18 miles of Galveston Island Shoreline west of Galveston Seawall. This dune system, consisting of 44 miles in total of beach and dune segments, is intended to form a first

line-of-defense against Gulf storm surge, preventing or reducing storm surge volumes that would enter the Bay.

Construction of the dunes would include a dual dune system, which will have a seaward dune elevation of 12 feet and a landward dune elevation of 14 feet, with dune crests 15-feet-wide. This would also include the addition of 250 feet of beach, located where water currently exists. (Appendix D-annex 11: Map Book- Bolivar Dune Alignment & Appendix D-annex 13: Map Book- Galveston Dune Alignment)

This proposed project calls for significant volumes of sand and to date the sources of sand have not been identified, nor has the quality of the sand been determined. The beach is in fact a living ecosystem with critically important habitat. Construction would impact or eliminate intertidal benthic invertebrate infauna and would disturb and displace shorebirds.

The beaches on Galveston Island have been significantly eroded due to three Hurricanes impacting Louisiana in 2020 and Hurricane Nicholas coming ashore in Texas in 2021. The public/private beach line has been blurred, foundations have been compromised and in some areas there is not a beach in front of the homes. This construction of the beach front would be a massive endeavor that has never been attempted on the Upper Texas Coast. Construction would cover existing ocean habitat to create a larger beach front covering miles of shoreline habitat. With the unknown quality of the sand, it could take months upward to years for sediment species diversity and richness to return to pre-construction levels that would have cascading effects up the food web.

We are concerned about the USACE analysis of the beach ecosystem. As described by USACE, "except in specialized habitats (such as the wrack line, where rotting organic material forms both food and a mechanism for water storage), very few animals and no true plants can live in this [beach] zone." We would like to reiterate that the beach is not an eco-desert, but rather a rich ecosystem teeming with microorganisms that support habitat for many plant and animal species. The wrack line, while important, is not the only ecologically crucial part of the beach ecosystem - but so is the surf zone, swash zone, entire intertidal zone, coastal sand zone, bluffs and coastal dunes. Beaches provide ecosystem functions such as nutrient cycling and water filtration. The sand beach ecosystem is a unique habitat containing dense concentrations of benthic invertebrates that feed surf fishes, residents and migrating shorebirds, and crabs, and also provide critical habitat supporting the seasonal nesting of threatened and endangered sea turtles. Beaches provide nursery habitat for birds, mammals, fish, and other animals.

d. Shoreface sand removal will have negative environmental impacts

In general, removing sand from the shoreface is considered a bad practice as it removes sand that is part of an active sediment transport system. Furthermore, results from offshore coring have shown that relatively little sand occurs in the shoreface of Bolivar and west Galveston Island. Shoreface sand thickness based on sediment core transects from offshore Galveston

Island and Bolivar Peninsula show that beach quality sand is confined to the nearshore portions of the shoreface, which is an active part of the longshore sand transport system

3. The FEIS does not adequately address impacts to vulnerable communities

On August 3, 2021, in *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, No. 20-1045 (D.C. Cir. Aug 3. 2021),⁴¹ the U.S. Court of Appeals for the DC Circuit found that the Federal Energy Regulatory Commission (“FERC”) erred in its analysis of climate change and environmental justice factors under both the National Environmental Policy Act and the Administrative Procedure Act when it authorized the construction and operation of three liquified natural gas export terminals and associated pipelines. In doing so, the court concluded that FERC failed to justify that the construction was necessary and in the public interest and remanded the case to FERC.

The reasoning of this case underscores the need for the USACE to adequately consider impacts on vulnerable communities before issuing a record of decision. The USACE has not adequately addressed these impacts, as described below:

a. Localized environmental justice analyses must inform the project from the start

A previous comment letter submitted by Lone Star Legal Aid on behalf of Caring for Pasadena Communities, Port Arthur Community Action Network, Citizens for Clean Air and Water, and community members outlines environmental justice impacts that the USACE must consider and outlines legal and regulatory requirements that the USACE must follow, but has not, in finalizing the EIS and feasibility report associated with the Coastal Texas Study.⁴² And since the draft EIS was circulated, President Biden issued Executive Order 14008 and articulated a broad and unambiguous commitment to environmental justice across all federal programs and spending.

The environmental justice concerns delineated in the LSLA comments still have not been sufficiently addressed. USACE takes the approach that localized impacts on vulnerable communities should only be assessed as the selected alternative moves forward to the design phase. But this misses the point. By refusing to look at localized impacts of the Coastal Texas Study projects at the start, the USACE has closed the door on information that should inform the foundation, design, and placement of the projects embodied by the Study. In particular, the USACE has favored a long-term, expensive alternative over a series of interrelated approaches that may be implemented more quickly for the benefit of those most vulnerable to sea-level rise, coastal erosion, flooding, storm surges, and other storm-related impacts. This ignores the instruction of EO 14008 to “ensure that environmental and economic justice are key considerations in how we govern.”

⁴¹ Available at

[https://www.cadc.uscourts.gov/internet/opinions.nsf/1F97B59429C7D4F6852587260052CC71/\\$file/20-1045-1908759.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/1F97B59429C7D4F6852587260052CC71/$file/20-1045-1908759.pdf).

⁴² The organizations submitting this letter incorporate Lone Star Legal Aid’s letter by reference and urge the USACE to fully account for the comments raised in that letter before proceeding further.

The information contained in the current FEIS remains sufficiently incomplete to show that affected low-income and minority populations will not be adversely affected by the massive selected plan. The USACE should revisit environmental justice concerns to ensure that our most vulnerable residents do not bear a disproportionate burden for this project. See *Cmtys Against Runway Expansion, Inc. v. FAA*, 355 F.3d 678, 689 (D.C. Cir. 2004) (showing a petitioner may challenge an agency’s environmental justice analysis as arbitrary and capricious under NEPA and the APA).

b. The FEIS flags but does not adequately account for NOx emissions

Appendix G of the FEIS states:

“It was found that the potential project emissions resulting from the construction efforts indicates that the project will be subject to the GCR based on estimated NOx emissions for 10 of the 15 project construction years. The dredging emissions are the large bulk, at approximately 93% of the projected emissions, and were intentionally conservative to show the total potential emissions in a maximum emissions scenario. Based on a comparison to the currently approved SIP ***the project will not be able to demonstrate conformity at this time without some mitigation.***

The overall project emissions are significant compared to the currently approved SIP HGB CMV projections at 16% for the first year and 14% to 15% for the next 7 years. Because of the high percentage of the total budget that the RP would take, it is not reasonable to assume that the RP CMV emissions could be included in the currently approved SIP, especially given the significant number of other actions in the state, such as dredging operations and navigational commerce, that also rely on this budget.”

(Emphasis added.) The USACE’s assessment seems to only leave mitigation and scheduling as the only real options for the project to conform with the Clean Air Act, but those plans are not identified or sufficiently explained. The Final EIS acknowledges that emissions credits may not be available and moreover that the TCEQ and EPA may require a combination of mitigation methods. We urge the USACE and partners not to rely exclusively on emissions credits and take steps to reduce emissions from projects associated with the Coastal Texas Study. Further, the fact that the “overall project emissions are significant compared to the currently approved SIP” supports the need for the USACE to consider alternatives with less environmental and public health impacts.

4. Community engagement and public participation have fallen short given the magnitude of this project

a. Community working groups

In 2019 the General Land Office, the USACE’s state partner in the Coastal Texas Study, implemented coastal working groups for communities affected by the proposed plans. As explained at the kick-off meeting for the Galveston-Harris Counties group, this was “just the beginning of a more thorough and engaging community outreach initiative to support the study.” While these groups met periodically that year, they have not been convened since March of

2020. These meetings were important forums for advocates and other community representatives to raise and discuss many of the issues that remain a problem with the Coastal Texas Study—from ecological impacts on Galveston Bay and concerns related to proposed sand dunes—translate and relay these details to communities affected by the projects proposed by the Study.

These groups have not met since, removing one of the primary means for communicating the substance of the Coastal Texas Study to the public. In the absence of this form of community engagement, the USACE must hold public meetings to explain the substance of the final EIS, alternative, and address key concerns raised by the public, including those highlighted in this letter. The USACE must also hold public meetings to address key concerns raised so far, including those highlighted in this letter.

b. Public comment period

The only opportunities for the public at large to engage with and learn about the Coastal Texas Study has been with previous comment periods. The final EIS and feasibility report represent a final step before the final version of the Coastal Texas Study is submitted to the Chief of Engineers for approval by the USACE, which will then seek congressional funding to support this \$29 billion project with wide-ranging implications for the future and resilience of our coast.

We urge the USACE to convert this public review period to a public comment period, publish notice, and allow the public 60 more days to provide meaningful comment. The number of organizations joining in this letter, and the diverse interests we represent, should illustrate for the USACE that the public has an interest in being able to provide input at this phase. The USACE should also hold public meetings to address key concerns raised so far, including those highlighted in this letter.

The organizations listed below reserve the right to rely on all public comments submitted, request a written response to our comments, and request written notification when any action is taken on this Final Feasibility Report & Environmental Impact Statement. If you have any questions, please contact Kristen Schlemmer at kristen@bayoucitywaterkeeper.org.

Thank you for considering these comments.

Sincerely,

Corey Williams, Policy & Research Director
Air Alliance Houston
Houston, Texas

Kristen Schlemmer, Legal Director and
Waterkeeper
Benjamin Brinkman, UT Environmental Clinic
Samuel McCombs, UT Environmental Clinic
Bayou City Waterkeeper
Houston, Texas

Bruce Bodson, President
Christmas Bay Foundation

Iris Gonzales, Coalition Director
**Coalition for Environment, Equity, and
Resilience**
Houston, Texas

Shane Bonnot, Advocacy Director
Coastal Conservation Association, Texas
Houston, Texas

Luke Metzger, Executive Director
Environment Texas
Austin, Texas

Bob Stokes, President
Galveston Bay Foundation
Kemah, Texas

Naomi Yoder, Staff Scientist
Healthy Gulf
New Orleans, Louisiana

Healthy Port Communities Coalition
Houston, Texas

Bruce Bodson, President/Executive Director
Lower Brazos Riverwatch
Sugarland, Texas

John Beard, Jr., CEO
Port Arthur Community Action Network
Port Arthur, Texas

Adrian Shelley, Director, Texas Office
Public Citizen
Texas (Statewide)

Susan Chadwick, President and Executive
Director
Save Buffalo Bayou
Houston, Texas

Alex Ortiz, Water Resources Specialist
Sierra Club Lone Star Chapter
Texas (Statewide)

Robin Schneider, Executive Director
Texas Campaign for the Environment
Texas (Statewide)

Jackie Medcalf, Executive Director
Texas Health & Environment Alliance
Houston, Texas

Julia Orduña, Southeast Texas Regional
Director
Texas Housers
Houston, Texas

Joanie Steinhaus, Gulf Program Director
Turtle Island Restoration Network
Galveston, Texas

Ben Hirsch, Co-Director: Organizing,
Research, and Development
West Street Recovery
Houston, Texas

Comments on Region 6 Regional Flood Planning Group

Background

State legislation enabling the Regional Flood Plan process provided guidelines and deliverables to be accomplished by each flood planning group, with regional plans becoming the basis of a state flood plan. These plans are developed through the creation and identification of projects to be considered for future funding. Enabling legislation also directed the Texas Water Development Board (TWDB) to identify and evaluate natural flood mitigation features and include Nature Based Solutions (NBS) among proposed flood mitigation projects.

Region 6, along with all the other Regional Flood Planning Groups (RFPGs), have had to work under a tight timeline during the initial planning round – and we appreciate the work the Region has put into making a thorough or comprehensive flood plan. In particular, we are encouraged by the following recommendations and goals included in Region 6’s draft Regional Flood Plan:

- *Legislative Recommendations:*
 - Provide recurring biennial appropriations to the Flood Infrastructure Fund (FIF) for study, strategy, and project implementation;
 - Provide state incentives to establishment of a dedicated drainage funding; and
 - Enact legislation updating the state building code to, at minimum, the 2015 or 2018 versions of International Building Code (IBC) and International Residential Code (IRC) as State building standards. Updates should occur biennially during the regular legislative session to comply with the current IBC and any future updates.

- *Administrative/Regulatory Recommendations:*
 - The Texas Department of Transportation (TxDOT) should employ roadway design criteria to require all new and reconstructed state roadways to be designed and constructed, to the extent practicable, at elevations at or above the 1.0% ACE water surface elevation if determined with Atlas 14 rainfall. The 0.2% ACE water surface elevation should be used to determine elevation if Atlas 14 has not yet been adopted. TxDOT should also consider future conditions, such as urbanization and climate variability, in its roadway design criteria for drainage and flood risk reduction;
 - Recommend a statewide building standard of a minimum finished floor elevation to be established at or waterproofed to the FEMA effective 0.2% annual chance flood elevation as shown on effective Flood Insurance Studies except in areas

designated as coastal flood zones or at the 1.0% annual chance flood elevation where Atlas 14 has been adopted;

- Provide support for ongoing education/training regarding floodplain management in the form of no or low-cost online resources including training modules, webinars, and print resources;
 - Develop state incentives for local governments to participate in the FEMA National Flood Insurance Program (NFIP) and Community Rating System (CRS) program;
 - Assist via funding smaller jurisdictions in preparing grant and loan applications or make the application process easier;
 - Develop a model-based future conditions flood hazard data layer using Base Level Engineering (BLE) data and provide it for use by RFPGs and the technical consulting teams during the next flood planning cycle;
 - Incentivize voluntary buyout programs, turning repetitively flooded properties/neighborhoods into green space, parkland, or any other flood risk mitigation measure as a potential alternative to large scale construction projects; and
 - Provide training to state agencies, local governments, engineers, planners, and members of RFPGs in the use of natural floodplain preservation/conservation.
- *State Flood Planning Recommendations:*
 - Utilize project scoring that is equitable to project sponsors regardless of their size or population; and
 - Utilize project scoring for nature-based solutions that give them a competitive chance compared to non-nature-based projects.
 - *Adopted Flood Protection Goals:*
 - There will be 0 flood-related fatalities annually within the San Jacinto region by 2053;
 - Reduce the miles of major roadways subject to inundation during the 100- year event by 10% by 2033 and 25% by 2053;
 - All flood regulatory authorities within the region will adopt standards equal to or exceeding minimums as recommended by the San Jacinto RFPG in the first cycle of regional flood planning;
 - Reduce the number of critical facilities subject to inundation during the 100- year event by 5% by 2033 and 20% by 2053; and

- At least 35% of all flood mitigation strategies (FMSs) and flood mitigation projects (FMPs) identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053.

While Region 6 and the TWDB has been very responsive to the questions and concerns expressed by the public, the process and initial regional planning round has highlighted several areas of concern regarding the evaluation of natural flood mitigation features for their level of function and the incorporation of nature based solutions into flood control strategies.

Equity and nature-based solutions will need to be woven into every facet of this program and incorporated into future policies and strategies in order to empower community collaboration and leverage the state’s vast network of natural ecosystems in building resilient communities. The following **comments and recommendations specific to Region 6** seek to better ensure an equitable flood plan, and one that centers natural infrastructure and nature-based projects. We recognize that the region will not be able to address some comments provided in the current planning cycle, however it is our hope that during subsequent rounds these comments will be taken into consideration.

1. Adopt NFIP participation as a minimum floodplain management standard

Region 6 did not adopt any minimum floodplain management standards into its draft plan. Minimum floodplain management standards can be adopted by the region, which local entities must adopt before a FME, FMS, or FMP is included under the Regional Flood Plan, and therefore eligible for funding under FIF.

We encourage Region 6 to consider NFIP participation as a minimum floodplain management standard. According to the Draft RFP, “all of the counties and the majority of municipalities within the San Jacinto region actively participate in the NFIP.”¹ Further, only two municipalities are non-participants in the region.² Participation in the NFIP requires participants to adopt a floodplain management ordinance and to designate a floodplain administrator who is responsible for understanding and interpreting local floodplain management regulations and reviewing them for compliance with NFIP standards.

Since floodplain management ordinances and designation of a floodplain administrator are essential to proper flood planning at the local level, requiring the remaining communities to participate in the NFIP seems like an appropriate baseline, before entities can potentially receive funding for flood mitigation projects. We therefore recommend that the Region uses its

¹ Region 6, Draft Regional Flood Plan, at 3-2.

² Id.

power to adopt minimum floodplain standards, by requiring NFIP participation as a minimum standard.

II. Refine outreach and strategy to understand enforcement of floodplain ordinances and add a Flood Protection Goal to have increased enforcement of floodplain ordinances

Region 6 was not able to receive any responses from local entities describing the level of enforcement for floodplain ordinances. Other regions, however, were successful in soliciting information about the level of enforcement of floodplain ordinances in the Region's communities. The Region should consult with other Regional Flood Groups to understand their success, and continue to reach out to communities to understand the level of enforcement for floodplain ordinances. Once sufficient data is available to understand level of enforcement, Region 6 should include a Flood Management Goal to increase enforcement of floodplain ordinances.

III. Reconsider inclusion of the San Jacinto Master Drainage Plan – Caney Creek, Peach Creek, Spring Creek, West Fork San Jacinto River Channelization

There are multiple river channelization projects under the San Jacinto Master Drainage Plan included as FMPs. Surprisingly, however, we are concerned that there were no negative impacts associated with the channelization of Caney Creek, Peach Creek, Spring Creek, and the West Fork of San Jacinto river.

River channelization is a structural flood mitigation solution, which is associated with numerous negative impacts. For decades we have known about the impact of channelization on downstream areas – while typically reducing flooding upstream, “lower reaches usually increase in peak flood levels and have a higher frequency of flooding (Shankman and Pugh, 1992).”³ Additionally, “[s]tream channelization can also produce conditions that initiate continued degradation of the stream channel, including headcutting and channel erosion that can produce extensive bank failures (Robbins and Simon, 1983; Simon and Hupp, 1987; Simon, 1994).”⁴ When compared to unchannelized systems within Harris County, studies have shown that more natural systems like Buffalo Bayou are more successful in “minimizing the adverse impacts of urban development on riverine flooding over time.”⁵

In addition to our concerns regarding whether the no negative impacts were assessed correctly for these projects, these channelization projects also have low BCR values. The BCR for the

³ A.R. Pierce, S.L. King, in [Treatise on Geomorphology](#), 2013, section 12.14.1.2.

⁴ Id.

⁵ Juan, Andrew et al. “Comparing floodplain evolution in channelized and unchannelized urban watersheds in Houston, Texas.” *Journal of Flood Risk Management* 13 (2020).

Spring Creek portion of the upper San Jacinto watershed FMPs is 0.76, and the aggregate for all the projects recommended from the San Jacinto Master Drainage study would be between 0.29 and 0.34. While the TWDB recommended a floor of “greater than 1,” regions were given the discretion to include projects with BCR less than one. Because of the very low BCR, high cost, and negative downstream impacts that will result from these channelization projects, we do not believe that Region 6 should use its discretion to keep these projects as FMPs, and recommend they should be removed given the significant hydrological, ecological, recreational, and other impacts that channelization would cause.

IV. *Include Superfund sites in the Flood Exposure and Flood Mitigation Needs analysis and identify critical facilities that pose a risk to neighboring communities when flooded*

Critical facilities in particular need additional attention when assessing and identifying flood exposure and mitigation needs. Currently, Region 6 identifies all critical facility structures that exist currently in the floodplain and may exist in the floodplain in the future. Critical facilities include structures like hospitals, fire stations, chemical plants, refineries, chemical storage facilities, oil and gas infrastructure and similar facilities. While they are not identified for Region 6, other Regional Flood Planning Groups specify that Superfund sites are included as a critical facility. We believe that Superfund sites, if not already accounted for, must be included in the Flood Exposure analysis.

Further, certain critical facilities pose higher risk to surrounding communities during flooding. Chemical plants, refineries, chemical storage facilities, oil and gas infrastructure, and Superfund sites all can create additional hazards and disasters for neighboring communities and the environment, when flooded. We recommend that the Region include in its approach risks based on the number of industrial facilities that pose environmental justice risks to neighboring and fenceline communities. These facilities should be weighted higher than regular critical facilities when assessing flood mitigation needs. Further, if critical facilities such as these are identified that are within floodplains and are not adequately protected, the region should propose legislative, administrative, and regulatory recommendations to better ensure facilities do not pose a risk to neighboring communities during flooding, and include a flood management goal to reflect the need to reduce the number of those facilities being located in the floodplain.

V. *Include impacts to natural features in No Negative Impacts analysis*

Natural features and nature-based infrastructure provide significant flood mitigation benefits to neighboring communities. The analysis of “No Negative Impacts” should include impacts to natural infrastructure.

VI. Remove the Galveston Bay Surge Protection Coastal Storm Risk Management as a Flood Mitigation Project

The Galveston Bay Surge Protection Coastal Storm Risk Management FMP includes multiple projects under the USACE's Coastal Texas Study, including the Bolivar Gates, Galveston Sea Wall Improvements, Ecosystem Restoration, Galveston Ring Barrier system, Clear Creek & Dickinson Bayou Gates and non-structural measures. Together these projects make up an overwhelming majority of the FMPs included in Region 6's draft plan, costing over \$24 billion.

One of the requirements for inclusion as an FMP is that the "RFGP must be able to demonstrate that each recommended FMP...is a discrete project (not an entire capital program or drainage master plan).⁶ However, despite being made up of multiple storm risk reduction projects, it is included under Region 6's draft plan as one FMP. We believe that inclusion of the Galveston Bay Surge Protection Coastal Storm Risk Management as a single FMP goes against the requirement of submitting discrete projects as an FMP.

Further, we do not understand how the project was shown to have no negative impacts (see **image 1**, below). According to the USACE's Mitigation appendix:

*"implementation of the Galveston Bay Storm Surge Barrier System, is expected to have unavoidable adverse impacts. Impacted habitat types include estuarine emergent wetland, Palustrine emergent wetland, oyster reef and open bay bottom. The impacts to these habitats would result from direct loss and indirectly from anticipated changes in tidal flow."*⁷

*"The operation of the storm surge gate that crosses the entrance to the Houston Ship Channel at Bolivar Road leads to overall inducements in two of the 42 reaches in Region 1."*⁸

Further, the USACE estimates 1102 structures will be induced at San Luis Pass due to the CSRMR features, but has not indicated any mitigation measures for this area. Instead, the USACE has indicated that these inducements are an "artifact of the gate modeling limitations encountered in the current study which needs to be addressed in future."⁹ Therefore, the USACE has evidence of inducement, or negative impacts, but has not shown how it plans to mitigate it.

⁶ Region 6, Draft Regional Flood Plan at 5-5.

⁷ Coastal Texas Protection and Ecosystem Restoration Feasibility Study, Mitigation Appendix at 12

⁸ Coastal Texas Protection and Ecosystem Restoration Feasibility Study, Economics Appendix at 12

⁹ Coastal Texas Protection and Ecosystem Restoration Feasibility Study, Engineering Appendix at 2-45.

“The structures showing up as being induced upon on Galveston Island from San Luis Pass to Offatts Bayou should not be considered for mitigation because it is a low risk these observed inducements are caused by omitting HSC Nav Gate operations in the modelling [sic] and will be rectified when developing the HSC Nav Gate Water Control Operations Plan. LOW RISK therefore NO MITIGATION”¹⁰

Projects with design level mitigation measures already identified may be included in the regional flood plan and could be finalized at a later stage to conform to the “No Negative Impact” requirements prior to funding or execution of a project. However, the USACE has not adequately shown design level mitigation measures for incorporation into the Region 6 Regional Flood Plan. Therefore, because negative impacts are associated with the USACE’s Coastal Texas Study, and have not shown design level mitigation, we strongly recommend removing this FMP until the USACE can prove no negative impacts. These concerns and more on the coastal Texas Study are provided as an attachment to these comments Region 6.

VII. Include Floodplain Preservation and HCFCD buyout program as a FMP

There has been broad support for the concept of floodplain preservation, yet none of the FMP’s included in the plan relate to the preservation of the floodplain. Preservation of floodplains allows floodwaters to spread where they do not cause damage and also reduces peak flows downstream. We support buyout programs for repeat flood structures and the purchase of easements to compensate private landowners that agree not to develop lands within the floodplain.

HCFCD’s buyout program, which would remove repeat flooding structures from the floodplain, is one method that completely eliminates any residual flood risk and by ensuring that structures are not built again in the floodplain. Public acquisition of these lands would also allow for these spaces to be available for public use, wildlife habitat, and other community uses.

Floodplain preservation can be achieved more cost efficiently on lands that have not yet been developed through the use of purchased conservation easements which restrict development in the floodplain. These floodplain easements would allow private landowners to retain ownership of the floodplain, while being compensated for the fair market value of the development rights that are relinquished. By preserving undeveloped floodplains, land will continue to be available for agricultural production, wildlife habitat, and recreation, and also contribute to water quality enhancements.

¹⁰ Coastal Texas Protection and Ecosystem Restoration Feasibility Study, Engineering Appendix at 2-53.

The SJRFPG adopted a goal that 35% of all FMS's and FMP's identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053. We urge adoption of nature-based projects and strategies to reach that goal.

VIII. *Include legislative recommendation to provide county authority to expand regulatory authority to manage new development to reduce future flood risk (e.g., provide counties the authority to adopt enforceable building codes).*

Across 14 Regional Flood Planning regions, 7 Regions recommended that the legislature provide county authority to manage new development to reduce future flood risk. This is tied for the third most popular legislative recommendation. This authority is especially important for implementation of enforceable building code standards. While Region 6 recommended the legislature adopt at a minimum the 2015 or 2018 International Building and Residential Codes, this still would not give counties the authority to adopt enforceable building and residential code standards in unincorporated areas. Granting counties this authority will not only allow communities to better protect themselves from flooding, but will also allow communities to receive more prioritization points when applying for funding like FEMA's BRIC program. Therefore, we recommend that Region 6 add a legislative recommendation to provide counties with expanded regulatory authority to manage new development to reduce future flood risk.

IX. *Include a legislative recommendation that would make funds available to support nature based projects*

While Region 6 includes goals to support FMPs with nature-based features, we don't currently see this reflected in the current FMPs. This means that additional education and incentivization will need to occur to encourage local entities to develop nature based FMPs. To facilitate this, Region 6 should make a legislative recommendation to make funds available to support nature based practices through land conservation, restoration programs, and participation in landowner incentive programs to encourage voluntary land stewardship practices to manage floodwaters by slowing runoff and dissipating flood energy to include riparian, wetland, forest, upland, and other habitat protection programs. Region 6 should also request the Texas Legislature fund land coverage studies to effectively identify riparian corridors that should be protected for floodplain mitigation and erosion reduction. Additionally, Region 6 can recommend the Texas Legislature invest in programs to support voluntary city and county buy-back of lands for county parks and flood mitigation.

We appreciate the work the Region is doing to help better plan for and protect our communities from flooding. Further, we appreciate the opportunity to submit these comments.

Sincerely,

Arsum Pathak

Senior Adaptation and Coastal Resilience Specialist, South Central Region

National Wildlife Federation

PathakA@NWF.org

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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mrs. Danielle Goshen, National Wildlife Federation
Bayou Land Conservancy, Bayou City Waterkeeper
Coastal Prairie Conservancy, and Galveston Bay Foundation

Re: Thank you for Providing Comment on the DRAFT Regional Flood Plan for the San Jacinto Region

Dear Danielle,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments on the Draft Regional Flood Plan for the San Jacinto Region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The purpose of the regional flood plan is to collect projects and studies and make recommendations based on criteria developed by the TWDB. Since the Coastal Texas Study meets these minimum criteria, no changes were made to the regional flood plan. Please note that projects included in the RFP are not guaranteed to receive funding assistance and the sponsor must demonstrate that projects meet applicable regulations and criteria. Any further comments regarding project specifics can be directed to the project sponsor.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of Friendswood

Maggie Puckett

From: Brian Edmondson
Sent: Wednesday, August 24, 2022 9:28 AM
To: Samantha Haritos; Jil Arias; Jim Keith; Maggie Puckett
Cc: Cory Stull; Ericka Reyes
Subject: RE: San Jacinto Regional Flood Plan - Friendswood
Attachments: SJRFP_Friendswood_Coordination_8.23.2022.pdf

Jil and Sam –

Thank you for your time yesterday and feedback. I've copied over the comments below that I wrote during the meeting to help formalize and make sure I got them down correctly. We will work on formal responses from the Planning Group but in the meantime if you have any additional comments to the draft plan or see any updates that are needed to the notes and action items please add below. Also as a reminder comments for the draft plan are due by end of October and new data for the Amended plan due end of 2022.

Action Items:

- SJRFPG to follow up with Friendswood and FNI to obtain required data to elevate the FME "Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I" to a FMP in the Amended Regional Flood Plan.
- Friendswood to consider adding additional projects that they are working with the Drainage District on to the Amended Regional Flood Plan. Samantha to work on putting together information for the amendment.
- Friendswood to provide updated critical facility layer for their community to be incorporated.
- Friendswood to check if "Sunmeadow Drainage Improvements Phase 2" is a project that should still be included in the Plan.
- SJRFPG to update Draft Plan utilizing comments in table below.

Table 1. Friendswood FMXs in the draft San Jacinto Regional Flood Plan dated August 1, 2022

FMX	FMX ID	FMX Name	Description	Estimated Cost	Comments from Friendswood 8/23/22 Meeting	SJRFPG Response
FME	61000089	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	Study to update city storm surge maps based upon the NWS predicted storm surge and projected track for landfall. The new maps may more accurately display water depth in areas within the city.	\$140,000	Awaiting confirmation from where this project came from. Possibility for a regional based FME for coastal surge update. Lower Priority for engineering dept.	
FME	61000091	City of Friendswood - Comprehensive Flood Mitigation Plan	Study to update city floodplain maps and develop flood mitigation plan	\$140,000	MDP Duplicate-remove from plan. Review the Galveston County side for mapping updates.	

FME	61000096	City of Friendswood - Devils Dip	Further study and design of modifications along Mary's creek bridge and channel	\$410,000	Remove from plan. Project already funded and currently ongoing.	
FME	61000104	Sunmeadow Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1. Initial phase of project completed in 2005. Upsizing storm sewer system to reduce potential flooding. Include Atlas 14 rainfalls	\$160,000	Samantha will check with Public Works on if this project has been completed or is still needed.	
FME	61000105	City of Friendswood - Tributary 2 Drainage/Outfall Improvements	Further study of component of 2004 TXDOT study to include Atlas 14 rainfalls	\$170,000	Remove from plan. Project has been completed.	
FME	61000123	FM518 Drainage Improvements-Phase 2	Further study of component of 2007 Master Drainage Plan to include Atlas 14 rainfall	\$410,000	Remove from plan. Project has been completed.	
FME	61000142	Shadowbend Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1 to include Atlas 14 rainfall.	\$420,000	Potential to be funded through local street maintenance fund. Updated cost estimate between \$900k to 1M. Awaiting further details to potentially elevate to FMP.	
FME	61000146	Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2	Further study of proposed drainage improvements to Stafford oaks	\$50,000	Remove from plan & include as part of the master drainage plan.	
FME	61000237	City of Friendswood Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs	\$410,000	Update cost estimate to \$750k; actively pursuing grants to fund this. High priority for Friendswood.	

			including Atlas 14 rainfall			
FME	61000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.	\$30,000	Separate into 3 independent FMPs. Awaiting further information on BCAs and cost estimates. Included 1959 detention basin, inline and off line detention on the "Wicka" property; also the Black Hawk. Likely can elevate to a FMP. (Jim/Boris) *working on interlocal with HCFCO on the 1959 basin, Update partnership to consider: Galveston County & Galveston consolidated drainage district.	
FMP	63000113	City of Friendswood Ordinances and Regulation Update	Adopt higher codes and update ordinances and regulation to promote hazard mitigation strategies	\$109,000	Remove from plan. Project completed in 2019.	

Best,

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



From: Brian Edmondson

Sent: Tuesday, August 23, 2022 12:09 PM

To: Samantha Haritos <sharitos@friendswood.com>; Jil Arias <jarias@friendswood.com>; Jim Keith <Jim.Keith@freese.com>; Maggie Puckett <Maggie.Puckett@freese.com>

Cc: Cory Stull <Cory.Stull@freese.com>

Subject: RE: San Jacinto Regional Flood Plan - Friendswood

Jil & Samantha -

In the link below you can find a filtered list of the Friendswood projects and also document of one page overviews of each to help facilitate discussion and your comments. Look forward to talking with you soon.

Best,

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



-----Original Appointment-----

From: Brian Edmondson

Sent: Friday, August 12, 2022 11:00 AM

To: Brian Edmondson; Samantha Haritos; Jil Arias; Jim Keith; Maggie Puckett

Cc: Cory Stull; Boris Minot

Subject: San Jacinto Regional Flood Plan - Friendswood

When: Tuesday, August 23, 2022 1:00 PM-3:00 PM (UTC-06:00) Central Time (US & Canada).

Where: Microsoft Teams Meeting

The TWDB has provided additional resources to the Regional Flood Planning Groups with the intention of getting more projects included and eligible for future funding. The goal of this meeting is to coordinate with the City of Friendswood and provide an opportunity to advocate for their projects be included in the amendment process.

Draft Agenda:

- Flood Plan Overview & Amendment Process
- Project Eligibility Requirements
- Data Submittal Deadlines
- City of Friendswood Projects

Microsoft Teams meeting

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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mr. Jildardo Arias, MBA, PE, CFM – Director of Engineering
Ms. Samantha Haritos, CFM – Deputy Director of Engineering
City of Friendswood
910 S Friendswood Drive
Friendswood, Texas 77546

Re: San Jacinto Regional Flood Plan - Friendswood

Dear Jildardo and Samantha,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Friendswood on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The technical consultant team has updated the final plan by updating the status of sponsor-specified projects to no longer be recommended and project costs have been updated per input received. The technical consultant will continue coordination with the City of Friendswood for FMEs requested to be elevated to FMPs in the amended plan, if applicable. The San Jacinto RFPG looks forward to receiving additional information from the City of Friendswood to consider for inclusion in the amended regional flood plan due July 2023.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
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Industries*

Alia Vinson
*Vice Chairman
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Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



FMX	FMX ID	FMX Name	Description	Comments from Friendswood 8/23/22 meeting	SJRFPG Response
FME	061000089	Update City of Friendswood Storm Surge Maps to Reflect the NWS Predictions	Study to update city storm surge maps based upon the NWS predicted storm surge and projected track for landfall. The new maps may more accurately display water depth in areas within the city.	Awaiting confirmation from where this project came from. Possibility for a regional based FME for coastal surge update. Lower Priority for engineering dept.	Acknowledged.
FME	061000091	City of Friendswood - Comprehensive Flood Mitigation Plan	Study to update city floodplain maps and develop flood mitigation plan	MDP Duplicate- remove from plan. Review the Galveston County side for mapping updates.	The project is now listed as non-recommended due to being a duplicative project.
FME	061000096	City of Friendswood - Devils Dip	Further study and design of modifications along Mary's creek bridge and channel	Remove from plan. Project already funded and currently ongoing.	The project is now listed as non-recommended due to being funded and currently ongoing.
FME	061000104	Sunmeadow Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1. Initial phase of project completed in 2005. Upsizing storm sewer system to reduce potential flooding. Include Atlas 14 rainfalls	Samantha will check with Public Works on if this project has been completed or is still needed.	No changes have been made to this project. Technical consultants will continue communication with Friendswood to determine if any changes need to be made in the amended plan.



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

FME	061000105	City of Friendswood - Tributary 2 Drainage/Outfall Improvements	Further study of component of 2004 TXDOT study to include Atlas 14 rainfalls	Remove from plan. Project has been completed.	The project is now listed as non-recommended due to being completed.
FME	061000123	FM518 Drainage Improvements- Phase 2	Further study of component of 2007 Master Drainage Plan to include Atlas 14 rainfall	Remove from plan. Project has been completed.	The project is now listed as non-recommended due to being completed.
FME	061000142	Shadowbend Drainage Improvements Phase 2	Further study of component of 1993 master Drainage Plan Phase 1 to include Atlas 14 rainfall.	Potential to be funded through local street maintenance fund. Updated cost estimate between \$900k to 1M. Awaiting further details to potentially elevate to FMP.	The estimate cost for FME has been updated to \$950,000 based on sponsor input. Technical consultants will continue coordination with sponsor to work to obtain needed material to elevate project to an FMP in the amendment process.
FME	061000146	Annalea/Whitehall Kings Park Drainage - Drainage Improvements Phase 2	Further study of proposed drainage improvements to Stafford oaks	Remove from plan & include as part of the master drainage plan.	The project is now listed as non-recommended due to being a duplicative project.
FME	061000237	City of Friendswood Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage	Update cost estimate to \$750k; actively pursuing grants to fund this. High priority for Friendswood.	Project cost has been updated to reflect sponsor input.



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

			needs including Atlas 14 rainfall		
FME	061000424	City of Friendswood - Clear Creek Inline & Offline Detention - Bay Area Blvd. Phase I	This project, which includes terraces, detention, and a trail network, will reduce water surface elevations on Clear Creek within the City of Friendswood and will make the Blackhawk Wastewater Treatment Facility more resilient.	Separate into 3 independent FMPs. Awaiting further information on BCAs and cost estimates. Included 1959 detention basin, inline and offline detention on the "Wicka" property: also the Black Hawk. Likely can elevate to an FMP. (Jim/Boris) *working on interlocal with HCFCO on the 1959 basin, Update partnership to consider: Galveston County & Galveston consolidated drainage district.	No changes made at this time. Technical consultants will follow-up with sponsor to obtain needed material to elevate and separate into independent FMPs for the amended plan.
FMP	063000113	City of Friendswood Ordinances and Regulation Update	Adopt higher codes and update ordinances and regulation to promote hazard mitigation strategies	Remove from plan. Project completed in 2019.	The project is now listed as non-recommended due to being completed.

**Sally Bakko on behalf of the City of Galveston and the Gulf Coast Protection
District**

Maggie Puckett

From: Sally Bakko <SBakko@GalvestonTX.Gov>
Sent: Monday, July 18, 2022 12:03 PM
To: San Jacinto RFPG Technical Consultant
Subject: SJRFPG Draft Regional Flood Plan - Sally Bakko Comments
Attachments: Comments on SJRFPG Draft Regional Flood Plan.docx; Sally Bakko (GCPD) Comments on Ch 8_Ch 9 _SJRFPG Draft Regional Flood Plan.docx

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Good afternoon,

I wanted to provide the following comments to the Draft Regional Plan.

Executive Summary, Pages 03, 04

Chapter 1, Page 1-2

The City of Galveston holds a population of 53,695 residents, but hosts over 7 million tourists a year. On page 1-3, the draft mentions the 7 million tourists Galveston hosts each year. This number is estimate to grow to 8 million next year. The burden placed on city infrastructure with this volume of tourism, I believe makes the City of Galveston is a major economic force in Galveston County that faces unique infrastructure challenges as a result.

The US Department of Housing and Urban Development and US Department of Transportation allocate formula funding using census urbanized area data. An "urbanized area" is defined as an urban area with a population of 50,000 or greater. Galveston certainly meets this criteria. As such, from an economic and population perspective, the City of Galveston should be included in the lists of cities in tables in the Executive Summary and Chapter 1.

Chapter 1

The compilation of comments doesn't indicate that the comments I submitted on June 21st were received. I have attached those comments again because I want to draw your attention to my economic comments (I believe NFIP is addressed). I believe it is critical that we emphasize the significant degree to which businesses and manufacturers in the rest of Texas rely upon the supply chains that originate with the human and grey infrastructure along the upper Texas coast. I would urge you to go beyond just listing economic assets in this region and describe the economic and supply chain implications for the rest of the state when human and grey infrastructure is impacted by flood and storm surge.

Chapter 9, Page 9-4

A very important distinction is the Water Resources Development Act (WRDA) is an authorization legislative vehicle that authorizes studies and projects for the US Army Corps of Engineers. Funding is not provided in a WRDA bill. WRDA authorized projects receive funding through the annual appropriations process or through a supplemental appropriations bill. I have attached comments I submitted previously for your consideration.

The annual Energy and Water Development Appropriations bill adopted by Congress appropriates amounts that fund USACE projects and studies that are prioritized in a USACE work plan for authorized projects. On occasion, Congress has appropriated funds for USACE projects in a supplemental appropriations bill. For example, Congress appropriated the full federal funding share of the Sabine to Galveston Bay coastal storm risk management project in the Bipartisan Budget Act of 2018.

I believe it is inaccurate to call this a “grant,” which implies a competitive grant program. Since we are identifying funding sources, I would classify the program as Energy and Water Development Fiscal Year Appropriations. Rather than call it a grant or loan, I would call it “congressional appropriations.” The cost share is 65 federal share/35 non-federal sponsor share.

Thank you,
Sally Bakko



Sally Bakko, Director of Policy and Governmental Relations
Community Outreach Department

P.O. Box 779 Galveston, TX 77553 | 823 Rosenberg, Ste. 306 Galveston, TX 77550
D:409.797.3582 | C:409.502.4758 | F: 409.877.1553 | sbakko@galvestontx.gov

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Sally Bakko comments.

SJRFPD DRAFT REGIONAL FLOOD PLAN COMMENTS:

National Flood Insurance Program (NFIP)

The draft identifies the region as having the highest amount of NFIP claims of any region in the state. However, there is no specific mention of the Community Rating System as a method for addressing reinforcement and advancing greater protection through new development standards. Communities benefit from reduced NFIP premiums by improving their CRS rating. This is a critical point because insurance is an important flood mitigation/recovery tool. Galveston for example is currently ranked as a CRS Class 6, but is working hard towards obtaining a Class 5 rating. CRS is an important incentive tool that is increasingly utilized by coastal communities. The draft would benefit from more specific mention and explanation of CRS as a flood mitigation tool. The draft identifies the heaving claims and costs with NFIP data (1975 – 2019), but no explanation of the NFIP CRS tool that has helped improve flood mitigation. Without further explanation, there is concern such a lack of positive detail might further the stigma “people shouldn’t be living on the coast.” However, people living on the coast work in industries and businesses that benefit the state.

Economic Importance of SJRFPD Region 6

The most compelling argument for San Jacinto Regional Flood Planning Group flood mitigation and storm surge protection projects seeking prioritization in a State Flood Plan and state and federal funding is the importance of the region’s contributions to the state of Texas economy. I recognize the economic analysis is discussed further as part of Task 2, but this critical point should be emphasized clearly and often.

Following major weather events, the human infrastructure severely impacted by storm damage has equal importance as the grey infrastructure towards sustaining the supply chains that benefit the Texas economy. Numerous people living along the coast work for industries that significantly impact these supply chains for businesses and industries across Texas. Reduced worker capacity impedes recovery work at facilities thus exacerbating supply chain disruptions.

Employees’ homes are a big post-storm issue. Recovery is impeded when employees impacted by storm damage can’t come to work on issues at the facilities. Depending upon the severity of the storm(s), the impact and recovery can take months.

Truck driver shortages, a key component of this human infrastructure, intensify following storms. Trucks move the supply chain for the top 10 commodities including electronics, grocery and convenient store goods, hardware, gravel, grains, and gasoline. Agriculture is impacted by supply chains supporting fertilizer, seed, crop protection products, and machinery parts.

Following a storm event, the ability to recover is also affected. Supply chain is affected by slowed recovery due to difficulties with delivery of repair materials.

Delays in receiving raw materials can cause significant disruptions in supply chains. If the region's chemical producers can't produce ingredients, manufacturers can't generate products, truckers and air freight can't move inventories, retailers can't stock shelves, and exports are thwarted.

Access to warehouse and distribution centers can become clogged because of flooding and debris or closures due to staffing shortages.

Several states rely upon Port Houston for receiving essential imports and exporting their manufactured products, with small businesses comprising ninety-six (96) percent of all exporters in the U.S. With the Port Houston Ship Channel shutdown due to storm damage, no port, no cargo, no commerce, no jobs.

- Port Houston is a crucial economic engine as the number one U.S. port in waterborne tonnage, providing \$801.9 billion in national economic value.
- Approximately 60 percent of global oil consumption is used for fuel and the remaining 40 percent is used to generate essential basic chemicals.
- Texas, the largest chemistry producing state, provides forty-two (42) percent of the nation's basic chemical stock that other states rely upon when manufacturing food and drink packaging, appliances and electronics (including semiconductors), hardware and construction materials, pharmaceuticals, fertilizers, and automotive parts and tires.
- Texas ports handle a larger volume of jet and diesel fuel to the US military than any other state.
- Eighty (80) percent of the nation's military grade fuel and sixty (60) percent of aviation fuel is supplied by this region.
- Galveston Harbor is ranked among the top 50 cargo ports in the US.
- The Port of Galveston now ranks as the eleventh largest cruise port in the world, the number four US cruise port in world rankings, and the number one cruise port in the Gulf of Mexico and Texas. Statewide, the cruise industry generated \$1.6 billion in expenditures and 27,000 jobs in 2019.

Sea level change hazard

Sea level change is a growing flood hazard threat that uniquely impacts coastal communities. The explanation below is taken from the City of Galveston Hazard Mitigation Plan (2022 Update) Public Comment Draft.

Reports, studies and data from the international scientific community seem to indicate that current and future sea level changes could be expected to have several impacts, particularly coastal areas, that could increase flood risk and potential loss of life. Such impacts include increased coastal erosion, higher storm-surge flooding, more extensive coastal inundation, changes in surface water quality and groundwater characteristics, and increased loss of property and coastal habitats.

Regardless of its cause, coastal submergence contributes to land loss in several ways. The most easily

recognized effects of submergence are land losses caused by permanent flooding. The passive inundation of the shore typically expands estuaries, lakes, and lagoons at the expense of adjacent uplands and wetlands. The slope of the land surface and rate of sea level rise control the extent of permanent flooding. Steep slopes and low rates of sea-level rise produce negligible flooding, whereas low slopes and rapid rates of sea-level rise inundate such vast areas so rapidly that the submergence can be detected in a few decades. Rapid coastal submergence has been documented at Baytown, Texas near Houston and on the Mississippi Delta. Subsiding land areas experience greater and more prolonged flooding by salt water associated with storms. This means that storm surges of historical record would inundate larger areas if similar storms were to occur today. Eventually the repeated inundation by saltwater expands the flood zones and alters the predominant wetland plant assemblages. This occurs because salinities within the wetlands and estuaries increase, as they are permanently flooded. In many coastal regions the inundation of salt water actually accelerates wetland losses because both fresh-water and salt-water marshes are destroyed faster than new wetlands are created. The intolerant fresh-water marshes are killed by salt-water, whereas the salt-water marshes are drowned and converted to open water.

Submergence also accelerates coastal erosion because it facilitates greater inland penetration of storm waves. Because of submergence, some bluffs that were not previously reached by storm waves are subjected to erosion. In addition to accelerated land loss, coastal submergence causes intrusion of salt-water into coastal aquifers and into the rivers that empty into the estuaries. Submergence also changes surface drainage patterns, raises groundwater levels, and causes areas even above sea level to pond water and to be poorly drained.

DRAFT SAN JACINTO REGIONAL FLOOD PLAN – CHAPTER 8 AND CHAPTER 9

Comments from Sally Bakko, Gulf Coast Protection District Liaison

Chapter 8 Comments

Recognize natural and nature-based solutions appropriate and effective for unique flood mitigation needs. Nature-based features needed and effective for inland heavy rain flood situations is different from flood mitigation protections against sea level rise or storm surge in coastal areas.

US Senator Shelley Moore Capito (R-WV), ranking member of the Senate Committee on Environment & Public Works, observed during a hearing on “The Role of Natural and Nature-based Features in Water Resources Projects” observed:

“Natural infrastructure is an important tool in our toolbox that ought to be available for consideration and application in water resources projects where practicable, cost-effective, and with the buy-in of those communities partnering with the Corps.”

The San Jacinto Region 6 RFP must propose a delicate balance that is a similar approach to natural infrastructure at the state and local level. In some cases, a hybrid approach with nature-based and structural infrastructure may be most effective and efficient. For example, there are many innovative materials that can be used with fortified dunes that are critically needed to protect against storm surge as part of a nature-based sand dune system sensitive to the environment.

Chapter 9 Comments

Local Funding (page 9-6):

General fund is in high demand for police, fire, parks and recreation. Sanitation and utilities are typically supported through fee-based dedicated funds.

Federal Funding Sources:

The draft San Jacinto RFP Chapter 9 fails to identify an important funding factor for flood infrastructure projects authorized by Congress through the Water Resources Development Act (WRDA) and potentially funded through the annual appropriations process. The US Army Corps of Engineers (USACE) Coastal Texas Study storm surge protection system project is an historic project listed as an FMP in the draft plan.

Important Note:

- 1. The Texas Legislature specifically created the Gulf Coast Protection District (GCPD) to act as the non-federal sponsor for the Coastal Texas Study storm surge protection system project (Galveston Surge Protection Coastal Storm Risk Management).**
- 2. The Texas General Land Office will be the non-federal sponsor for the Coastal Texas Study eco-restoration project (Bolivar Peninsula and West Bay Gulf Intracoastal Waterway (GIWW) Shoreline and Island Protection).**
- 3. Cost Share Requirements: 65% federal / 35% non-federal**

Unlike federal funding for other highways and municipal water infrastructure, the majority of federal funds provided to the USACE is not distributed by formula to states or through competitive grants. The Coastal Texas Study project is authorized in the House-passed WRDA 2022 and is included in the Senate WRDA bill currently awaiting floor action. The WRDA 2022 is expected to reach the President's desk prior to the August recess.

Congress funds Corps' civil works through the annual Energy and Water Development appropriations bills. The annual appropriations process begins with three major milestones: President's budget request, congressional enactment of appropriations, and Administration development of a Corps' work plan. New projects funded in the annual appropriations process receive funds through Investigations (including preconstruction engineering and design (PED) work) and Construction accounts. The USACE-Galveston District is already initiating work necessary to set-aside PED funds for the Coastal Texas Study project. Without mention of this process, the draft San Jacinto RFP fails to communicate a significant source of federal funds not acknowledged in the current list of federal funding sources.

Understanding supply chain perspectives when major hurricane disasters hit our region is essential for demonstrating the critical need for the USACE Coastal Texas Study coastal storm surge suppression system project.

This much-needed infrastructure will reduce risks to vital resources that hold significant implications for the state's supply chains and economic security. The region that would be protected by this project has a high concentration of petrochemical manufacturing facilities, with Texas being the largest chemistry producing state. The business of converting these basic chemicals into ingredients used to manufacture electronics, manufactured fibers for furniture and carpet, construction materials including roof shingles, fertilizers for produce, automotive and bicycle parts and tires, and everyday consumer goods packaged in plastic.

With over 70 percent of the nation's freight by weight moved by trucking and 60 percent of aviation fuel produced by our region effecting air freight, supply chain disruptions that occur with a major storm or series of major storms in one season impacting petro-chemical and Texas port infrastructure along the upper Gulf Coast would significantly affect manufacturing, retailers, aviation, and business operations across Texas and the nation.



December 1, 2022

Sally Bakko, Director of Policy and Government Relations, San Jacinto RFPG Liaison
City of Galveston, Gulf Coast Protection District
823 Rosenberg, Ste. 306
Galveston, Texas 77550

Re: SJRFPG Draft Regional Flood Plan - Sally Bakko Comments

Dear Sally Bakko,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments issued on behalf of both the City of Galveston and the Gulf Coast Protection District on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

Comments regarding NFIP

Comments on the Community Rating System (CRS) have been noted. Although the CRS is not explicitly mentioned in Chapters 1 and 2, the RFPG has recognized the significance of the CRS in providing incentives to communities to implement higher flood management standards by reducing flood insurance rate premiums. As part of this first cycle, the RFPG has recommended participation in the National Flood Insurance Program (NFIP) as a minimum standard and have encouraged regulatory entities to participate in the CRS. These recommended minimum standards are documented in Chapter 3.

Comments regarding Economic Importance of Region 6

Comments submitted regarding the importance of industries and infrastructure within the San Jacinto region to the national and global economy have been noted. Chapter 2 Section 2.A.2.e. describes analysis of expected loss of function of infrastructure and Section 2.A.3.b. specifically speaks to the flood risk to the Houston Ship Channel, petrochemical production, and critical supply chains.

Comments regarding Sea Level Change Hazard

Comments submitted emphasizing the growing flood hazard threat sea level change inflicts on coastal communities has been noted. The manner in which sea level change was incorporated into the future flood hazard analysis is described in Chapter 2 Section 2.B.1. The RFPG will continue to update future flood hazard analyses in subsequent flood planning cycles and have the opportunity to consider newly available data.

Comments on Chapter 8

Comments submitted on Chapter 8 regarding the need to strike a balance between incorporation of nature-based solutions and overall flood control benefit provided by recommended mitigation actions within the plan has been noted by the RFPG.

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Comments on Chapter 9

Comments submitted on Chapter 9 regarding the significance of the Texas Coastal Study have been noted. The Chapter currently includes discussion on direct appropriations through the Water Resources and Development Act to fund flood control projects, in particular the Coastal Texas Study Storm Surge Protection System. Chapter 9 Section 9.A.3.t. directly speaks to the use of this funding mechanism to fund a recommended FMP, the Texas Coastal Study.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Harris County

Maggie Puckett

From: Berrios, Fatima (Engineering) <Fatima.Berrios@eng.hctx.net>
Sent: Wednesday, August 31, 2022 9:15 AM
To: Maggie Puckett
Cc: Garcia, Claudia (Engineering); Cory Stull; Brian Edmondson
Subject: RE: Duplicate FMEs

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Good morning Maggie,

The FMEs are duplicates and will need to be removed, and yes, you may consider these formal comments from HCED. On this same note, Flood Control also provided an FMPs that might be a duplicate category.

Greens CDBG MIT Application Projects	ID: 063000167
White Oak Bayou CDBG MIT Application Projects	ID: 063000046

I will not recommend removing another agencies FMP, but would will urge you to follow-up. I can bring it up to Tina Peterson before or after the Technical Committee Meeting and ask her to review the list for concurrence.

Thank you!

Fatima Berrios, CFM
Project Manager – San Jacinto Regional Flood Planning Group



Office of the County Engineer
1111 Fannin St, FL 12, Houston, TX 77002
Office: (713) 274-3914 | **Cell:** (571) 733-8577
Email: fatima.berrios@eng.hctx.net



From: Maggie Puckett <Maggie.Puckett@freese.com>
Sent: Wednesday, August 31, 2022 8:36 AM
To: Berrios, Fatima (Engineering) <Fatima.Berrios@eng.hctx.net>
Cc: Garcia, Claudia (Engineering) <Claudia.Garcia@eng.hctx.net>; Cory Stull <Cory.Stull@freese.com>; Brian Edmondson <Brian.Edmondson@freese.com>
Subject: RE: Duplicate FMEs

Fatima,

Thank you for bringing these to our attention. I'll wait for your confirmation before we document, but should we plan to consider these formal comments on the Draft Plan from HCED?

Maggie Puckett, P.E., CFM | Stormwater Management | Freese and Nichols, Inc. | 832.937.5318 direct | 956.465.3900 mobile |



From: Berrios, Fatima (Engineering) <Fatima.Berrios@eng.hctx.net>
Sent: Tuesday, August 30, 2022 10:27 AM

To: Maggie Puckett <Maggie.Puckett@freese.com>

Cc: Garcia, Claudia (Engineering) <Claudia.Garcia@eng.hctx.net>; Cory Stull <Cory.Stull@freese.com>

Subject: Duplicate FMEs

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Good morning Maggie,

As we are funneling through the FMEs, I noticed some of the Harris County FMEs may be duplicates of current RRD projects. For your convenience, attached is the current list of RRD projects that was prepared and sent last year. All RRD projects are fully funded with the 2018 Bond, and do not need additional funds, so no need to include them as recommended FMEs. My thoughts are that these may also have been part of CDBG-MIT applications and submitted that way; I know Northfield and Fallbrook/Ridgepoint/Westpoint are at least. I wanted to run these by you to make sure I am not confusing these with other potential improvements projects. For now, please do not consider the below FMEs for additional evaluation to develop FMPs. I will confirm if they need to be removed.

Beaumont Place Subdivision Drainage Improvement Phase 2	ID: 061000325
Eastex Freeway Forest Subdivisions Drainage Improvements	ID: 061000414
Eastex Freeway Forest Sections 3 & 4 Subdivision Improvements	ID: 061000469
Fallbrook, Ridgepoint and Westpoint Subdivision Drainage	ID: 061000416
Sandpiper Village Subdivision Drainage Improvements	ID: 061000427
Oak Glen Place Subdivision Drainage Improvements	ID: 061000431
Northfield Place Subdivision Drainage Improvements	ID: 061000432
Ralston Acres Subdivision Drainage Improvements	ID: 061000466

Thanks,

Fatima Berrios, CFM
Project Manager – San Jacinto Regional Flood Planning Group



Office of the County Engineer
1111 Fannin St, FL 12, Houston, TX 77002
Office: (713) 274-3914 | Cell: (571) 733-8577
Email: fatima.berrios@eng.hctx.net



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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 2, 2022

Ms. Fatima Berrios, CFM, Project Manger
Office of the County Engineer
1111 Fannin Street, FL12,
Houston, Texas 77002

Re: Duplicate FMEs

Dear Fatima,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Harris County on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

FMEs identified by Harris County as duplicates will be designated as not recommended with the reason being: "Sponsor requested removal due to project being fully funded." After coordination with both HCED and HCFCD, it was determined that the FMPs consisting of CDBG-MIT applications will remain in the plan as recommended by the San Jacinto RFPG. However, it has been documented that the sponsor entities have made progress towards implementing components of the FMP which reduces the future funding assistance that may be needed.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Harris County Flood Control District



October 28, 2022

San Jacinto Regional Flood Planning Group
c/o Claudia Garcia
1111 Fannin Street, 12th Floor
Houston, Texas 77002

RE: Review Comments for Draft 2023 Regional Plan Region 6 Report

Dear Ms. Garcia:

Below are comments provided by the Harris County Flood Control District from our review of the draft 2023 Regional Flood Plan, dated August 2022, and prepared by the Region 6 San Jacinto Regional Flood Planning Group.

Comment 1.

Reference: Chapter 1 Planning Area Description
Page 1-23 (65/302), in reference to the MAAPN project, *"It is anticipated that preliminary FEMA effective maps will be released in late 2022 for public review and comment, however, that release date is tentative and subject to change."*

This should be rewritten to state the following:

FEMA is working to complete the development of data and preliminary maps and will release this information to the public once they are complete, which is currently anticipated to be in 2023

Comment 2.

Reference: Chapter 2 2023 Regional Flood Plan Region 6 San Jacinto Page 2-19 (89/302)
Task 2.B. Future Condition Flood Risk Analysis, Task 2.B discusses steps taken by the study team to develop future conditions 1% and 0.2% ACE flood hazards that are on 30-year future forecast periods.

This section should acknowledge that some political entities within the San Jacinto River Basin (specifically Harris County) have adopted No-Rise/No Adverse Impact policies that require new developments to offset new impervious area with the addition of detention volume to offset possible increases in future development runoff.

Comment 3.

Reference: Chapter 4 2023 Regional Flood Plan Region 6 San Jacinto
Pages 4-12 (144/302) and 4-13 (145/302)

Category 7 and Category 8 assessment of flood mitigation needs utilize FEMA claims, RL, SRL, and claim payouts. In future updates, the team should consider utilizing actual flooded house counts that many municipalities and Counties acquire post major flood events. The FEMA data, as pointed out in the report, will only be available for people who have FEMA Flood Policies. Historically, lower income areas and areas outside of regulatory flood plains will have very low

October 28, 2022
San Jacinto Regional Flood Planning Group
c/o Claudia Garcia

Page 2

percentage of policies, and thus this data may not provide a reliable representation of the greatest flood risks. House counts, conducted after a flood event, and predictive house counts (such as using a system similar to the Flood Control District's structural inventory tool) should be considered in the future.

Comment 4.

Reference: Chapter 4 2023 Regional Flood Plan Region 6 San Jacinto Page 4-14 (146/302), 4.A.1.h. Already Implemented Flood Mitigation Projects (Category 9)

Category 9 attempts to quantify areas with existing flood mitigation projects under consideration. The weighting leans towards scoring areas with no existing projects as higher need, however many flood damage reduction projects, due to funding limitations, may primarily target frequent flooding (i.e. 10% ACE) and may only slightly reduce flooding during extreme events (1% ACE or 0.2% ACE). The existence of project should not, by itself, be reason to discount the needs for future flood damage reduction projects in a particular area. Additionally, the reduction in instances and severity of flooding should be weighted as important factors and the FPG should consider how to weight such factors in the future.

Comment 5.

Reference: Chapter 4 2023 Regional Flood Plan Region 6 San Jacinto Page 4-28 (160/302), 4.B.3.g. Already Implemented Flood Mitigation Projects (Category 9)

The Texas Water Development Board requires calculation of the Benefit-Cost Ratio (BCR) as part of the Regional Flood Plan development. While the Regional Flood Plan does not require a BCR greater than 1.0 to be included in the Plan, in the past, the BCR has been used to determine funding eligibility. This may cause unintended consequences such as undervaluing projects in residential areas with lower to moderate home values and thus elevating projects in areas with higher property values. The Flood Control District recommends that the Flood Planning Team continue to coordinate with the Texas Water Development Board to either develop a substitute methodology to the BCR or to modify the BCR approach to ensure that the scoring criteria balances the comprehensive benefits of a project (including the social, environment, regional benefits in addition to the economic benefits) in conjunction with statewide flood infrastructure needs and the vulnerability of residents to flood risk.

Comment 6.

Reference Page 6-3, Table 6-2

Table 6-2 appears to have an error as the Existing Conditions structure count minus the After Implementation structure count does not equal the Reduction in Exposure structure count.

The Flood Control District appreciates the opportunity to review the 2023 Regional Flood Plan.

Sincerely,
DocuSigned by:



Tina Petersen, Ph. D., P.E.
Executive Director

CP:GB:rop



December 1, 2022

Dr. Tina Peterson, PhD, PE, Executive Director
Harris County Flood Control District
9900 Northwest Freeway
Houston, TX 77092

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Dr. Peterson,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Harris County Flood Control District (HCFCD) on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

Updates were made to the Final Regional Flood Plan in response to multiple comments received from HCFCD. Below is a summary of responses and how the plan was updated or how comments were considered.

- **Comment 1:** Chapter 1 Planning Area Description was updated to reflect the anticipated release date of FEMA Preliminary Maps for Harris County.
- **Comment 2:** Chapter 2 'Task 2.B. Future Condition Flood Risk Analysis' was updated to acknowledge that some political entities within the San Jacinto River Basin (specifically Harris County) have adopted No-Rise/No Adverse Impact policies that require new developments to offset new impervious area with the addition of detention volume to offset possible increases in future development runoff.
- **Comment 3:** Chapter 4 'assessment of flood mitigation needs' utilized FEMA claims, RL, SRL, and claim payouts. In future updates, the team will consider utilizing actual flooded house counts that many municipalities and Counties acquire post major flood events. Historically, lower income areas and areas outside of regulatory flood plains will have very low percentage of policies, and thus this data may not provide a reliable representation of the greatest flood risks.
- **Comment 4:** Chapter 4 Category 9 attempts to quantify areas with existing flood mitigation projects under consideration. The weighting leans towards scoring areas with no existing projects as higher need, however many flood damage reduction projects, due to funding limitations, may primarily target frequent flooding (i.e. 10% ACE) and may only slightly reduce flooding during extreme events (1% ACE or 0.2% ACE). We agree with HCFCD on this point in future flood planning cycles will consider this in the weighting need areas. This particular weighting in the regional plan, however, is not expected to have any impact when TWDB prioritizes FMPs for funding.

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- **Comment 5:** The San Jacinto Regional Flood Planning Group acknowledges and confirms the issues HCFCD raises about benefit-cost-ratio (BCRs) and flood mitigation projects. To the credit of TWDB, they have released a new methodology that allows for many additional benefits to be considered such as social, environmental, and recreational with no minimum floor BCA as is required with the standard FEMA BCA calculation. They also allow for other BCA methodologies to be used which could allow for a more locally specific based approach to be developed and used. We recognize this is an ongoing discussion and will continue to coordinate with the TWDB to improve upon BCR methodologies to ensure that comprehensive benefits of a project are considered.
- **Comment 6:** Corrections to table 6-2 are recognized and will be corrected in the final plan.
- **Comment from Alan Black in an emailed dated 9/9/2022:** The Greens Mid-Reach FME (061000365) is recognized to be a duplicate of the Greens Bayou CDBG-MIT FMP (063000167) and will be removed from the plan.
- **Various comments from Dena Green in an email dated 7/19/2022:** Various updates were made the plan through chapters 1, 2, 3, 4 and 8 in response to comments, clarifications, and recommendations for improvements.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

City of Jersey Village

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Tuesday, June 14, 2022 8:38 AM
To: Austin Bleess
Cc: San Jacinto RFPG Technical Consultant
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Follow Up Flag: Follow up
Flag Status: Completed

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Austin,

Thank you for the response. I will reach back out if we have any follow-up questions.

Best,

Mariah

From: Austin Bleess <ableess@jerseyvillagetx.com>
Sent: Tuesday, June 14, 2022 8:32 AM
To: Mariah Najmuddin <Mariah@hollawayenv.com>; SJRFPG.TechCon@freese.com
Cc: SJRFPG.TechCon@freese.com
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

CAUTION: Email from outside Hollaway

Thank you.

For Action Number 061000192 I believe this is redundant to what the City and HCFCD are already doing. We are currently in the study phase of the E127. We have an estimated project cost for the construction of it as well, which is about \$10.5MM. Right now we are looking at a 70/30 split from HCFCD.

In 2017 the City undertook a Long Term Flood Recovery Plan on our own. I don't know that we would do a full drainage study again, as we already have the bulk of one completed, so I'm not sure that action number 061000252 would be applicable for us.

But I have put information in for both items below.

If there is interest in learning more about what the city has already done we have a lot of information on our website:
[Long Term Flood Recovery Plan \(jerseyvillagetx.com\)](http://jerseyvillagetx.com/Long-Term-Flood-Recovery-Plan)

Please let me know if you have other questions. Thank you!

Austin Bless, MPA, ICMA-CM
City Manager | Jersey Village, Texas
(p) (713) 466-2109

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Tuesday, June 14, 2022 7:33 AM
To: Austin Bless <ableess@jerseyvillagetx.com>; SJRFPG.TechCon@freese.com
Cc: SJRFPG.TechCon@freese.com
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Hi Austin,

See below for the original email. When you hit “reply” the drop-down should work.

I have attached a word document as well in case there are any issues.

Additionally, here is an updated link for Region 6.

[Region 6 Summaries](#)

Please let me know if you have any questions.

Best,

Mariah Najmuddin

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because Jersey Village is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
061000192	FME	White Oak Bayou - E127-00-00 Fork	Further study of channel improvements from partnership project to restore channel conveyance including Atlas 14 rainfalls.	\$150,000	General Revenue	30%
061000252	FME	City of Jersey Village Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	\$100,000	Taxes	100%

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Friday, June 17, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)
San Jacinto Regional Flood Planning Group

From: Austin Bleess <ableess@jerseyvillagetx.com>
Sent: Monday, June 13, 2022 8:08 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>; SJRFPG.TechCon@freese.com
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

CAUTION: Email from outside Hollaway

Good evening,

Mark Bitz forwarded me the email. However, I’m unable to “choose an item” in the drop down menu. Is it possible to get the original email sent to me directly?

Also, the Region 6 link seemed to open the Region 1 files, so that information was not accessible to me.



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Austin Bless, MPA, ICMA-CM
City Manager
16327 Lakeview Drive
Jersey Village, Texas 77040

Re: Response to Updated Identified Flood Mitigation Evaluates and/or Strategies in Your Community

Dear Austin,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Jersey Village on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The FMEs identified are now designated as no longer recommended in the plan with the reason being that, "Sponsor already completed evaluation." However, the City of Jersey Village is still listed as an entity with oversight on FME 061000184 – White Oak Bayou Watershed Study and FME 061000439 – Greens Bayou, White Oak Bayou and Cypress Creek Areas Subdivision Drainage Mitigation Project.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

Erwin Burden
Secretary
Counties

Gene Fisseler
Executive Committee
Public

Matthew Barrett
Executive Committee
River Authorities

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of League City

Maggie Puckett

From: Brian Edmondson
Sent: Friday, October 7, 2022 9:47 AM
To: Talluto, Anthony; Chuck Wolf; Cory Stull
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

It should not make a difference who the listed sponsor is. With that feedback we'll plan to update the sponsor to League City for the Lower Clear Creek FMP included on the plan as part of the draft comment process.

We'll be on the lookout for information on the other projects. Thank you Anthony and have a great weekend!

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



From: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>
Sent: Friday, October 7, 2022 9:22 AM
To: Chuck Wolf <Chuck.Wolf@freese.com>; Brian Edmondson <Brian.Edmondson@freese.com>; Cory Stull <Cory.Stull@freese.com>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

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Does it provide us any benefit for flood control to be the sponsor on one of the options?

Otherwise I would expect us to be the sponsor for all of the outcomes from the LCCDB study. Ill take a look at the additional projects listed and see if I can come up with some information next week.

Thanks!

Anthony Talluto
Project Manager
Project Management
City of League City
281-554-1451

From: Chuck Wolf <Chuck.Wolf@freese.com>
Sent: Thursday, October 6, 2022 6:27 PM
To: Brian Edmondson <Brian.Edmondson@freese.com>; Cory Stull <Cory.Stull@freese.com>
Cc: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

CAUTION: This email originated from outside of City of League City. Please use caution before clicking any links, downloading pictures within email, or responding to unknown senders. Do NOT sign-in with your COLC account for any unexpected items. Please contact the Technology Helpdesk (x1380) or forward to HELPDESK@leaguecitytx.gov if in doubt.

Thanks, Brian. Anthony will need to confirm as I haven't been in every conversation, but I believe John Baumgartner was still intending on leading the consortium through project implementation.

Chuck

Charles M. Wolf, D.Eng, PE, BCEE | Principal/Vice President | Freese and Nichols, Inc. | 661-993-0028 | chuck.wolf@freese.com | www.freese.com



From: Brian Edmondson <Brian.Edmondson@freese.com>
Sent: Thursday, October 6, 2022 6:22 PM
To: Chuck Wolf <Chuck.Wolf@freese.com>; Cory Stull <Cory.Stull@freese.com>
Cc: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

Chuck –

HCFCFCD is listed as the sponsor. It is my belief based on previous discussion with Dena Green (no longer at HCFCFCD) that they would support another sponsor being listed.

The official contact is still Tina Petersen but it may soon become Alan Black. I am copying Cory here because he currently in live conversation with him on another Regional Flood Planning matter and you might be able to get this question in there.

Best,

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



From: Chuck Wolf <Chuck.Wolf@freese.com>
Sent: Thursday, October 6, 2022 5:56 PM
To: Brian Edmondson <Brian.Edmondson@freese.com>
Cc: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

Brian,

Who is listed as the sponsor for Alternative 3 Mitigation Project FMP? Is that HCFCFCD or Galveston County? If so, who is the point of contact at HCFCFCD so Anthony and I can connect with them. We know who it is at Galveston...

Thanks.

Chuck

Charles M. Wolf, D.Eng, PE, BCEE | Principal/Vice President | Freese and Nichols, Inc. | 661-993-0028 | chuck.wolf@freese.com | www.freese.com

From: Brian Edmondson <Brian.Edmondson@freese.com>
Sent: Thursday, October 6, 2022 4:06 PM
To: Anthony.Talluto@leaguecitytx.gov; john.baumgartner@leaguecitytx.gov
Cc: Chuck Wolf <Chuck.Wolf@freese.com>; Jim Keith <Jim.Keith@freese.com>; Maggie Puckett <Maggie.Puckett@freese.com>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

Anthony –

I am following up with League City on behalf of the TWDB Regional Flood Planning effort to let you know the draft plan has been published, available on the flood planning website for download, and that we are accepting comments through October 29th, 2022. For your convenience I’ve attached a spreadsheet with the studies (FMEs) and projects (FMPs) that were included with League City as the Sponsor. League City made an excellent showing in the plan with their projects, thank you for your support!

Also to confirm with you, the “Lower Clear Creek & Dickinson Bayou Flood Mitigation Plan - Alternative 3” is included as a FMP in the flood plan however we were required to select only one Sponsor. This shouldn’t preclude a change in lead sponsor in a future funding application however if League City feels it would be more appropriate to have them listed in the plan as the Sponsor we can make that update as part of a comment to the draft.

And finally, we are aware of a number of additional projects from prior correspondence, listed below. We can still add these to the amended plan next year but need a bit more information to so. If League City would like to add them we would just need to obtain the source documents noted or at minimum the a map/location for each. If by chance enough data has been already developed to include as a FMP (Project) in the plan rather than a FMEs (Study), we would need to get bit more data from you including a benefit cost analysis (BCA).

Thank you again and we are here if you have any questions.

Potential League City Projects to be included in San Jacinto Regional Flood Plan

Project Name	Description	
<p>Gum Bayou Drainage Improvements</p>	<p>Widen Gum Bayou from approximately SH 96 to the City's ETJ and create a new detention pond approximately 270 ac-ft in size.</p> <p>This is Phase 4 of the Bay Ridge Subdivision Improvements Project. Total cost is estimated to be \$12million. City is currently in preliminary design phase.</p>	<p>Galvesto</p>
<p>Magnolia Creek & Cedar Gully Drainage Improvement Project</p>	<p>Project would look at Magnolia Creek and Cedar Gully upstream of FM 518. Improvements would include (1) the modification of outlets for 3 existing detention basins in the Magnolia Creek sub-watershed so that Stormwater inflows for most events are stored in the basin and the channel forming discharge is allowed to pass through to the downstream channel and (2) the modification of the Summer Place culvert crossing into a staged culvert opening by placing multiple barrels at different elevations. These projects would (1) correct the erosion of the channel bed and low flow sections, (2) stabilize failed side-slopes of earthen channel sections, (3) increase long-term channel stability, (4) reduce long-term maintenance costs, and (5) maintain flood control function of the channel.</p> <p>Total cost is estimated to be approximately \$7.5million. City is currently in design for this project.</p>	<p>Galvesto</p>

<p>Benson Bayou Regional Mitigation Conveyance & Detention Pond Project</p>	<p>Project would require regrading (as needed) Benson Bayou and related tributaries along with land acquisition for the construction of a 300 - 400 acre-foot mitigation pond along with reconstructing road crossings on League City Parkway and Hwy 3 and existing pond outfall structures as needed within this watershed.</p> <p>Total cost for this project is expected to exceed \$50million. City has Phase 1 in preliminary design with a maximum budget of \$11.5million.</p>	<p>Galvesto</p>
<p>Patton Subdivision Drainage Improvements Project</p>	<p>Project would require storm sewer improvements along Sanders St., West Wilkins St., and Interurban St. The storm sewer would discharge into an approximate 40 ac-ft new detention pond along W. Galveston/W. Wilkins before discharging into Interurban Ditch.</p> <p>FEMA has 54 reported claims in this area, by improving the storm sewer, there will be 74 homes plus a commercial building benefitting from this project.</p> <p>Construction cost for this project was estimated to be approximately \$7million.</p>	
<p>St. Charles Street Drainage Improvements Project</p>	<p>Currently street drains north towards Walker St., then to Robinson Bayou's western tributary. Proposed project would install 550LF of storm sewer connecting to East Robinson directly. Drainage Easements and an overflow swale would be needed to decrease street ponding and the potential for structural damage. A more detailed analysis is also needed to confirm if a detention pond is needed for this project.</p> <p>Assuming no detention pond is needed, construction costs for this project is estimated at approximately \$0.5million.</p> <p>FEMA has 18 reported claims in this area, by making these improvements, it would benefit all 18 properties.</p>	
<p>Columbia Memorial Parkway Drainage Improvement Project</p>	<p>A detailed drainage analysis is needed to confirm storm sewer sizes and if detention would be needed. Project would replace roadside ditches with a curb and gutter system.</p>	

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



From: Maggie Puckett
Sent: Wednesday, April 27, 2022 5:12 PM
To: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>; Chuck Wolf <Chuck.Wolf@freese.com>; Baumgartner, John <john.baumgartner@leaguecitytx.gov>
Cc: Jim Keith <Jim.Keith@freese.com>
Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

Hi Anthony,

Thank you for the organized comments. We have provided responses in the attached and, pending any additional thoughts, will get this incorporated into the regional list of studies and projects. **Regarding the additional projects listed, would y'all be able to provide any supporting data as requested in the spreadsheet?**

For your information, the TWDB sets a fairly high bar for a project (FMP) to be included in the plan. A project must have the following:

- Available models that demonstrate no adverse impact
- Study reports (signed and sealed) demonstrating the proposed project will not result in an adverse impact

- OPCC
- Cost Benefit Analysis

We are aware that most projects will not have all the required data available at this time – particularly the Benefit Cost Analysis. Projects that do not have sufficient data available to be considered a project, or FMP, will be considered a study, or FME, in the draft Regional Flood Plan due to the TWDB on August 1, 2022. However, as Chuck mentioned, additional funding has already been allocated to RFPGs to amend the draft plan through July 2023 specifically to continue targeted outreach with regional stakeholders and develop projects, or FMPs, for inclusion in the plan. Development of projects, at the direction of the RFPG, consists of performing minor studies and BCAs to ensure all TWDB requirements for a project are met for inclusion in the Regional Flood Plan. If there's any supporting data that y'all can provide (GIS, reports, exhibits, models, etc.) at this time, we would appreciate if you could please pass that along to our team. Please also feel free to connect us with other consultants or persons at League City who may be able to track this information down.

Feel free to reach out via phone or email if you have any questions about this data request or the regional flood planning process.

Thank you,

Maggie Puckett, P.E., CFM | Stormwater Management | Freese and Nichols, Inc. | 832.937.5318 direct | 956.465.3900 mobile |



From: Talluto, Anthony <Anthony.Talluto@leaguecitytx.gov>

Sent: Wednesday, April 27, 2022 10:21 AM

To: Chuck Wolf <Chuck.Wolf@freese.com>; Baumgartner, John <john.baumgartner@leaguecitytx.gov>

Cc: Maggie Puckett <Maggie.Puckett@freese.com>; Jim Keith <Jim.Keith@freese.com>

Subject: RE: Important: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

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All,

Sorry for the delay. I have attached our comments, modifications and additions to the project list provided.

Some comments would obviously be addressed during any other design/study phases. Let me know if y'all have any questions or need clarification.

Thanks!

Anthony Talluto
Project Manager
Project Management
City of League City
300 W Walker St
League City, Texas 77573
Phone: 281-554-1451

RESOLUTION NO. 2022-141

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF LEAGUE CITY, TEXAS, REQUESTING THAT THE SAN JACINTO REGIONAL FLOOD PLANNING GROUP INCORPORATE IN ITS REGIONAL FLOOD PLAN BOTH THE FINDINGS OF THE LOWER CLEAR CREEK AND DICKINSON BAYOU WATERSHED STUDY AS WELL AS THE LIST OF TWENTY-EIGHT (28) PROJECTS RECOMMENDED BY SAID STUDY.

WHEREAS, catastrophic flooding remains a regional problem the amelioration of which requires efforts and contribution by all governmental entities in the region; and

WHEREAS, League City is located within the boundaries of the San Jacinto Regional Flood Planning Group, which is currently soliciting public comment on its Draft Regional Flood Plan; NOW, THEREFORE,

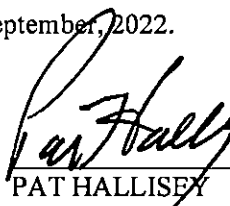
BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LEAGUE CITY, TEXAS, as follows:

Section 1. The City Council respectfully requests that the San Jacinto Regional Flood Planning Group incorporate in its Regional Flood Plan both the findings of the Lower Clear Creek and Dickinson Bayou Watershed Study as well as the list of twenty-eight (28) projects recommended by said study as flood control solutions.

Section 2. The City Council directs the City Manager to forward a copy of this Resolution upon its passage to each Member of the San Jacinto Regional Flood Planning Group.

Section 3. It is hereby found and determined that the meeting at which this resolution was passed was open to the public and that advance public notice of the time, place and purpose of said meeting was given as required by law.

PASSED AND APPROVED the 27th day of September, 2022.


PAT HALLISEY
Mayor

ATTEST:



DIANA M. STAPP
City Secretary

APPROVED AS TO FORM:



NGHIEM V. ĐOÀN
City Attorney



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Anthony Talluto
Project Manager
City of League City
300 West Walker
League City, Texas 77573

Re: League City/Dickinson Outreach for San Jacinto Regional Flood Plan

Dear Anthony,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from League City on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The sponsor has been updated to reflect City of League City for the FMP identified. The San Jacinto RFPG also acknowledges the resolution provided by the City of League City. The San Jacinto RFPG will continue coordinating with the City of League City to collect information on additional projects and studies. The San Jacinto RFPG looks forward to considering additional actions for inclusion in the amended regional flood plan due July 2023.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
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Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Liberty County Water Control and Improvement District #1

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Tuesday, October 4, 2022 4:26 PM
To: jcanfield@currently.com
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for commenting on the DRAFT Regional Flood Plan!

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Good afternoon,

On behalf of the Technical Consultant, I want to thank you for providing comments on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

Mariah Najmuddin, MPP (she/her/ella)
Communications Specialist
Hollaway Environmental + Communications
2500 Summer Street, Suite 1130
Houston, TX 77007
O: 713.868.1043 | D: 346.223.1064
www.hollawayenv.com



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From: HubSpot Forms <noreply@hubspot.com>

Sent: Friday, September 30, 2022 3:42 PM

To: Mariah Najmuddin <Mariah@hollawayenv.com>

Subject: Contact reconversion by submitting on HubSpot Form "New form (August 9, 2022 12:48:18 PM EDT)"

CAUTION: Email from outside Hollaway



Contact reconversion by submitting on HubSpot Form "New form (August 9, 2022 12:48:18 PM EDT)"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

James

Last name:

Canfield

City:

The Woodlands

County:

Montgomery

Email:

jcanfield@currently.com

Comment on the DRAFT Regional Flood Plan:

First, thank you for letting us participate in this process. Liberty County WCID#1 is responsible for the maintenance of 85 miles of drainage ditches in the southwest portion of Liberty County. One of our concerns is until recently we were unaware of the Flood Planning Group and therefore have not had a chance to fully engage with the development of the plan. We would recommend that in future outreach programs special efforts could be made to included smaller districts such as ourselves. As we reviewed the draft plan, we noticed that WCID#1 was not shown on any of your maps or displays. Could you please include us in future updates. Also, could you include our ditch system on your maps.

View in HubSpot



- **CONTACT**
- James Canfield

Found site via:

<https://sanjacintofloodplanning.org/>

This message was sent to mariah@hollawayenv.com because your preferences are set to receive notifications like this. You can change it in your [notification preferences](#) page.

sanjacstudy.com (Hub ID: 20336393)



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

James Canfield
Liberty County Water Control and Improvement District #1

Re: Submittal of WCID#1 FMEs

Dear Liberty County Water Control and Improvement District #1,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Liberty County Water Control and Improvement District #1 on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

At this time, additional projects, studies, and evaluations are not able to be included in the draft plan. Therefore, no changes were made at this time to the draft plan. However, the RFPG will be engaging entities during the amended planning cycle in 2023 to acquire additional projects, studies, and evaluations and can include the Liberty County WCID #1 in this engagement process.

The San Jacinto RFPG acknowledges the WCID#1's comments on future outreach efforts being more inclusive of smaller entities in future flood planning cycles.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

Erwin Burden
Secretary
Counties

Gene Fisseler
Executive Committee
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Matthew Barrett
Executive Committee
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Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

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Electric Generating Utilities

Rachel Powers
Environmental Interests

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Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Montgomery County MUDs 83 and 84

J. Stephen Wilcox, P.E., CFM

Partner / Division Manager
Hydrology & Hydraulics

office 713.783.7788
direct 713.579.3852
cell 832.443.9977



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From: Cory Stull <Cory.Stull@freese.com>

Sent: Tuesday, June 28, 2022 9:36 AM

To: J. Stephen Wilcox, P.E., CFM <swilcox@costelloinc.com>; San Jacinto RFPG Technical Consultant <SJRFPG.TechCon@freese.com>

Cc: Keith R. Billé, P.E. <kbille@costelloinc.com>

Subject: RE: Region 6 - Montgomery County MUD 83 and 84 Flood Improvements

Thanks for reaching out, Stephen. The initially prepared draft plan is being approved by the Regional Planning Group over the next couple of weeks, but the TWDB has initiated a process through which all of the regional flood plans will be amended in summer of 2023. We will be accepting submissions through about the end of 2022 for inclusion in that amendment.

We can take a look through the report, but wanted to note a few key items that are required by TWDB for something to be considered a "project", or FMP in the plan:

- Benefit Cost Analysis showing the project's BCR
- Demonstration of No Adverse Impacts as a result of the proposed, standalone project and supporting modeling
- Engineer's Cost Estimate (planning level is acceptable)
- Preferred: pre-project and post-project inundation rasters

If the above information has not been developed yet, the TWDB allows for the project to be included as a FME, or Flood Management Evaluation, which allows for further study of the concepts. Let me know if you have any questions on any of these items.

Thanks!

Cory J. Stull, P.E., CFM

Principal and Vice President
Stormwater Management

Freese and Nichols, Inc.

713-600-6809 direct

713-359-8560 mobile

From: J. Stephen Wilcox, P.E., CFM <swilcox@costelloinc.com>

Sent: Tuesday, June 28, 2022 7:40 AM

To: Cory Stull <Cory.Stull@freese.com>

Cc: Keith R. Billé, P.E. <kbille@costelloinc.com>


Subject: Region 6 - Montgomery County MUD 83 and 84 Flood Improvements

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Cory, hope all is well. We represent Montgomery County MUD 83 and 84 and have been investigating various flood reduction improvements for both MUDs resulting from structural flooding that occurred during Imelda. MUD 83 and 84 are just east of I69 in Porter generally along Sorters Road. The county recommended we contact you in regards to including some of the potential projects in the Region 6 plan.

We performed a flood reduction assessment and developed initial alternatives for flood reductions along the Bentwood Diversion Channel which ultimately discharges into the West Fork of the San Jacinto River. Below is a link to download that report. The MUDs would like to request that the flood improvements along the Bentwood Diversion channel (alternative 6B) be included in the Regional 6 plan as a potential project.

We are unsure of the process or next steps for the MUDs to request the project be included in the Region 6 plan and if there is any additional information you might need. I can be available for a phone call to discuss further. We appreciate your help in this.

 [MUD 83 and 84 - Flood Reduction Study 032521 - Full.pdf](#)

Respectfully,

J. Stephen Wilcox, P.E., CFM

Partner / Division Manager

Hydrology & Hydraulics

office 713.783.7788

direct 713.579.3852

cell 832.443.9977



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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

J. Stephen Wilcox, P.E., CFM
Montgomery MUD 83 & 84

Re: Region 6 - Montgomery County MUD 83 and 84 Flood Improvements

Dear Stephen,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from Montgomery County MUDs 83 & 84 on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

At this time, additional projects, studies, and evaluations are not able to be included in the draft plan. Therefore, no changes were made at this time to the draft plan. However, the RFPG will be engaging entities during the amended planning cycle in 2023 to acquire additional projects, studies, and evaluations and will be updating the plan accordingly. The FMEs provided by the Montgomery County MUDs 83 and 84 will be considered during this time.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
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Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of Pasadena

Maggie Puckett

From: Sarah Benavides <sbenavides@pasadenatx.gov>
Sent: Tuesday, October 25, 2022 5:03 PM
To: Brian Edmondson; Robin Green; Mark Gardemal; Ana Espinoza; Marie Estrada
Cc: Maggie Puckett; Cory Stull
Subject: Re: Pasadena - San Jacinto Regional Flood Planning Opportunity

Follow Up Flag: Follow up
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Brian,

The City is no longer pursuing these projects and can be removed from the plan. The one project we are already working on is not listed but it doesn't need to be included in the plan. Please let me know if you need any additional information.

Sarah Benavides, PE, CFM
Sr. Assistant Director of Public Works
City of Pasadena
D 713-475-7834
C 713-822-9291

From: Brian Edmondson <Brian.Edmondson@freese.com>
Sent: Friday, October 21, 2022 10:07 AM
To: Sarah Benavides <sbenavides@pasadenatx.gov>; Robin Green <RGreen@pasadenatx.gov>; Mark Gardemal <MGardemal@pasadenatx.gov>; Ana Espinoza <ANEspinoza@pasadenatx.gov>; Marie Estrada <MEstrada@pasadenatx.gov>
Cc: Maggie Puckett <Maggie.Puckett@freese.com>; Cory Stull <Cory.Stull@freese.com>
Subject: RE: Pasadena - San Jacinto Regional Flood Planning Opportunity

Good morning Sarah,

I am following up my previous email and from our brief conversation last month concerning Pasadena projects currently included in the draft TWDB flood plan and to confirm my understanding of your comments. Our public comment period on the draft plan comes to a close next week, October 27th, 2022 and we would appreciate any feedback that the City of Pasadena may have. Additionally, the TWDB is funding the elevation of certain projects in the draft plan and at least one of the projects below has been prioritized. We would need a confirmed interest for us to do so and more information regarding the projects.

It was my understanding that the City of Pasadena may have already been successful in obtaining grant funds and maybe did not need the projects listed below included in the plan? If these projects are already funded or are no longer needed or wanted in the plan, we can update the plan to remove them. If they are still valid projects and the City of Pasadena is interested in elevating them in the TWDB Flood Plan, we can discuss at your earliest convenience.

Thank you for your time.

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



From: Brian Edmondson

Sent: Monday, September 12, 2022 2:59 PM

To: sbenavides@pasadenatx.gov; RGreen@pasadenatx.gov; MGardemal@pasadenatx.gov; ANEspinoza@pasadenatx.gov; MEstrada@pasadenatx.gov

Cc: Maggie Puckett <Maggie.Puckett@freese.com>; Cory Stull <Cory.Stull@freese.com>

Subject: Pasadena - San Jacinto Regional Flood Planning Opportunity

Sarah –

I am reaching out to today on behalf of the San Jacinto Regional Flood Planning Group to speak with you about an opportunity for Pasadena to get projects qualified for funding applications as part of the first ever Texas Regional Flood Planning effort. To be eligible for funding from future allocations of the Flood Infrastructure Funds (FIF), your projects must be included in this new state-wide plan. We were able to pull publicly available information into the draft plan, including Pasadena's past FIF applications. However at this time we don't have enough information on them to include them as what the TWDB calls "Flood Mitigation Projects (FMPs)" and instead they are currently included as "Flood Mitigation Evaluations (FMEs)". It is expected that it is FMPs that will received the lion's share of funding in the next round and our goal is help you and the sponsors in this region get more of their projects qualified as FMPs on this plan.

We are especially interested in getting information on your projects because we suspect that most if not all of the data that is required for inclusion in the plan already exists since it should have been required at the time of the FIF application. If the projects are still viable and Pasadena is interested in still pursuing, our hope we can get your projects elevated and included in this plan. A link to your regional flood planning website for more information and a list of the currently included evaluations (FMEs) for Pasadena is below.

At your convenience we'd like to offer to sit down with you and your team to discuss the draft plan, any comments on the projects included so far, and to see how we might be obtain data to elevate your projects in the plan. More than happy to meet in person or online at your convenience; please let me know if you have any questions or would to discuss in the meantime.

Draft Project List for the San Jacinto Regional Flood Plan

FME ID	FME Name	Description	Estimated Study Cost
061000370	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 1	Further study to develop this project into a FMP. FIF application information unavailable.	\$30,000.00
061000371	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 2	Further study to develop this project into a FMP. FIF application information unavailable.	\$30,000.00

061000372	City of Pasadena - Hurricane Harvey Drainage Mitigation Project 3	Further study to develop this project into a FMP. FIF application information unavailable.	\$30,000.00
061000467	Middle Armand Bayou Protection Project	Further study to develop this project into a FMP. FIF application information unavailable.	\$30,000.00

<https://sanjacintofloodplanning.org/>

Best,

Brian Edmondson, PE, CFM | Stormwater Management | Freese and Nichols, Inc. | 281-650-7934 | Brian.edmondson@freese.com | www.freese.com



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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Sarah Benavides, PE, CFM, Sr. Assistant Director of Public Works
City of Pasadena
3105 San Augustine Ave,
Pasadena, TX 77503

Re: Pasadena - San Jacinto Regional Flood Planning Opportunity

Dear Ms. Benavides, PE, CFM,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Pasadena on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We have updated the Flood Management Evaluations (FMEs) for the City of Pasadena based on the comments received indicating that the City is no longer pursuing them. The FMEs were revised to be “not recommended” by the RFPG to indicate the City is no longer pursuing the FMEs along with a note included as documentation of this change.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

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Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of Pearland

Maggie Puckett

From: Rajendra Shrestha <RShrestha@pearlandtx.gov>
Sent: Thursday, June 16, 2022 1:00 PM
To: Mariah@hollawayenv.com
Cc: San Jacinto RFPG Technical Consultant; San Jacinto RFPG Technical Consultant; Robert Upton; Rasika Perera
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community
Attachments: Region 6 FMX_Pearland.xlsx

Follow Up Flag: Follow up
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Mariah,

Please find the attached spreadsheet. Please note that I have picked 8 projects applicable to the city. The rest of the projects are located outside of the city limit but located in the Drainage Districts' jurisdiction. As discussed, it is expected that the projects will be completed with no contribution from the City. Could you please update the status of project selection, assignment etc to me? Please let me know if you need additional information.

Thank you
Raj

Rajendra Shrestha, P.E.

City Engineer | Engineering & Capital
Projects

City of Pearland | 2016 Old Alvin | Pearland, TX
77581

P: 281.652.1649

pearlandtx.gov

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From: Mariah Najmuddin <Mariah@hollawayenv.com>

Sent: Monday, June 13, 2022 5:56 PM

To: Rajendra Shrestha <RShrestha@pearlandtx.gov>

Cc: 'San Jacinto RFPG Technical Consultant' <SJRFPG.TechCon@freese.com>; SJRFPG.TechCon@freese.com

Subject: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because Pearland is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table attached for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Wednesday, June 22, 2022** in order to meet the State's legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)
San Jacinto Regional Flood Planning Group



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Rajendra Shrestha, P.E.
City Engineer
City of Pearland
2016 Old Alvin
Pearland, Texas 77581

Re: Response to Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Rajendra,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Pearland on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The project sponsor for the identified FMEs has been updated from the City of Pearland to Brazoria County District No.4.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFGP.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

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Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

**Public Comments related to the Texas Coastal Study and Lower Clear Creek
and Dickinson Bayou Flood Study**

Website Comments on the SJRFP DRAFT Plan

First name	Last name	City	County	Comment	Submission Date
Hank	Dugie	League City	Galveston	I support the inclusion of the Lower Clear Creek & Dickinson Bayou Study list of projects in the Regional Flood Plan. The Clear Creek Watershed Steering Committee and Dickinson Bayou Watershed Steering Committee both have been working with their more than 30 combined member entities to realize flood mitigation for their constituents. I believe moving these projects forward will save lives and livelihoods.	9/6/2022
Dave	Person	League City	Galveston	I support the Regional Flood Plan, particularly the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou as part of the Gulf Coast Protection District plan. I also endorse and support the 28 projects put forth by the Lower Clear Creek and Dickinson Bayou Watershed studies by their Committees. Thank you for enable me to provide my comment and support.	10/26/2022
Kyle	Duckett	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/27/2022
Rebecca	Hearn	League City	Galveston	Please support the funding for the Ike Dike project.	10/27/2022
Paul	Stringer	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/27/2022
Manssor	mokhtari	league city	Texas	I support the "IKE and Dike" snd serge protection for CCreek and Dickinson Bayou submitted by the (GCPD) to the San. Jacinto Flood Group as well as the 28 projects submitted by lower CCreek and Dickinson bayou water shed committees.	10/27/2022
Charles	Wrightington	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/27/2022
Bruce	Hochstetler	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/27/2022
Annie	Kennedy	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees. Thank you, Annie Kennedy	10/27/2022
Cynthia	Smedstad	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/27/2022
Yvette	Jones	League City	TX	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees. Thank you	10/27/2022
Lau	Kinney	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Cheryl	Steller	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Protection (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022

Website Comments on the SJRFP DRAFT Plan

First name	Last name	City	County	Comment	Submission Date
harry	engelhardt	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Johnnie	Person	Lea	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Marilyn	Smith	League City	Tx	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Kenneth	Cook	League city	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
John	Elton	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Melissa	Elton	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
George	Edgar	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Craig	Sovinsky	League City	TX	I DO NOT support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group. I DO support the other projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
David	Johnson	League City	TX	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Aline	Wilson	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
David	Thomas	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/28/2022
Michele	Dawson-Cash	League City	TX	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed Committees.	10/28/2022
Michele	Dawson-Cash	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed Committees.	10/28/2022
STEVE	ALSUP	LEAGUE CITY	GALVESTON	I support the Ike Dike and surge protection for Clear Creek and Dickson Bayou submitted by the Texas Gulf Coast Protection District to the San Jacinto Flood Group as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed Committees	10/29/2022
Amanda	Mapes	League City	Galveston	I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.	10/29/2022

Website Comments on the SJRFP DRAFT Plan

First name	Last name	City	County	Comment	Submission Date
Allen	Martin	LEAGUE CITY	TX	<p>I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.</p> <p>Can you help with the drainage in the Whispering Lake Ranch subdivision? My cell phone: (832) 724-6770</p> <p>Thank you, Ray Martin 3929 Pebble Brook Dr. League City, TX. 77573</p>	10/29/2022
John	Vollmer	League City	Galveston	<p>I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.</p>	10/29/2022
Alisa	Greer	League City	Galveston	<p>I support the "Ike Dike" and surge protection for Clear Creek and Dickinson Bayou submitted by the Texas Gulf Coast Protection District (GCPD) to the San Jacinto Flood Group, as well as the 28 projects submitted by the Lower Clear Creek and Dickinson Bayou Watershed committees.</p>	10/29/2022



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Dave Person

Re: Thank you for Providing Comment on the DRAFT Regional Flood Plan for the San Jacinto Region

Dear Dave,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed your comments on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The RFPG has acknowledged the support for the projects listed. Please note that projects included in the RFP are not guaranteed to receive funding and the sponsor must demonstrate that projects meet applicable regulations and criteria. Any further comments regarding project specifics can be directed to the project sponsor.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

Erwin Burden
Secretary
Counties

Gene Fisseler
Executive Committee
Public

Matthew Barrett
Executive Committee
River Authorities

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Brandt Mannchen

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Friday, October 28, 2022 8:35 AM
To: brandt_mannchen@comcast.net
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good morning, Brandt,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

De: HubSpot Forms <noreply@hubspot.com>
Enviado el: Friday, October 28, 2022 7:37 AM
Para: Mariah Najmuddin <Mariah@hollawayenv.com>
Asunto: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

Brandt

Last name:

Mannchen

City:

Houston

County:

Harris

Email:

brandt_mannchen@comcast.net

Comment on the DRAFT Regional Flood Plan:

Dear TWDB and the San Jacinto Region Flood Planning Group,

I appreciate the opportunity to comment on the Draft San Jacinto Regional Flood Planning Group (Group) Flood Plan. I recreate in the San Jacinto River Watershed, especially in the upper watershed where Sam Houston National Forest is located. SHNF headwaters are the heart of this basin and should be

protected and not channelized due to their ground and surface water supply, storage, flood control, wildlife, wetland, aesthetics and scenic, and forest habitat values and benefits. A long-range flood plan should include these elements and protection of the entire riparian woodland and bottomland hardwood forested wetlands corridors along the entire river watershed. We need natural area protection and not more damaging and altering construction projects that allow development where it should never be allowed.

It's incomprehensible that the draft plan only includes structural projects with potential negative impacts and has failed to include any nature-based projects, like land acquisition and protection and conservation easements, as Flood Mitigation Projects.

The SJRFPG should recommend projects and legislative solutions to accomplish the goal that the regional flood plan adopted and that has at least what the law requires, "35% of all Flood Mitigation Strategies and Flood Mitigation Projects identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053." If the Group waits until 2033 and 2053, it will be too late, and development and population growth will have destroyed the natural riparian ecosystems that ensure flood and Nature protection.

The Group should approve projects that result in the preservation of the floodplain which allow floodwaters to spread where they do not cause damage.

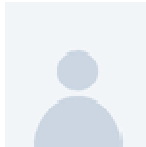
We need a major and significant program of buyouts for repeat flood structures, further land acquisition for natural floodplain protection, and the purchase of easements to pay private landowners who agree not to develop lands within the floodplain.

Funds must be made available through the legislative process and local, state, and federal administrative

processes to support nature-based practices through land conservation, restoration programs, and participation in landowner incentive programs to encourage voluntary land stewardship practices to manage floodwaters by slowing runoff and dissipating flood energy to include riparian, wetland, forest, upland, and other habitat protection programs.

Thank you.

[View in HubSpot](#)



- **CONTACT**
- Brandt Mannchen

This message was sent to mariah@hollawayenv.com because your preferences are set to receive notifications like this. You can change it in your [notification preferences](#) page.

sanjacstudy.com (Hub ID: 20336393)

HubSpot, Inc.
25 First Street, 2nd Floor
Cambridge, MA 02141



December 1, 2022

Brandt Mannchen

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Brandt Mannchen,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from HubSpot Form on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

In order for a project to meet the qualifications for inclusion in the plan as an FMP, the project must demonstrate no adverse impact as defined by the TWDB in *Exhibit C Technical Guidelines*. The San Jacinto RFPG encourages individuals to advocate for flood mitigation solutions, including those that incorporate nature-based components, in their communities and to encourage local entities to sponsor these actions. It should be noted that recommendation of an action by the San Jacinto RFPG does not serve as a specific endorsement of the action, but rather recommendation that the action be eligible for future funding assistance through the TWDB.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
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Erwin Burden
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Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Erin Bainbridge

October 29, 2022

Erin Bainbridge
11606 Cypresswood Place Dr
Houston TX
77070

To Whom It May Concern,

Thank you for considering stakeholder input towards long-term flood mitigation planning in the San Jacinto region. As a resident of Houston, my family personally experienced flooding of our home and children's school during the Hurricane Harvey flood. Since that time, I've noticed continued development, and structural mitigation projects, being constructed in my area. It's critical for an experienced team such as the Region 6 San Jacinto Regional Flood Planning Group to be overseeing high-level planning that is integrated and provides a long-term, balanced approach to flood mitigation throughout this region.

As drafted, the plan currently lacks details regarding nature-based initiatives as part of the proposed Flood Mitigation Projects. Nature-based projects, such as riparian and wetland conservation and enhancement, and critical area or riparian setbacks could be included in certain areas as a complimentary tool to structural flood mitigation. Please consider funding for landowner incentive programs that encourage land stewardship - in my role as a Riparian Specialist with the Queensland Murray-Darling Committee, I witnessed first-hand the benefits of Landowner incentive programs for conservation and flood mitigation outcomes. These programs work! There are many opportunities for nature-based mitigation tools to be integrated into the planning now, so that both structural and nature-based initiatives can be managed concurrently for win-win scenarios.

Please consider recommending projects and legislative solutions to accomplish the goal that our regional flood plan has already adopted: “35% of all Flood Mitigation Strategies and Flood Mitigation Projects identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053.” The public (and obviously the environment) would benefit from including some details now regarding the types of nature-based planning that will be needed in the region as we move into the future.

Sincerely,
Erin Bainbridge, M.Sc. Vegetation Ecology
Houston TX
77070



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Ms. Erin Bainbridge

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Ms. Bainbridge,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from you on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We acknowledge your concern for a lack of detail regarding nature-based initiatives as part of the Flood Mitigation Projects (FMP). Nature-based solutions are a major interest of the RFPG, and we look to promote the use of nature-based solutions in flood mitigation efforts. There are Flood Management Evaluations (FME) within the Plan that considered nature-based approaches as singular alternatives but – taken collectively as part of broad strategy – did not meet the multi-objective FMP criteria as initially established by the TWDB. The Amended Regional Flood Plan will continue to seek the advancement of FMEs to FMPs. Furthermore, the RFPG has placed an emphasis on the promotion of nature-based FMEs. Additionally, two of the goals of the RFPG are to increase the number of Flood Management Strategies (FMS) and FMPs that include nature-based practices to at least 35% in the regional flood plan by 2033 and increase to 90% by 2053.

Recommendations by the San Jacinto RFPG do not serve as an endorsement of the actions, but rather that the actions be eligible for future funding assistance through the TWDB.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

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Executive Committee
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Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Leslie Gould

Maggie Puckett

From: Mariah@hollawayenv.com
Sent: Monday, October 31, 2022 11:42 AM
To: lesgould@consolidated.net
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good morning,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

Please reach out if you have any questions.

Best,

Mariah

From: HubSpot Forms <noreply@hubspot.com>
Sent: Saturday, October 29, 2022 5:29 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



**New submission on HubSpot Form
"Comments on the DRAFT Regional Flood
Plan"**

First name:

Leslie

Last name:

Gould

City:

Katy

County:

Harris

Email:

lesgould@consolidated.net

Comment on the DRAFT Regional Flood Plan:

I live at FM 529 and Katy Hockley Cut Off in a 22-year-old neighborhood that was built before we were placed in the flood plain in 2007. Consequently our homes are lower than the prolific neighboring development. Two homes out of 22 flooded in 2016 and 2017 and a new neighborhood is built downdip of us at least 4 feet higher than our homes, creating a dam where the floodwaters previously soaked into the "sponge" of the ground. We are concerned that these dams will cause our entire neighborhood to flood in the next extreme event.

We appreciate that the Texas Water Development Board is undertaking this technical and public process to create a long-range flood plan. We also appreciate the efforts by Region 6 San Jacinto Regional Flood Planning Group (SJRFPG)

We are disappointed to see that the draft plan has included only structural projects – some with potential negative impacts to the environment – and has not included any nature-based projects as Flood Mitigation Projects. We saw first-hand how preserving undeveloped land saved our neighborhood from flooding. We urge you to recommend projects and legislative solutions to accomplish the goal that the

regional flood plan adopted: “35% of all Flood Mitigation Strategies and Flood Mitigation Projects identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053.” We understand that "cash is king" and developers rule, but at what cost to existing homes? Please approve projects that result in the preservation of the floodplain to allow floodwaters to spread where they do not cause damage.

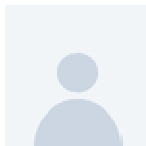
We support buyout programs for repeat flood structures and the purchase of easements to compensate private landowners who agree not to develop lands within the floodplain. As one county official told me, "It's like the wild west out there since they opened Grand Parkway north of I-10." The number of new neighborhoods and homes in this area is astonishing. Please allow funds to be made available through the legislative process to support nature-based practices through land conservation, restoration programs, and participation in landowner incentive programs to encourage voluntary land stewardship practices to manage floodwaters by slowing runoff and dissipating flood energy to include riparian, wetland, forest, upland, and other habitat protection programs.

Thank you for consideration of our request.

Leslie Gould

Hidden Forest Estates HOA

[View in HubSpot](#)



- **CONTACT**
- Leslie Gould



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Ms. Leslie Gould

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Ms. Gould,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from you on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We acknowledge your concern for a lack of detail regarding nature-based initiatives as part of the Flood Mitigation Projects (FMP). Nature-based solutions are a major interest of the RFPG, and we look to promote the use of nature-based solutions in flood mitigation efforts. There are Flood Management Evaluations (FME) within the Plan that considered nature-based approaches as singular alternatives but – taken collectively as part of broad strategy – did not meet the multi-objective FMP criteria as initially established by the TWDB. The Amended Regional Flood Plan will continue to seek the advancement of FMEs to FMPs. Furthermore, the RFPG has placed an emphasis on the promotion of nature-based FMEs. Additionally, two of the goals of the RFPG are to increase the number of Flood Management Strategies (FMS) and FMPs that include nature-based practices to at least 35% in the regional flood plan by 2033 and increase to 90% by 2053.

Recommendation by the San Jacinto RFPG does not serve as a specific endorsement of the actions, but rather recommendation that the actions be eligible for future funding through the TWDB.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
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Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment - Margaret Schulenberg

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Friday, October 28, 2022 10:18 AM
To: msch@austin.rr.com
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

This is an email from an EXTERNAL source. DO NOT click links or open attachments without positive sender verification of purpose. Never enter USERNAME, PASSWORD or sensitive information on linked pages from this email. Please report all suspicious messages using the Report Message button in Outlook.

Good morning,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

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Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

De: HubSpot Forms <noreply@hubspot.com>
Enviado el: Friday, October 28, 2022 8:55 AM
Para: Mariah Najmuddin <Mariah@hollawayenv.com>
Asunto: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:
Margaret

Last name:
Schulenberg

City:
Round Rock

County:
Williamson

Email:
msch@austin.rr.com

Comment on the DRAFT Regional Flood Plan:
Thank yo for undertaking long term flood planning.

I do have reservations about the dominance of structural efforts.

We have a long history of attempting to control flooding through structural efforts, and we have a long history of those failing, and often exacerbating the situation.

We have an opportunity to learn from the past and employ best practices.

I urge you to use focus on natural solutions that will allow us to both mitigate against flood and use nature to mitigate against extreme events for us.

One straight-forward measure is to use buy outs of homes in flood plains, and offering land owners compensation for managing their lands to slow runoff.

I urge you to adopt measures that will allow floods to dissipate, reducing their strength and allowing return of the waters to the land.

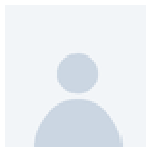
I urge you to favor, forward, and propose nature based solutions in accordance with the goal of “35% of all Flood Mitigation Strategies and Flood Mitigation Projects identified within the regional flood plan will incorporate nature-based practices by 2033 and 90% by 2053.”

Flood damage is expensive.

We have an important and critical opportunity to benefit people and the environment, land owners and the economy, if we take it and apply the nature based solutions known to work.

Thank you.

[View in HubSpot](#)



- **CONTACT**
- Margaret Schulenberg



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Ms. Margaret Schulenberg

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Ms. Schulenberg,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from you on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We acknowledge your concern for a lack of detail regarding nature-based initiatives as part of the Flood Mitigation Projects (FMP). Nature-based solutions are a major interest of the RFPG, and we look to promote the use of nature-based solutions in flood mitigation efforts. There are Flood Management Evaluations (FME) within the Plan that considered nature-based approaches as singular alternatives but – taken collectively as part of broad strategy – did not meet the multi-objective FMP criteria as initially established by the TWDB. The Amended Regional Flood Plan will continue to seek the advancement of FMEs to FMPs. Furthermore, the RFPG has placed an emphasis on the promotion of nature-based FMEs. Additionally, two of the goals of the RFPG are to increase the number of Flood Management Strategies (FMS) and FMPs that include nature-based practices to at least 35% in the regional flood plan by 2033 and increase to 90% by 2053.

Recommendation by the San Jacinto RFPG does not serve as a specific endorsement of the actions, but rather recommendation that the actions be eligible for future funding assistance through the TWDB.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
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Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Mark Hull

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Thursday, September 1, 2022 9:31 AM
To: mlh0010@gmail.com
Cc: San Jacinto RFPG Technical Consultant
Subject: Comments Received -- DRAFT Regional Flood Plan

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Good morning Mr. Hull,

On behalf of the Technical Consultant, I want to thank you for your engagement with the San Jacinto Regional Flood Planning Group (SJRFPG).

I am confirming receipt of your comment regarding the analyses within the DRAFT Regional Flood Plan, and I have shared your comments with our Technical Consultant.

Additionally, the SJRFPG will host two open houses (in-person and virtual options) this month where you can learn more about the DRAFT Regional Flood Plan:

- Tuesday, Sept. 27, 2022, from 5:30 – 7:30 p.m. at the White Oak Conference Center, 7603 Antoine Dr., Houston, TX 77088
- Virtual Public Open House: Thursday, Sept. 29, 2022, from 5:30 – 7:30 p.m. (Register here to receive Zoom access information).

We hope you will be able to attend and look forward to engaging with you further regarding the DRAFT Regional Flood Plan.

Best,

Mariah Najmuddin

Mariah Najmuddin, MPP (she/her/ella)
Communications Specialist
Hollaway Environmental + Communications
2500 Summer Street, Suite 1130
Houston, TX 77007
O: 713.868.1043 | D: 346.223.1064
www.hollawayenv.com



HUB + DBE + WBE + WOSB CERTIFIED

From: HubSpot Forms <noreply@hubspot.com>
Sent: Thursday, September 1, 2022 9:15 AM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: New submission on HubSpot Form "New form (August 9, 2022 12:48:18 PM EDT)"

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "New form (August 9, 2022 12:48:18 PM EDT)"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:
Mark

Last name:
Hull

City:
Balch Springs

County:
TX

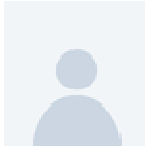
Email:
mlh0010@gmail.com

Comment on the DRAFT Regional Flood Plan:

I am seeing a consistent oversight in these kind of analysis. It is critical that sediment source/sinks within the watershed be evaluated, stream stability, sediment load sources hillslope or in channel (which is dominate)

to name just a few critical data points. Streams perform two function one is the movement of water and the other is the movement of sediment. It is critical to know what are the sediment sources, transport parameters, stream stability, etc. so areas of instability can be addressed lessening the impact on the system and reducing flooding risk. Engineers also need this data so they can design properly sized and oriented culverts and other structures reducing maintenance cost and flooding risk associated with system infilling (sedimentation which increase flooding).

View in HubSpot



- **CONTACT**
- Mark Hull

This message was sent to mariah@hollawayenv.com because your preferences are set to receive notifications like this. You can change it in your [notification preferences](#) page.

sanjacstudy.com (Hub ID: 20336393)

HubSpot, Inc.
25 First Street, 2nd Floor
Cambridge, MA 02141



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mr. Mark Hull

Re: Comment on the DRAFT Regional Flood Plan

Dear Mark,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed your comments on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

As mentioned, stream sedimentation and erosion can be an important aspect in flood planning. While not included in this initial regional flood planning cycle, information regarding stream erosion and sedimentation can be included in future planning cycles. This comment will be documented in Chapter 10 of the Regional Flood Plan and submitted to the Texas Water Development Board.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
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Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Matt Gregory

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Monday, October 24, 2022 9:52 AM
To: mattjillg@mac.com
Cc: San Jacinto RFPG Technical Consultant
Subject: RE: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

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Good morning, Matt,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

De: HubSpot Forms <noreply@hubspot.com>
Enviado el: Thursday, October 20, 2022 6:22 PM
Para: Mariah Najmuddin <Mariah@hollawayenv.com>
Asunto: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

Matt

Last name:

Gregory

City:

The Woodlands

County:

Harris

Email:

mattjillg@mac.com

Comment on the DRAFT Regional Flood Plan:

I oppose the plan due to the likely cost overruns and the fact that it will do little for actual flood control. Natural buffers such as flood plains and vegetation do far more for mitigating flood risks than dredging, channeling and other antiquated engineering methods.



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mr. Matt Gregory

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Matt,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed your comments on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The purpose of the regional flood plan is to collect projects and studies and make recommendations based on criteria developed by the TWDB. Please note that projects included in the RFP are not guaranteed to receive funding assistance and the sponsor must demonstrate that projects meet applicable regulations and criteria. Any further comments regarding project specifics can be directed to the project sponsor.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
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Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Public Comment – Melissa Krieg

Maggie Puckett

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Monday, October 24, 2022 9:54 AM
To: mkrieg01@gmail.com
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for your comment on the DRAFT Regional Flood Plan!

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Good morning, Melissa,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region.

As a reminder, the comment period ends on October 29th, 2022. You may provide additional comments via our website at the link below:

<https://sanjacintofloodplanning.org/technical-documents>

Additionally, printed copies of the DRAFT Regional Flood Plan are available at three locations across the San Jacinto Region:

**George and Cynthia Woods
Mitchell Library**
8125 Ashlane Way
The Woodlands, TX 77382

**McGovern -Stella Link
Neighborhood Library**
7405 Stella Link Road
Houston, TX 77025

Rosenburg Library
2310 Sealy Avenue
Galveston, TX 77550

Thank you again for your engagement with the San Jacinto Regional Flood Planning Group.

Best,

Mariah

De: HubSpot Forms <noreply@hubspot.com>
Enviado el: Thursday, October 20, 2022 5:06 PM
Para: Mariah Najmuddin <Mariah@hollawayenv.com>
Asunto: New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



New submission on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

Page submitted on: [Technical Documents - San Jacinto Regional Flood Planning](#)

First name:

Melissa

Last name:

Krieg

City:

The Woodlands

County:

Harris

Email:

mkrieg01@gmail.com

Comment on the DRAFT Regional Flood Plan:

I'm appalled at the idea of turning the George Michell Preserve and Spring Creek into a drainage ditch. There is no way this is in keeping with the vision of The Woodlands to develop sensibly in harmony with nature. The solution is to stop allowing developers to build in flood plains. Also, what is the point in setting aside a nature preserve only to destroy it?



December 1, 2022

Mrs. Melissa Krieg

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Melissa,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed your comments on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

Thank you for engaging the RFPG regarding projects presented in the San Jacinto Master Drainage Plan. The purpose of the regional flood plan is to collect projects and studies and make recommendations based on criteria developed by the TWDB. Please note that projects included in the RFP are not guaranteed to receive funding assistance and the sponsor must demonstrate that projects meet applicable regulations and criteria. Documentation provided for the master plan included language stating the project would not have negative impacts according to guidelines specified by the TWDB. Therefore, no changes were made to the regional flood plan. Any further comments regarding project specifics can be directed to the project sponsor.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
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Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

San Jacinto River Authority

Maggie Puckett

From: Mariah@hollawayenv.com
Sent: Monday, October 31, 2022 12:01 PM
To: Matt Barrett
Cc: San Jacinto RFPG Technical Consultant
Subject: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region

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Good morning, Matt,

On behalf of the Technical Consultant, I want to thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto Region. We received both comment submissions.

Please reach out if you have any questions.

Best,

Mariah

From: HubSpot Forms <noreply@hubspot.com>
Sent: Saturday, October 29, 2022 6:58 PM
To: Mariah Najmuddin <Mariah@hollawayenv.com>
Subject: Contact reconversion by submitting on HubSpot Form "Comments on the DRAFT Regional Flood Plan"

CAUTION: Email from outside Hollaway



**Contact reconversion by submitting on
HubSpot Form "Comments on the DRAFT
Regional Flood Plan"**

First name:

Matt

Last name:

Barrett

City:

Conroe

County:

Montgomery

Email:

mbarrett@sjra.net

Comment on the DRAFT Regional Flood Plan:

Please find attached additional comments from Matt Barrett (San Jacinto River Authority).

File upload:

[06_RFP_Draft_Plan_V1-\(Matt-Barrett-Comments-on-Chapter-6\).pdf](#)

[Matt-Barrett-Comments-on-Draft-SJRFPG-RFP-Appendices-and-Additional-RFP-Comments.docx](#)

[View in HubSpot](#)



- **CONTACT**
- Matt Barrett



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Matt Barrett
San Jacinto River Authority

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Matt,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The RFPG has acknowledged the comments made. Appropriate changes were made to the information presented and changes were incorporated into the final regional flood plan. This includes updating the information on Lake Conroe and Lake Houston, verifying the use of HMP and HMAP, verifying the existing infrastructure as stated, and updating relevant tables. We appreciate your comments and attention to the details of this plan. Detailed responses to markups provided on the draft regional flood plan will be coordinated with SJRA separate from this letter.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
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Alia Vinson
*Vice Chairman
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*Secretary
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Christina Quintero
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Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Texas Parks and Wildlife Department

October 27, 2022



San Jacinto Regional Flood Planning Group
Harris County Engineering Department - SJRFPG Sponsor
1111 Fannin, 11th Floor
Houston, TX 77002

Life's better outside.®

Re: 2023 San Jacinto Regional Flood Plan

Commissioners

Arch "Beaver" Aplin, III
Chairman
Lake Jackson

Dick Scott
Vice-Chairman
Wimberley

James E. Abell
Kilgore

Oliver J. Bell
Cleveland

Paul L. Foster
El Paso

Anna B. Galo
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Fort Worth

Travis B. "Blake" Rowling
Dallas

Lee M. Bass
Chairman-Emeritus
Fort Worth

T. Dan Friedkin
Chairman-Emeritus
Houston

Carter P. Smith
Executive Director

Dear Tim Buscha:

In 2019 Senate Bills 7 and 8 established a regional and state flood planning process for Texas, aimed at better managing flood risk to reduce loss of life and property. As part of the process, Texas Parks and Wildlife Department (TPWD) was identified as a member of the regional flood planning groups (Texas Water Code Sec. 16.062). The mission of TPWD is to manage and conserve the natural and cultural resources of Texas and its ability to provide opportunities of hunting, fishing, and outdoor recreation for the use and enjoyment of present and future generations. TPWD values this opportunity to contribute to the flood planning process with the goal of enhancing flood risk management and achieving beneficial flood mitigation outcomes. Toward this effort TPWD members serve a dual role of supporting the voting membership in development of the plans and representing the natural resource interests of the state.

TPWD applauds the San Jacinto Regional Flood Planning Group (RFPG) for their efforts in completing the inaugural regional flood plan (RFP). Through the exceptional efforts of the RFPG, this plan will be a meaningful tool for reducing flood impacts to society, especially in those disastrous events that cause loss of life and injury. Because this represents the initial region-wide plan, it has the potential to be precedent setting for subsequent iterations. As such, it is important this plan recognizes the role nature and nature-based solutions can play in flood risk management and promotes opportunities to protect, enhance and restore the flood mitigation benefits provided by natural landforms.

TPWD is supportive of the planning process outlined by the Texas Water Development Board (TWDB) because it aims to achieve an integrative flood risk management (FRM) approach that prioritizes risk reduction through implementation of floodplain management, land use regulations, policy, and a balanced use of grey and natural and nature-based (NNBS) flood mitigation measures that are formed by inclusive participation at all levels of society. TPWD believes this integrative approach when implemented holistically will achieve the maximum benefits for society and natural ecosystems while minimizing environmental impacts. Recent published works on FRM and NNBS (Bridges et al 2021, Glick et al 2020, World Wildlife Fund 2016, Sayers et al 2013) support TWDB integrative flood management approach and provide extensive resources for flood planners.

In the interest of achieving the states flood risk management goals while protecting the state's fish and wildlife resources, TPWD reviewed regional flood plans based on the

TWDB guidance principals as described in 31 TAC § 361 and 362. Special focus was provided on the following subset of guidance principals due to its relevance to fish and wildlife management.

- Does the draft flood plan use the best available science, data, models, and flood risk mapping?
- Does the draft flood plan consider the potential upstream and downstream effects, including environmental, of potential flood management strategies (and associated projects) of neighboring areas?
- Does the draft flood plan include strategies and projects that provide for a balance of structural and non-structural flood mitigation measures, including projects that use nature-based features that lead to long-term mitigation of flood risk?
- Does the draft flood plan consider natural systems and beneficial functions of floodplains, including flood peak attenuation and ecosystem services?
- Does the draft flood plan encourage flood mitigation design approaches that work with, rather than against, natural patterns and conditions of floodplains?
- Does the draft flood plan seek to not cause long-term impairment to the designated water quality as shown in the state water quality management plan as a result of a recommended flood management strategy or project?
- Does the draft flood plan consider benefits of flood management strategies to water quality, fish and wildlife, ecosystem function, and recreation, as appropriate?
- Does the draft flood plan minimize adverse environmental impacts and be in accordance with adopted environmental flow standards?
- Does the draft flood plan consider multi-use opportunities such as green space, parks, water quality, or recreation, portions of which could be funded, constructed, and or maintained by additional, third-party project participants?

Additionally, TPWD emphasizes that the following FRM concepts identified in the forementioned literature be incorporated into the RFP.

- Flood is a natural process that has many benefits to human and natural systems.
- Promoting some flooding as desirable and making room for water promotes native species, maintains vital ecosystem services, and reduces the chance of flooding elsewhere.
- Natural landscapes and watersheds provide flood mitigation functions that should be promoted, protected, enhanced, and restored.
- Prioritize risk reduction over flood control by focusing first on reducing loss of life and injury.
- Utilize limited resources fairly.
- Address flood risk using a portfolio approach, first implement non-structural (policy, land management, emergency management) followed by structural (grey and natural and nature-based) strategies.
- Criteria for assessing projects strategies should include a comprehensive suite of measures spanning economical, operational, societal, and environmental

- advantages and disadvantages. Assessments focusing on economics alone (number of buildings, acres) should be avoided.

San Jacinto Regional Flood Planning Comments

TPWD recommends including the benefits of flooding and the ecological role it plays in Chapter 1 of the RFP. Leaving this critical information out could be a missed opportunity to capitalize on existing natural infrastructure and ecosystem services. Some of the human benefits of floods include recharging of groundwater systems and filling water supply reservoirs. Floodwaters also transport and deposit sediment

and nutrients which can increase the soils fertility. Many fish and wildlife species also depend on periodic or seasonal flooding for some aspect of their life history. Waterfowl, for example, utilize inundated bottomland hardwood floodplains for habitat and source food supplies during winter months. Also, Alligator Gar utilize shallow inundated floodplains during the spring and summer to reproduce.

Additionally, TPWD recommends describing forested cover and land areas with ranching use as potential natural infrastructure rather than only specifying the potentially negative impacts of flooding to these areas. It is true that flooding can eventually cause damage to these areas with long periods of inundation. However, these areas have the potential to greatly increase water storage during flooding events.

When recommending minimum standards for floodplain management practices in Chapter 3, preservation of the floodplain was mentioned. TPWD recommends including additional emphasis on floodplain restoration as well, wherever applicable. This would ultimately increase the overall benefits that functioning natural floodplains provide.

Multiple recommended FMPs in Chapter 5 involve channelization of streams. These projects may increase drainage and water velocity of the stream but ultimately have negative impacts on the ecosystem. When stream channelization occurs, the natural morphology is lost which decreases the habitat quality for a whole host of fish and wildlife species. Also, the potential for erosion is significantly increased and water quality is diminished. Restoring and conserving the natural stream channel and the land adjacent to is optimal for the ecosystem's health as well as flood mitigation efforts.

October 28, 2022

Page 4

Thank you for your consideration of these comments. TPWD looks forward to continuing to work with the planning group to develop flood plans that protect life and property but are also beneficial to the environment. Please contact me at (512) 389 – 8214 or at Marty.Kelly@TPWD.Texas.gov or Hope Zubek at (936) 553 – 7641 or at Hope.Zubek@TPWD.Texas.gov if you have any questions or comments.

Sincerely,

A handwritten signature in cursive script that reads "Marty Kelly".

Marty Kelly
Water Resources Program Coordinator

MK:hb

October 28, 2022

Page 5

References

Bridges, T. S., J. K. King, J. D. Simm, M. W. Beck, G. Collins, Q. Lodder, and R. K. Mohan, eds. 2021. International Guidelines on Natural and Nature-Based Features for Flood Risk Management. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Glick, P., E. Powell, S. Schlesinger, J. Ritter, B.A. Stein, and A. Fuller. 2020. The Protective Value of Nature: A Review of the Effectiveness of Natural Infrastructure for Hazard Risk Reduction. Washington, DC:

World Wildlife Fund. 2016. Natural and Nature-based Flood Management: A Green Guide. Washington, DC: World Wildlife Fund. <http://envirodm.org/flood-managment> 2016 WWF.

P. Sayers, Y. L.i, G. Galloway, E. Penning-Rowsell, F. Shen, K. Wen, Y. Chen, and T. Le Quesne. 2013. Flood Risk Management: A Strategic Approach. Paris, UNESCO.



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Mr. Marty Kelly, Water Resources Program Coordinator
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744-3291

Re: Thank you for providing comment on the DRAFT Regional Flood Plan for the San Jacinto

Dear Mr. Kelly,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the Texas Parks and Wildlife Department (TPWD) on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The Draft Regional Flood Plan utilizes the best available data for the planning level study. Extensive data collection efforts were conducted for the San Jacinto region to collect the most up to date data available for use in the development of the Regional Flood Plan.

Chapter 1 of the Draft Regional Flood Plan has been revised to incorporate discussion on the use of forested and ranching areas as potential natural infrastructure (Section 1.A.6) and discussion on the benefits of flooding and its ecological role (Section 1.A.2.a).

The Draft Regional Flood Plan considers potential upstream and downstream effects with a requirement that projects show no negative impacts to neighboring areas to be included as a Flood Mitigation Projects (FMP) in the Regional Flood Plan. Environmental effects of potential projects and strategies may not be explicitly reviewed within the Regional Flood Plan but should adhere to all requirements and guidelines when the projects or strategies are implemented. Additionally, the Regional Flood Plan states that design and construction of projects should be performed in a manner that avoids or minimizes environmental impacts as well as consideration be given to environmentally sensitive areas to reduce environmental impact and maintain the undisturbed condition and existing drainage of natural areas.

Nature-based solutions are a major interest of the RFPG, and we look to promote the use of nature-based solutions in flood mitigation efforts. There are Flood Management Evaluations (FME) that consider the use of nature-based solutions but did not meet the criteria to be considered an FMP. An additional effort will be conducted as part of the Amended Regional Flood Plan that seeks to elevate FMEs to FMPs and the RFPG has placed an emphasis on the promotion of nature-based solutions in the FMEs that are evaluated. Two goals of the RFPG are to increase the number of Flood Mitigation Strategies (FMS) and FMPs that include nature-based practices to at least 35% in the regional flood plan by 2033 and increase to 90% by 2053. Further encouragement of

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

Erwin Burden
Secretary
Counties

Gene Fisseler
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Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

nature-based solutions by the RFPG has the potential to lead to flood mitigation design approaches that work with natural patterns and conditions of floodplains.

The Draft Regional Flood Plan does not explicitly consider benefits of FMSs to water quality, fish and wildlife, ecosystem function, and recreation. However, these are all important benefits to consider for FMSs and could potentially be incorporated into future Regional Flood Planning cycles as a benefit metric for FMSs.

The Draft Regional Flood Plan places emphasis on the preservation of floodplains including a recommended minimum standard to preserve areas of floodplain. Floodplain restoration is an important topic and may be incorporated into future Regional Flood Planning cycles as a potential goal of the RFPG. Encouraging floodplain preservation throughout the San Jacinto region serves as the foundation for future Regional Flood Plans to build from.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Texas Department of Transportation

TABLE 8-2: REGULATORY AND ADMINISTRATIVE RECOMMENDATIONS

	Recommendation	Discussion
5	<p>The Texas Department of _____ (TxDOT (Houston District)- uses design criteria for drainage commensurate with the roadway classification. should For highways and evacuation routes, Houston District uses drainage criteria requiring that the roadway profile is at or above the 1% water surface elevation profile. Houston District already considers using a stricter design criteria for Farm to Market roadways and State Highway roadways up to and including the 1% event profile where this is warranted, feasible and practical. employ roadway design criteria to require all new and reconstructed state roadways to be designed and constructed, to the extent practicable, at elevations at or above the 1.0% ACE water surface elevation if determined with Atlas 14 rainfall. The 0.2% ACE water surface elevation should be used to determine elevation if Atlas 14 has not yet been adopted. TxDOT should also consider future conditions, such as urbanization and climate variability, in its roadway design criteria for drainage and flood risk reduction.</p>	<p>TxDOT is not a participant in the NFIP and does not in all cases design roadways in a manner consistent with minimum NFIP requirements. It is recognized that, by their nature, The Houston District strives to design projects to better roadway drainage using sound drainage criteria. It is often not feasible or practicable to design and construct roadways to provide a level of flood protection equivalent to or greater than the 1.0% annual chance storm event. However, as a matter of policy and practice, TxDOT Houston District should continue to strive to meet this standard, especially for critical infrastructure such as evacuation and emergency routes. By not acting on this recommendation, newly built transportation infrastructure could be at risk of extreme event flooding.</p>
6	<p>Recommend a statewide building standard of a minimum finished floor elevation to be established at or waterproofed to the FEMA effective 0.2% annual chance flood elevation as shown on effective Flood Insurance Studies except in areas designated as coastal flood zones or at the 1.0% annual chance flood elevation where Atlas 14 has been adopted.</p>	<p>The TWDB should encourage and incentivize higher building standards than those minimally required by federal regulations. This is especially true on minimum base flood elevations (BFEs) where recent events of historic flooding and updated rainfall totals by the National Oceanic and Atmospheric Administration Atlas 14 have revealed how much BFEs can change over time. New studies occurring across the state now expect to see increases of BFEs once the new Atlas 14 data is incorporated into models and maps. Jurisdictions that have required a freeboard over the current BFE have mitigated the risk of these increasing BFEs.</p>

Commented [AG1]: This doc is for San Jac Region. Please specify Houston District throughout. TxDOT implies statewide.

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7	<p>Clarify the process and investment required to take Base Level Engineering (BLE) data to regulatory BLE information on a Flood Insurance Rate Map (FIRM) panel and alternatively, detailed study on a FIRM panel.</p>	<p>BLE is an efficient modeling and mapping approach that aims to provide technically credible flood hazard data at various geographic scales such as community, county, watershed, and/or state level. Currently the state and FEMA are heavily investing in BLE across the state and there is a need to clearly communicate to local jurisdictions how to make this data regulatory or, if desired, improve upon it to make it eligible for incorporation into a detailed study on a FIRM. The steps for both paths remain unclear to many local jurisdictions and this large investment could be further leveraged.</p>
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December 1, 2022

Mr. Alfred Garcia, PE, MS
Texas Department of Transportation

Re: San Jacinto Regional Flood Planning Group

Dear Alfred,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from The Texas Department of Transportation (TxDOT) on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The San Jacinto region does not follow county boundaries and does not fully encompass all counties within the TxDOT – Houston District’s boundary. The San Jacinto region also includes counties beyond the TxDOT - Houston District, therefore it would not be appropriate for the San Jacinto regional flood plan to specify TxDOT as Houston District throughout the plan. The proposed updates to the regulatory and administrative recommendation (5) within Chapter 8 of the plan were reviewed. Changes proposed to Chapter 8 would restrict recommendation to the Houston District and substantively alter the recommendation that was previously approved by the RFPG. For these reasons, the requested content updates will not be made.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Texas Water Development Board

October 13, 2022

Fatima Berrios
Assistant Project Manager
Harris County Engineering - Recovery and Resilience Division
13105 Northwest Freeway
Houston, TX 77040

RE: Texas Water Development Board Comments on Region 6 San Jacinto RFPG's Draft Regional Flood Plan Contract No. 210179249

Dear Ms. Berrios,

Texas Water Development Board (TWDB) staff has performed a review of the draft regional flood plan submitted by August 1, 2022, on behalf of the Region 6 San Jacinto Regional Flood Planning Group (RFPG). The attached comments will follow this format:

- **LEVEL 1:** Comments and questions that must be satisfactorily addressed to meet specific statute, rule, or contract requirements; and,
- **LEVEL 2:** Comments and suggestions for consideration that may improve the readability and/or overall understanding of the regional flood plan

Please note that while Level 2 comments are provided for the planning group's consideration, Level 1 comments must be addressed prior to the submission of final Regional Flood Plans by the January 10, 2023, deadline.

It is expected that the data contained in all written report sections, tables, excel spreadsheets, and the geodatabase will be consistent throughout. In cases where there are any discrepancies in data, the geodatabase dataset will supersede other data and the TWDB will utilize the geodatabase dataset when developing the state flood plan.

TWDB review of the draft regional flood plans is comprised of many spot checks of data across several deliverables and is not an all-encompassing data review. Please note that TWDB's review does not imply accuracy of the draft regional flood plan. Each RFPG is responsible for ensuring the completeness and accuracy of the plan and all associated data.

To facilitate efficient and timely completion, and Board approval, of your final regional flood plan, please provide your TWDB Regional Flood Planner with a draft of your response to these comments (e.g., informally via email) on the draft RFP as soon as possible. This will allow TWDB staff to provide preliminary feedback on proposed RFPG responses to assist you in meeting your RFPG's timeline for approval and submission to TWDB of the final plan by the deadline. It will also help to minimize the need for subsequent follow-ups after final regional flood plan submission to TWDB.

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[Board Members](#)

Brooke T. Paup, Chairwoman | George B. Peyton V, Board Member
Jeff Walker, Executive Administrator

Title 31 TAC §361.50(c) requires the regional flood planning group to consider any written or oral Comment received from the public on the draft regional flood plan (RFP); and the EA's written comment on the draft RFP prior to adopting a final RFP. Section 361.50(d) requires the final adopted plan include summaries of all timely written and oral comments received, along with a response, for each, explaining any resulting revisions or why changes are not warranted. Copies of TWDB's Level 1 and 2 written comments and the RFPG's responses must be included in the final, adopted RFP. While the comments included in this letter represent TWDB's review to date, please anticipate the need to respond to additional comments or questions, as necessary, regarding data integrity related to the Board's State Flood Plan Database (that is built from the 15 regional databases), even after submission of the final plan to TWDB.

Standard to all RFPGs is the need to include certain content in the final RFPs that was not yet available at the time that drafts were prepared and submitted. In your final RFP, please be sure to incorporate in the final submitted plan, documentation, for example, that a public meeting to receive comments were held as required and that comments received on the draft RFP was considered in the development of the final plan [31 TAC §361.50(d)].

If you have any questions regarding these comments or would like to discuss your approach to addressing any of these comments, please do not hesitate to contact Megan Ingram at 512-475-1590 or via email at megan.ingram@twdb.texas.gov. TWDB staff are available to assist you in any way possible to ensure successful completion of your final regional flood plan.

Lastly, on behalf of TWDB, I would like to thank you, the sponsor, the RFPG members and the technical consultants for accomplishing this major milestone of a herculean effort and advancing the flood risk reduction mission in our state.

Sincerely,

Reem J. Zoun, PE, CFM, ENV SP
Director
Flood Planning

Attachment: TWDB Comments

Cc: Tim Buscha, RFPG Chair
Cory Stull, Freese and Nichols
Maggie Puckett, Freese and Nichols
Matt Nelson, TWDB
James Bronikowski, TWDB
Anita Machiavello, TWDB
Megan Ingram, TWDB

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Brooke T. Paup, Chairwoman | George B. Peyton V, Board Member
Jeff Walker, Executive Administrator

October 13, 2022

**TWDB Comments on Region 6 San Jacinto Regional Flood Planning Group's Draft
Regional Flood Plan**

**Level 1: Comments and questions must be satisfactorily addressed to meet
statutory, agency rule, and/or contract requirements.**

General Comments

1. Please ensure that all "Submittal requirements" identified in each of the Exhibit C Guidance document sections are submitted in the final flood plan.

Executive Summary

2. Please clearly identify Chapter 0. Introduction as the Executive Summary in the table of contents of the report.

SOW Task 1

3. Entities GIS Feature Class, *Entities*:
 - a. There appears to be more entities in the GIS feature class (#1092) than what is stated in the in-text Table 1-3 (#1088). Please ensure data consistency across all related deliverables.
 - b. It appears that some entities crossing regional boundaries do not start with "00" as required. For additional entities crossing region boundaries, an ID should be requested from TWDB to ensure consistency across regions. Regions may create their own IDs for additional entities entirely within the region, and please refer to the TWDB email sent on December 3, 2021 for more information on adding new entities.
 - c. It appears that some fields contain invalid entries, including 'ENT_TYPE'. Please complete all required fields with valid entries per Exhibit D Table 3 [31 TAC §361.30(4) & (5), Exhibit D Section 3.1].
4. Existing Projects Table (Exhibit C Table 2): Please include the project costs for listed projects or address why the information is not included in the summary description [31 TAC §361.32].
5. Existing Infrastructure GIS Feature Class, *ExFldInfraPt*: Please include all low water crossings (LWCs) identified during the flood planning process in this feature layer. The *ExFldExpAll* feature class appears to contain LWCs that are not included in the *ExFldInfraPt* feature class. Note: This is required in contrast to the optional LWC feature class. See Table 7 of Exhibit D for a list of valid entries [31 TAC §361.31].
6. Existing Projects GIS Feature Class, *ExFldProjs*:
 - a. Please use the specified format for all ID fields, such as EXHAZ_ID. Please confirm that all "NULL" or "999999" values utilized represent either "not applicable" or "unknown" unless, otherwise specified. It appears that some required fields are missing entries, including 'COST' and 'COMP_YR'. Please utilize Null for numeric fields represent either "not applicable" or "unknown". Please ensure all required fields are populated with valid entries per Exhibit D Table 8 [31 TAC §361.32].

SOW Task 2A

7. Existing Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency as per guidance document (Exhibit C page 24): Submittal requirement number 2. A mention of total land area in the report text and a reference to the appropriate appendix with detailed information will suffice.
8. Existing Condition Flood Exposure Table (Exhibit C Table 3):
 - a. For Brazoria County, the Population total does not appear to match the maximum of day and night populations in the table. Please review and reconcile.
 - b. The Structure and Residential Structure counts in Table 3 do not appear to match the *ExFldExpAll* feature class. Please ensure consistency across all related deliverables [31 TAC §361.33(b)].
9. Existing Condition Flood Exposure + Vulnerability GIS Feature Class, *ExFldExpAll*: It appears that some fields are missing entries, including 'FLOOD_FREQ' and 'ENTITY_ID'. Please complete all required fields with valid entries per Exhibit D Table 14. Please ensure there are no "NULL" values for the 'FLOOD_FREQ' field [31 TAC §361.33(c), (d)].
10. Model Coverage GIS Feature Class, *ModelCoverage*: It appears that some fields contain invalid/missing entries, including 'MODEL_TYPE' and 'MODEL_SOFTW'. Please complete all required fields with valid entries per TWDB email Jan 31, 2022 [31 TAC §361.33(b)(2)].

SOW Task 2B

11. Future Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency as per Exhibit C Guidance document (page 33): Submittal requirement number 3. A mention of total land area in the report text and a reference to the appropriate appendix with detailed information will suffice [31 TAC §361.34].
12. Future Condition Flood Exposure + Vulnerability GIS Feature Class, *FutFldExpAll*: It appears that some fields are missing entries, including 'FLOOD_FREQ'. Please complete all required fields with valid entries per Exhibit D Table 19. Please ensure there are no "NULL" values for the 'FLOOD_FREQ' field [31 TAC §361.34(c)].

SOW Task 3A

13. Existing Floodplain Management Practices Table (Exhibit C Table 6): Table 6 appears to include cities and counties but appears to not include other political subdivision types with flood-related authority. Please review and reconcile [31 TAC §361.35, Exhibit C Section 2.3.A].

SOW Task 4B

14. Streams GIS Feature Class, *Streams*: Please ensure that all ID fields are entered correctly. For example, the field 'STREAM_ID' appears that it should have one additional digit. Unique IDs must be accurate for the database to connect and work properly. Please refer to Exhibit D Table 2 or more recent updates for Unique ID guidance [Exhibit D Section 3.9].
15. Flood Management Evaluations (FME) Table (Exhibit C Table 12):
 - a. The City of West University Place Master Drainage Plan FME (FME_ID=061000297) appears to have different costs when comparing Table 12 to the *FME* feature class.

In the *FME* feature class, it is shown with an 'FME_COST' of \$30,000,000, while Table 12 lists an Estimated Study Cost of \$190,000. Please review and reconcile.

- b. Please ensure that data is provided for all required fields. Acceptable entries can include "0", "Unknown", or "NA", as appropriate [31 TAC §361.38(i), Exhibit C Section 2.4.B].
16. Flood Management Evaluations GIS Feature Class, *FME*: Please refrain from using numeric placeholders (such as '999999') in numeric fields such as 'FUND_AMNT' as this causes errors in calculations. Please use "Null" when the field is not applicable or unknown [31 TAC §361.38(i), Exhibit D Section 3.10].
17. Flood Management Evaluations (FME) Map (Exhibit C Map 16): Please indicate on the map whether the identified FME area is associated with a previously studied area that requires an update or if the identified study area does not have any existing or anticipated flood mapping, models, etc., and therefore requires an initial study [31 TAC §361.38(m), Exhibit C Section 2.4.B].
18. Flood Mitigation Projects (FMP) Table (Exhibit C Table 13): All field values with 999999 in the FMP feature class appear to be represented as 0.0 in Table 13. Please consider revising for consistency [31 TAC §361.38(c-e), Exhibit C Section 2.4.B].
19. Flood Mitigation Projects GIS Feature Class, *FMP*:
 - a. Please review the 'BC_RATIO' values as many entries include "999999". Please review and revise, as appropriate, to include required 'BC_RATIO' values.
 - b. Please avoid using numeric placeholders (such as '-999999') in numeric fields as this causes errors in calculations. Please leave NULL when the field is not applicable or unknown [31 TAC §361.38(c-e), Exhibit D Section 3.11.1].
20. Flood Management Strategies GIS Feature Class, *FMS*:
 - a. Please avoid using numeric placeholders (such as "-999999") in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown.

SOW Task 5

21. Flood Management Evaluation Recommendations Table (Exhibit C Table 15):
 - a. Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown [31 TAC §361.39(f)].
22. Flood Management Evaluation Recommendations Map (Exhibit C Map 19): Please indicate on the map whether the identified FME area is associated with a previously studied area that requires an update or if the identified study area does not have any existing or anticipated flood mapping, models, etc., and therefore requires an initial study [31 TAC §361.39].
23. Flood Mitigation Project (FMP) Recommendations GIS Feature Class, *FMP*:
 - a. Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown.
 - b. It appears that some fields are missing entries. Please complete all required fields with valid entries per Exhibit D Table 24 [31 TAC §361.39, Section Exhibit D Section 3.11.1].

24. FMP Details Table (Exhibit C Tables 23-40) and FMP Details Geodatabase, *FMP_Details*: There appear to be inconsistencies in dollar amounts between 'FMP_COST' in Exhibit C summary table, and the *FMP_DETAILS* and *FMP* feature classes. Please review and reconcile [31 TAC §361.39, Exhibit C Section 2.5.B].
25. Flood Management Strategy (FMS) Recommendations GIS Feature Class, *FMS*:
- a. Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown.
26. Flood Mitigation Project (FMP) Recommendations: Each recommended FMP must be accompanied with an associated model or supporting documentation to show no negative impact. Please confirm that this was done and provide reference to supporting materials. As per the draft report (page 4-125), "For structural FMPs and FMSs, signed and sealed reports were checked for certified statements that the associated project or strategy would not cause negative impacts upstream, downstream, or within the project area in events up to and including the 1.0% ACE." For each recommended FMP, please identify in the plan how no negative impact was determined as required by the Exhibit C Section 3.6.A (page 108), either via a model or a study, and submit the associated model or include the study name in tabular format.

SOW Task 6B

27. Water Supply text: Please include north arrow and a reference scale as part of all map submissions per Exhibit C Section 3.10. For example, Figure 6-1 appears to be missing a north arrow and reference scale [31 TAC §361.41].

SOW Task 9

28. Flood Infrastructure Financing text: It appears that the draft plan does not describe how the data was collected. Please provide this required information. [31 TAC §361.44, Exhibit C Section 2.9]

Level 2: Comments and suggestions for consideration that may improve the readability and overall understanding of the regional flood plan.

SOW Task 1

29. Entities GIS Feature Class, Entities: Some entities appear to be listed as not active in planning yet are NFIP participants. Please consider reviewing and reconciling, as appropriate.
30. Watersheds GIS Feature Class, Watersheds: Please consider linking this feature class to any relevant FME, FMS, or FMP when appropriate by populating the associated ID fields.
31. Existing Infrastructure text: Please provide a description of how Low Water Crossings were identified within the text of Chapter 1.
32. Existing Infrastructure GIS Feature Class, ExFldInfraPt: There appear to be Low Water Crossings in the TNRIS dataset, which are not included in this feature class. Please consider revising, as appropriate.

SOW Task 2A

33. Existing Condition Flood Exposure + Vulnerability GIS Feature Class, ExFldExpAll:

- a. There appear to be several features with SVI value of 0. Please consider reviewing these points.
 - b. If the 'CRITICAL' field contains a 'No' entry, then please leave 'CRIT_TYPE' as NULL.
34. Existing Condition Flood Exposure GIS Feature Class, *ExFldExpPol*: The agricultural coverage layers appear to have irregular triangle and rectangular features that may be a result of the conversion of a raster to polygon. Please review and revise, as appropriate [31 TAC §361.33(c)].
35. Model Coverage text:
- a. Please consider providing additional details consistent with the *ModelCoverage* feature class in the Appendix 2A-5 table.
 - b. Please consider elaborating the text to describe how models have been and/or will be selected.

SOW Task 2B

36. Future Condition Flood Vulnerability text: The top of Figure 2-18 appears blurry and may be hard for some readers to read, especially when printed with green text on green background. Please consider modifying.
37. Future Condition Flood Exposure GIS Feature Class, *FutFldExpPol*: The agricultural coverage layers appear to have irregular triangle and rectangular features that may be a result of the conversion of a raster to polygon. Please review and revise, as appropriate [31 TAC §361.34(c)].
38. Future Condition Flood Exposure GIS Feature Class, *FutFldExpLn*: There are several features with 'EXP_DESC' listed as "Y GRADE PRODUCTS", that appear to be disconnected single line segments. For example, FTEXPLN_ID 060072963. Please consider reviewing those lines to make sure they are correct.

SOW Task 3A

39. Existing Floodplain Management Practices text: Please consider adding the phrasing "at or above" on Page 120 in the description of structures elevated above the BFE, if appropriate.
40. Floodplain Management Table (Exhibit C Table 6): There appear to be inconsistencies within the table. For example, City of Bayou Vista is listed as "No" for Higher Standards Adopted but is listed as Moderate for Floodplain Management Practices, and City of Cold Spring is listed as "No" for Floodplain Management Regulations, but Yes to NFIP Participant. Please consider revisiting for accuracy, as appropriate.
41. Floodplain Management GIS Feature Class, *ExFpMp*:
- a. This feature class appears to include COGs and LIDs, please consider, as appropriate, confirming that these have flood authority.
 - b. Coldspring is listed as "No" for the 'FLD_REG' field, yet it is a NFIP participant. Please consider revisiting for accuracy, as appropriate.

SOW Task 3B

42. Goals text: Please consider elaborating the text section of "Transformed and Residual Risk" to include descriptions of such risks as they apply if goals are achieved.

SOW Task 4B

43. Streams GIS Feature Class, Streams: Please consider linking this feature class to any relevant FME, FMS, or FMP when appropriate by populating the associated ID fields.
44. Flood Management Evaluation (FME) text:
 - a. Please consider reviewing *Watersheds* and *FME* feature classes for alignment. For example, FME_ID 061000181 does not appear to align with the boundaries in the *Watersheds* feature class.
 - b. For county-wide watershed strategies where majority of the county falls outside of the RFPG boundary, please include justification how the strategy benefits the region and please coordinate with other RFPGs to make sure the efforts are not duplicated.
 - c. For those areas in RFPG with existing BLE models, state how the FME will improve upon the current BLE models. BLE is available for the entire Region 6. For reference the BLE data is available here: <https://webapps.usgs.gov/infrm/estbfe/>
 - d. In areas where there is an ongoing TWDB-funded FIF Category 1 study, please describe how this would be incorporated into the proposed FME. For example, FME_ID 061000463. Please review FIF IDs 40016, 40074, 40035, 40037, 40047, 40061.
 - e. Please consider if some FMEs should be FMPs. For example, see FME_IDs 061000147 and 061000148, where the name and description appear to indicate this action involves an infrastructure project. Please consider expanding description field to clarify why it is an FME or consider moving to FMP category if appropriate.
45. Flood Management Evaluation GIS Feature Class, *FME*: Please consider filling out 'MODEL_DESC' field for clarity on existing studies to be used. Please make sure to document existing or ongoing BLE and TWDB-funded FIF studies.
46. Flood Management Evaluations Recommendations GIS Feature Class, *FME*: Please consider adding the 'ASSOCIATED' field to the *FME* feature class and populating as applicable.
 - a. Please ensure all required fields are populated with valid entries.
47. Flood Management Evaluation Map (Exhibit C Map 16): Countywide FMEs appear to be clipped to the RFPG boundary in the map, but not in the *FME* feature class. Please consider revising.
48. Flood Mitigation Project GIS Feature Class, *FMP*:
 - a. The Brazoria countywide FMP_ID 063000136 appears to be clipped to RFPG boundary in the map but not in the FMP feature class which extends to Regions 8 and 10. Please consider revising depending on what area is covered by the FMP.
 - b. It appears that some fields are missing entries, including 'MODEL_ID'. Please consider complete all required fields with valid entries per TWDB email Jan 31, 2022.
49. Flood Mitigation Project Map (Exhibit C Map 17):
 - a. FMP_ID 063000136 appears to be clipped to RFPG boundary in the map, but not in the FMP feature class which extends to Flood Planning Regions 8 and 10. Please consider revising depending on what area is covered by the FMP.
 - b. Polygons in the *FMP* feature class appear to be represented as points in the map. Please consider revising for consistency.
50. Flood Management Strategy (FMS) Table (Exhibit C Table 14): It appears that all field values with 999999 in the *FMS* feature class are represented as 0.0 in the table. Please revisit for accuracy and consistency.

51. Flood Management Strategy GIS Feature Class, *FMS*: Several countywide FMSs appear to be clipped to the RFPG boundary but not in the *FMS* feature class. Please consider revising and providing clarification regarding if the FMS covers the whole county and how it is being coordinated with other regions to avoid duplication.
52. Flood Management Strategy (Exhibit C Map 18): Several FMSs appear to be clipped to RFPG boundary in the map, but not in the *FMS* feature class which extends to Flood Planning Regions 8 and 10. Please consider revising depending on what area is covered by the FMS.

SOW Task 5

53. Flood Management Evaluation (FME) Recommendations text:
 - a. Please consider reviewing *Watersheds* and *FME* feature classes for alignment. For example, FME_ID 061000181 does not appear to align with the boundaries in the *Watersheds* feature class.
 - b. For county-wide watershed strategies where majority of the county falls outside of the RFPG boundary, please include justification how the strategy benefits the region and please coordinate with other RFPGs to make sure the efforts are not duplicated
 - c. For those areas in RFPG with existing BLE models, state how the FME will improve upon the current BLE models. BLE is available for the entire Region 6. For reference the BLE data is available here: <https://webapps.usgs.gov/infrm/estbfe/>
 - d. In areas where there is an ongoing FIF Category 1 study, please describe how this would be incorporated into the proposed FME. For example, FME 061000463. Please review FIF IDs 40016, 40074, 40035, 40037, 40047, 40061.
 - e. Please consider if some FMEs should be FMPs. For example, see FME_IDs 061000147 and 061000148, where the name and description appear to indicate this action as an infrastructure project. Consider expanding the description (field) to clarify why some items are FMEs or consider moving to FMP category, if appropriate.
54. Flood Management Evaluation Recommendations Map (Exhibit C Map 19): Countywide FMEs appear to be clipped to the RFPG boundary in the map, but not in the *FME* feature class. Please consider revising.
55. Flood Mitigation Project (FMP) Recommendations GIS Feature Class, *FMP*: The Brazoria countywide FMP_ID 063000136 appears to be clipped to RFPG boundary in the map but not in the FMP feature class which extends to Flood Planning Regions 8 and 10. Please consider revising depending on what area is covered by the FMP.
56. Flood Mitigation Project Recommendations Map (Exhibit C Map 20):
 - a. FMP_ID 063000136 appears to be clipped to RFPG boundary in the map, but not in the FMP feature class which extends to Flood Planning Regions 8 and 10. Please consider revising depending on what area is covered by the FMP
 - b. Polygons in the *FMP* feature class appear to be represented as points in the map. Please consider revising for consistency.
57. Flood Management Strategy (FMS) Recommendations GIS Feature Class, *FMS* and FMS Recommendations Map (Exhibit C Map 21): Several countywide FMSs appear to be clipped to the RFPG boundary in the map, but not in the *FMS* feature class, which appears to extend beyond the region. Please consider revising as appropriate.

SOW Task 9

58. Flood Infrastructure Financing text:

- a. Table 9-1 appears to contain duplicate entries for TWDB CWSRF and FIF programs. Please consider checking and removing duplicates.
- b. Table 9-1: The table mentions CWSRF. Please note that this program does not offer grants; however, it does offer Principal Forgiveness, which is like a grant. Please make a note of this on within the table. The CWSRF also has emergency funding under Urgent Need criteria. Please review the FY 2023 IUP for the definition of Urgent Need and the circumstances of when funding is available.
- c. Section 9.A.2.b lists the CWSRF as a state program, however, it is a federal program. Please move this section to 9.A.3. Section 9.B.

TWDB Comment Response Matrix

Comment #	Comment Level	SOW Task	Comment	Response
1	Level 1	General	Ensure all "submittal requirements" are submitted in the final plan.	The Technical Consultant will ensure that all submittal requirements are included in submittal of the Final Plan. If there are specific requirements that were missing in the Draft Plan submittal that the TWDB would like to highlight, would it be possible to provide that specific information?
2	Level 1	Executive Summary	Clearly identify Chapter 0. Introduction as the Executive Summary in the table of contents of the report.	The Technical Consultant will clearly identify Chapter 0 as serving as the Executive Summary.
3.a.	Level 1	Task 1	There appear to be more entities in the GIS feature class (#1092) than what is stated in the in-text Table 1-3 (#1088). Please ensure data consistency across all related deliverables	The Technical Consultant will revise for consistency across all related deliverables.

TWDB Comment Response Matrix

3.b.	Level 1	Task 1	<p>It appears that some entities crossing regional boundaries do not start with "00" as required. For additional entities crossing region boundaries, an ID should be requested from TWDB to ensure consistency across regions. Regions may create their own IDs for additional entities entirely within the region, and please refer to the TWDB email sent December 3, 2021 for more information on adding new entities.</p>	<p>The Technical Consultant will update these feature classes to have '0' in the Region Number field and have a '00' at the beginning of the ID.</p> <p>There are a number of entities that are not contained within the Region 6 boundary and extend into Galveston Bay, Clear Lake, or other local bodies of water that were excluded from the Region 6 boundary delineated by TWDB. However, these entities were not considered to cross into an adjacent flood planning region and entity IDs continue to start with '06.' The North Harris County Regional Water Authority and Brazoria County MUD 53 entities do have negligible areas beyond the San Jacinto region, but for these instances it is appropriate that these entities are considered for only San Jacinto as their jurisdiction is primarily in the San Jacinto region.</p> <p>A new entity ID was requested of the TWDB for the Coastal Prairie Conservancy entity as it does extend jurisdiction beyond the San Jacinto region.</p>
3.c.	Level 1	Task 1	<p>It appears that some fields contain invalid entries, including 'ENT_TYPE'. Please complete all required fields with valid entries per Exhibit D Table 3 [31 TAC §361.30(4) & (5), Exhibit D Section 3.1]</p>	<p>The entry "Business or Private Land Owner" is not valid. These have been updated to "Other".</p>
4	Level 1	Task 1	<p>Existing Projects Table (Exhibit C Table 2): Please include the project costs for listed projects or address why the information is not included in the summary description</p>	<p>The Technical Consultant will seek to collect additional data necessary to populate associated project costs. For those project costs that could not be identified, explanation will be provided.</p>

TWDB Comment Response Matrix

5	Level 1	Task 1	<p>Existing Infrastructure GIS Feature Class, ExFldInfraPt: Please include all low water crossings (LWCs) identified during the flood planning process in this feature layer. The ExFldExpAll feature class appears to contain LWCs that are not included in the ExFldInfraPt feature class.</p>	<p>This comment seems to be backwards. There are more LWC features in the ExFldInfraPt layer than in the ExFldExpAll layer. There are 12 less features in ExFldExpAll that were not picked up in the exposure analysis from the ExFldInfraPt. All LWC identified in the flood planning process are included in the ExFldInfraPt. The 12 features not picked up were identified to be slightly close to the ExFldHazard layer, but did not spatially intersect the layer. These 12 features appear to have spatial locations inconsistent with aerial imagery, however updating these spatial locations would require all exposure analysis to be repeated and these 12 feature do not significantly impact or misrepresent reported LWCs captured with the current results of the exposure analysis. In the next planning cycle, verification of these spatial locations will be performed and updated.</p>
6.a.	Level 1	Task 1	<p>Existing Projects GIS Feature Class, ExFldProjs: Please use the specified format for all ID fields, such as EXHAZ_ID. Please confirm that all "NULL" or "999999" values utilized represent either "not applicable" or "unknown" unless, otherwise specified. It appears that some required fields are missing entries, including 'COST' and 'COMP_YR'. Please utilize Null for numeric fields represent either "not applicable" or "unknown".</p>	<p>The Technical Consultant will remove all "999999" place holders and change to "<NULL>".</p> <p>To evaluate fields that failed we have ran the TWDB QC Check tool. It has informed us that we have fields that are missing entries within multiple feature classes. We will use the results from this tool to determine what fields still need to be populated and will address.</p>

TWDB Comment Response Matrix

7	Level 1	Task 2A	Existing Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency as per guidance document (Exhibit C page 24): Submittal requirement number 2. A mention of total land area in the report text and a reference to the appropriate appendix with detailed information will suffice.	The Technical consultant will add detail to the plan such that total area (sqmi) influenced by each flood risk type will be provided broken down by county, region, and frequency. Applicable columns will be added to Table 3 that speak to flood risk type and text will be updated within the Chapter. Flood Risk Type per county columns added in Table 3 & 5.
8.a.	Level 1	Task 2A	Existing Condition Flood Exposure Table (Exhibit C Table 3): For Brazoria County, the Population total does not appear to match the maximum of day and night populations in the table. Please review and reconcile.	The Technical Consultant will re-calculate population values to use either the day or night population for all structures within a county, whichever is greater. Population updated in Table 3 & 5.
8.b.	Level 1	Task 2A	Existing Condition Flood Exposure Table (Exhibit C Table 3): The Structure and Residential Structure counts in Table 3 do not appear to match the ExFldExpAll feature class. Please ensure consistency across all related deliverables	The SDE database is showing 240,093 structures for the 100yr and 276,804 structures for the 500yr. The technical consultant will rerun these counts and update the table to match the GIS data. The same will be done for residential structures.
9	Level 1	Task 2A	Existing Condition Flood Exposure + Vulnerability GIS Feature Class, ExFldExpAll: It appears that some fields are missing entries, including 'FLOOD_FREQ' and 'ENTITY_ID'.	To evaluate fields that failed we have ran the TWDB QC Check tool. It has informed us that we have fields that are missing entries within multiple feature classes. The technical consultant will use the results from this tool to determine what fields still need to be populated. The Technical Consultant will update populate required fields.
10	Level 1	Task 2A	Model Coverage GIS Feature Class, ModelCoverage: It appears that some fields contain invalid/missing entries, including 'MODEL_TYPE' and 'MODEL_SOFTW'	The Technical Consultant will populate fields with valid entries.

TWDB Comment Response Matrix

11	Level 1	Task 2B	Future Condition Flood Hazard Analysis: Please include total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency	Tables 3 and 5 have been revised to account for total land areas (square miles) of each flood risk by flood risk type, county, region, and frequency.
12	Level 1	Task 2B	Future Condition Flood Exposure + Vulnerability GIS Feature Class, FutFldExpAll: It appears that some fields are missing entries, including 'FLOOD_FREQ'. Please complete all required fields with valid entries	All required fields will be populated.
13	Level 1	Task 3A	Table 6 appears to include cities and counties but appears to not include other political subdivision types with flood-related authority. Please review and reconcile	All districts will be added to Table 6, as noted in Exhibit C guidance.
14	Level 1	Task 4B	Streams GIS Feature Class, Stream: The field 'STREAM_ID' appears that it should have one additional digit. Unique IDs must be accurate for the database to connect and work properly.	The Technical Consultant will revise IDs to comply with requirements. In the exhibit D: data submittal guidelines the streams feature class needs a unique ID of Region No. + 7 Digits. We are off by one zero and will plan to address the Stream_ID field by adding an additional digit.
15.a.	Level 1	Task 4B	FME Table (Exhibit C Table 12): The City of West University Place Master Drainage Plan FME (FME_ID=061000297) appears to have different costs when comparing Table 12 to the FME feature class.	The Technical Consultant will revise for consistency.
15.b.	Level 1	Task 4B	Please ensure that data is provided for all required fields. Acceptable entries can include "0", "Unknown", or "NA", as appropriate	All required fields will be populated.

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16	Level 1	Task 4B	Flood Management Evaluations GIS Feature Class, FME: Please refrain from using numeric placeholders (such as '999999') in numeric fields such as 'FUND_AMNT' as this causes errors in calculations.	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.
17	Level 1	Task 4B	FME Map (Exhibit C Map 16): Please indicate on the map whether the identified FME area is associated with a previously studied area that requires an update or if the identified study area does not have any existing or anticipated flood mapping, models, etc., and therefore requires an initial study	Map 16 and 19 have been revised to symbolize areas where mapping requires an update or initial model development is necessary to utilize the latest software. However, there is significant overlap of FME study areas in the San Jacinto region. Detailed delineations of FME boundaries can be viewed in Appendix 5-5C.
18	Level 1	Task 4B	All field values with 999999 in the FMP feature class appear to be represented as 0.0 in Table 13. Please consider revising for consistency.	The technical consultant will revise for consistency across GIS attribute tables and tabular appendices.
19.a.	Level 1	Task 4B	FMP GIS Feature class, FMP: Please review the 'BC_RATIO' values as many entries include "999999". Please review and revise, as appropriate, to include required 'BC_RATIO' values	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.
19.b.	Level 1	Task 4B	FMP Table (Exhibit C Table 13): Please avoid using numeric placeholders (such as '-999999') in numeric fields as this causes errors in calculations. Please leave NULL when the field is not applicable or unknown	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.
20	Level 1	Task 4B	FMS GIS feature class, FMS: Please avoid using numeric placeholders (such as "-999999") in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown.	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.

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21	Level 1	Task 5	FME recommendation table (Exhibit C Table 15): Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations. Please leave NULL when the field is not applicable or unknown [31 TAC §361.39(f)].	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.
22	Level 1	Task 5	FME recommendation map (Exhibit C Map 19): Please indicate on the map whether the identified FME area is associated with a previously studied area that requires an update or if the identified study area does not have any existing or anticipated flood mapping, models, etc., and therefore requires an initial study	Map 16 and 19 have been revised to symbolize areas where mapping requires an update or initial model development is necessary to utilize the latest software. However, there is significant overlap of FME study areas in the San Jacinto region. Detailed delineations of FME boundaries can be viewed in Appendix 5-5C.
23.a.	Level 1	Task 5	Recommended FMP GIS feature class: Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.
23.b.	Level 1	Task 5	Recommended FMP GIS feature class: It appears that some fields are missing entries. Please complete all required fields with valid entries	The Technical Consultant will review and populate required fields, as applicable. For fields that are not applicable to an FMP, fields will be populated with 'NA' or '<NULL>'.
24	Level 1	Task 5	FMP details table & FMP details GDB: There appear to be inconsistencies in dollar amounts between 'FMP_COST' in Exhibit C summary table, and the FMP_DETAILS and FMP feature classes. Please review and reconcile	The Technical Consultant will review costs reflect across the plan and revise for consistency.
25	Level 1	Task 5	FMS Recommendations GIS Feature class: Please avoid using numeric placeholders (such as '-999999') in numeric fields because this causes errors in calculations	The Technical Consultant will ensure there are no '999999' placeholders in numeric fields.

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26	Level 1	Task 5	FMP Recommendations: Each recommended FMP must be accompanied with an associated model or supporting documentation to show no negative impact. Please confirm that this was done and provide reference to supporting materials.	A summary table will be added within Chapter 5 that clearly indicates how each FMP has demonstrated NAI and will explain whether that has been provided through a signed and sealed report or submitted model.
27	Level 1	Task 6B	Water Supply text: Please include north arrow and a reference scale as part of all map .submissions per Exhibit C Section 3.10	A north arrow and scale will be added to Figure 6-1 within the text.
28	Level 1	Task 9	Flood Infrastructure Financing text: It appears that the draft plan does not describe how the data was collected. Please provide this required information	Section 9.B. speaks to the survey that was distributed to sponsors and used to populate reported values in the appendix.
29	Level 2	Task 1	Entities GIS Feature Class, Entities: Some entities appear to be listed as not active in planning yet are NFIP participants. Please consider reviewing and reconciling, as appropriate	The Technical Consultant will review the entities feature class and indicate that any entities that are NFIP participants are also active in flood planning.
30	Level 2	Task 1	Watersheds GIS Feature Class, Watersheds: Please consider linking this feature class to any relevant FME, FMS, or FMP when appropriate by populating the associated ID fields.	The watershed feature class will be associated with relevant FMEs, FMSs, and FMPs.
31	Level 2	Task 1	Existing Infrastructure text: Please provide a description of how Low Water Crossings were identified within the text of Chapter 1	A definition of a low water crossing was provided in the introductory section 'List of Abbreviations and Definitions.' Chapter 1 text also added to indicate LWC data was provided by TWDB.

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32	Level 2	Task 1	Existing Infrastructure GIS Feature Class, ExFldInfraPt: There appear to be Low Water Crossings in the TNRIS dataset, which are not included in this feature class. Please consider revising, as appropriate	The Technical Consultant compared the LWCs currently captured within the ExFldInfra against the TNRIS dataset and found that there was 1 LWC within the TNRIS dataset not captured currently in Task 1 data. Given the revisions that would be necessary throughout the plan to ensure data is consistently represented and the minor difference that this addition will have in reported tables, the Technical Consultant will plan to incorporate the additional LWC as part of the amended plan.
33.a.	Level 2	Task 2A	Existing Condition Flood Exposure + Vulnerability GIS Feature Class, ExFldExpAll: There appear to be several features with SVI value of 0. Please consider reviewing these points	Roadway segments and roadway stream crossings were assigned an SVI of 0. The SVI of these features as well as the -999 SVI values received in the original dataset were not considered when calculating SVI of exposed populations.
33.b.	Level 2	Task 2A	Existing Condition Flood Exposure + Vulnerability GIS Feature Class, ExFldExpAll: . If the 'CRITICAL' field contains a 'No' entry, then please leave 'CRIT_TYP' as NULL	Will populate the CRIT_TYP field for noncritical infrastructure as '<NULL>'
34	Level 2	Task 2A	Existing Condition Flood Exposure GIS Feature Class, ExFldExpPol: The agricultural coverage layers appear to have irregular triangle and rectangular features that may be a result of the conversion of a raster to polygon	The agricultural coverage layer was not simplified and re-processed at this time given the likely minimal impact to reported values. There is opportunity to smooth and simplify the agricultural layer in subsequent planning cycles.
35.a.	Level 2	Task 2A	Model Coverage text: Please consider providing additional details consistent with the ModelCoverage feature class in the Appendix 2A-5 table.	The Technical Consultant will update the list of existing H&H models to include recently submitted models by sponsors to support the inclusion of FMPs in the RFP.
35.b.	Level 2	Task 2A	Model Coverage text: Please consider elaborating the text to describe how models have been and/or will be selected.	Text has been updated in Section 2.A.1.b. to speak to how the model coverage feature class was populate.

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36	Level 2	Task 2B	Future Condition Flood Vulnerability text: The top of Figure 2-18 appears blurry and may be hard for some readers to read.	Figure 2-18 has been updated.
37	Level 2	Task 2B	Future Condition Flood Exposure GIS Feature Class, FutFldExpPol: The agricultural coverage layers appear to have irregular triangle and rectangular features that may be a result of the conversion of a raster to polygon.	At this time, the agricultural cover layer was not revised. Revision would not drastically change results reported in the Final Plan. In future cycles, this layer can be smoothed and simplified.
38	Level 2	Task 2B	Future Condition Flood Exposure GIS Feature Class, FutFldExpLn: There are several features with 'EXP_DESC' listed as "Y GRADE PRODUCTS", that appear to be disconnected single line segments.	Line segments remain disconnected so as to retain detail in the attribute table.
39	Level 2	Task 3A	Existing Floodplain Management Practices text: Please consider adding the phrasing "at or above" on Page 120 in the description of structures elevated above the BFE, if appropriate.	This text will be added to provide clarity.
40	Level 2	Task 3A	Floodplain Management Table (Exhibit C Table 6): There appear to be inconsistencies within the table. For example, City of Bayou Vista is listed as "No" for Higher Standards Adopted but is listed as Moderate for Floodplain Management Practices, and City of Cold Spring is listed as "No" for Floodplain Management Regulations, but Yes to NFIP Participant	<p>The Technical Consultant was unable to locate floodplain management regulations adopted by the City of Coldspring and the RFPG did not receive a survey response from the City. However, we were able to confirm that they are listed as an NFIP participant in the Community Status Book Report maintained by FEMA. No change was made to reporting for the City of Coldspring at this time.</p> <p>Updates were made to reflect that the City of Bayou Vista does have higher standards in place.</p>

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41.a.	Level 2	Task 3A	Floodplain Management GIS Feature Class, ExFpMp: Coldspring is listed as “No” for the ‘FLD_REG’ field, yet it is a NFIP participant.	The Technical Consultant was unable to locate floodplain management regulations adopted by the City of Coldspring and the RFPG did not receive a survey response from the City. However, we were able to confirm that they are listed as an NFIP participant in the Community Status Book Report maintained by FEMA. No change was made to reporting for the City of Coldspring at this time.
41.b.	Level 2	Task 3A	Floodplain Management GIS Feature Class, ExFpMp: This feature class appears to include COGs and LIDs, please consider, as appropriate, confirming that these have flood authority.	Per feedback from the TWDB on 11/8/2022, all districts will be reported in both Table 6 and the ExFpMP geodatabase table.
42	Level 2	Task 3B	Goals text: Please consider elaborating the text section of “Transformed and Residual Risk” to include descriptions of such risks as they apply if goals are achieved	The Technical Consultant has added language to Chapter 3 to better clarify the terminology of transformed and residual risk in addition to providing example descriptions of such risks as they apply if goals are achieved.
43	Level 2	Task 4B	Streams GIS Feature Class, Streams: Please consider linking this feature class to any relevant FME, FMS, or FMP when appropriate by populating the associated ID fields	The stream feature class will be associated with relevant FMEs, FMSs, and FMPs.
44.a.	Level 2	Task 4B	FME text: Please consider reviewing Watersheds and FME feature classes for alignment	<p>The Technical Consultant will review and verify FME delineations. In instances where FME delineations do not align with watershed delineations, it is likely due to:</p> <ul style="list-style-type: none"> - The FME is more appropriately represented by the political jurisdiction - The FME was delineated using more detailed drainage area delineations supported by a study (ex: FEMA effective subbasins)

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44.b.	Level 2	Task 4B	FME text: For county-wide watershed strategies where majority of the county falls outside of the RFPG boundary, please include justification how the strategy benefits the region and please coordinate with other RFPGs to make sure the efforts are not duplicated	Text has been updated in Section 5.C.1 that speaks to the coordination between adjacent regions to prevent duplication.
44.c.	Level 2	Task 4B	FME text: For those areas in RFPG with existing BLE models, state how the FME will improve upon the current BLE models. BLE is available for the entire Region 6.	Flood mapping provided by BLE is approximate in nature - the data source does not consider watershed-specific hydrology and hydraulic models incorporated in the data do not account for structures such as roadway crossings. It is the purpose of the FMEs identified to conduct modeling that will be more detailed in scope than what has been conducted for BLE studies. For FMEs identified in areas that have FIF or GLO studies, there is potential for the FME itself to identify alternatives that had initially not been examined in the FIF/GLO studies. Additionally, FIF, BLE, and GLO focus on riverine flood studies whereas some identified FMEs pertain to urban flooding. Clarification will be added to the text of Chapter 5.
44.d.	Level 2	Task 4B	FME text: In areas where there is an ongoing TWDB-funded FIF Category 1 study, please describe how this would be incorporated into the proposed FME. For example, FME_ID 061000463. Please review FIF IDs 40016, 40074, 40035, 40037, 40047, 40061	The technical consultant will add a section within Chapter 5 Section 5.C. that speaks to the ongoing FIF category 1 projects within the region.

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44.e.	Level 2	Task 4B	FME text: Please consider if some FMEs should be FMPs. For example, see FME_IDs 061000147 and 061000148, where the name and description appear to indicate this action involves an infrastructure project.	The 2 FMEs noted in the comment were found to not have sufficient detail to qualify as an FMP.
45	Level 2	Task 4B	Flood Management Evaluation GIS Feature Class, FME: Please consider filling out 'MODEL_DESC' field for clarity on existing studies to be used & ensure all required fields are populated with valid entries.	The Technical Consultant will populate this field, as appropriate.
46	Level 2	Task 4B	Flood Management Evaluations Recommendations GIS Feature Class, FME: Please consider adding the 'ASSOCIATED' field to the FME feature class and populating as applicable	The Technical Consultant will add this field and populate, as appropriate.
47	Level 2	Task 4B	Flood Management Evaluation Map (Exhibit C Map 16): Countywide FMEs appear to be clipped to the RFPG boundary in the map, but not in the FME feature class.	Required maps have been revised to include the full extent of recommended FMEs.
48.a.	Level 2	Task 4B	FMP GIS feature class: The Brazoria countywide FMP_ID 063000136 appears to be clipped to RFPG boundary in the map but not in the FMP feature class which extends to Regions 8 and 10.	Required maps have been revised to include the full extent of recommended FMEs.
48.b.	Level 2	Task 4B	FMP GIS feature class: It appears that some fields are missing entries, including 'MODEL_ID'. Please consider complete all required fields with valid entries	The Technical Consultant will populate this feature class for FMPs with supporting modeling. It should be noted that not all recommended FMPs are associated with a model.
49.a.	Level 2	Task 4B	FMP map: FMP_ID 063000136 appears to be clipped to RFPG boundary in the map, but not in the FMP feature class which extends to Flood Planning Regions 8 and 10.	Required maps have been revised to include the full extent of recommended FMEs.

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49.b.	Level 2	Task 4B	FMP map: Polygons in the FMP feature class appear to be represented as points in the map.	Required maps have been revised to include the full extent of recommended FMPs.
50	Level 2	Task 4B	Flood Management Strategy (FMS) Table (Exhibit C Table 14): It appears that all field values with 999999 in the FMS feature class are represented as 0.0 in the table	Discrepancies will be resolved between values reported in GIS attribute tables and appendices.
51	Level 2	Task 4B	Flood Management Strategy GIS Feature Class, FMS: Several countywide FMSs appear to be clipped to the RFPG boundary but not in the FMS feature class.	Required maps have been revised to include the full extent of recommended FMSs.
52	Level 2	Task 4B	Flood Management Strategy (Exhibit C Map 18): Several FMSs appear to be clipped to RFPG boundary in the map, but not in the FMS feature class which extends to Flood Planning Regions 8 and 10.	Required maps have been revised to include the full extent of recommended FMSs.
53.a.	Level 2	Task 5	FME Recommendations text: Please consider reviewing Watersheds and FME feature classes for alignment. For example, FME_ID 061000181 does not appear to align with the boundaries in the Watersheds feature class.	The delineation of FME 061000181 is consistent with the local Cypress Creek Watershed delineation maintained by HCFCD and FEMA effective subbasins for Cypress Creek. No change was made at this time.
53.b.	Level 2	Task 5	FME Recommendations text: For county-wide watershed strategies where majority of the county falls outside of the RFPG boundary, please include justification how the strategy benefits the region and please coordinate with other RFPGs to make sure the efforts are not duplicated	Text has been updated in Section 5.C.1 that speaks to the coordination between adjacent regions to prevent duplication.

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53.c.	Level 2	Task 5	FME Recommendations text: For those areas in RFPG with existing BLE models, state how the FME will improve upon the current BLE models. BLE is available for the entire Region 6.	Text will be updated within Chapter 5.
53.d.	Level 2	Task 5	FME Recommendations text: In areas where there is an ongoing FIF Category 1 study, please describe how this would be incorporated into the proposed FME. For example, FME 061000463. Please review FIF IDs 40016, 40074, 40035, 40037, 40047, 40061.	The technical consultant will add a section within Chapter 5 Section 5.C. that speaks to the ongoing FIF category 1 projects within the region.
53.e.	Level 2	Task 5	FME Recommendations text: Please consider if some FMEs should be FMPs. For example, see FME_IDs 061000147 and 061000148, where the name and description appear to indicate this action as an infrastructure project.	The 2 FMEs noted in the comment were found to not have sufficient detail to qualify as an FMP.
54	Level 2	Task 5	Flood Management Evaluation Recommendations Map (Exhibit C Map 19): Countywide FMEs appear to be clipped to the RFPG boundary in the map, but not in the FME feature class. Please consider revising	Required maps have been revised to include the full extent of recommended FMEs.
55	Level 2	Task 5	Flood Mitigation Project (FMP) Recommendations GIS Feature Class, FMP: The Brazoria countywide FMP_ID 063000136 appears to be clipped to RFPG boundary in the map but not in the FMP feature class which extends to Flood Planning Regions 8 and 10.	Required maps have been revised to include the full extent of recommended FMPs.

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56.a.	Level 2	Task 5	FMP Recommendations map (Exhibit C Map 20): FMP_ID 063000136 appears to be clipped to RFPG boundary in the map, but not in the FMP feature class which extends to Flood Planning Regions 8 and 10.	Required maps have been revised to include the full extent of recommended FMPs.
56.b.	Level 2	Task 5	FMP Recommendations map (Exhibit C Map 20): Polygons in the FMP feature class appear to be represented as points in the map. Please consider revising for consistency	Required maps have been revised to include the full extent of recommended FMPs.
57	Level 2	Task 5	Flood Management Strategy (FMS) Recommendations GIS Feature Class, FMS and FMS Recommendations Map (Exhibit C Map 21): Several countywide FMSs appear to be clipped to the RFPG boundary in the map, but not in the FMS feature class	Required maps have been revised to include the full extent of recommended FMSs.
58.a.	Level 2	Task 9	FIF text: Table 9-1 appears to contain duplicate entries for TWDB CWSRF and FIF programs. Please consider checking and removing duplicates.	The duplicate reference to CWSRF will be removed.
58.b.	Level 2	Task 9	FIF text: Table 9-1: The table mentions CWSRF. Please note that this program does not offer grants; however, it does offer Principal Forgiveness, which is like a grant.	The reference to CWSRF within the current Chapter 9 lists that funding mechanism as a loan. Additional detail to note principal forgiveness is provided in chapter text in section 9.A.2.b.
58.c.	Level 2	Task 9	FIF text: Section 9.A.2.b lists the CWSRF as a state program, however, it is a federal program. Please move this section to 9.A.3. Section 9.B.	Additional clarification will be added to state that the CWSRF is a federal program administered by the TWDB.

United States of America Corps of Engineers

RFPG Comments Regarding Legislative Recommendations, Regulatory and Administrative Recommendations and State Flood Planning Recommendations

Name	Flood Plan Recommendations	Comments
Jerry Cotter	Table 8.1 Legislative	
	<p>Non regulatory regional flood control or drainage districts should be established and funded for rapidly growing urban areas such as DFW, Houston, San Antonio, etc. Responsibility would be to provide consistency, technical resources, funding and reviews in support of FME's, FMS's. These organizations would also implement or support implementation of FMP's. These organizations would augment communities and counties that just don't have the resources and expertise to manage flooding.</p>	<p>Rapidly developing areas surrounding larger urban centers are at greater risk of having runoff patterns increasing because of development. These urban areas are comprised of many communities and unincorporated county areas. Many of the smaller communities are not funded or resourced to deal with the complexities of floodplain management and therefore there is a lack of or inconsistencies in floodplain management practices.</p>
	<p>Clarify the early 2000's state legislation that provide counties the authority to regulate floodplains to explicitly allow and encourage activities associated with floodplain management such as development of land use plans, regulatory authorities, e.g. permitting.</p>	<p>Although state legislation was passed in the early 2000's which gave counties the ability to regulate floodplains, interpretation of these regulations varies widely from county to county. The legislative bill lacks implementation guidance in the form of administrative rules. If development is occurring in unincorporated areas, this development can dynamically impact flood risk.</p>
Jerry Cotter	Table 8.2 Regulatory	
	<p>Require the use of n-values and channel conditions which would likely result if the channel or project were not maintained. Exceptions would be golf courses or other areas where an organization exists which would maintain the channel in perpetuity. Disallow maintenance by marginal organizations such as home owners associations to justify acceptance of lower n-values as this is an unrealistic expectation.</p>	<p>When channels are constructed, most often channel bed, banks and overbanks are cleared; however; with many miles of these channels, it is often difficult for communities to maintain those beds, banks and overbanks at their design conditions. Generally, there is a lack of channel maintenance to ensure flood conveyance areas, established as part of a development or improvement projects, to retain their design level n-values. This results in unexpected changes in channel conveyance and increased flooding. Channel maintenance is very expensive activity that can trigger environmental permitting requirements.</p>

<p>No loss of valley storage to the 500-year level. Communities could allow redistribution of valley storage to allow interactions with natural areas but no loss of storage.</p>	<p>Land development in upstream areas increases runoff in downstream areas. This happens because of increased impervious cover and decreased tree cover, and therefore less ability to absorb rainfall. Additionally, development, in most communities, encroaches into riparian areas and decreases the amount of storage available to accommodate flood waters. Just the main thread of the Trinity River though DFW stores more flood waters during of flood than any three of the USACE reservoirs that provide flood protection for DFW. The many other stream provide even more storage than the main stem. There is limited capacity in rivers and streams to convey floodwaters. This means that all areas above any given conveyance point have to stor flood water until sufficient time has laps to pass the water away from the impacted area. The streams are where this water is stored and depleting these storage areas will impact DS areas.</p>
<p>Establish future land use plans for unincorporated areas associated with rapidly growing urban areas.</p>	<p>"</p>
<p>Use of ultimate development land use conditions in the development of future flows. Require use of future flows for regulation of floodplains and development of FMP's.</p>	<p>"</p>
<p>Jerry Cotter</p>	<p>Table 8.3 State Flood Planning Recommendations</p>
<p>None</p>	
<p>Potential FMS</p>	
<p>Encorage storm shifting to validate 100-yr estimates and to provide a broader understanding of communities actual flood risk Storms identified and cataloged as part of the GLO funded USACE led Texas Storm Study could be the primary source of storms to be shifted.</p>	<p>Notes: Great deal of uncertainty in 100-yr estimates. Use of observed storms that approximately match depth duration data from NOAA Atlas 14 or other precipitation frequency sources validates 100-yr estimates. Additionally wet, dry and average conditions as well as conditions at the time the storm ocured can be presented. Additionally, communities have and can experience storms that exceed the 100-yr. While not regulatory, this information will provide additional hazard mitigation data so communities can address critical infrastructure impacts and be better prepared.</p>

<p>Add detail to Watersshed Hydrology Assessments (WHA) for communities within basins with completed WHA's. The WHA for the Trinity has been completed.</p>	<p>The WHA's, funded by FEMA, are considered the best available flood flow frequency estimates, e.g. 100-yr. These estimates consider the latest precipitation frequencies, the variations in watershed response and determine critical flood drivers by employing a wide range of sensitivity analysis for each computation point.</p>
<p>Update WHA's when future precipitation frequency estimates become available. Efforts to develop future precipitation frequency estimates for Texas are starting.</p>	
<p>Establish regional efforts, for large urban centers to develop future land use data for all developing areas, not just incorporated areas, for use in developing future flood flow frequency estimates and future 100-yr (and other recurrence interval) hazard boundaries.</p>	
<p>Landon Erickson</p>	<p>Table 8.2 Regulatory or Administrative Recommendations</p>
<p>Flood studies where Bulletin 17C analysis is performed on a streamflow gage should document how statistical results have changed over time with each year of record being added.</p>	<p>Example</p> <p>In Texas, Bulletin 17C estimates for the 100-yr event have been observed to vary by 10 feet in some locations due to variability in weather and limited record lengths. This has even been observed at gages with very long record lengths where going from a record of 70 years to 95 years resulted in a 100-year elevation increase of 9-feet (See Blanco River at Wimberley USGS gage). The possiblity of changes like this is not common knowldedge and it would be beneficial for decision makers to be aware of this information as they make floodplain and flood risk managment decisions for their communities. It is very important to note that this recommendation would not increase the cost to a study since this information can be developed at the same time the analysis that uses the full record of the gage. The tool that automates this process is included in the HEC-SSP 2.3 program.</p> <p>https://www.hec.usace.army.mil/confluence/sspdocs/ssptutorialsguides/applying-the-variable-time-window-option-in-a-bulletin-17-analysis</p>



December 1, 2022

Ms. Sonia Sams, Project Coordinator
Water Resources Branch
U.S. Army Corps of Engineers
Fort Worth, TX District

Re: RFP Comments

Dear Sonia,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from U.S. Army Corps of Engineers on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

Regarding Comments on Chapter 8, Table 8.1 Legislative:

A similar recommendation regarding the request for the establishment of and funding opportunities for regional flood control and drainage districts has already been included in the plan. Table 8-1: Legislative Recommendations, recommendation 2 advocates for a state incentive for the establishment of dedicated drainage funding. Municipalities have the authority to establish local drainage utilities. Having a stable and predictable source of funding is conducive to both long-range planning and the timely development and implementation of flood risk reduction projects. Absent the creation of a drainage utility, local governments typically rely on federal partners to fund floodplain management and regulatory programs or utilization of general tax revenues and/or municipal bonds secured and serviced with local tax revenues. The recommendation being that the state should incentivize local communities to invest and plan for participation in, and funding of, dedicated drainage projects rather than rely solely on federal funding.

Similarly, recommendations have also been included to enact legislation updating the state building code to, at minimum, the 2015 or 2018 version of the International Building Code (IBC). The recommendation to grant counties the authority to develop land use plans will be considered in future update cycles.

Regarding Comments on Chapter 8, Table 8.2 Regulatory: The regulatory specific comments advocate for higher standards that require robust discussion and review with the public and planning group members. Scheduled delivery of the final plan will not allow for these discussions to occur and there these recommendations will be considered in future update cycles.

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
Public*

Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Regarding Comments on Chapter 8, Table 8.3 State Flood Planning Recommendations:

Encouraging storm shifting to validate 100-yr estimates to provide broader understanding of flood risk is a higher standard that requires robust discussion and review with the public and planning group members. Scheduled delivery of the final plan will not allow for these discussions to occur and these recommendations will be considered in future update cycles.

The comments requesting additional detail to Watershed Hydrology Assessments (WHA) and updates to WHAs when future precipitation frequency estimates become available did not provide enough details to craft a legislative, regulatory, or state flood planning recommendation.

The recommendation to develop a model-based future conditions flood hazard data layer was updated to reflect the suggestion to develop future land use data for developing areas. This recommendation can be found in Table 8-2: Regulatory and administrative recommendations.

Regarding San Jacinto Region Specific Recommendations:

Documenting how statistical results have changed over time is a high standard that requires robust discussion and review with the public and the planning group members. Scheduled delivery of the final plan will not allow for this discussion to occur and therefore this recommendation will be considered in future planning cycles.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

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Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

Waller County

Maggie Puckett

From: Yancy Scott <y.scott@wallercounty.us>
Sent: Tuesday, July 26, 2022 3:53 PM
To: Mariah@hollawayenv.com; San Jacinto RFPG Technical Consultant
Cc: Jared Chen
Subject: FW: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community
Attachments: Region 6 FMX_Waller_HALFF.xlsx

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Sorry I just noticed I hadn't sent this back to you.

#NoFear

Yancy Scott, P.E., CFM
County Engineer
Floodplain Administrator
Waller County
775 Business 290 East
Hempstead, TX 77445
979.221.3406 (Cell)
979.826.7670 (Office)
979.826.7673 (Fax)
y.scott@wallercounty.us (E)

County Website: <http://www.co.waller.tx.us/>

Website: <http://www.co.waller.tx.us/page/County.Engineer>

Facebook: <http://fb.me/WallerCountyRoadandBridge>

GIS site: <https://apps.lja.com/wallerco>

From: Moore, Andrew [mailto:aMoore@Halff.com]
Sent: Friday, June 17, 2022 11:56 AM
To: Yancy Scott <y.scott@wallercounty.us>
Cc: Hinojosa, Sam <sHinojosa@Halff.com>; Jared Chen <j.chen@wallercounty.us>
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know that the content is safe.

Yancy,

I updated the spreadsheet with our thoughts. Most of these, the County won't have much local funding for. Feel free to adjust and send back!

Andrew

Andrew Moore, PE, CFM
Water Resources Team Leader
Halff Associates, Inc.

O: (936) 777-6377
C: (903) 220-8230



Halff.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [Instagram](#) | [YouTube](#)

From: Yancy Scott <y.scott@wallercounty.us>
Sent: Tuesday, June 14, 2022 9:00 AM
To: Moore, Andrew <aMoore@Halff.com>
Cc: Hinojosa, Sam <sHinojosa@Halff.com>; Jared Chen <j.chen@wallercounty.us>
Subject: Fw: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

GM,

Pls see below and attached and let me know your thoughts.

Thank you,

****Please note new work cell number below****

Yancy Scott, P.E., CFM
County Engineer
Floodplain Administrator
Waller County
775 Business 290 East
Hempstead, TX 77445
979.221.3406 (Cell)
979.826.7670 (Office)
979.826.7673 (Fax)
y.scott@wallercounty.us (E)

County Website: <http://www.co.waller.tx.us/>

Website: <http://www.co.waller.tx.us/page/County.Engineer>

Facebook: <http://fb.me/WallerCountyRoadandBridge>

GIS site: <https://apps.lja.com/wallerco>

(via Outlook Web App)

From: Mariah Najmuddin <Mariah@hollawayenv.com>

Sent: Monday, June 13, 2022 17:57

To: Yancy Scott

Cc: 'San Jacinto RFPG Technical Consultant'; SJRFPG.TechCon@freese.com

Subject: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

CAUTION: This email originated from outside of the County. Do not click links or open attachments unless you recognize the sender and know that the content is safe.

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because Waller is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table attached for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Wednesday, June 22, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)

San Jacinto Regional Flood Planning Group



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Yancy Scott, P.E., CFM, County Engineer
Waller County
1100 W. Highway 6
Alvin, TX 77511

Re: ACTION REQUEST: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Michelle,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Alvin on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

The responses provided to the flood financing survey have been incorporated into the plan.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFPG.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
*Chairman
Industries*

Alia Vinson
*Vice Chairman
Water Districts*

Erwin Burden
*Secretary
Counties*

Gene Fisseler
*Executive Committee
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Matthew Barrett
*Executive Committee
River Authorities*

Elisa Donovan
Agricultural Interests

Connie Pothier
Small Business

Paul Lock
Electric Generating Utilities

Rachel Powers
Environmental Interests

Stephen Costello
Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of Webster

Maggie Puckett

From: Webster Engineering <websterengineering@cityofwebster.com>
Sent: Wednesday, June 22, 2022 2:31 PM
To: Mariah@hollawayenv.com
Cc: Warnement, John; Dave Glasco; KMears; San Jacinto RFPG Technical Consultant
Subject: FW: [External] ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Some people who received this message don't often get email from websterengineering@cityofwebster.com. [Learn why this is important](#)

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Mariah and Cory,

We are fine with you recommending a Master Drainage Plan for the City of Webster, but please note in the table that we would sponsor 0% of the funding required.

Here are three projects that we would like to see requested on the form to provide additional capacity. Each of these is within our City limits, but all of the facilities are Flood Control's. These projects would help to provide capacity for us to complete neighborhood drainage improvements.

- Increase capacity of HCFCFCD drainage channel just west of IH 45 in front of Costco through Webster City limits.
- Increase capacity of HCFCFCD box culverts and channel along Texas Avenue from Bay Area Boulevard to Magnolia Avenue.
- Increase capacity of HCFCFCD box culverts on Kobayashi from NASA Bypass to Rice Creek Lane, on Rice Creek Lane from Kobayashi to Myrtle Avenue, and on Myrtle Avenue from Rice Creek Lane to HCFCFCD drainage channel.

Katherine A. Mears, PE, ENV SP

City Engineer
P: (281) 316-3761
C: (713) 419-5583

From: Warnement, John <JWarnement@cityofwebster.com>
Sent: Tuesday, June 14, 2022 6:58 AM
To: Glasco, David <dglasco@cityofwebster.com>; Webster Engineering <websterengineering@cityofwebster.com>; KMears <kmears@huitt-zollars.com>
Subject: FW: [External] ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Good morning,

We need to review this too.

Respectfully,



John D. Warnement, CPWP-M, CPRP
Director
 City of Webster Public Works Department
 855 Magnolia Avenue, Webster, TX 77598
 P: (281) 316-3711 F: (281) 316-3728

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Monday, June 13, 2022 3:07 PM
To: Warnement, John <JWarnement@cityofwebster.com>
Cc: SJRFPG.TechCon@freese.com
Subject: [External] ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because Webster is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
061000296	FME	City of Webster Master Drainage Plan	Study to develop Master Drainage Plan using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	\$200000	Choose an item.	Choose an item.

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 -](#)

[FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Wednesday, June 22, 2022** in order to meet the State's legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)
San Jacinto Regional Flood Planning Group

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SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Katherine A. Mears, PE, ENV SP, City Engineer
City of Webster Public Works Department
855 Magnolia Avenue,
Webster, TX 77598

FW: [External] ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Ms. Mears, PE, ENV SP,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of Webster on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We have incorporated the update to the percent funding anticipated to be provided by the sponsor for the recommended Flood Management Evaluation (FME) “Master Drainage Plan for the City of Webster”.

Additional coordination will be conducted with the City of Webster to gather necessary data for each potential FME or Flood Mitigation Project (FMP) identified by the City to be included in the Regional Flood Plan. The additional FMEs or FMPs can be incorporated into the Amended Regional Flood Plan due to the TWDB in July 2023.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFGP.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

Tim Buscha
Chairman
Industries

Alia Vinson
Vice Chairman
Water Districts

Erwin Burden
Secretary
Counties

Gene Fisseler
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Electric Generating Utilities

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Environmental Interests

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Municipalities

Todd Burrer
Water Utilities

Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

City of West University Place

Maggie Puckett

From: Tim Buscha (IDS) <TBuscha@idseg.com>
Sent: Monday, June 27, 2022 3:04 PM
To: Cory Stull; San Jacinto RFPG Technical Consultant
Subject: FW: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Importance: High

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Cory

On behalf of West University Place wanted to offer feedback on this request. I missed sending last week. Thoughts below are provided and would assume West U and FN could visit after August to determine what efforts West U can do to support movement to an FMP?

Tim



Timothy E. Buscha, P.E., CFM

President

13430 Northwest Freeway, Suite 700, Houston, Texas 77040
Main: 713.462.3178 | Direct: 832.590.7255 | Cell: 713.582.4737

TBuscha@idseg.com

[Website](#) | [Facebook](#) | [LinkedIn](#)

TxEg Firm 2726 | TxSurv Firm 10110700

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From: Gerardo Barrera <GBarrera@westutx.gov>
Sent: Friday, June 24, 2022 8:31 PM
To: Tim Buscha (IDS) <TBuscha@idseg.com>
Cc: Carol Harrison (IDS) <CHarrison@idseg.com>
Subject: RE: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community
Importance: High

[EXTERNAL EMAIL]

Tim,

What action was required from the City on this?

Can you review and advise next week?

Thanks,

.....
Gerardo Barrera
Public Works Director

City of West University Place
3826 Amherst, West University Place, TX 77005
Tel 713-662-5845
Fax 713.662.5369



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A "reply to all" of this e-mail could lead to violations of the [Texas Open Meetings Act](#). Please reply only to the sender.

From: Susan Sample <ssample@westutx.gov>
Sent: Monday, June 13, 2022 3:59 PM
To: Dave Beach <DBeach@westutx.gov>; Gerardo Barrera <GBarrera@westutx.gov>
Subject: Fw: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

.....
Susan Sample
Mayor

City of West University Place
3800 University Boulevard, West University Place, TX 77005



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A "reply to all" of this e-mail could lead to violations of the [Texas Open Meetings Act](#). Please reply only to the sender.

From: Mariah Najmuddin <Mariah@hollawayenv.com>
Sent: Monday, June 13, 2022 3:06:47 PM
To: Susan Sample
Cc: SJRFPG.TechCon@freese.com
Subject: ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

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Dear Community Official –

On behalf of the San Jacinto Regional Flood Planning Group (RFPG), we are reaching out because West University Place is listed as a potential sponsor for one or more Flood Management Evaluations (FMEs), Flood Mitigation Strategies (FMSs), or Flood Mitigation Projects (FMPs) that will be considered for recommendation by the Region 6 San Jacinto Regional Flood Plan (RFP).

We need your input to estimate how much State or Federal funding assistance your community may need to implement the actions that have been identified. The table below lists the actions for which your community has been identified as a potential sponsor, along with the estimated costs of implementation. Recommended solutions must be included in the RFP to be eligible for potential future State funding but inclusion in the plan does not guarantee State funding.

Please reply to this email and fill out the drop-down menu in the table for each of your Flood Mitigation Evaluations and/or Strategies. There is no commitment associated with being a sponsor for an action in the RFP. This is a high-level planning exercise to determine flood risk and flood mitigation funding need across Texas. If we do not receive a response, we will assume that 100% of the cost for that action will need other funding (including State, Federal and/or other funding).

Flood Mitigation Action ID	Flood Mitigation Action Type	Flood Mitigation Action Name	Flood Mitigation Action Description	Flood Mitigation Action Estimated Total Cost	Sponsor Funding	
					Anticipated Source of Sponsor Funding	Percent Funding Anticipated to be Provided by Sponsor
061000297	FME	City of West University Place Master Drainage Plan	Study to develop refine Master Drainage Plan and Projects using future and existing land use and flood/storm water drainage needs including Atlas 14 rainfall	\$100000 \$30,000,000	Internal CIP Dollars	20% / \$6,000,000

For more information regarding the specific Flood Mitigation Actions listed in the RFP, visit the following link: [Region 6 - FMX Summaries By Sponsor](#). Additional information about your RFP can be found on the [San Jacinto RFPG website](#). If you have any further questions, please email SJRFPG.TechCon@freese.com to get in touch with a member of our team.

We kindly request a reply **no later than Wednesday, June 22, 2022** in order to meet the State’s legislative deadline for flood planning. Thank you for your input on this important project.

Sincerely,

Cory Stull | Technical Consultant (Freese and Nichols, Inc.)
San Jacinto Regional Flood Planning Group



SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

December 1, 2022

Gerardo Barrera, Public Works Director
City of West University Place
3826 Amherst St.,
West University Place, TX 77005

FW: [External] ACTION REQUESTED: Update Identified Flood Mitigation Evaluations and/or Strategies in your Community

Dear Mr. Barrera,

The San Jacinto Regional Flood Planning Group (RFPG) has received and reviewed the comments from the City of West University Place on the Draft Regional Flood Plan for the San Jacinto region. The San Jacinto RFPG appreciates your thorough examination of the Draft Regional Flood Plan and thoughtful input in the public process associated with the development of the 2023 Regional Flood Plan.

We have incorporated the updates requested for the Flood Management Evaluation (FME) "City of West University Place Master Drainage Plan" into the Regional Flood Plan.

Additional coordination will be conducted with the City of West University Place to discuss any effort the City may be able to make to support movement of an FME to a Flood Mitigation Project (FMP). Additional actions can be incorporated into the Amended Regional Flood Plan due July 2023.

Should you have any further questions, please feel free to contact the San Jacinto (Region 6) consultant, Cory Stull, at 713.600.6809 or SJRFGP.TechCon@freese.com.

Sincerely,

Tim Buscha
Chairman, San Jacinto Regional Flood Planning Group

CC: Fatima Berrios | Sponsor Contact, Harris County Engineering Department
Cory Stull | Technical Consultant, Freese and Nichols, Inc.
Megan Ingram | Regional Flood Planner, TWDB

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Brian Maxwell
Coastal Communities

Christina Quintero
Public

Neil Gaynor
Upper Watershed

Tina Peterson
Flood Districts

Megan Ingram
TWDB Liaison

**Appendix 10-14:
Public Comments Since April 13, 2023**

Public Comments Since April 13, 2023

Sponsor	Date Received	Task	Comment
Coastal Prairie Conservancy	4/19/2023	Task 4, 5	Submitted requests to elevate FMSs currently recommended in the plan to FMPs to be considered by the San Jacinto RFPG. Submitted an additional FME to study the viability of developing a program to conserve agricultural lands within the floodplain for consideration by the RFPG to recommend in the RFP.
Brazoria County Drainage District #4	4/24/2023	Task 4, 5	Submitted an FME to update the Brazoria County Drainage District #4 Master Plan for consideration by the San Jacinto RFPG for recommendation in the RFP.
City of Galveston	5/18/2023	Task 4, 5	Submitted 4 additional FMPs for consideration by the San Jacinto RFPG for recommendation in the RFP: <ul style="list-style-type: none"> • Avenue K Drainage Pump; Cost = \$52,500,000 • 14th Street Pump Station; Cost = \$44,000,000 • South Shore Drainage Pump Station; Cost = \$50,000,000 • Karankawa Beach & Gulf Plans; Cost = \$7,500,000
Texas General Land Office	5/8/2023	Task 4, 5	The GLO submitted the latest 2023 Texas Coastal Resiliency Master Plan for consideration by the San Jacinto RFPG.