

# **Appendix 4 – Needs Analysis and Identification of FMEs, FMSs, and FMPs**

# Appendix 4.1

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000035	1240-acre Fulshear Farms Development	Design of detention and hydraulic structure upgrades to offset development impacts.	08000009	Fort Bend	12070104, 12040205	120701040309, 120701040308, 120402050100	08000013, 08000014	Feasibility Assessment	2	Local	City of Fulshear	City of Fulshear	No	-	\$147,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000041	Fulshear Lakes Drainage Improvements	Design of drainage infrastructure to mitigate flooding in Fulshear Lake development.	08000009	Fort Bend	12070104	120701040308	08000013	Feasibility Assessment	1	Riverine	City of Fulshear	City of Fulshear	No	-	\$151,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	69	2020	2020
081000042	Lea/Penn and Red Bird Lane Improvements	Design of diversion channel and road construction to reduce flooding and provide access to neighborhoods.	08000009	Fort Bend	12070104, 12040205	120701040309, 120402050100	08000013, 08000014	Preliminary Engineering	14	Riverine, Local	City of Fulshear	City of Fulshear	No	\$6,260,000	\$262,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	80	47	141	0	0	1.6	9	1,414	-	-
081000044	Sienna South Levee System Drainage	Design of lake and channel modifications to mitigate development in the area.	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040409, 120402050200	08000013, 08000014	Feasibility Assessment	11	Riverine, Local	Sienna LID	Fort Bend County, City of Sienna, Fort Bend County Drainage District, Sienna LID	No	-	\$320,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	4	2018	2018
081000045	Sienna North Levee System Drainage	Design of channel improvements to mitigate flow caused by increased development.	08000009	Fort Bend	12070104, 12040205	120701040403, 120402050200	08000013, 08000014	Feasibility Assessment	4	Riverine	Sienna LID	Fort Bend County, City of Sienna, Fort Bend County Drainage District, Sienna LID	No	-	\$236,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	1	2	2004	2004
081000047	Sugar Creek Drainage Improvements	Design of storm drain updates throughout neighborhood.	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040402, 120402050100, 120402050200	08000013, 08000014	Preliminary Engineering	43	Riverine	City of Sugar Land	City of Sugar Land	No	\$10,000,000	\$388,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	442	350	835	2	0	18.4	96	1,687	-	-
081000048	Covington Woods Jess Pirtle Bridge Channel Improvements	Determination of necessary repairs to ditch A-22 channel flow line	08000009	Fort Bend	12040205	120402050100, 120402050200	08000013, 08000014	Preliminary Engineering	35	Riverine, Local	City of Sugar Land	City of Sugar Land	No	\$2,000,000	\$111,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,300	1,205	4,489	2	0	19.3	143	1,143	-	-

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081000057	Chimneystone, Austin, and Settlers Parks Improvements Phase II	Design of new concrete channel and storm drain improvements.	08000009	Fort Bend	12070104	120701040403	08000013	Preliminary Engineering	1	Riverine, Local	City of Sugar Land	City of Sugar Land	No	\$7,000,000	\$288,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000058	Sugar Lakes Drainage Improvements	Determination of necessary storm drain improvements and lake control structure modifications.	08000009	Fort Bend	12040205	120402050100, 120402050200	08000013, 08000014	Preliminary Engineering	35	Local	City of Sugar Land	City of Sugar Land	No	\$8,800,000	\$348,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,300	1,205	4,489	2	0	19.3	143	1,143	-	-
081000060	Sugar Creek Regional Detention	Update design to account for Atlas 14 rainfall.	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040402, 120402050100, 120402050200	08000013, 08000014	H&H Modeling	43	Local	City of Sugar Land	City of Sugar Land	No	\$30,000,000	\$300,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	442	350	835	2	0	18.4	96	1,687	-	-
081000061	Sugar Land Business Park Regional Detention	Update design to account for Atlas 14 rainfall.	08000009	Fort Bend	12040205	120402050100, 120402050200	08000013, 08000014	H&H Modeling	16	Local	City of Sugar Land	City of Sugar Land	No	\$10,000,000	\$300,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	195	144	726	2	0	12.6	77	857	-	-
081000075	Sugar Land MDP - Master Drainage Plan Updates	Review comprehensive plan goals, update detention facility ownership and assets, consider funding mechanisms, evaluate ranking criteria.	08000014	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040402, 120402050100, 120402050200	08000013, 08000014	Drainage Master Plans	43	Riverine, Local	City of Sugar Land	City of Sugar Land	No	-	\$534,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	442	350	835	2	0	18.4	96	1,687	-	-
081000089	Riverbend Drainage Improvements Phase II	Update design to account for Atlas 14 rainfall.	08000009	Fort Bend	12040205	120402050200	08000013, 08000014	H&H Modeling	1	Local	City of Sugar Land	City of Sugar Land	No	\$3,000,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	100	91	249	1	0	2.8	17	4	-	-
081000091	Sugar Land Citywide Flood Prevention & Drainage Studies	Study to determine how to replace B-B inlets with C-2 or H2 inlets in areas of ponding and structural risk.	08000014	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040402, 120402050100, 120402050200	08000013, 08000014	Preliminary Engineering	43	Riverine, Coastal, Local	City of Sugar Land	City of Sugar Land	No	\$5,000,000	\$219,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	442	350	835	2	0	18.4	96	1,687	-	-

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081000092	Avalon/Brazos Landing/Commonwealth Drainage Imp 1 & 2	Study to determine improvements needed for FBC LID 14 weir.	08000009	Fort Bend	12070104	120701040403, 120701040402	08000013	Preliminary Engineering	1	Riverine, Local	City of Sugar Land	City of Sugar Land	No	\$8,400,000	\$335,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.2	1	12	-	-
081000107	ATLAS 14 Outfall Structure No. 6	Design of improvements to Outfall Structure No. 6.	08000009	Fort Bend	12070104, 12040205	120701040403, 120402050200	08000013, 08000014	Feasibility Assessment	11	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$320,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	4	-	-
081000108	ATLAS 14 Brazos River Outfall Channel	Design of improvements to the Brazos River Outfall Channel.	08000009	Fort Bend	12070104	120701040403	08000013, 08000014	Feasibility Assessment	12	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$330,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	30	20	36	0	0	1.5	7	362	-	-
081000110	Conversion of N & S Pump Stations to Vertical Turbines	Design of improvements to the N & S Pump Stations.	08000009	Fort Bend	12070104	120701040403	08000013, 08000014	Feasibility Assessment	12	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$330,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	30	20	36	0	0	1.5	7	362	-	-
081000111	Regional Storage Phase 2	Design of improvement to regional storage.	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040409, 120402050200	08000013, 08000014	Feasibility Assessment	11	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$320,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	4	-	-
081000112	Pump Station Conversion at the Woods Acreage Estates Outfall	Design of pump station to provide relief to Woods Acreage Estates in flood events.	08000009	Fort Bend	12070104, 12040205	120701040403, 120402050200	08000013, 08000014	Feasibility Assessment	1	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$149,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	8	0	0	0	0	0.0	2	30	-	-
081000114	400,500 PM Pump Station at Outfall No. 2	Study to design additional pump station at Outfall No. 2	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040409, 120402050200	08000013, 08000014	Preliminary Engineering	11	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	\$15,600,000	\$571,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	4	-	-

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081000115	Fort Bend County Flood Protection Levee for all Pump Station Electrics	Study to design levees to protect pump stations that mitigate flooding in Somervell.	08000012	Fort Bend	12070104, 12040205	120701040403, 120701040409, 120402050200	08000013, 08000014	Feasibility Assessment	15	Riverine, Coastal, Local	Sienna LID	City of Sienna, Sienna Parks, LID	No	-	\$365,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	22	1	254	0	0	0.3	2	52	-	-
081000135	Lake Leon Dam & Emergency Spillway Improvements	Study to determine necessary dam improvements to reduce flood risk downstream.	08000009	Comanche, Callahan, Eastland	12070201	120702010103, 120702010102, 120702010104, 120702010101, 120702010107, 120702010108, 120702010202, 120702010203, 120702010207, 120702010204, 120702010201, 120702010209, 120702010208, 120702010105, 120702010501, 120702010408, 120702010503, 120702010307, 120702010409	08000008	Preliminary Engineering	322	Riverine, Local	Eastland County	Eastland County	No	\$4,000,000	\$183,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	680	340	1,018	6	1	57.9	211	10,326	-	-
081000136	Hunting Shirt Creek Culvert Improvements	Design of drainage feature improvements to increase capacity and ensure they are within standards.	08000009	Eastland	12070201	120702010405	08000008	Feasibility Assessment	15	Riverine	City of Carbon	City of Carbon	No	-	\$360,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	28	18	23	1	0	2.8	14	504	-	-
081000138	Cisco Storm Sewer Upgrades and Extensions	Upgrade storm sewer system and install new water lines to improve existing drainage.	08000009	Eastland	12070201	120702010103, 120702010105	08000008	Drainage Master Plans	5	Local	City of Cisco	City of Cisco	No	-	\$244,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	73	47	118	1	0	4.1	35	2	-	-
081000164	Arcola Regional Drainage Improvements	Study to design and place drainage improvements such as detention ponds, pump stations, and road grading improvements.	08000009	Fort Bend	12040205	120402050200	08000014	Drainage Master Plans	2	Riverine, Local	City of Arcola	City of Arcola	No	-	\$193,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	8	8	17	0	0	0.3	1	4	-	-

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081000168	Cresson Storm Drainage Improvements	Study to determine how to increase the capacity of the storm drainage system by installing larger culverts and adding drainage points along vulnerable or critical roads.	08000009	Hood, Johnson, Parker	12060201	120602011208, 120602011301	08000001	Drainage Master Plans	11	Riverine, Local	City of Cresson	City of Cresson	No	-	\$326,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	6	0	9	0	0	0.3	5	274	-	-
081000175	City of Lipan Roadside Ditch Improvements	Design infrastructure to improve roadside ditch drainage and build curbs to increase water flow during flood events.	08000009	Hood	12060201	120602011107	08000001	Feasibility Assessment	1	Riverine, Local	City of Lipan	City of Lipan	No	-	\$152,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	6	4	10	0	0	0.3	5	32	-	-
081000177	City of Tolar Roadside Ditch Improvments	Study to determine necessary expansions and improvements to roadside drainage ditches to increase water flow during flood events.	08000009	Hood	12060202	120602020110	08000002	Feasibility Assessment	1	Riverine, Local	City of Tolar	City of Tolar	No	-	\$154,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	17	14	63	0	3	0.7	5	41	-	-
081000184	Mineral Wells State Park Dam Improvements	Design of dam improvements to reduce flood risk downstream.	08000009	Palo Pinto, Parker, Jack	12060201	120602011102, 120602011101, 120602011103, 120602011104	08000001	Preliminary Engineering	90	Riverine, Local	Texas Parks and Wildlife	City of Mineral Wells, Texas Parks and Wildlife	No	\$1,000,000	\$73,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	150	21	685	2	3	11.7	79	4,030	-	-
081000186	Culvert Additions to Prevent Flash Flooding in City of Mingus	New infrastructure to improve drainage conditions.	08000009	Palo Pinto	12060201	120602010805, 120602010809	08000001	Drainage Master Plans	2	Riverine, Local	City of Mingus	City of Mingus	No	-	\$170,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	22	15	6	0	0	0.9	12	46	-	-
081000188	City of Strawn Mitigations for Flood Prone Areas	Develop study to determine/ address flood risk.	08000014	Stephens, Palo Pinto, Eastland	12060201	120602010806	08000001	Drainage Master Plans	55	Local	City of Strawn	City of Strawn	No	-	\$588,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	94	33	78	0	2	9.2	27	2,490	-	-
081000189	Tucker Lake Dam and Spillway Maintenance	Design of dam improvements to reduce flood risk downstream.	08000009	Palo Pinto	12060201	120602010802, 120602010806	08000001	Preliminary Engineering	1	Riverine	City of Strawn	City of Strawn	No	\$20,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	5	0	0	0	0	0.2	1	13	-	-

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081000193	Palo Pinto Retaining Walls	Design of retaining walls along county roads where landslides due to flooding is probable.	08000009	Palo Pinto	12060201	120602010805, 120602010809	08000001	Feasibility Assessment	982	Riverine, Local	Palo Pinto County	Palo Pinto County	No	-	\$1,856,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,962	1,027	2,649	11	15	113.9	395	36,927	-	-
081000199	Resley Creek Drainage Improvements	Design of improvements to channel to increase conveyance capacity.	08000009	Comanche, Erath	12070201	120702010601	08000004, 08000008	Preliminary Engineering	49	Riverine	City of Dublin	City of Dublin	No	\$500,000	\$52,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	53	26	52	0	9	6.6	56	2,247	-	-
081000207	Austin County - Improve Drainage	Identify and evaluate drainage projects including storm sewer, channel, and crossing improvements.	08000009	Austin	12070104	120701040101, 120701040103, 120701040106, 120701040107, 120701040108, 120701040203, 120701040204, 120701040205, 120701040206, 120701040207, 120701040208, 120701040209, 120701040210	08000013	Drainage Master Plans	263	Riverine, Local	Austin County	Austin County	No	-	\$1,088,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	190	91	133	1	3	32.6	138	15,868	-	-
081000212	San Felipe Street Elevation	Study to determine necessary elevation of street to decrease inundation in food events.	08000009	Austin	12070104	120701040306, 120701040305, 120701040304, 120701040307	08000013	Preliminary Engineering	9	Riverine, Local	Town of San Felipe	Town of San Felipe	No	\$50,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	180	89	170	0	0	8.0	22	610	-	-
081000213	Pond Improvements to Cryan Park	Design of improvements to detention pond.	08000009	Austin	12070104	120701040305	08000013	Preliminary Engineering	34	Riverine, Local	City of Sealy	City of Sealy	No	\$125,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	382	256	725	2	0	13.0	32	2,250	-	-
081000214	Pond Improvements to BPW Park	Design of improvements to detention pond.	08000009	Austin	12070104	120701040305	08000013	Preliminary Engineering	34	Riverine, Local	City of Sealy	City of Sealy	No	\$100,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	382	256	725	2	0	13.0	32	2,250	-	-



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081000223	Texas A&M Detention Pond	Study to determine placement and sizing of detention facility to contain and mitigate flooding.	08000009	Brazos	12070103	120701030702	08000005, 08000007	Feasibility Assessment	3	Riverine, Local	Texas A&M University	Texas A&M University, City of College Station	No	-	\$207,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	73	41	1,140	0	12	1.0	13	0	-	-		
081000226	Bee Creek Basin Detention Pond	Design of detention facility to contain and mitigate flooding.	08000009	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000005, 08000007	Preliminary Engineering	9	Riverine, Local	City of College Station	City of College Station	No	\$2,000,000	\$111,000	Local, TWDB FIF, FEMA FMA	66	47	217	1	8	2.1	19	75	-	-		
081000228	City of Bryan Flood Study	Develop study to determine/ address flood risk.	08000014	Brazos	12070101, 12070103	120701010610, 120701010613, 120701010701, 120701010702, 120701010703, 120701010705, 120701030603, 120701030602, 120701030704, 120701030702	08000005, 08000007	Drainage Master Plans	54	Riverine, Local	City of Bryan	City of Bryan	No	-	\$584,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	885	677	2,216	3	33	17.0	163	509	-	-		
081000233	Dam Failure Analysis for Bryan Utilities Lake	An Emergency Action Plan (EAP) was created for the Bryan Utilities Lake Dam. The EAP contains information on who will be notified in the case of a dam failure.	08000014	Brazos	12070101	120701010610, 120701010613, 120701010701, 120701010702, 120701010703	08000005	Study on Flood Preparedness	22	Riverine	Brazos County	Brazos County	No	-	\$136,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	7	6	3	0	1	1.6	4	969	-	-		
081000235	Burleson County Dam Failure Study	Study to determine condition and salvageability of dams on local lakes.	08000014	Burleson	12070101, 12070102	120602010805, 120602010809	08000005, 08000006	Study on Flood Preparedness	675	Riverine, Local	Burleson County	Burleson County	No	-	\$1,000,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	540	238	722	5	6	91.2	229	73,347	-	-		
081000237	Lake Somerville Dam Failure Study	Develop study to determine/ address flood risk.	08000014	Brazoria, Fort Bend, Austin, Waller, Washington, Burleson, Grimes, Brazos	12070101, 12070102, 12070104, 12040205	120402050400, 120402050300	08000005, 08000006, 08000007, 08000013, 08000014	Study on Flood Preparedness	1,312	Riverine	Burleson County	Burleson County	No	-	\$250,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	21,601	16,599	38,059	43	7	741.9	1,521	196,161	-	-		
081000245	Basin-Wide Stormwater Drainage Plan Update	Review and update the basin-wide stormwater drainage plan county-wide	08000014	Bell	12070101, 12070201, 12070202, 12070203, 12070204, 12070205	120702011004	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Regional Watershed Studies	1,082	Riverine, Local	Bell County	Bell County	No	-	\$4,740,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,764	1,422	8,178	10	146	136.7	684	50,911	-	-		

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000250	City of Bartlett Regional Drainage Improvements	Upgrade undersized drainage channels and culverts in flood prone areas.	08000009	Williamson, Bell	12070204	120702040106, 120702040105	08000011	Drainage Master Plans	1	Riverine, Local	City of Bartlett	City of Bartlett	No	-	\$156,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	0	1	0	0	0.1	1	5	-	-
081000252	City of Holland Drainage Infrastructure Improvements	Upgrade/ improve undersized drainage system to increase capacity and reduce flooding.	08000009	Bell	12070204	120702040104	08000011	Drainage Master Plans	2	Riverine, Local	City of Holland	City of Holland	No	-	\$176,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.2	3	51	-	-
081000253	City of Killeen Drainage Infrastructure Improvements	Upgrade undersized drainage system throughout the city to increase storm water capacity and reduce flooding.	08000009	Bell	12070201, 12070202, 12070203	120702011101, 120702020303, 120702030403, 120702030507, 120702030509, 120702030510	08000008, 08000009, 08000010	Drainage Master Plans	54	Riverine, Local	City of Killeen	City of Killeen	No	-	\$583,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	799	564	2,707	2	49	14.7	161	362	-	-
081000256	City of Little River Academy Drainage Infrastructure Improvements	Upgrade undersized drainage system throughout the city to increase storm water capacity and reduce flooding.	08000009	Bell	12070201, 12070204	120702011106, 120702040101	08000008, 08000011	Drainage Master Plans	2	Riverine, Local	City of Little River Academy	City of Little River Academy	No	-	\$185,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	7	3	11	0	1	0.4	3	54	-	-
081000259	Improve Levee Crossing and Old Nolanville Road	Design of drainage feature improvements to increase capacity and study to ensure they are within standards.	08000009	Bell	12070201	120702011102	08000008, 08000010	Preliminary Engineering	32	Riverine, Coastal, Local	City of Nolanville	City of Nolanville	No	\$200,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	247	113	489	1	8	11.6	39	710	-	-
081000266	City of Rogers Drainage Infrastructure Improvements	Drainage feature improvements to increase capacity and ensure infrastructure is within standards.	08000009	Milam, Bell	12070204	120702040107	08000011	Drainage Master Plans	19	Riverine, Local	City of Rogers	City of Rogers	No	-	\$397,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	10	0	9	0	0	0.7	5	1,440	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000272	City of Temple Drainage Channel Improvements	Upgrade drainage channels within the city to reduce flooding to residential and commercial structures.	08000009	Bell	12070201, 12070202, 12070204	120702011004, 120702011005, 120702011105, 120702011106, 120702020307, 120702040201, 120702040202, 120702040203, 120702040101, 120702040102	08000008, 08000009, 08000011	Drainage Master Plans	74	Riverine, Local	City of Temple	City of Temple	No	-	\$659,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	421	255	2,090	2	8	13.7	127	1,053	-	-
081000273	City of Troy Drainage System Improvements	Upgrade undersized drainage system throughout the city to increase storm water capacity and reduce flooding.	08000009	Bell	12070204	120702040201, 120702040203	08000011	Drainage Master Plans	4	Riverine, Local	City of Troy	City of Troy	No	-	\$230,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	23	13	38	0	2	3.0	8	61	-	-
081000277	Cow House Creek Retention Structure	Addition of retention facility to contain flood waters and mitigate flooding.	08000009	Coryell, Mills, Hamilton, Comanche	12070202	120702020101, 120702020106, 120702020104, 120702020102, 120702020103	08000008, 08000009, 08000010	Preliminary Engineering	237	Local	Hamilton	Hamilton	No	\$1,000,000	\$73,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	56	21	31	0	3	22.7	76	7,483	-	-
081000278	Hamilton City Lake Dam Failure Study	Develop study to determine/ address flood risk.	08000014	Hamilton	12070201	120702010703	08000008, 08000009	Study on Flood Preparedness	30	Riverine	City of Hamilton	City of Hamilton	No	-	\$174,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	104	39	410	1	9	4.8	55	761	-	-
081000281	Hamilton County Electric Gates for Pecan Creek Dam	Improve dam to reduce flood risk downstream.	08000009	Hamilton	12070201	120702010703	08000008, 08000009	Preliminary Engineering	30	Riverine, Local	Hamilton County	Hamilton County	No	\$100,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	104	39	410	1	9	4.8	55	761	-	-
081000289	City of Hico Drainage System Improvements	Upgrade undersized culverts to increase capacity and implement debris removal for ditches.	08000009	Hamilton	12060204	120602040204	08000004	Drainage Master Plans	1	Riverine, Local	City of Hico	City of Hico	No	-	\$165,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	71	40	105	1	0	3.4	31	71	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000290	Milam County Emergency Hazard Plan	Obtain Belton and Stillhouse Dam inundation maps and participate in hazard drills.	08000016	Milam	12070101, 12070102, 12070204, 12070205	120602040204	08000005, 08000006, 08000011, 08000012	Study on Flood Preparedness	1,017	Riverine, Local	Milam County	Milam County	No	-	\$20,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	496	288	589	3	14	82.9	254	97,008	-	-
081000291	Milam County Roads Improvements	Improvement of drainage across county roads.	08000009	Milam	12070101, 12070102, 12070204, 12070205	120602040204	08000005, 08000006, 08000011, 08000012	Drainage Master Plans	1,017	Riverine, Local	Milam County	Milam County	No	-	\$1,883,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	496	288	589	3	14	82.9	254	97,008	-	-
081000295	City of Buckholts Drainage Master Plan	Develop study to determine/ address flood risk.	08000014	Milam	12070204	120702040110, 120702040207	08000011	Drainage Master Plans	1	Riverine, Local	City of Buckholts	City of Buckholts	No	-	\$164,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	10	-	-
081000296	City of Cameron H&H Study to Determine Projects	Develop study to determine/ address flood risk.	08000014	Milam	12070204	120702040303, 120702040207	08000011	Drainage Master Plans	5	Riverine, Local	City of Cameron	City of Cameron	No	-	\$250,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	47	37	107	1	1	1.1	15	115	-	-
081000297	Little River Ox Bow and Dam Improvement and Relocation	Improve dam to reduce flood risk downstream.	08000009	Milam	12070204	120702040303	08000011	Preliminary Engineering	35	Riverine, Local	City of Cameron	City of Cameron	No	\$5,000,000	\$219,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	51	37	111	1	1	5.2	21	4,143	-	-
081000298	City of Milano H&H Study to Determine Improvement Projects	Develop study to determine/ address flood risk.	08000014	Milam	12070102, 12070204, 12070205	120701020201, 120702040301, 120702050410	08000006, 08000011, 08000012	Drainage Master Plans	4	Riverine, Local	City of Milano	City of Milano	No	-	\$179,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	1	0	0.0	0	0	-	-
081000300	City of Rockdale H&H Study to Determine Improvement Projects	Develop study to determine/ address flood risk.	08000014	Milam	12070101, 12070204	120701010611, 120702040301, 120702040304	08000005, 08000011	Drainage Master Plans	2	Riverine, Local	City of Rockdale	City of Rockdale	No	-	\$229,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	187	153	289	0	0	3.7	35	10	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000322	Teague Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Freestone	12070103	120701030301	08000007	Drainage Master Plans	5	Riverine, Local	City of Teague	City of Teague	No	-	\$250,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	9	-	-
081000323	Teague Riverine Erosion Control Master Plan	Develop study to determine/ address flood risk.	08000014	Freestone	12070103	120701030301	08000007	Drainage Master Plans	21	Riverine	City of Teague	City of Teague	No	-	\$406,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	55	27	38	0	0	1.3	9	712	-	-
081000324	City of Teague Drainage Infrastructure Improvements	Drainage feature improvements to increase capacity and ensure they are within standards.	08000009	Freestone	12070103	120701030301	08000007	Drainage Master Plans	3	Riverine, Local	City of Teague	City of Teague	No	-	\$216,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000327	Grimes County Drainage Infrastructure Improvements	Identify flood-prone areas and determine mitigation including enlarging culverts under roads and bridges.	08000009	Washington, Grimes	12070101, 12070103	120701010802, 120701010803, 120701010804, 120701030701, 120701030804, 120701030801, 120701030802, 120701030803, 120701030510, 120701030601, 120701030604, 120701030704, 120701030703, 120701030705, 120701030706, 120701030707	08000005, 08000007	Drainage Master Plans	799	Riverine, Local	Grimes County	Grimes County	No	-	\$1,706,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	662	383	1,533	5	13	36.9	149	30,990	-	-
081000331	Improve Cedar Creek	Improvements to channel to increase conveyance capacity.	08000009	Grimes, Brazos	12070103	120701030804	08000005, 08000007	Preliminary Engineering	13	Riverine	City of Navasota	City of Navasota	No	\$2,000,000	\$111,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	286	189	1,048	2	4	9.5	57	2,157	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000333	Drainage Study of Cedar Creek	Conduct a drainage study of Cedar Creek to identify flood areas and provide accurate data to assist the community with existing and future management of mitigation issues.	08000014	Bell	12070201	120702011004	08000008, 08000011	Regional Watershed Studies	30	Riverine	City of Navasota	City of Navasota	No	-	\$174,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	11	0	3	0	3	3.8	12	612	-	-
081000334	Drainage Study of Sandy Creek Tributary	Conduct drainage study of Sandy Creek Tributary and complete a flood control project to reduce flood levels on new structures.	08000014	Grimes	12070101	120701010802	08000005, 08000007	Regional Watershed Studies	59	Riverine	City of Navasota	City of Navasota	No	-	\$305,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	226	137	426	3	0	8.0	38	3,030	-	-
081000359	Johnson County Inundation Study of Hazardous Dams	Identify, through inundation studies, what property, utility or infrastructure would be impacted by dam failure within county	08000014	Johnson	12060201, 12060200	120602011301, 120602011302, 120602011303, 120602020205, 120602020503, 120602020303, 120602020304, 120602020306, 120602020201, 120602020202, 120602020203, 120602020204, 120602020206	08000001, 08000002	Study on Flood Preparedness	731	Riverine	Johnson County	Johnson County	No	-	\$75,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,136	791	2,734	8	19	55.0	263	15,319	-	-
081000365	City of Cleburne Inundation Study of Hazardous Dams	Identify, through inundation studies, what property, utility or infrastructure would be impacted by dam failure within county	08000014	Johnson	12060202	120602020201, 120602020202, 120602020203	08000002	Study on Flood Preparedness	38	Riverine	City of Cleburne	City of Cleburne	No	-	\$214,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	600	432	2,390	8	8	23.6	132	1,759	-	-
081000366	City of Godley Inundation Study of Hazardous Dams	Identify, through inundation studies, what property, utility or infrastructure would be impacted by dam failure within county	08000014	Johnson	12060202	120602020201	08000002	Study on Flood Preparedness	2	Riverine	City of Godley	City of Godley	No	-	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	19	9	32	0	0	0.3	10	104	-	-
081000368	City of Joshua Inundation Study of Hazardous Dams	Identify, through inundation studies, what property, utility or infrastructure would be impacted by dam failure within county	08000014	Johnson	12060202	120602020201, 120602020202	08000002	Study on Flood Preparedness	9	Riverine	City of Joshua	City of Joshua	No	-	\$79,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	53	46	105	0	0	0.9	7	187	-	-

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General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000371	Drainage Improvements along CR1139	Drainage feature improvements to increase capacity and ensure they are within standards.	08000009	Lampasas	12070203	120702030305	08000010	Preliminary Engineering	5	Riverine, Local	Lampasas County	Lampasas County	No	\$10,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.1	2	13	-	-
081000372	Drainage Improvements along CR4450	Drainage feature improvements to increase capacity and ensure they are within standards.	08000009	Lampasas	12070203	120702030306, 120702030307, 120702030309	08000010	Preliminary Engineering	2	Riverine, Local	Lampasas County	Lampasas County	No	\$10,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	0	0	0	0	0.0	0	17	-	-
081000373	Lampasas County Curbing and Drainage Improvements	Study to determine how to install an effective curbing and drainage system	08000009	Lampasas	12070202, 12070203	120702030305	08000009, 08000010	Drainage Master Plans	711	Riverine, Local	Lampasas County	Lampasas County	No	-	\$1,627,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	788	299	3,183	6	34	25.3	161	9,390	-	-
081000378	Improve Flood Risk Assessment for Lee County	Incorporating the procedures for tracking high-water marks following a flood into emergency response plans. Using GIS to map areas that are at risk from flooding. Developing and maintaining a database to track community exposure to flood risk.	08000009	Lee	12070102		08000006	Study on Flood Preparedness	631	Riverine, Local	Lee County	Lee County	No	-	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	204	45	59	0	38	31.9	85	19,785	-	-
081000379	Lee County Floodplain Management Plan	Develop a new floodplain management plan. Adopting a post-disaster recovery ordinance.	08000009	Lee	12070102	120702011004	08000006	Study on Flood Preparedness	631	Riverine	Lee County	Lee County	No	-	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	204	45	59	0	38	31.9	85	19,785	-	-
081000384	Lee County Project Prioritization Study	Develop study to determine/ address flood risk.	08000014	Lee	12070102		08000006	Feasibility Assessment	631	Riverine, Local	Lee County	Lee County	No	-	\$1,550,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	204	45	59	0	38	31.9	85	19,785	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000388	City of Lexington Floodplain Management Plan	Develop a new floodplain management plan. Adopting a post-disaster recovery ordinance.	08000009	Lee	12070102	120701020204, 120701020105, 120701020106	08000006	Study on Flood Preparedness	1	Riverine	City of Lexington	City of Lexington	No	-	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000396	City of Marquez Drainage Infrastructure Improvements	Study to determine whether new infrastructure is needed or how to improve existing drainage infrastructure.	08000009	Leon	12070103	120701030309, 120701030402	08000007	Drainage Master Plans	1	Riverine, Local	City of Marquez	City of Marquez	No	-	\$162,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	58	0	31	0	0	1.2	11	44	-	-
081000398	City of Normangee Drainage Infrastructure Improvements	Study to determine whether new infrastructure is needed or how to improve existing drainage infrastructure.	08000009	Madison, Leon	12070103	120701030504	08000007	Drainage Master Plans	1	Riverine, Local	City of Normangee	City of Normangee	No	-	\$155,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	78	0	82	0	0	0.5	5	11	-	-
081000405	City of Groesbeck Expand Drainage Ditches	Determine where to deepen and widen ditches to allow for rapid runoff of stormwater.	08000009	Limestone	12070103	120701030108, 120701030106, 120701030107	08000007	Drainage Master Plans	4	Riverine, Local	City of Groesbeck	City of Groesbeck	No	-	\$236,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	62	48	105	0	0	0.9	19	70	-	-
081000508	City of Bryson Stream Restoration Program	Implement stream restoration / channelization program to ensure adequate drainage / diversion of stormwater.	08000009	Jack	12060201	120602010201	08000001	Feasibility Assessment	1	Riverine	City of Bryson	City of Bryson	No	-	\$159,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000518	City of Graham Upgrade Drainage Features	Upgrade undersized stormwater drains and culverts.	08000009	Young	12060201	120602010106, 120602010107, 120602010502	08000001	Drainage Master Plans	6	Riverine, Local	City of Graham	City of Graham	No	-	\$256,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	408	220	777	3	5	9.2	36	32	-	-
081000523	Create 2nd Main Water Line	New water line to increase capacity of system.	08000009	Young	12060201	120602010106, 120602010107, 120602010502	08000001	Preliminary Engineering	27	Local	City of Graham	City of Graham	No	\$1,000,000	\$73,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	506	248	868	3	6	13.4	51	762	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000534	Comprehensive Flood Risk Study	Develop study to determine/ address flood risk.	08000014	Young, Archer	12060201	120602010101	08000001	Study on Flood Preparedness	29	Riverine, Local	City of Olney	City of Olney	No	-	\$171,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	254	164	237	0	0	12.4	48	1,971	-	-
081000542	City of Olney Upgrade Drainage Features	Comprehensive study of flood risk and reduction alternatives.	08000009	Young	12060201	120602010101	08000001	Drainage Master Plans	2	Riverine, Local	City of Olney	City of Olney	No	-	\$184,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	203	140	192	0	0	4.6	30	40	-	-
081000551	Robertson County Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Robertson	12070101, 12070103	120701010305, 120701010502, 120701010601, 120701010602	08000005, 08000007	Drainage Master Plans	862	Riverine, Local	Robertson County	Robertson County	No	-	\$1,759,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	928	479	1,676	5	7	97.2	177	88,095	-	-
081000553	Dam/Levee Failure Study	Develop study to determine/ address flood risk.	08000014	Robertson	12070101, 12070103	120701010305, 120701010502, 120701010601, 120701010602	08000005, 08000007	Study on Flood Preparedness	862	Riverine	Robertson County	Robertson County	No	-	\$3,799,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	928	479	1,676	5	7	97.2	177	88,095	-	-
081000555	Bremond Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Robertson	12070101	120701010305, 120701010502	08000005	Drainage Master Plans	1	Riverine, Local	City of Bremond	City of Bremond	No	-	\$145,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	2	2	-	-
081000559	Calvert Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Robertson	12070101	120701010601, 120701010602	08000005	Drainage Master Plans	4	Riverine, Local	City of Calvert	City of Calvert	No	-	\$227,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	25	10	23	0	0	1.8	17	143	-	-
081000563	Franklin Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Robertson	12070101, 12070103	120701010602, 120701030404, 120701030507	08000005, 08000007	Drainage Master Plans	1	Riverine, Local	City of Franklin	City of Franklin	No	-	\$157,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2	0	28	1	0	0.0	0	34	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000572	Somervell County Drainage System Improvements	Study to identify capital improvements for the storm drainage system.	08000009	Somervell	12060201, 12060202, 12060204	120602011303, 120602020302, 120602020304, 120602020107, 120602020110, 120602020109, 120602020111, 120602020301, 120602040302, 120602040301	08000001, 08000002, 08000004	Drainage Master Plans	191	Riverine, Local	Somervell County	Somervell County	No	-	\$958,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	395	194	1,350	10	27	18.2	88	4,655	-	-
081000574	Somervell County Dam Failure Study	Develop study to determine/ address flood risk.	08000014	Johnson, Bosque, Hill, Somervell	12060201, 12060202	120602011303, 120602020601, 120602020403, 120602020404, 120602020406, 120602020405, 120602020407, 120602020408, 120602020302, 120602020303, 120602020304, 120602020305, 120602020306, 120602020401, 120602020110, 120602020111, 120602020206, 120602020207, 120602020301	08000001, 08000002	Study on Flood Preparedness	238	Riverine	Somervell County	Somervell County	No	-	\$1,100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	472	196	1,321	10	13	70.3	156	12,815	-	-
081000579	Glen Rose Master Drainage Plan	Develop study to determine/ address flood risk.	08000014	Somervell	12060202	120602020110, 120602020111	08000002	Drainage Master Plans	4	Riverine, Local	City of Glen Rose	City of Glen Rose	No	-	\$227,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	175	73	1,188	10	6	6.5	40	154	-	-

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000581	Three Mile Creek Watershed Study	Watershed based planning and analysis to determine flood risk.	08000014	Waller	12070101, 12070104, 12040205	120701010908, 120701010803, 120701010804, 120701040102, 120701040103, 120701040104, 120701040105, 120701040106, 120701040108, 120701040210, 120701040301, 120701040302, 120701040303, 120701040304, 120701040307, 120701040308, 120402050100	08000005, 08000013, 08000014	Regional Watershed Studies	516	Riverine	Waller County	Waller County	No	-	\$2,312,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,038	1,007	1,327	0	15	88.9	194	43,836	-	-
081000601	Cleanup of Indian Creek	Maintenance efforts to preserve hydraulic capacity and decrease risk to Railroad St.	08000009	Washington	12070104	120701040201	08000005, 08000006, 08000013	Preliminary Engineering	40	Riverine	City of Brenham	City of Brenham	No	\$100,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	28	13	279	1	2	9.4	28	2,581	-	-
081000605	Williamson County Comprehensive Flood Protection Plan	Develop study to determine/ address flood risk.	08000014	Williamson	12070102, 12070203, 12070204, 12070205	120702011004	08000006, 08000010, 08000011, 08000012	Study on Flood Preparedness	1,131	Riverine, Local	Williamson County	Williamson County	No	-	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3,519	2,758	7,496	5	167	167.4	728	67,370	-	-
081000610	New Town West Outlet Structure	New infrastructure to improve drainage conditions.	08000009	Travis, Williamson	12070205	120702050404	08000012	Preliminary Engineering	46	Riverine, Local	City of Hutto	City of Hutto	No	\$100,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	234	175	624	1	8	8.5	49	2,253	-	-
081000611	Town of San Felipe Harvey State Mitigation Project	Improvement and upgrade of many drainage features throughout San Felipe.	08000009	Austin	12070104	120701040306, 120701040305, 120701040304, 120701040307	08000013	Preliminary Engineering	9	Riverine, Local	Town of San Felipe	Town of San Felipe	No	\$3,209,123	\$155,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	177	87	169	0	0	8.0	23	597	-	-

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General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000613	City of Freeport Sanitary System Flood Proofing	Implementation of point repairs, lateral seals, and manhole rehabilitation to protect system from storm events.	08000012	Brazoria	12070104, 12040205	120701040505, 120402050400, 120402050500	08000013, 08000014	Preliminary Engineering	18	Local	City of Freeport	City of Freeport	No	\$5,931,627	\$251,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	575	428	2,566	3	0	17.9	45	76	-	-
081000615	Clute Regional Flood Risk Reduction	Ditch improvements at several key locations to reduce flood risk.	08000009	Brazoria	12040205	120402050400	08000014	Study on Flood Preparedness	6	Local	City of Clute	City of Clute	No	-	\$62,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	7	0	18	0	0	1.3	2	52	-	-
081000616	City of Oyster Creek Sanitary System Flood Proofing	Implementation of point repairs, lateral seals, and manhole rehabilitation to protect system from storm events.	08000012	Brazoria	12040205	120402050400	08000014	Preliminary Engineering	2	Local	City of Oyster Creek	City of Oyster Creek	No	\$5,291,898	\$229,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	14	7	3	0	0	0.7	2	7	-	-
081000618	Glenwood Bayou Drainage Improvements	Improvement and upgrade of many drainage features throughout Glenwood Bayou.	08000009	Brazoria	12040205	120402050400	08000014	Preliminary Engineering	5	Local	Town of Richmond	Town of Richwood	No	\$3,269,602	\$157,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,000	917	2,783	6	0	15.6	38	217	-	-
081000619	Angleton Drainage Project	Improvement and upgrade of many drainage features throughout Glenwood Bayou.	08000009	Brazoria	12040205	120402050400, 120402050300	08000014	Preliminary Engineering	12	Local	City of Angleton	City of Angleton	No	\$33,544,449	\$1,127,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	67	65	170	0	0	6.7	10	104	-	-
081000625	Texas Historical Commission & Brazoria County Joint Mitigation Application 1 FINAL	Phased project to assess, design, and build both service and emergency spillways and implement drainage improvements to the Columbia Lakes Reservoir.	08000009	Brazoria	12070104	120701040503	08000013	Preliminary Engineering	5	Local	Brazoria County	Brazoria County	No	\$8,211,000	\$329,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	20	12	11	0	0	1.1	4	166	-	-
081000626	Town of Holiday Lakes Hurricane Harvey HUD Application	Improvements to road drainage at several locations, and addition of sluice gates into the drainage system.	08000009	Brazoria	12040205	120402050200	08000014	Preliminary Engineering	1	Riverine, Local	Town of Holiday Lakes	Town of Holiday Lakes	No	\$3,413,495	\$163,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	474	416	553	2	0	15.0	65	82	-	-

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FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000627	West Columbia Drainage Improvements	Improvements to 7 major drainage channels.	08000009	Brazoria	12070104	120701040504, 120701040503	08000013	Preliminary Engineering	3	Local	City of West Columbia	City of West Columbia	No	\$5,346,397	\$231,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	21	20	50	0	0	0.2	6	1	-	-
081000628	Oyster Creek Wastewater Treatment Plant Improvements	Floodproofing of wastewater treatment plant.	08000012	Brazoria	12040205	120402050400	08000014	Preliminary Engineering	0	Riverine, Local	City of Angleton	City of Angleton	No	\$12,785,080	\$480,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	5	0	4	0	0	0.0	0	2	-	-
081000629	City of Eastland Dam Repairs	Maintenance and spillway improvements to Ringling Lake dam and Lake Eastland Dam.	08000009	Eastland	12070201	120702010105	08000008	Preliminary Engineering	46	Riverine	City of Eastland	City of Eastland	No	\$9,999,140	\$388,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	334	181	829	5	0	13.6	92	394	-	-
081000630	Lake Leon Dam Safety Improvements	Stabilization of the upstream embankment and rehabilitation of the spillway.	08000009	Eastland	12070201	120702010108	08000008	Preliminary Engineering	0	Riverine	City of Eastland	City of Eastland	No	\$9,805,900	\$382,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000632	Richmond Northside Drainage Improvements	Engineering study to determine how to elevate several key structures above base flood elevations.	08000009	Fort Bend	12070104	120701040402, 120701040401	08000013	Preliminary Engineering	5	Local	City of Richmond	City of Richmond	No	\$7,464,906	\$303,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	252	151	385	6	0	6.1	22	545	-	-
081000633	Brazos River Stabilization	Riverbank stabilization along SH 99 and US 59/I-69 using environmentally friendly solutions.	08000009	Fort Bend	12070104	120701040402	08000013	Preliminary Engineering	2	Riverine	Fort Bend County	Fort Bend County, Brazoria County, Galveston County	No	\$96,907,994	\$2,958,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3	0	0	0	0	3.3	2	255	-	-
081000634	City of Navasota Harvey State Mitigation Project	Drainage and street improvements along 3 major routes integral to the City.	08000009	Grimes, Brazos	12070101, 12070103	120701010802, 120701010804, 120701030804, 120701030803	08000005, 08000007	Preliminary Engineering	8	Local	Grimes County	Grimes County	No	\$3,701,852	\$173,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	455	319	1,428	5	4	12.4	76	348	-	-

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081000635	City of Lexington Drainage Improvements	Storm sewer, culvert, and drainage ditch improvements at 3 areas of interest.	08000009	Lee	12070102	120701020204, 120701020105, 120701020106	08000006	Preliminary Engineering	1	Local	City of Lexington	City of Lexington	No	\$6,390,527	\$267,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000636	City of Rockdale Supplemental Drainage Project	Addition of storm sewer drainage to supplement roadside ditch.	08000009	Milam	12070102, 12070204, 12070205	120701020201, 120702040301, 120702050410	08000006, 08000011, 08000012	Feasibility Assessment	4	Local	City of Rockdale	City of Rockdale	No	-	\$229,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	187	153	289	1	0	3.7	35	10	-	-
081000637	Town of Buckholts Harvey Mitigation	Increase capacity of hydraulic features and redirect water away from water treatment plant.	08000009	Milam	12070204	120702040110, 120702040207	08000011	Preliminary Engineering	1	Riverine, Local	Town of Buckholts	Town of Buckholts	No	\$4,479,940	\$200,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	10	-	-
081000639	Ham Branch Watershed Flood Mitigation	Implementation of several drainage features and streambank stabilization.	08000009	Milam	12070102	120701020201	08000006, 08000011, 08000012	Regional Watershed Studies	17	Riverine, Local	City of Rockdale	City of Rockdale	No	-	\$113,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	192	156	295	1	0	4.3	38	124	-	-
081000640	City of Milano Citywide Road and Drainage Improvements	Street improvements and addition of accompanying drainage features.	08000009	Milam	12070101, 12070204	120701010611, 120702040301, 120702040304	08000005, 08000011	Preliminary Engineering	2	Local	City of Milano	City of Milano	No	\$437,324	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000641	Hempstead Citywide Drainage Project	Improvements to roadside ditch and addition of 2 detention facilities.	08000009	Waller	12070101, 12070104	120701010908, 120701040102, 120701040104, 120701040105, 120701040106	08000005, 08000013	Preliminary Engineering	7	Riverine, Local	City of Hempstead	City of Hempstead	No	\$9,395,324	\$368,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	53	50	88	0	3	4.0	40	27	-	-
081000642	Burton Drainage & Flooding Improvements	Floodproofing of lift stations and water treatment plants, and street drainage improvements.	08000009	Washington	12070104	120701040201	08000013	Preliminary Engineering	1	Local	City of Burton	City of Burton	No	\$3,807,394	\$177,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2	0	108	1	0	0.6	6	27	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000643	Hogg Branch Creek Improvements	Channel improvements to increase drainage throughout Brenham.	08000009	Washington	12070101	120701010902	08000005, 08000013	Preliminary Engineering	9	Riverine, Local	City of Brenham	City of Brenham	No	\$5,001,643	\$219,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	62	28	140	1	2	2.1	32	688	-	-
081000644	City of Taylor Regional Detention and Channel Improvements	Addition of 2 drainage facilities in the region and corresponding channel improvements.	08000009	Williamson	12070205	120702050505, 120702050405, 120702050406, 120702050409, 120702050507, 120702050408	08000012	Drainage Master Plans	21	Riverine, Local	City of Taylor	City of Taylor	No	-	\$406,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	88	63	194	0	11	4.5	35	741	-	-
081000646	Briar Creek Improvements	Channel and crossing improvements along Briar Creek and Red River Trib to increase capacity of hydraulic infrastructure.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	3	Riverine	City of Bryan	City of Bryan	No	\$9,265,000	\$364,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	100	93	191	0	5	1.9	15	7	-	-
081000657	Briarcreek Court Flooding	Study to determine source and mitigation for flooding in the subdivision.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Local	City of Bryan	City of Bryan	No	\$1,280,000	\$83,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	77	73	160	0	2	1.0	9	0	-	-
081000663	Burton Creek Crossings	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070103	120701030702	08000005, 08000007	H&H Modeling	5	Riverine	City of Bryan	City of Bryan	No	\$4,070,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	276	224	1,179	1	5	2.8	36	0	-	-
081000669	Burton Creek Trib C Improvements	2-9'x5' box culverts are needed to replace the existing culverts in order to convey the 50-year storm event per the TxDOT design requirement. Channel widening and re-grading may be necessary to mitigate any adverse impacts. Detailed design for the 100-y*	08000009	Brazos	12070103	120701030702	08000007	H&H Modeling	1	Riverine	City of Bryan	City of Bryan	No	\$1,545,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	20	20	49	0	0	0.2	1	0	-	-
081000671	Tract North of Carson Crossing	Channel and crossing improvements along Trib D feeding into County Club Lake.	08000014	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	Preliminary Engineering	2	Riverine	City of Bryan	City of Bryan	No	\$4,865,000	\$214,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	72	30	167	1	4	1.5	11	0	-	-

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081000678	Burton Creek Main Stem Improvements	Channel and crossing improvements along Burton Creek mainstem from SH 6 to S Coulter Dr.	08000014	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	Preliminary Engineering	7	Riverine	City of Bryan	City of Bryan	No	\$13,845,000	\$514,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	348	254	1,235	2	9	4.3	47	0	-	-
081000686	Oakridge Drive and Barak Lake	Study to determine storm sewer needed to mitigate flooding in subdivision.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Local	City of Bryan	City of Bryan	No	\$2,500,000	\$129,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	76	38	730	1	0	0.2	7	0	-	-
081000689	Sprucewood Street Flooding	A study of the Sprucewood Street drainage and a detailed design phase is needed to assess existing flooding and propose improvements that will reduce flooding in the area. This project includes the local analysis to determine the cause of flooding and *	08000014	Brazos	12070101, 12070103	120701010703, 120701030702	08000005, 08000007	Preliminary Engineering	0	Local	City of Bryan	City of Bryan	No	\$25,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000690	Burton Creek Trib 5 Mitigation	Design of erosion control and channel improvements for Trib 5 of Burton Creek.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	3	Riverine	City of Bryan	City of Bryan	No	\$4,305,000	\$194,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	159	105	838	1	4	1.8	18	0	-	-
081000693	Spring Lane Residential Flooding	Drainage study to assess flooding in the neighborhood and propose improvements	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Local	City of Bryan	City of Bryan	No	\$25,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	67	61	103	0	2	1.1	11	0	-	-
081000697	Burton Creek Trib 7 Mitigation	Detailed study to determine flooding caused by Burton Creek Trib 7 and determine flood mitigation solutions.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Riverine	City of Bryan	City of Bryan	No	\$1,340,000	\$86,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	100	93	274	0	3	0.8	12	0	-	-
081000706	Briar Oaks Drive Storm Sewer Improvements	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070103	120701030702	08000007	H&H Modeling	1	Local	City of Bryan	City of Bryan	No	\$241,137	\$50,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	76	38	730	1	0	0.3	7	0	-	-

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FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000716	Pecan Ridge Subdivision Flooding	Masterplan to determine source of flooding and identify potential solutions.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	3	Local	City of Bryan	City of Bryan	No	\$50,000	\$50,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	88	84	383	0	0	1.0	14	20	-	-
081000717	Old Reliance Road Overtopping	Study to determine design of culvert improvements.	08000014	Brazos	12070103	120701030602, 120701030702	08000007	Preliminary Engineering	5	Local	City of Bryan	City of Bryan	No	\$460,000	\$51,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	130	119	397	0	2	1.4	18	90	-	-
081000718	Castle Heights Subdivision Flooding	Study to determine necessary detention, storm sewer, and other drainage improvements for Castle Heights subdivision.	08000014	Brazos	12070103	120701030602, 120701030702	08000007	Preliminary Engineering	2	Local	City of Bryan	City of Bryan	No	\$5,075,000	\$221,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	39	31	11	0	0	0.2	6	64	-	-
081000719	Carter's Creek Trib B Improvements	Study to design culvert improvements along Carter's Creek Trib B.	08000014	Brazos	12070101, 12070103	120701010702, 120701030702	08000005, 08000007	Preliminary Engineering	3	Riverine	City of Bryan	City of Bryan	No	\$2,435,000	\$127,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	32	25	32	0	4	1.9	22	3	-	-
081000723	Ranchettes 2 and 3 - East	Update road and add drainage swale.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$523,500	\$53,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000724	Ranchettes 2 and 3 - West	Update road and add drainage swale.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$1,208,400	\$81,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000725	Ranchettes 4 - North	Local infrastructure improvements including addition of drainage swales to the roads.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$1,604,300	\$96,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000726	Ranchettes 4 - South A	Update road and add drainage swale.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$1,267,000	\$83,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000727	Ranchettes 4 - South B	Update road and add drainage swale.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$959,900	\$71,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000728	Ranchettes 6 and 6A - North B	Addition of roadside and interconnecting drainage swales.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$2,515,200	\$130,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000729	Ranchettes 6 and 6A - North A	Addition of drainage swales that outfall into Block House Creek.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$587,100	\$56,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000730	Block House Creek	Property acquisition and crossing improvements to create room for consistent channelization.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$4,249,200	\$192,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000733	Ranchettes 6 and 6A - South A	Local infrastructure improvements adjacent to the creek.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$2,413,300	\$126,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000734	Ranchettes 6 and 6A - South B	Addition of roadside and interconnecting drainage swales. Addition of roadside and interconnecting drainage swales.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$2,425,300	\$127,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000735	Riviera - Northwest	Addition of roadside drainage swale and several outfalls into the floodplain.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$1,091,500	\$76,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019

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081000736	Riviera - East	Addition of roadside drainage swale and several outfalls into the floodplain.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$2,390,000	\$125,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000737	Riviera - Southwest	Addition of roadside drainage swale and several outfalls into the floodplain.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$1,034,300	\$74,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000738	Cluck Creek - Upper	Re-grading of natural channel.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$1,133,500	\$78,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000739	Cluck Creek - Lower	Re-grading of natural channel.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Cedar Park	City of Cedar Park	No	\$3,192,700	\$155,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000740	Deer Run	Addition of underground storm drainage and associated inlets.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$1,194,000	\$80,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000741	Spanish Oak Creek	Increase channel capacity.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine	City of Cedar Park	City of Cedar Park	No	\$1,196,200	\$80,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2019	2019
081000745	Suja Lane	Implementation of detention basin to alleviate street and property flooding.	08000009	Lampasas, Coryell	12070203	120702030506	08000009, 08000010	Preliminary Engineering	3	Riverine, Local	City of Copperas Cove	City of Copperas Cove	No	\$311,558	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	20	20	35	0	2	1.2	23	4	2016	2016

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081000752	Goode - Connell Park Regional Detention Pond Improvement & Proposed Drainage Channel	Expand the regional detention pond to reduce outflow and improve outlet channel.	08000009	Bell	12070201	120702011102	08000008, 08000010	Preliminary Engineering	32	Riverine, Local	City of Harker Heights	City of Harker Heights	No	\$846,066	\$66,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	247	113	489	1	8	11.6	39	710	-	-
081000756	Christina Circle Drainage Improvements	Re-grading of cul-de-sac to improve drainage and replacement of existing flume.	08000009	Bell	12070201	120702011102	08000008	Preliminary Engineering	0	Riverine, Local	City of Harker Heights	City of Harker Heights	No	\$46,683	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	2015	-
081000757	Indian Trail Downstream Channel Improvements	Channel improvements.	08000009	Bell	12070201, 12070203	120702011101, 120702011102, 120702030510	08000008, 08000010	Preliminary Engineering	16	Riverine, Local	City of Harker Heights	City of Harker Heights	No	\$174,549	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	257	127	599	0	7	4.1	45	118	2015	-
081000762	Warriors Path Drainage Improvements	Drainage channel and structure improvements.	08000009	Bell	12070201	120702011102	08000008, 08000010	Feasibility Assessment	6	Riverine, Local	City of Harker Heights	City of Harker Heights	No	-	\$266,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	35	0	41	1	2	3.2	10	207	2015	2015
081000764	City of Round Rock Erosion Control	Erosion control at several key tributaries.	08000009	Travis, Williamson	12070205	120702050402, 120702050502, 120702050403, 120702050404	08000012	Drainage Master Plans	38	Riverine	City of Round Rock	City of Round Rock	No	-	\$510,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	234	192	698	1	11	5.0	57	414	-	-
081000767	Chisolm Valley	Additional modeling to determine detention basin improvements and placement.	08000009	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Preliminary Engineering	26	Riverine, Local	City of Round Rock	City of Round Rock	No	\$2,725,000	\$138,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	11	5.4	41	102	2014	2014
081000779	Stewart Ditch Channel Repair and Improvements	Channel improvements.	08000009	Bell	12070201	120702011101	08000008, 08000009	Preliminary Engineering	2	Riverine, Local	City of Killeen	City of Killeen	No	\$862,000	\$67,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	158	135	468	1	8	1.8	20	3	2010	2010

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information										Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)		
081000780	Dickens Ditch Stream Repair	Stabilization efforts downstream of Westcliff Road.	08000009	Bell	12070201	120702011101	08000008	Preliminary Engineering	1	Local	City of Killeen	City of Killeen	No	\$351,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	1	2	0	1	0.0	0	0	2010	2010		
081000782	Bunny Trail Drainage Improvements	Preliminary engineering to determine drainage improvements.	08000009	Bell	12070101, 12070201, 12070202, 12070203, 12070204, 12070205	120702011004	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Preliminary Engineering	1,082	Local	City of Killeen	City of Killeen	No	\$500,000	\$52,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,764	1,422	8,178	10	146	136.7	684	50,911	2012	2012		
081000785	Andrus Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	12040205	120402050100	08000014	H&H Modeling	5.3	Riverine, Local	Fort Bend County	Fort Bend County Drainage District	Yes	\$48,332,000	\$300,000	Local, FEMA FMA, HUD CDBG-MIT	149	107	137	0	0	8	1	272	-	-		
081000865	Flat Bank Creek Widening and Clean-Out Project	Improvements to Flat Bank Creek.	08000009	Fort Bend	12070104	120701040403	08000013, 08000014	Preliminary Engineering	12	Riverine	Sienna LID	Sienna LID	No	\$2,600,000	\$133,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	30	20	36	0	0	1.5	7	362	-	-		
081000874	Nolan Creek Flood Protection Planning Study	Study to provide flood protection planning in the Nolan Creek Watershed and to develop an early warning system, local flood response plan, and possible flood protection plan.	08000014	Bell	12070201	120702011104, 120702011103, 120702011102	08000008, 08000009, 08000010	Regional Watershed Studies	68	Riverine	Bell County	Bell County	No	-	\$349,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	388	153	2,305	5	11	17.3	85	1,864	-	-		
081000875	Mary Avenue Diversion	Diversion channel to redirect water away from Mary Avenue.	08000009	McLennan	12060202	120602020803	08000002, 08000003	Preliminary Engineering	15	Riverine, Local	City of Waco	City of Waco	No	\$60,000,000	\$1,909,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	622	455	9,503	3	2	10.3	138	6	-	-		
081000877	New Road to Homan Avenue Channel Improvements	Channel improvements to increase the conveyance capacity of the roadside ditch.	08000009	McLennan	12060202	120602020803	08000002, 08000003	H&H Modeling	1.1	Riverine, Local	City of Waco	City of Waco	No	\$6,000,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	17	8	93	0	0	0	2	0	-	-		

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000878	S. MLK Jr Boulevard Channel Improvements	Channel improvements to increase the conveyance capacity of the roadside ditch.	08000009	McLennan	12060202	120602020803	08000002	Preliminary Engineering	13	Riverine, Local	City of Waco	City of Waco	No	\$2,164,485	\$117,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	578	328	5,346	8	1	32.0	108	196	-	-
081000881	Sharondale Drainage Improvements	Drainage infrastructure improvements to reduce flooding in the Sharondale area.	08000009	McLennan	12060202	120602020803	08000002	Preliminary Engineering	2	Riverine, Local	City of Waco	City of Waco	No	\$3,261,910	\$157,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	578	328	5,346	1	1	32.0	108	196	-	-
081000884	N. 10th, 15th, 31st, 33rd Street, and Grice Drive Buyouts	Property acquisition of several residences at high flood risk.	08000009	McLennan	12060202	120602020803	08000002	Preliminary Engineering	1	Riverine, Local	City of Waco	City of Waco	No	\$9,335,369	\$366,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	129	121	549	1	0	1.5	31	0	-	-
081000890	Loop 340 Berm & Frontage Road Improvements	Infrastructure improvements to lessen the impact of flood events on the intersection.	08000009	McLennan	12060202	120602020803	08000002	H&H Modeling	5.6	Riverine, Local	City of Waco	City of Waco	No	\$7,000,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	24	8	138	0	0	0	1	152	-	-
081000917	Develop Capital Improvements Plan	Develop plan to provide prediction of funds available for long term improvements and equipment that would be beneficial.	08000014	Williamson	12070203	120702030401	08000010	Study on Flood Preparedness	1	Riverine, Local	City of Florence	City of Florence	No	-	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	57	50	89	0	0	2.4	12	46	-	-
081000921	City of Georgetown River/Channel Flow Capacity	Increase flow by deepening and widening the channel.	08000009	Williamson	12070205	120702050502, 120702050302, 120702050403, 120702050106, 120702050401, 120702050404, 120702050501, 120702050203, 120702050105, 120702050303	08000012	Feasibility Assessment	59	Riverine	City of Georgetown	City of Georgetown	No	-	\$606,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	175	123	1,526	0	6	18.7	82	1,792	-	-

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General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000922	City of Georgetown River Erosion Control	Reduce flood and erosion risk with riverbank stabilization and riverbank walls.	08000009	Williamson	12070205	120702050502, 120702050302, 120702050403, 120702050106, 120702050401, 120702050404, 120702050501, 120702050203, 120702050105, 120702050303	08000012	Feasibility Assessment	59	Riverine	City of Georgetown	City of Georgetown	No	-	\$606,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	175	123	1,526	0	6	18.7	82	1,792	-	-
081000924	City of Georgetown Culvert Improvements	Increase size of culverts at key locations to adequately convey storm water.	08000009	Williamson	12070205	120702050502, 120702050302, 120702050403, 120702050106, 120702050401, 120702050404, 120702050501, 120702050203, 120702050105, 120702050303	08000012	Feasibility Assessment	59	Riverine, Local	City of Georgetown	City of Georgetown	No	-	\$606,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	175	123	1,526	0	6	18.7	82	1,792	-	-
081000926	Channel Stabilization	Stabilize channel at inner loop culverts.	08000009	Williamson	12070205	120702050502, 120702050501	08000012	Feasibility Assessment	48	Riverine	City of Georgetown	City of Georgetown	No	-	\$556,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	366	282	795	0	9	19.3	102	2,627	-	-
081000934	Low Water Crossing Monitoring & Mitigation	Install automated warning devices or elevate 2 low water crossings on CR 305.	08000007	Williamson	12070203, 12070204, 12070205	120702030402, 120702040106, 120702050503, 120702050302	08000010, 08000011, 08000012	Feasibility Assessment	3	Riverine	City of Jarrell	City of Jarrell	No	-	\$217,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	1	0	2	0	0	2.0	4	45	-	-
081000936	Lift Station Floodproofing	Flood proof city lift stations or improve culverts to lessen flood risk.	08000012	Williamson	12070203, 12070204, 12070205	120702030402, 120702040106, 120702050503, 120702050302	08000010, 08000011, 08000012	Feasibility Assessment	3	Riverine, Local	City of Jarrell	City of Jarrell	No	-	\$217,000	Local, TWDB FIF, FEMA HMGP, TWDB CWSRF, FEMA BRIC, FEMA FMA	1	0	2	0	0	2.0	4	45	-	-
081000939	Dam Emergency Action Plan	Complete EAPs for Sites 9, 29, 2, 3, 6, 7, 17, 18, and 25 to be in compliance with TCEQ standards.	08000014	Williamson	12070102, 12070203, 12070204, 12070205	120702011004	08000006, 08000010, 08000011, 08000012	Study on Flood Preparedness	1,131	Riverine	Lower Brushy Creek WCID	Lower Brushy Creek WCID	No	-	\$500,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	3,519	2,758	7,496	5	167	167.4	728	67,370	-	-
081000941	Mustang Creek Study	Detailed H&H modeling to mitigate flooding from Upper Mustang Creek on the City of Taylor.	08000014	Williamson	12070205	120702050405	08000012	Regional Watershed Studies	55	Riverine	City of Taylor	City of Taylor	No	-	\$290,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	111	71	199	0	13	6.6	51	4,157	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000942	Stream Crossing Upgrades	Upgrade crossings at CR 368, 369, 445, and 424.	08000007	Williamson	12070205	120702050405, 120702050408	08000012	Feasibility Assessment	29	Riverine	City of Taylor	City of Taylor	No	-	\$463,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	31	14	33	0	4	3.6	19	3,255	-	-
081000943	Lake Creek Structural Elevation	Elevate or floodproof structures currently in high risk areas. Use H&H modeling to prioritize properties.	08000009	Travis, Williamson	12070205	120702050402, 120702050502, 120702050403, 120702050404	08000012	Feasibility Assessment	38	Riverine, Local	City of Round Rock	City of Round Rock	No	-	\$510,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	234	192	698	1	11	5.0	57	414	-	-
081000944	Lake Creek Tributary 2	Develop H&H models for watershed and evaluate methods to provide flood protection to the area.	08000014	Travis, Williamson	12070205	120702050402	08000012	Regional Watershed Studies	28	Riverine	City of Round Rock	City of Round Rock	No	-	\$166,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	224	195	1,458	1	13	7.2	45	151	-	-
081000945	Improve Chandler Branch Tributary	Channel improvements from Eagles Nest St to Settlement Dr.	08000009	Williamson	12070205	120702050402	08000012	Feasibility Assessment	3	Riverine	City of Round Rock	City of Round Rock	No	-	\$202,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	21	18	38	0	1	0.4	13	10	-	-
081000946	Brushy Creek Stabilization	Use toe blocks and re-establish riparian vegetation zone to stabilize 1200 feet of stream banks.	08000009	Williamson	12070205	120702050402	08000012	Feasibility Assessment	0	Riverine	City of Round Rock	City of Round Rock	No	-	\$121,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	25	22	77	0	0	0.1	3	1	-	-
081000950	Barker Street Neighborhood Improvements	Determine optimal drainage improvements to maximize flood protection for the area.	08000014	Travis, Williamson	12070205	120702050402, 120702050401	08000012	Drainage Master Plans	26	Local	City of Thrall	City of Thrall	No	-	\$440,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	269	230	819	0	11	5.4	41	102	-	-
081000951	Brushy Creek Tributaries Study	Perform a detailed study of the Brushy Creek tributaries in the City of Thrall.	08000014	Williamson	12070205	120702050408	08000012	Regional Watershed Studies	11	Riverine	City of Thrall	City of Thrall	No	-	\$88,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	11	5	10	0	1	1.8	8	1,105	-	-
081000953	A21	Addition of in-line detention along Cottonwood Creek.	08000009	Williamson	12070205	120702050404	08000012	Preliminary Engineering	11	Riverine, Local	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$6,305,000	\$250,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	68	43	122	0	2	1.4	17	466	-	-

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081000954	A12	New Broade Street off-channel detention.	08000009	Travis, Williamson	12070205	120702050401	08000012	Preliminary Engineering	61	Riverine, Local	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$6,093,000	\$257,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	388	325	1,064	0	20	8.5	81	216	-	-
081000955	Dam 101	Construction of dam to provide flood storage for Lake Creek.	08000009	Travis, Williamson	12070205	120702050402	08000012	Preliminary Engineering	28	Riverine	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$38,000,000	\$1,262,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	224	195	1,458	1	13	7.2	44	151	-	-
081000956	Dam 102	Study to design dam to provide flood storage for Lake Creek.	08000009	Travis, Williamson	12070205	120702050402	08000012	Preliminary Engineering	28	Riverine	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$6,498,000	\$1,000,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	224	195	1,458	1	13	7.2	44	151	-	-
081000957	620 Quarry Solution	Study to determine needed flood storage to address Lake Creek flooding.	08000009	Travis, Williamson	12070205	120702050402	08000012	Preliminary Engineering	28	Riverine	City of Round Rock	City of Round Rock	No	\$25,361,000	\$877,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	224	195	1,458	0	13	7.2	44	151	-	-
081000958	Dam 14 Rehabilitation	Study to design erosion repairs for the downstream slope, mitigation for the longitudinal cracking on the dam crest, and auxiliary spillway improvements.	08000009	Williamson	12070205	120702050403	08000012	Preliminary Engineering	24	Riverine	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$3,000,000	\$148,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	28	11	91	0	0	0.9	12	399	-	-
081000959	A14	Addition of in-line detention west of Dam 17.	08000009	Williamson	12070205	120702050404	08000012	Preliminary Engineering	12	Riverine, Local	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$1,559,000	\$250,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	8	3	216	0	2	0.7	9	427	-	-
081000960	A13	Addition of in-line detention between Dam 15 and 16.	08000009	Williamson	12070205	120702050403	08000012	Preliminary Engineering	24	Riverine, Local	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	\$4,196,000	\$250,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	28	11	91	0	0	0.9	12	399	-	-
081000961	Dam 15 Rehabilitation	The rehabilitation project will repair erosion along the upstream toe of the dam that has been caused by wind-driven wave action.	08000009	Williamson	12070205	120702050404	08000012	Preliminary Engineering	1	Riverine, Local	Upper Brushy Creek WCID	Upper Brushy Creek WCID, Lower Brushy Creek WCID	No	\$2,000,000	\$111,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	0	0	0	0	0.0	0	92	-	-

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081000962	Rowland Ave/Frey St Drainage Improvements	Update design to account for Atlas 14 rainfall.	08000009	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$1,670,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	37	31	152	0	1	0.7	5	3	-	-
081000963	Tarleton St/Rowland Ave Drainage Improvements Ph 1&2	Update design to account for Atlas 14 rainfall.	08000009	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$2,840,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000964	Crow St/Long St Drainage Improvements	Update design to account for Atlas 14 rainfall.	08000009	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$650,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	12	2	9	0	0	0.3	4	15	-	-
081000966	Simonton Ring Levee	Construction of a ring levee to protect Brazos Valley Development between Bessie's Creek and the Brazos River.	08000009	Fort Bend, Austin, Waller	12070104	120701040309, 120701040307, 120701040308	08000013, 08000014	Preliminary Engineering	113	Riverine	City of Simonton	City of Simonton	No	\$57,200,000	\$1,828,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,546	1,703	2,826	1	2	88.4	171	22,600	-	-
081000967	Weston Lakes Levee	Construction of 2 levees to protect the Weston Lake Development.	08000009	Fort Bend, Austin, Waller	12070104	120701040309, 120701040308	08000013, 08000014	Preliminary Engineering	83	Riverine	City of Fulshear	City of Fulshear	No	\$15,000,000	\$551,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,308	836	1,951	1	2	39.0	114	12,478	-	-
081000968	Columbia Lakes Levee	Construction of 2 levees to protect the Columbia Lakes Development.	08000009	Brazoria	12070104	120701040503	08000013, 08000014	Preliminary Engineering	49	Riverine	City of West Columbia	City of West Columbia	No	\$9,800,000	\$382,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	620	442	850	0	0	20.8	49	5,093	-	-
081000969	Oyster Creek Levee	Construction of a ring levee to protect the Lake Jackson Development.	08000009	Brazoria	12070104, 12040205	120701040505, 120402050400	08000013, 08000014	Preliminary Engineering	94	Riverine	City of Lake Jackson	City of Lake Jackson	No	\$160,000,000	\$4,686,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3,718	3,208	7,487	3	0	148.5	235	17,819	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000970	Pecan Grove Levee	Construction of a ring levee to protect development in the Bullhead Bayou and Pecan Grove area.	08000009	Fort Bend	12070104	120701040402, 120701040401	08000013, 08000014	Preliminary Engineering	116	Riverine	City of Richmond	City of Richmond	No	\$76,000,000	\$2,368,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3,662	2,928	6,574	12	1	72.8	231	16,072	-	-
081000973	Lower Oyster Creek Improvements	Channel bank fill and improvements to create smooth transitions between diversion, flume, and creek channels during large storm improvements.	08000009	Fort Bend	12040205, 12070104	120402050200, 120701040403, 120701040409	08000013, 08000014	Preliminary Engineering	2	Riverine, Local	Missouri City	Missouri City	No	\$542,900	\$54,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	30	26	58	0	0	3.4	18	373	-	-
081000974	Commonwealth Blvd Drainage Improvements	Design and construct drainage improvements along Commonwealth Blvd between Monarch Dr, Elkins Rd, St Michaels Ct, and Knightsbridge Ct.	08000009	Fort Bend	12070104	120701040403	08000013	Preliminary Engineering	1	Local	City of Sugar Land	City of Sugar Land	No	\$4,000,000	\$183,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000975	Covington West and Imperial Woods Drainage Improvements	Drainage infrastructure improvements to reduce flooding in the Covington West drainage area.	08000009	Fort Bend	12040205	120402050100	08000014	Preliminary Engineering	1	Local	City of Sugar Land	City of Sugar Land	No	\$4,900,000	\$215,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000976	Sugar Creek Watershed Analysis	Complete a drainage study for the Sugar Creek neighborhood to mitigate flooding risk.	08000014	Fort Bend	12040205	120402050200	08000014	Regional Watershed Studies	2	Riverine	City of Sugar Land	City of Sugar Land	No	-	\$50,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	26	14	165	0	0	2.3	18	1	-	-
081000978	Colony Bend, Colony Grant, Stephens Grant Drainage Improvements	Complete a drainage study, design, and construction of drainage improvements to reduce flooding risk in the neighborhoods.	08000009	Fort Bend	12070104	120701040403	08000013	Preliminary Engineering	1	Local	City of Sugar Land	City of Sugar Land	No	\$11,000,000	\$421,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000979	City of Sugar Land Flood Inundation Mapping	Update of the Integrated Stormwater Management Model to include improvements to predictions in leveed areas.	08000014	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040402, 120402050100, 120402050200	08000013, 08000014	Regional Watershed Studies	43	Riverine	City of Sugar Land	City of Sugar Land	No	-	\$233,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	442	350	835	2	0	18.4	96	1,687	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081000980	Chimneystone, Austin, and Settlers Parks Improvements Phase III	Design and construct drainage improvements to Wagon Trail and Settlers Way in Settlers Park.	08000009	Fort Bend	12070104	120701040403	08000013	Preliminary Engineering	1	Local	City of Sugar Land	City of Sugar Land	No	\$15,000,000	\$551,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000981	Sugar Creek East Ditch	Install box culverts in the Sugar Creek East Ditch for storm water control.	08000009	Fort Bend	12040205	120402050200	08000014	Preliminary Engineering	2	Riverine	City of Sugar Land	City of Sugar Land	No	\$6,000,000	\$253,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	26	14	165	0	0	2.3	18	1	-	-
081000982	Lakebend Sugar Creek Outfall & Drainage	Replace outfall structure and channel improvements at Sugar Creek & Parkway Blvd and upsize storm water systems.	08000009	Fort Bend	12040205	120402050200	08000014	Preliminary Engineering	2	Riverine	City of Sugar Land	City of Sugar Land	No	\$10,000,000	\$388,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	26	14	165	0	0	2.3	18	1	-	-
081000983	Imperial Woods/Lynnwood Lane Drainage Improvements	Upsize water system and inlet replacement along Woodchester, Lynnwood, Oakwood, and Fernhill.	08000009	Fort Bend	12040205	120402050100	08000014	Preliminary Engineering	0	Local	City of Sugar Land	City of Sugar Land	No	\$3,500,000	\$166,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000984	Monarch Dr Drainage Improvements	Upsize storm water system south of Commonwealth Blvd.	08000009	Fort Bend	12070104	120701040403, 120701040402	08000013	Preliminary Engineering	0	Local	City of Sugar Land	City of Sugar Land	No	\$4,000,000	\$183,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	1	0	-	-
081000985	Riverbend North Drainage Improvements	Upsize storm water system and inlets in Riverbend North.	08000009	Fort Bend	12040205	120402050200	08000014	Preliminary Engineering	0	Local	City of Sugar Land	City of Sugar Land	No	\$3,500,000	\$166,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	199	192	348	1	0	2.6	10	4	-	-
081000986	Lakes of Austin Park Drainage Improvements	Upsize storm water systems and inlets.	08000009	Fort Bend	12070104	120701040403	08000013	Preliminary Engineering	0	Local	City of Sugar Land	City of Sugar Land	No	\$2,500,000	\$129,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-

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FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081000987	Telfair Inlet Replacements	Update storm water inlets.	08000009	Fort Bend	12070104	120701040402	08000013	Preliminary Engineering	2	Local	City of Sugar Land	City of Sugar Land	No	\$1,000,000	\$73,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000988	Greatwood Inlet Replacements	Update storm water inlets.	08000009	Fort Bend	12070104	120701040402	08000013	Preliminary Engineering	3	Local	City of Sugar Land	City of Sugar Land	No	\$1,250,000	\$82,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000989	New Territory Inlet Replacements	Update storm water inlets.	08000009	Fort Bend	12070104	120701040402	08000013	Preliminary Engineering	3	Local	City of Sugar Land	City of Sugar Land	No	\$1,500,000	\$92,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	1	0	-	-
081000990	LID 2 Watershed Analysis	Complete a drainage study for the Sugar Creek neighborhood to mitigate flooding risk.	08000014	Fort Bend	12070104	120701040402	08000013, 08000014	Regional Watershed Studies	8	Riverine, Local	City of Sugar Land	City of Sugar Land	No	-	\$75,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	2	-	-
081000991	Williams Trace and Highlands Drainage Improvements	Upsize storm water system and install inlet improvements along Williams Trace from south of SH 6 to Oyster Creek and Lexington Blvd from Williams Trace to Oyster Creek.	08000009	Fort Bend	12040205	120402050200	08000013, 08000014	Preliminary Engineering	1	Local	City of Sugar Land	City of Sugar Land	No	\$10,000,000	\$388,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081000998	Pierce Street Storm Drain Improvements	Upsizing of storm sewer throughout the neighborhood to prevent flooding for the 10-year storm.	08000009	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Riverine	City of Bryan	City of Bryan	No	\$2,500,000	\$129,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	20	20	49	0	0	0.2	0	0	-	-
081000999	Hudson Creek Regional Detention	Study to design regional detention upstream of Copperfield to mitigate flooding and maintenance problems.	08000014	Brazos	12070103	120701030603, 120701030702	08000007	Feasibility Assessment	3	Riverine, Local	City of Bryan	City of Bryan	No	-	\$160,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	26	21	86	0	0	0.3	3	12	-	-

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001002	23rd Street Draining & Maintenance	Study to determine cause and proposed alternatives to mitigate flooding in the subdivision.	08000014	Brazos	12070101	120701010702	08000005, 08000007	Preliminary Engineering	1	Local	City of Bryan	City of Bryan	No	\$2,455,000	\$128,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	1	1	0	0	0.0	2	0	-	-
081001003	Tennessee Avenue Crossing	A study and detailed design needs to be completed to assess the flooding and design culvert improvements to reduce road overtopping.	08000014	Brazos	12070101, 12070103	120701010702, 120701030702	08000005, 08000007	Preliminary Engineering	4	Local	City of Bryan	City of Bryan	No	\$375,000	\$50,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	126	117	310	0	5	2.3	36	20	-	-
081001004	Shirley Lane Flooding	Street reconstruction to better direct flow and expand roadside ditch.	08000010	Brazos	12070101, 12070103	120701010702, 120701030702	08000005, 08000007	Preliminary Engineering	1	Local	City of Bryan	City of Bryan	No	\$50,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	22	19	63	0	1	0.4	4	0	-	-
081001005	Lynndale Acres Ph 2: Old Hearne and McHaney Street	A study of the drainage area is needed to assess and propose improvements to reduce flooding in the area. As part of this study, alternatives should be recommended.	08000014	Brazos	12070101, 12070103	120701010702, 120701030702	08000005, 08000007	Preliminary Engineering	2	Local	City of Bryan	City of Bryan	No	\$1,000,000	\$73,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	98	92	221	0	4	1.4	23	0	-	-
081001009	Thompsons Branch & SH 6 Drainage Improvements	Study to design several improvements to mitigate flooding at the crossing.	08000014	Brazos	12070101	120701010609, 120701010610, 120701010613, 120701010701, 120701010702, 120701010703	08000005, 08000007	Preliminary Engineering	28	Riverine, Local	City of Bryan	City of Bryan	No	\$2,700,000	\$137,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	7	6	3	0	3	2.0	6	978	-	-
081001015	Turkey Creek Drainage Improvements	Detailed design of improvements throughout the Turkey Creek watershed, especially to fix erosion problems.	08000014	Brazos	12070101, 12070103	120701010702, 120701010703, 120701010705, 120701030702	08000005, 08000007	Preliminary Engineering	9	Riverine, Local	City of Bryan	City of Bryan	No	\$5,090,000	\$222,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	14	14	22	0	0	0.5	9	19	-	-
081001020	South For of Turkey Creek Improvements	Erosion control and crossing improvements along South Fork of Turkey Creek.	08000010	Brazos	12070101, 12070103	120701010702, 120701010703, 120701010705, 120701030702	08000005, 08000007	Preliminary Engineering	9	Riverine, Local	City of Bryan	City of Bryan	No	\$710,000	\$61,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	14	14	22	0	0	0.5	9	19	-	-

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FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001021	Burton Creek Extension of Flood Study	Expansion of previous study to improve characterization of flood risk.	08000014	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	Regional Watershed Studies	7	Riverine	City of Bryan	City of Bryan	No	-	\$71,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	348	254	1,235	2	9	4.3	47	0	-	-
081001022	Thompson Creek Floodplain Study from RELIS to HW 6 to Establish Floodway	Study of Thompson Creek to determine flood risk.	08000014	Brazos	12070101	120701010609, 120701010610, 120701010613, 120701010701, 120701010702, 120701010703	08000005, 08000007	Regional Watershed Studies	28	Riverine	City of Bryan	City of Bryan	No	-	\$164,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	7	6	3	0	3	2.0	6	978	-	-
081001023	Study Wickson Creek for Floodplain/Floodway from FM 974 to Navasota River	Study of Wickerson Creek to determine flood risk.	08000014	Brazos	12070103	120701030603, 120701030602	08000005, 08000007	Regional Watershed Studies	88	Riverine	City of Bryan	City of Bryan	No	-	\$436,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	52	45	39	0	4	5.2	25	3,489	-	-
081001027	Citywide FEMA Flood Study	City wide updates to floodplain mapping.	08000014	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	Regional Watershed Studies	45	Riverine	City of Bryan	City of Bryan	No	-	\$241,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	1,120	870	2,013	3	36	37.2	94	4,194	-	-
081001028	Storm Sewer at UPRR Rail and 31st Street	Design of improvements to storm sewer to increase capacity under the identified crossing.	08000009	Brazos	12070101, 12070103	120701010702, 120701030702	08000005, 08000007	Preliminary Engineering	0	Local	City of Bryan	City of Bryan	No	\$1,200,000	\$80,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2	0	40	0	0	0.1	1	0	-	-
081001029	Downtown Storm Sewer Improvements to Still Creek	Study and design of storm drain improvements throughout the Still Creek watershed.	08000009	Brazos	12070101	120701010702	08000005, 08000007	Feasibility Assessment	1	Local	City of Bryan	City of Bryan	No	-	\$126,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	1	0	-	-
081001030	Erosion Master Plans: Briar Creek at Bob Bond Park	Study to determine erosion solutions along Briar Creek.	08000009	Brazos	12070103	120701030702	08000007	Drainage Master Plans	0	Riverine	City of Bryan	City of Bryan	No	-	\$94,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	10	10	20	0	1	0.1	2	0	-	-
081001031	Burton Creek Failed Channel Linings	Study to design fixes for channel linings along Burton Creek.	08000014	Brazos	12070103	120701030702	08000007	Preliminary Engineering	1	Riverine	City of Bryan	City of Bryan	No	\$3,000,000	\$148,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	195	171	781	1	5	2.2	25	0	-	-

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081001032	Brushy Creek Flood Study Extension	Expansion of previous study to improve characterization of flood risk.	08000014	Brazos	12070103	120701030603	08000007	Regional Watershed Studies	12	Riverine	City of Bryan	City of Bryan	No	-	\$92,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	7	7	5	0	0	0.2	4	324	-	-
081001033	Philips Event Center Detention Pond at Hole 8 - Maintenance and Dredging	Maintenance on detention pond to increase storage.	08000010	Brazos	12070103	120701030702	08000007	Preliminary Engineering	3	Riverine, Local	City of Bryan	City of Bryan	No	\$2,500,000	\$129,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	100	93	191	0	5	1.9	15	7	-	-
081001035	Improve Undersized Storm Sewers in Briar Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070103	120701030702	08000007	H&H Modeling	3	Local	City of Bryan	City of Bryan	No	\$5,300,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	100	93	191	0	5	1.9	15	7	-	-
081001036	Improve Undersized Storm Sewers in Burton Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	H&H Modeling	7	Local	City of Bryan	City of Bryan	No	\$31,850,000	\$300,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	348	254	1,235	2	9	4.3	47	0	-	-
081001037	Improve Undersized Storm Sewers in Carter Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070101, 12070103	120701010702, 120701030602, 120701030702	08000005, 08000007	H&H Modeling	12	Local	City of Bryan	City of Bryan	No	\$5,500,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	190	158	491	1	6	5.0	48	184	-	-
081001038	Improve Undersized Storm Sewers in Hudson Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070103	120701030603, 120701030702	08000007	H&H Modeling	3	Local	City of Bryan	City of Bryan	No	\$2,200,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	26	21	86	0	0	0.3	3	12	-	-
081001039	Improve Undersized Storm Sewers in Cottonwood Branch/Still Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070101, 12070103	120701010702, 120701010703, 120701030702	08000005, 08000007	H&H Modeling	17	Local	City of Bryan	City of Bryan	No	\$7,500,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	254	166	581	0	12	5.5	51	292	-	-
081001040	Improve Undersized Storm Sewers in Turkey Creek DB	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Brazos	12070101, 12070103	120701010702, 120701010703, 120701010705, 120701030702	08000005, 08000007	H&H Modeling	9	Local	City of Bryan	City of Bryan	No	\$1,900,000	\$100,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA	14	14	22	0	0	0.5	9	19	-	-
081001042	Elm St/Graham Ave Drainage Improvements Ph 1&2	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$13,530,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001043	Second Ave/Hyman Ave/Alexaner Rd Drainage Improvements	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$4,550,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	2	0	-	-
081001044	Lingleville Rd Drainage Improvements	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	1	Riverine, Local	City of Stephenville	City of Stephenville	No	\$2,720,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	4	2	7	0	0	0.2	1	25	-	-
081001045	Moonlight Tr Drainage Improvements	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040102	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$230,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081001046	Old Hico Rd Drainage Improvements	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$550,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	0	-	-
081001047	Dale Ave Drainage Improvements	Update design to account for Atlas 14 rainfall.	08000006	Erath	12060204	120602040102	08000004	H&H Modeling	1	Riverine, Local	City of Stephenville	City of Stephenville	No	\$730,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	1	2	0	2	0.6	8	0	-	-
081001048	Belknap Drainage Improvements	Update design to account for Atlas 14 rainfall.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$290,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	9	2	10	0	0	0.3	3	10	-	-
081001049	Northwest Loop Subbasin	Update design to account for Atlas 14 rainfall.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	3	Riverine, Local	City of Stephenville	City of Stephenville	No	\$1,540,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	58	35	174	0	2	1.3	12	14	-	-

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001051	Lockhart Rd Culverts	Proposed improvements to culverts, need a more in depth study of associated road improvements.	08000014	Erath	12060204	120602040103	08000004	Preliminary Engineering	2	Riverine, Local	City of Stephenville	City of Stephenville	No	\$330,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1	1	1	0	0	0.2	3	10	-	-
081001052	Swan St Culverts	Update design to account for Atlas 14 rainfall.	08000006	Erath	12060204	120602040103	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$330,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	20	16	37	0	0	0.5	4	1	-	-
081001053	Prairie Wind Improvements	Update design to account for Atlas 14 rainfall.	08000006	Erath	12060204	120602040102	08000004	H&H Modeling	2	Riverine, Local	City of Stephenville	City of Stephenville	No	\$2,030,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	9	9	30	0	3	1.1	10	61	-	-
081001055	Rowland Channel Drainage Improvements	Alternative analysis to determine whether property acquisition or addition of detention is more feasible.	08000014	Erath	12060204	120602040103	08000004	Feasibility Assessment	3	Riverine, Local	City of Stephenville	City of Stephenville	No	-	\$198,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	58	35	174	0	2	1.3	12	14	-	-
081001056	Spring Bouquet Drainage Improvements	Update modeling to Atlas 14 to determine appropriate sizing for storm sewer in the region.	08000006	Erath	12060204	120602040102	08000004	H&H Modeling	0	Riverine, Local	City of Stephenville	City of Stephenville	No	\$1,670,000	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	17	-	-
081001065	Carters Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Brazos	12070103	120701030704, 120701030702	08000005, 08000007	Regional Watershed Studies	58	Riverine	City of College Station	City of College Station	No	-	\$304,000	Local, TWDB FIF, FEMA FMA	849	646	2,564	8	43	17.1	152	1,275	-	-
081001066	Hope's Creek Flood Study	Study to determine flood risk across the watershed.	08000014	Brazos	12070101	120701010705	08000005, 08000007	Regional Watershed Studies	10	Riverine	City of College Station	City of College Station	No	-	\$158,000	Local, TWDB FIF, FEMA FMA	37	24	62	0	0	1.3	5	702	-	-
081001067	Peach Creek Flood Study	Study to determine flood risk across the watershed.	08000014	Brazos	12070103	120701030707	08000005, 08000007	Regional Watershed Studies	26	Riverine	City of College Station	City of College Station	No	-	\$84,000	Local, TWDB FIF, FEMA FMA	15	13	2	0	0	0.2	2	106	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001068	FBCDD Drop Structures - Condition Assessments & Upgrades	Create inventory of structures and condition, prioritize and design upgrades to structures as needed.	08000014	Fort Bend	12070104, 12040205	120701040404, 120701040405, 120701040406, 120701040403, 120701040408, 120701040409, 120701040407, 120701040501, 120701040402, 120701040401, 120701040309, 120701040307, 120701040308, 120402050100, 120402050300, 120402050200	08000013, 08000014	Study on Flood Preparedness	609	Riverine, Local	Fort Bend County	Fort Bend County Drainage District, Fort Bend County	No	-	\$2,712,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	14,277	11,612	26,966	28	2	299.9	1,167	95,254	-	-
081001115	City of Killeen Early Flood Warning System	Develop and implement a warning system to notify public of flood risk.	8000019	Bell	12070201, 12070200		8E+22	Study on Flood Preparedness	53.8	Riverine	City of Killeen	City of Killeen	No		\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	799	564	2,707	2	49	265	15	3,037	-	-
081001117	City of Cleburne Early Flood Warning System	Develop an early warning system for Buffalo and Meaner Creek which would remotely alert at the site when the water reaches a dangerous level.	8000019	Johnson	12060202		8000002	Study on Flood Preparedness	31.2	Riverine	City of Cleburne	City of Cleburne	No		\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	584	422	2,384	8	8	239	22	7,290	-	-
081001145	Dam 18 Rehabilitation	Improvements to ensure dam provides necessary protection against flood risk.	08000009	Williamson	12070205	120702050408	08000012	Preliminary Engineering	11	Riverine	Upper Brushy Creek WCID	Upper Brushy Creek WCID	No	-	\$500,000	Local, FEMA HMGP, FEMA FMA, USDA NRCS Watershed Rehabilitation	11	5	10	0	1	1.8	8	1,105	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts			
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)	
081001146	Waller County Master Drainage Plan	Study to determine food risk and potential solutions throughout the county.	08000014	Waller	12070101, 12070104	120701010908, 120701010803, 120701010804, 120701040102, 120701040103, 120701040104, 120701040105, 120701040106, 120701040108, 120701040210, 120701040301, 120701040302, 120701040303, 120701040304, 120701040307, 120701040308	08000005, 08000013, 08000014	Drainage Master Plans	516	Riverine, Local	Waller County	Waller County	No	-	\$1,430,000		Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,038	1,007	1,327	0	0	90.2	0	3	-	-
081001147	University Oaks Crossing	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$551,130	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	31	13	150	0	5	1.3	2	24	-	-	
081001148	Texas Ave Crossing & Channel Improvements (Hwy 6 to Texas) & Detention Pond	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	1207010107, 1207010307	08000005, 08000007	H&H Modeling	9	Riverine, Local	City of College Station	City of College Station	No	\$7,285,880	\$100,000	Local, TWDB FIF, FEMA FMA	69	50	85	1	9	2.1	19	75	-	-	
081001149	Southwest Pkwy Crossing Trib B.1	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	0	Riverine, Local	City of College Station	City of College Station	No	\$313,890	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	1.6	1	4	-	-	
081001150	Southwest Pkwy Crossing Trib B.2.1	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	0	Riverine, Local	City of College Station	City of College Station	No	\$292,360	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2	2	5	0	0	0.2	0	2	-	-	
081001151	Southwest Pkwy Crossing Trib B.2	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	0	Riverine, Local	City of College Station	City of College Station	No	\$348,210	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	17	14	32	0	0	0.5	0	3	-	-	

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001152	Miliff Rd Crossing	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	1207010107, 1207010307	08000005, 08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$424,640	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	9	9	136	0	2	1.0	0	1	-	-
081001153	Hwy 6 Crossing & DS Channel Improvements	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	2	Riverine, Local	City of College Station	City of College Station	No	\$7,313,840	\$100,000	Local, TWDB FIF, FEMA FMA	26	26	86	1	0	1.7	2	12	-	-
081001154	Holleman Crossing & Channel Improvements (Glade to Holleman)	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000005, 08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$803,260	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3	3	8	0	0	1.3	2	9	-	-
081001155	Harvey Rd Crossing	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$406,870	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	31	13	150	0	5	1.3	2	24	-	-
081001156	FM 2818 Crossing & Channel Improvements (FM 2818 to Welsh) & Detention Pond	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000005, 08000007	H&H Modeling	5	Riverine, Local	City of College Station	City of College Station	No	\$3,032,680	\$100,000	Local, TWDB FIF, FEMA FMA	22	19	45	1	9	1.2	7	33	-	-
081001157	Brothers Blvd Crossing & Channel (Rio Grande to Longmire)	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$36,873,690	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.6	1	12	-	-
081001158	Channel Upstream of Welsh	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	0	Riverine, Local	City of College Station	City of College Station	No	\$780,340	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.3	0	14	-	-

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081001159	Texas Ave Crossing & Channel Improvements (Longmire to Hwy 6)	Update design to account for Atlas 14 rainfall.	08000006	Brazos	12070101, 12070103	120701010705, 120701030704, 120701030702, 120701030707	08000007	H&H Modeling	1	Riverine, Local	City of College Station	City of College Station	No	\$1,966,180	\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	24	14	6	0	0	1.3	3	16	-	-
081001160	Berry Branch Brushy Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson, Milam	12070205	120702050408	08000006, 08000012	Drainage Master Plans	56	Riverine, Local	Williamson	Williamson	No	-	\$591,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	41	21	27	1	8	9.8	36	7,744	-	-
081001161	Big Creek Navasota DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Grimes, Brazos	12070103	120701030804	08000005, 08000007	Drainage Master Plans	59	Riverine, Local	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$604,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	346	233	1,065	2	4	16.9	60	15,184	-	-
081001162	Boggy Creek Brushy Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Travis, Williamson	12070205	120702050406	08000012	Drainage Master Plans	60	Riverine, Local	Williamson	Williamson	No	-	\$607,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	143	118	141	0	6	7.5	25	8,636	-	-
081001163	Brazoria DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Brazoria, Fort Bend	12070104, 12040205	120701040503, 120701040505, 120402050400, 120402050300, 120402050200	08000013, 08000014	Drainage Master Plans	608	Riverine, Local	Brazoria	Brazoria	No	-	\$1,526,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	13,458	10,611	26,103	25	0	449.1	751	87,452	-	-
081001164	Lampasas Sulphur Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Burnet, Lampasas	12070203	120702030306	08000010	Drainage Master Plans	66	Riverine, Local	Grimes	Grimes	No	-	\$629,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	663	273	3,160	6	12	15.2	90	1,094	-	-
081001165	Thompson Branch-Davidson Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Burleson	12070102	120701020402	08000005, 08000006	Drainage Master Plans	48	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$560,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	129	61	320	5	1	6.4	34	2,118	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001166	Castleman Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020804	08000002, 08000003, 08000005	Drainage Master Plans	28	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$454,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	160	132	504	1	1	4.0	30	1,854	-	-
081001167	Cleburne-Buffalo Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Johnson	12060202	120602020202	08000002	Drainage Master Plans	68	Riverine, Local	Grimes	Grimes	No	-	\$639,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	816	601	2,541	8	12	21.4	152	2,859	-	-
081001168	Clifton DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bosque	12060204	120602040404	08000002, 08000004	Drainage Master Plans	41	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$528,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	285	156	692	1	6	13.3	77	4,983	-	-
081001169	Copperas Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Brown, Comanche, Eastland	12070201	120702010301	08000008	Drainage Master Plans	54	Riverine, Local	Grimes	Grimes	No	-	\$585,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	168	94	122	2	1	13.6	55	2,670	-	-
081001170	Cottonwood Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020803	08000002, 08000003	Drainage Master Plans	50	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$567,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,546	974	15,805	11	3	62.3	290	3,255	-	-
081001171	Dry Berry Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050302	08000010, 08000012	Drainage Master Plans	38	Riverine, Local	Williamson	Williamson	No	-	\$509,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	100	53	86	0	5	7.1	26	2,790	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001172	Flat Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020802	08000002, 08000003	Drainage Master Plans	19	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$392,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	201	114	1,789	3	1	5.7	41	886	-	-
081001173	Hogpen Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Falls, Limestone, McLennan	12070101	120701010201	08000002, 08000005, 08000007	Drainage Master Plans	49	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$561,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	42	25	40	0	6	3.3	31	3,521	-	-
081001174	Comanche-Indian Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Comanche	12070201	120702010502	08000008	Drainage Master Plans	55	Riverine, Local	Grimes	Grimes	No	-	\$587,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	237	148	367	1	4	8.9	64	3,167	-	-
081001175	Lake Waco DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Coryell, McLennan	12060203, 12060204	120602030302, 120602030303, 120602040407	08000002, 08000003, 08000004, 08000005, 08000008	Drainage Master Plans	107	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$763,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	387	212	575	1	8	54.7	108	6,807	-	-
081001176	Mustang Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050405	08000012	Drainage Master Plans	55	Riverine, Local	Williamson	Williamson	No	-	\$589,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	111	71	199	0	13	6.6	51	4,157	-	-
081001177	Nash Creek-Leon DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Eastland	12070201	120702010201	08000001, 08000008	Drainage Master Plans	58	Riverine, Local	Grimes	Grimes	No	-	\$601,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	8	0	2	0	3	7.9	26	2,361	-	-



## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001178	Eastland-Lake Leon DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Eastland	12070201	120702010104, 120702010108, 120702010105	08000008	Drainage Master Plans	147	Riverine, Local	Grimes	Grimes	No	-	\$864,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	626	325	1,006	6	0	36.6	143	2,717	-	-
081001179	Sandy Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Grimes	12070101	120701010802	08000005, 08000007	Drainage Master Plans	59	Riverine, Local	Grimes	Grimes	No	-	\$603,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	226	137	426	3	0	8.0	38	3,030	-	-
081001180	South Nolan Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bell, Coryell	12070201	120702011101, 120702011104, 120702011102	08000008, 08000009, 08000010	Drainage Master Plans	92	Riverine, Local	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$718,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,237	740	5,003	7	60	30.2	208	1,514	-	-
081001181	Tradinghouse Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Limestone, McLennan	12060202	120602020707	08000002, 08000005, 08000007	Drainage Master Plans	39	Riverine, Local	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$516,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	46	28	55	0	4	4.0	23	1,643	-	-
081001182	Turkey Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson, Milam	12070205	120702050409	08000012	Drainage Master Plans	63	Riverine, Local	Williamson	Williamson	No	-	\$619,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	92	69	81	0	4	7.1	34	7,858	-	-
081001183	White Rock Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020801	08000002, 08000003, 08000004	Drainage Master Plans	53	Riverine, Local	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$582,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	288	155	513	0	3	6.8	36	5,620	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001184	Lake Graham-Salt Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Young	12060201	120602010107	08000001	Drainage Master Plans	60	Riverine, Local	Grimes	Grimes	No	-	\$607,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	595	369	873	3	5	14.0	49	2,247	-	-
081001185	Walnut Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Hood	12060201	120602011208	08000001, 08000002	Drainage Master Plans	62	Riverine, Local	Grimes	Grimes	No	-	\$617,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	616	525	1,180	0	7	6.9	58	335	-	-
081001186	Bee Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Hood, Parker	12060201	120602011207	08000001	Drainage Master Plans	60	Riverine, Local	Williamson County Water and Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$609,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,220	976	2,076	1	1	26.4	104	3,868	-	-
081001187	Pollard Creek-Crystal Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Palo Pinto	12060201	120602011002	08000001	Drainage Master Plans	55	Riverine, Local	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$586,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	398	242	1,541	4	1	17.8	147	1,800	-	-
081001188	Middle Rock Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000014	Palo Pinto, Parker	12060201	120602011103	08000001	Drainage Master Plans	22	Local	Grimes	Grimes	No	-	\$419,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	71	7	575	2	1	4.1	39	679	-	-
081001189	Rice Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan, Hill	12060202	120602020702	08000002	Drainage Master Plans	29	Riverine	Williamson County Water and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$460,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	29	8	40	0	2	3.7	21	2,922	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001190	Tehuacana Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Limestone, McLennan, Hill	12060202	120602020706, 120602020708, 120602020705	08000002, 08000007	Drainage Master Plans	121	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$799,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	265	156	331	1	5	27.1	67	11,022	-	-
081001191	Dry Creek-Aquilla Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan, Hill	12060202	120602020509	08000002	Drainage Master Plans	67	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$636,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	47	18	58	0	0	2.8	19	5,729	-	-
081001192	Eagle Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020605	08000002, 08000004	Drainage Master Plans	26	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$443,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	228	158	328	0	2	1.0	9	1,998	-	-
081001193	Manos Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	McLennan	12060202	120602020805	08000002, 08000005	Drainage Master Plans	57	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$597,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	52	17	62	0	2	5.8	24	9,195	-	-
081001194	Lower Hackberry Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Hill	12060202	120602020502	08000002	Drainage Master Plans	66	Riverine, Local	Grimes	Grimes	No	-	\$630,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	57	29	292	0	3	7.9	52	3,637	-	-
081001195	Cottonwood Creek-Aquilla Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Johnson, Hill	12060202	120602020503	08000002	Drainage Master Plans	64	Riverine, Local	Grimes	Grimes	No	-	\$624,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	47	19	44	0	1	4.4	19	2,347	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001196	Somervell-Paluxy River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Hood, Bosque, Somervell	12060202	120602020111	08000002, 08000004	Drainage Master Plans	57	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$596,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	219	97	1,221	10	14	9.6	55	935	-	-
081001197	Stanifer Branch-North Bosque River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bosque	12060204	120602040309	08000002, 08000004	Drainage Master Plans	50	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$569,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	110	50	184	2	0	6.5	36	4,235	-	-
081001198	South Fork North Bosque River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Erath	12060204	120602040102	08000001, 08000004, 08000008	Drainage Master Plans	50	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$567,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	42	21	56	0	6	5.7	33	2,471	-	-
081001199	Indian Creek-North Bosque River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Erath	12060204	120602040103	08000002, 08000004	Drainage Master Plans	49	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$563,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	210	121	354	0	7	6.3	56	2,377	-	-
081001200	Green Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Erath	12060204	120602040106	08000004, 08000008	Drainage Master Plans	74	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$659,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	98	56	101	0	5	9.9	47	3,561	-	-
081001201	Bull Hide Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Falls, McLennan	12070101	120701010101	08000002, 08000003, 08000005	Drainage Master Plans	36	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$500,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	15	9	14	0	3	2.8	21	1,857	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001202	South Cow Bayou DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Falls, McLennan	12070101	120701010106	08000003, 08000005, 08000008, 08000011	Drainage Master Plans	48	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$558,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	14	11	11	0	0	1.6	13	1,509	-	-
081001203	North Cow Bayou DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Falls, McLennan	12070101	120701010105	08000003, 08000005	Drainage Master Plans	37	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$507,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	37	22	35	0	1	2.7	20	1,433	-	-
081001204	Big Sandy Creek-New Year Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Washington	12070101	120701010902	08000005, 08000013	Drainage Master Plans	33	Riverine, Local	Washington	Washington	No	-	\$483,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	96	38	162	1	6	3.7	47	1,856	-	-
081001205	Donahoe Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller, Washington	12070101	120701010908	08000005, 08000013	Drainage Master Plans	58	Riverine, Local	Waller	Waller	No	-	\$600,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	41	5	22	0	0	11.3	9	12,819	-	-
081001206	Lost Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Milam, Robertson	12070101	120701010606	08000005, 08000011	Drainage Master Plans	61	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$611,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	280	172	814	2	0	27.6	49	16,807	-	-
081001207	Bryan-Thompsons Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Brazos	12070101	120701010702	08000005, 08000007	Drainage Master Plans	53	Riverine, Local	Bryan	Bryan	No	-	\$581,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	264	172	584	0	15	8.6	56	1,520	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001208	Rocky Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller, Washington, Grimes	12070101	120701010804	08000005, 08000007, 08000013	Drainage Master Plans	61	Riverine, Local	Grimes	Grimes	No	-	\$611,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	67	8	75	0	0	4.2	8	11,477	-	-
081001209	Second Davidson Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Burleson	12070102	120701020403	08000006	Drainage Master Plans	41	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$527,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	48	36	84	0	0	3.5	31	1,036	-	-
081001210	Holland Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Grimes	12070103	120701030802	08000005, 08000007	Drainage Master Plans	42	Riverine, Local	Grimes	Grimes	No	-	\$533,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	7	2	9	0	5	2.8	11	2,564	-	-
081001211	Bee Creek-Carters Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Brazos	12070103	120701030702	08000005, 08000007	Drainage Master Plans	43	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$535,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	831	630	2,968	4	43	16.1	148	591	-	-
081001212	Upper Resley Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Comanche, Erath	12070201	120702010601	08000004, 08000008	Drainage Master Plans	49	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$565,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	53	26	52	0	9	6.6	56	2,247	-	-
081001213	Hamilton-Pecan Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Hamilton	12070201	120702010703	08000008, 08000009	Drainage Master Plans	30	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$465,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	104	39	410	1	9	4.8	55	761	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001214	Pepper Creek-Leon River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bell	12070201	120702011105	08000008, 08000011	Drainage Master Plans	47	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$553,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	234	132	703	1	4	4.3	51	889	-	-
081001215	Cottonwood Creek-Leon River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Coryell	12070201	120702010905	08000008, 08000009	Drainage Master Plans	64	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$623,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	101	54	226	0	4	5.7	39	2,819	-	-
081001216	Little Elm Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bell	12070204	120702040202	08000008, 08000011	Drainage Master Plans	35	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$498,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	171	85	1,015	1	7	7.5	63	1,732	-	-
081001217	Camp Creek-Big Elm Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Milam, Bell, Falls	12070204	120702040205	08000005, 08000011	Drainage Master Plans	59	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$603,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	48	5	39	0	4	8.0	29	6,617	-	-
081001218	Upper Donahoe Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson, Bell	12070204	120702040106	08000010, 08000011, 08000012	Drainage Master Plans	45	Riverine, Local	Williamson	Williamson	No	-	\$547,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	14	7	10	0	9	3.5	15	2,171	-	-
081001219	Mileham Branch-San Gabriel River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050502	08000012	Drainage Master Plans	39	Riverine, Local	Williamson	Williamson	No	-	\$516,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	401	314	610	0	8	14.6	67	3,411	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001220	Opossum Creek-Willis Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050503	08000010, 08000011, 08000012	Drainage Master Plans	56	Riverine, Local	Williamson	Williamson	No	-	\$591,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	197	141	151	0	10	10.3	43	4,793	-	-
081001221	Pecan Branch-San Gabriel River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050504	08000012	Drainage Master Plans	30	Riverine, Local	Williamson	Williamson	No	-	\$466,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	174	115	196	0	3	6.8	21	5,640	-	-
081001222	Granger Lake DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050505	08000011, 08000012	Drainage Master Plans	54	Riverine, Local	Williamson	Williamson	No	-	\$583,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	118	84	152	1	5	7.8	27	4,460	-	-
081001223	Upper Brushy Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Travis, Williamson	12070205	120702050402, 120702050403, 120702050401, 120702050404	08000012	Drainage Master Plans	185	Riverine, Local	Williamson	Williamson	No	-	\$946,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	993	792	2,875	3	47	29.1	203	3,184	-	-
081001224	Smith Branch-San Gabriel River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050501	08000012	Drainage Master Plans	22	Riverine, Local	Williamson	Williamson	No	-	\$413,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	193	152	490	0	3	9.1	55	637	-	-
081001225	Lower Berry Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Williamson	12070205	120702050303	08000010, 08000012	Drainage Master Plans	49	Riverine, Local	Williamson	Williamson	No	-	\$565,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	68	64	166	0	5	5.3	24	865	-	-
081001226	Lower Allens Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin	12070104	120701040306	08000013	Drainage Master Plans	34	Riverine, Local	Austin	Austin	No	-	\$491,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	106	65	136	0	0	7.2	10	5,670	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001227	Upper Allens Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin	12070104	120701040305	08000013	Drainage Master Plans	34	Riverine, Local	Austin	Austin	No	-	\$489,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	382	256	725	2	0	13.0	32	2,250	-	-
081001228	Ponds Creek-Clear Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000014	Waller	12070104	120701040104	08000005, 08000013	Drainage Master Plans	47	Riverine, Local	Waller	Waller	No	-	\$554,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	66	50	68	0	1	3.9	26	438	-	-
081001229	Threemile Creek-Clear Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller	12070104	120701040105	08000013	Drainage Master Plans	29	Riverine, Local	Waller	Waller	No	-	\$459,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	227	71	146	0	2	6.9	43	2,523	-	-
081001230	Hempstead-Blasingame Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin, Waller	12070104	120701040106	08000013	Drainage Master Plans	28	Riverine, Local	Waller	Waller	No	-	\$456,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	68	44	50	0	1	2.5	30	3,423	-	-
081001231	Ives Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin, Waller	12070104	120701040108	08000013	Drainage Master Plans	44	Riverine, Local	Austin	Austin	No	-	\$540,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	255	88	86	0	0	12.4	21	9,796	-	-
081001232	Sandy Creek-Mill Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin	12070104	120701040209	08000013	Drainage Master Plans	56	Riverine, Local	Austin	Austin	No	-	\$593,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	149	90	519	1	3	9.4	56	4,376	-	-
081001233	Deadman Creek-Mill Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000014	Austin, Waller	12070104	120701040210	08000013	Drainage Master Plans	53	Riverine	Austin	Austin	No	-	\$578,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	321	171	95	0	0	19.0	26	10,181	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001234	Harris Creek-Irons Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller	12070104	120701040301	08000013	Drainage Master Plans	31	Riverine, Local	Waller	Waller	No	-	\$473,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	126	58	72	0	0	9.3	23	7,417	-	-
081001235	Mulberry Creek-Irons Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000014	Waller	12070104	120701040302	08000013	Drainage Master Plans	24	Riverine, Local	Waller	Waller	No	-	\$430,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	213	100	72	0	1	6.5	16	5,976	-	-
081001236	Bessies Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller	12070104	120701040303	08000013	Drainage Master Plans	53	Riverine, Local	Waller	Waller	No	-	\$578,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	343	186	198	0	8	10.9	22	6,110	-	-
081001237	Bullinger Creek-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000014	Austin, Waller	12070104	120701040304	08000013	Drainage Master Plans	28	Riverine	San Felipe	San Felipe	No	-	\$458,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	307	179	353	0	1	12.7	38	4,316	-	-
081001238	Cannons Lake-Brazos River DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Austin, Waller	12070104	120701040307	08000013	Drainage Master Plans	23	Riverine, Local	Austin	Austin	No	-	\$421,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	597	344	301	0	0	29.4	23	7,109	-	-
081001239	Brookshire DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Waller	12070104	120701040308	08000013, 08000014	Drainage Master Plans	26	Riverine, Local	Waller	Waller	No	-	\$442,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	423	216	683	0	1	9.5	40	2,128	-	-
081001240	Dry Brushy Creek-Brushy Creek DMP	Drainage master plan developed under Task 4A to identify areas of high flood risk and develop flood mitigation solutions	08000009	Bastrop, Travis, Williamson	12070205	120702050407	08000006, 08000012	Drainage Master Plans	44	Riverine, Local	Williamson	Williamson	No	-	\$538,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	41	33	29	0	3	5.7	24	5,162	-	-

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## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001241	Lake Proctor	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Stephens, Brown, Comanche, Callahan, Eastland, Erath	12070201	120702050407	08000001, 08000004, 08000008	Regional Watershed Studies	1,021	Riverine	Grimes	Grimes	No	-	\$4,477,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	654	261	768	6	16	148.7	436	46,579	-	-
081001242	Middle Bosque River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Coryell, McLennan, Bosque	12060203	120602030104, 120602030103, 120602030105, 120602030101, 120602030102	08000003, 08000008	Regional Watershed Studies	198	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$928,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	154	74	199	0	4	12.1	78	16,003	-	-
081001243	Hog Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Coryell, McLennan, Hamilton, Bosque	12060203	120602030201, 120602030202	08000003, 08000004, 08000008	Regional Watershed Studies	90	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$446,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	99	29	104	0	6	10.4	43	7,391	-	-
081001244	North Bosque River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Coryell, McLennan, Hamilton, Bosque, Somervell, Erath	12060204	120602030201, 120602030202	08000001, 08000002, 08000003, 08000004, 08000008	Regional Watershed Studies	1,238	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$5,405,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,426	686	1,790	7	45	146.7	538	69,770	-	-
081001245	Aquilla Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Johnson, McLennan, Hill	12060202	120602020509, 120602020501, 120602020502, 120602020503, 120602020504, 120602020505, 120602020506, 120602020507, 120602020508	08000002	Regional Watershed Studies	409	Riverine, Local	Grimes	Grimes	No	-	\$1,846,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	204	88	374	0	7	32.7	178	20,746	-	-
081001246	Keechi Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Palo Pinto, Parker, Jack	12060201	120602010605, 120602010606, 120602010601, 120602010602, 120602010603, 120602010604, 120602010608, 120602010607	08000001	Regional Watershed Studies	265	Riverine	Grimes	Grimes	No	-	\$1,221,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	105	37	56	0	2	15.6	53	7,364	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001247	Possum Kingdom Lake	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Stephens, Palo Pinto, Young, Archer, Jack	12060201	120602010605, 120602010606, 120602010601, 120602010602, 120602010603, 120602010604, 120602010608, 120602010607	08000001, 08000008	Regional Watershed Studies	923	Riverine	Grimes	Grimes	No	-	\$4,059,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,669	969	1,322	4	7	75.8	247	34,912	-	-
081001248	Palo Pinto Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Stephens, Palo Pinto, Eastland, Erath	12060201	120602010803, 120602010801, 120602010802, 120602010807, 120602010804, 120602010805, 120602010806, 120602010808, 120602010809, 120602010905, 120602010902, 120602010901, 120602010903, 120602010904, 120602010906, 120602010907	08000001, 08000002, 08000004, 08000008	Regional Watershed Studies	635	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$2,826,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,014	386	686	4	13	114.9	217	25,160	-	-
081001249	Lake Granbury	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Hood, Stephens, Palo Pinto, Parker, Erath, Jack	12060201	120602010803, 120602010801, 120602010802, 120602010807, 120602010804, 120602010805, 120602010806, 120602010808, 120602010809, 120602010905, 120602010902, 120602010901, 120602010903, 120602010904, 120602010906, 120602010907	08000001, 08000002	Regional Watershed Studies	1,179	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$5,152,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3,876	2,488	5,724	9	36	150.1	709	49,241	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001250	Navasota River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Grimes, Brazos, Madison, Robertson, Leon, Limestone, Freestone, Hill	12070103	120602010803, 120602010801, 120602010802, 120602010807, 120602010804, 120602010805, 120602010806, 120602010808, 120602010809, 120602010905, 120602010902, 120602010901, 120602010903, 120602010904, 120602010906, 120602010907	08000002, 08000005, 08000007	Regional Watershed Studies	2,237	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$9,620,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3,354	2,058	4,952	6	92	146.3	634	104,322	-	-
081001251	Mill Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Austin, Fayette, Washington	12070104	120701040201, 120701040202, 120701040203, 120701040204, 120701040205, 120701040206, 120701040207, 120701040208, 120701040209	08000005, 08000006, 08000013	Regional Watershed Studies	370	Riverine	Austin	Austin	No	-	\$1,677,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	317	177	861	2	13	54.2	223	24,202	-	-
081001252	Lampasas River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Williamson, Burnet, Bell, Lampasas, Coryell, Mills, Hamilton	12070203	120701040201, 120701040202, 120701040203, 120701040204, 120701040205, 120701040206, 120701040207, 120701040208, 120701040209	08000008, 08000009, 08000010, 08000012	Regional Watershed Studies	1,307	Riverine, Local	Grimes	Grimes	No	-	\$5,697,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,050	445	3,297	6	60	48.7	319	16,657	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001253	Cowhouse Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Bell, Lampasas, Coryell, Mills, Hamilton, Comanche	12070202	120702020204, 12070202020101, 12070202020105, 12070202020106, 12070202020201, 12070202020104, 12070202020102, 12070202020103, 12070202020202, 12070202020205, 120702020301, 120702020203, 120702020302, 120702020303, 120702020304, 120702020305, 120702020306, 120702020307	08000008, 08000009, 08000010	Regional Watershed Studies	724	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$3,210,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	632	418	5,398	2	7	82.1	366	21,601	-	-
081001254	Brushy Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Bastrop, Travis, Williamson, Milam	12070205	120702050402, 120702050403, 120702050401, 120702050404, 120702050405, 120702050406, 120702050407, 120702050409, 120702050410, 120702050408	08000006, 08000011, 08000012	Regional Watershed Studies	518	Riverine	Williamson	Williamson	No	-	\$2,319,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,451	1,115	3,372	4	81	77.7	362	42,040	-	-
081001255	Lake Leon	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Callahan, Eastland	12070201	120702010103, 120702010102, 120702010104, 120702010101, 120702010108, 120702010105	08000008	Regional Watershed Studies	257	Riverine	Grimes	Grimes	No	-	\$1,186,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	658	333	1,013	6	0	50.3	179	4,532	-	-
081001256	Leon River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Bell, Coryell, Mills, McLennan, Hamilton, Comanche, Erath	12070201	120702010103, 120702010102, 120702010104, 120702010101, 120702010108, 120702010105	08000003, 08000004, 08000005, 08000008, 08000009, 08000011	Regional Watershed Studies	1,553	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$6,740,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,101	545	1,586	5	62	168.7	517	84,539	-	-

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General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001257	Lake Whitney	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Hood, Johnson, Parker, Bosque, Hill, Somervell	12060201, 12060202	120602011301, 120602011302, 120602011303, 120602020403, 120602020404, 120602020406, 120602020405, 120602020407, 120602020408, 120602020302, 120602020303, 120602020304, 120602020402, 120602020305, 120602020306, 120602020401, 120602020301	08000001, 08000002, 08000004	Regional Watershed Studies	676	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$3,004,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	799	462	932	1	12	83.8	234	22,846	-	-
081001258	Paluxy River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Hood, Bosque, Somervell, Erath	12060202	120602020105, 120602020101, 120602020102, 120602020103, 120602020104, 120602020106, 120602020107, 120602020110, 120602020108, 120602020109, 120602020111	08000001, 08000002, 08000004	Regional Watershed Studies	508	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$2,277,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	374	188	1,367	10	35	23.7	115	8,902	-	-
081001259	Nolan River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Johnson, Hill	12060202	120602020205, 120602020201, 120602020202, 120602020203, 120602020204, 120602020206, 120602020207	08000001, 08000002	Regional Watershed Studies	319	Riverine, Coastal, Local	Grimes	Grimes	No	-	\$1,456,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,123	789	2,719	10	16	54.8	262	15,288	-	-
081001260	Big Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Falls, Limestone, McLennan	12070101	120701010201, 120701010204, 120701010202, 120701010205, 120701010206, 120701010207, 120701010208, 120701010203	08000002, 08000005, 08000007	Regional Watershed Studies	311	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$1,419,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	86	38	55	0	18	21.0	96	28,197	-	-
081001261	Pond Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Milam, Bell, Falls	12070101	120701010403, 120701010401, 120701010402, 120701010405, 120701010404	08000005, 08000011	Regional Watershed Studies	228	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$1,059,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	43	7	29	0	8	11.9	65	18,006	-	-

Costs listed in this document are for planning purposes only.  
All data is subject to change upon further evaluation.

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001262	Bull Hide Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Falls, McLennan	12070101	120701010101	08000002, 08000003, 08000005	Regional Watershed Studies	36	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$202,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	15	9	14	0	3	2.8	21	1,857	-	-
081001263	Cow Bayou	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Falls, McLennan	12070101	120701010106, 120701010107, 120701010105	08000003, 08000005, 08000008, 08000011	Regional Watershed Studies	115	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$558,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	56	34	50	0	1	6.6	39	7,509	-	-
081001264	Deer Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Bell, Falls, McLennan	12070101	120701010108, 120701010109, 120701010110	08000005, 08000011	Regional Watershed Studies	115	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$557,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	8	4	8	0	12	6.5	40	5,501	-	-
081001265	Middle Brazos DS Lake Whitney	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Falls, McLennan, Bosque, Hill	12060202, 12070101	120602020603, 120602020601, 120602020801, 120602020802, 120602020602, 120602020604, 120602020605, 120602020803, 120602020804, 120602020805, 120701010102, 120701010103, 120701010111, 120701010104	08000002, 08000003, 08000004, 08000005	Regional Watershed Studies	526	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$2,357,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,670	1,653	18,044	15	17	107.7	495	52,348	-	-



## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001266	Lower Brazos-Little Brazos	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Waller, Washington, Burleson, Grimes, Brazos, Milam, Robertson, Falls, Limestone	12070101	120602020603, 120602020601, 120602020801, 120602020802, 120602020602, 120602020604, 120602020605, 120602020803, 120602020804, 120602020805, 120701010102, 120701010103, 120701010111, 120701010104	08000005, 08000006, 08000007, 08000011, 08000013	Regional Watershed Studies	1,771	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$7,659,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,830	867	3,030	9	37	245.7	495	234,255	-	-
081001267	San Gabriel River DS Granger Lake	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Williamson, Milam, Bell	12070205	120702050507, 120702050506, 120702050508	08000011, 08000012	Regional Watershed Studies	117	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$567,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	115	72	112	0	9	15.5	45	15,123	-	-
081001268	San Gabriel River US Granger Lake	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Travis, Williamson, Burnet	12070205	120702050502, 120702050503, 120702050504, 120702050505, 120702050302, 120702050202, 120702050106, 120702050201, 120702050501, 120702050203, 120702050105, 120702050301, 120702050303, 120702050103, 120702050104, 120702050101, 120702050102	08000010, 08000011, 08000012	Regional Watershed Studies	726	Riverine	Williamson	Williamson	No	-	\$3,219,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2,192	1,692	4,248	1	83	108.5	393	31,497	-	-
081001269	Salado Creek-Lampasas River (Little River)	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Williamson, Bell	12070203	120702030401, 120702030403, 120702030404, 120702030402, 120702030511	08000008, 08000010, 08000011, 08000012	Regional Watershed Studies	199	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$929,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	461	291	655	2	26	22.6	103	5,268	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information										Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)		
081001270	Nolan Creek-Leon River (Little River)	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Bell, Coryell	12070201	120702011101, 120702011104, 120702011103, 120702011102, 120702011105, 120702011106	08000008, 08000009, 08000010, 08000011	Regional Watershed Studies	177	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$835,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,559	927	5,854	8	66	36.9	277	5,083	-	-		
081001271	Little River	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Williamson, Milam, Bell, Falls	12070204	120702040110, 120702040108, 120702040109, 120702040111, 120702040303, 120702040301, 120702040302, 120702040304, 120702040305, 120702040306, 120702040307, 120702040308, 120702040101, 120702040102, 120702040104, 120702040103, 120702040106, 120702040105, 120702040107	08000005, 08000006, 08000008, 08000010, 08000011, 08000012	Regional Watershed Studies	677	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$3,006,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	352	120	520	1	32	49.9	184	69,618	-	-		
081001272	Big Elm Creek	Upgrade drainage channels within the city to reduce flooding to residential and commercial structures.	08000009	Milam, Bell, Falls, McLennan	12070204	120702040201, 120702040202, 120702040203, 120702040204, 120702040206, 120702040205, 120702040207	08000005, 08000008, 08000011	Regional Watershed Studies	322	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$1,470,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	337	123	1,089	1	23	38.2	156	23,045	-	-		
081001273	Davidson-Yegua	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Washington, Burleson, Brazos, Milam	12070102	120701020406, 120701020501, 120701020309, 120701020401, 120701020405, 120701020402, 120701020403, 120701020404, 120701020502	08000005, 08000006, 08000011	Regional Watershed Studies	312	Riverine, Local	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$1,426,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	273	150	437	5	3	25.5	130	19,146	-	-		

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (Yr)	Existing or Anticipated Maps (Yr)
081001274	Yegua-Lake Somerville	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Fayette, Bastrop, Washington, Lee, Burleson, Williamson, Milam	12070102	120701020406, 120701020501, 120701020309, 120701020401, 120701020405, 120701020402, 120701020403, 120701020404, 120701020502	08000005, 08000006, 08000011, 08000012, 08000013	Regional Watershed Studies	1,004	Riverine	Burleson County	Burleson County, City of Clay, City of Independence	No	-	\$4,407,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	579	278	447	1	49	80.3	233	31,804	-	-
081001275	Brazos River Tributaries DS Hempstead	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Fort Bend, Austin, Waller, Washington	12070104	120701040306, 120701040305, 120701040101, 120701040102, 120701040103, 120701040104, 120701040105, 120701040106, 120701040107, 120701040108, 120701040210, 120701040301, 120701040302, 120701040303, 120701040304, 120701040307, 120701040308	08000005, 08000013, 08000014	Regional Watershed Studies	603	Riverine	Waller	Waller	No	-	\$2,688,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	4,658	2,740	3,800	3	17	199.6	425	88,010	-	-
081001276	Carters Creek	Study to determine flood risk across the watershed.	08000014	Brazos	12070103	120701030704, 120701030702	08000005, 08000007	Regional Watershed Studies	58	Riverine	College Station	College Station	No	-	\$304,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	849	646	2,974	8	43	17.1	152	1,275	-	-
081001277	Peach Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Brazos	12070103	120701030707	08000005, 08000007	Regional Watershed Studies	26	Local	College Station	College Station	No	-	\$158,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	37	24	59	0	0	1.3	5	702	-	-
081001278	Hopes Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Brazos	12070101	120701010705	08000005, 08000007	Regional Watershed Studies	10	Riverine	College Station	College Station	No	-	\$84,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	15	13	2	0	0	0.2	2	106	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001279	Lick Creek	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Brazos	12070103	120701030707	08000005, 08000007	Regional Watershed Studies	17	Riverine	College Station	College Station	No	-	\$117,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	56	50	117	0	2	2.2	20	278	-	-
081001280	Angleton Levee	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040409, 120701040402, 120701040401, 120402050100, 120402050200	08000014	Study on Flood Preparedness	29	Riverine	Williamson County Water Sewer Irrigation and Drainage Dist 3	Williamson County Water Sewer Irrigation and Drainage Dist 3	No	-	\$307,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0	0	0	0	0	0.0	0	3	2021	-
081001281	Fort Bend County LIDs Internal Flood Study	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000009	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040409, 120701040402, 120701040401, 120402050100, 120402050200	08000013, 08000014	Study on Flood Preparedness	59	Riverine, Local	Fort Bend	Fort Bend	No	-	\$170,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	621	573	1,347	6	0	13.5	95	107	2022	-
081001282	Velasco Levee	Regional watershed study developed under Task 4A to improve understanding of flood risk in the region	08000014	Brazoria	12070104, 12040205	120701040505, 120402050400, 120402050500	08000013, 08000014	Study on Flood Preparedness	43	Riverine	Fort Bend County MUD 21	Fort Bend County MUD 21	No	-	\$232,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	582	444	0	2	0	16.5	61	40	2022	-
081001283	Fort Bend County Levee Vulnerability Study	Evaluate the critical impacts and vulnerability of Fort Bend County levees. Create a prioritization of potential projects and strategies to mitigate risk, and develop protocols for failure events.	08000014	Fort Bend	12070104, 12040205	120701040403, 120701040408, 120701040409, 120701040402, 120701040401, 120402050100, 120402050200	08000013, 08000014	Study on Flood Preparedness	59	Riverine	Fort Bend	Fort Bend	No	-	\$307,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	621	573	0	6	0	13.5	95	107	2022	-
081001284	Waco Creek Diversion Tunnel	Addition of a diversion culvert to reroute flow from Waco Creek to the Brazos River. Additional improvements to existing diversion tunnels and crossings.	08000009	McLennan	12060202	120602020803	08000002	H&H Modeling	2.9	Riverine, Local	City of Waco	City of Waco	No	\$100,000,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	76	27	1,723	1	0	0	20	1	2022	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information							Efforts		
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001285	Oakwood Channel & Bridge Improvements	Widening of Primrose Creek to increase flow capacity, as well as removal and replacement of several crossings along the channel improvements.	08000009	McLennan	12060202	120602020803	08000002	H&H Modeling	4.3	Riverine, Local	City of Waco	City of Waco	No	\$40,000,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	39	28	505	0	0	0	6	34	2022	-
081001286	Taylor / Elm Storm Infrastructure & Outfall	Extension of current storm infrastructure in the area to improve drainage. Potential levee along MLK Boulevard to direct flow and prohibit road overtopping.	08000014	McLennan	12060202	120602020803	08000197	Preliminary Engineering	2	Local	City of Waco	City of Waco	No	\$18,000,000	\$917,000	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	69	47	705	1	0	6.6	0	15	-	-
081001287	Cross Creek Road Low Water Crossing Removal	Removal of the Cross Creek Road low water crossing and associated 18" culverts. Extension of Stone Creek Ridge Drive to maintain access to existing properties.	08000007	McLennan	12060203, 12070200	120602030104, 120602030105, 120602030301, 120602030302, 120702011002	08000008	H&H Modeling	24.5	Riverine	City of Waco	City of Waco	No	\$1,014,000	\$300,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	13	9	37	0	1	0	1	18	-	-
081001298	Nolanville Drainage Master Plan	Atlas 14 H&H modeling and CIP development. Focus on developing BCAs and prioritization plan.	08000009	Bell	12070201	120702011102	08000008, 08000075, 08000500	Drainage Master Plan	4.3	Riverine	City of Nolanville	City of Nolanville	No		\$200,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	96	48	125	1	3	50	7	610	-	-
081001299	Cedar Park Drainage Master Plan	Atlas 14 H&H modeling and CIP development. Focus on developing BCAs and prioritization plan.	08000009	Williamson	12070205	120702050401, 120702050402	08000012, 08000090, 08000586, 08000596	Drainage Master Plan	25.5	Riverine, Local	City of Cedar Park	City of Cedar Park	No		\$500,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	269	230	819	0	12	130	5	399	-	-
081001300	City of Stephenville FEWS	Assessment of the most beneficial gauge placements and development of data interface.	08000014	Erath	12060204	120602040102, 120602040103, 120602040104	08000004, 08000039, 08000258, 08000259,	Study on Flood Preparedness	11.9	Riverine, Local	City of Stephenville	City of Stephenville	No		\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	151	92	324	0	9	85	5	4,305	-	-

## Appendix 4.1 - Table 12 Summary of Potential FMEs

General Information																	Flood Risk Information								Efforts	
FME ID	FME Name	Description	Associated Goals (ID)	Counties	HUC 8s	HUC 12s	Watersheds	Evaluation Type	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Construction Costs	Estimated Study Cost	Potential Funding Sources and Amount	Estimated Number of Structures at Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Segment Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Existing or Anticipated Models (yr)	Existing or Anticipated Maps (yr)
081001301	City of Waco FEWS	Assessment of the most beneficial gauge placements and development of data interface.	08000014	McLennan	12060203, 12060204	120602030302, 120602030303, 120602040407	08000002, 08000003, 08000004, 08000005, 08000008	Study on Flood Preparedness	100.7	Riverine, Local	City of Waco	City of Waco	No		\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	1,282	754	15,824	8	3	1,368	88	18,445	-	-
081001302	City of Georgetown FEWS	Assessment of the most beneficial gauge placements and development of data interface.	08000014	Williamson	12070205	120702050502, 120702050302, 120702050403, 120702050106, 120702050401, 120702050404, 120702050501, 120702050203, 120702050105, 120702050303	08000012	Study on Flood Preparedness	59.4	Riverine, Local	City of Georgetown	City of Georgetown	No		\$100,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	173	122	1,521	0	6	294	19	7,804	-	-
081001303	Brazos River Flood Protection Plan Update	Update to previously completed Brazos FPP to incorporate latest modeling and data and create comprehensive analysis for the Brazos River.	08000009	All	All	All	All	Watershed Planning	9914.4	Riverine, Coastal, Local	RFPG	RFPG	No		\$500,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	35,864	24,887	67,805	91	477	15,072	1,583	947,725	2021	2021

## Appendix 4.2

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
083000709	826 and 827 Vine Street Property Flooding	Structural buyouts at the identified location.	08000009	Brazos	120701030702	08000007	Property Acquisition and Structural Elevation	Master Drainage Plan	0.0	Riverine, Local	City of Bryan	City of Bryan	Yes	\$600,000
083000712	Bryan Boonville and Briarcrest Bridges	Addition of bridges, channel benching, and detention	08000009	Brazos	120701030702	08000007	Comprehensive Drainage Improvements	Lower Brazos RFP - Task 12	0.5	Riverine	City of Bryan	City of Bryan, TxDOT	No	\$12,313,000
083000784	Bessie's & Brookshire Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120402050100, 120701040307, 120701040308, 120701040309, 120701040401	08000013, 08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	30.7	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$285,000,000
083000786	Bee Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	120701040409, 120701040501	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	4.5	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$38,771,000
083000797	Big Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040404, 120701040405, 120701040406, 120701040407, 120701040409, 120701040501	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	56.6	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$662,332,992
083000800	Coon Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040401, 120701040404, 120701040405	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	17.1	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$141,439,008
083000801	Cow Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	120701040409, 120701040501, 120701040502, 120701040503	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	30.9	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$119,191,000
083000805	Cottonwood Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040401, 120701040404, 120701040405	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	23.0	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$182,426,016
083000809	Diversion Channel Ditch and Drop Structure	Channel re-configuration to re-direct flow from Big Creek. Improvements to drop structure to have capacity for this increased flow.	08000009	Fort Bend	120701040409	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	12.3	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$266,699,008
083000811	Dry Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040405, 120701040407, 120701040408	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	20.1	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$133,315,000



## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

TWDB Table 13 - Potentially Feasible Flood Mitigation Projects Identified by RFPG																								
		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083000709	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	0	2	0	0	0	0	0	0	0	0.0	0	0
083000712	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.34	N/A	29	N/A	24	121	0	0	1.4	11	0.4	10	6	0	2	26	0	0	1	1	0.1	0	0
083000784	Local, FEMA FMA, HUD CDBG-MIT	18.25	24.41	834	1,544	666	1,095	1	0	32.8	94	7,463.8	148	213	0	181	413	1	0	9	28	1,214.8	0	0
083000786	Local, FEMA FMA, HUD CDBG-MIT	1.13	1.45	19	33	12	11	0	0	0.3	2	305.8	0	0	0	0	0	0	0	0	0	256.0	0	0
083000797	Local, FEMA FMA, HUD CDBG-MIT	13.55	35.76	628	873	517	940	1	0	22.7	7	9,441.7	15	589	0	497	913	1	0	14	0	6,478.5	0	0
083000800	Local, FEMA FMA, HUD CDBG-MIT	17.11	19.17	276	419	178	506	0	0	7.1	0	4,744.9	1	275	0	177	503	0	0	7	0	4,576.3	0	0
083000801	Local, FEMA FMA, HUD CDBG-MIT	11.09	13.46	144	255	100	180	0	2	8.1	17	4,377.6	2	34	0	17	42	0	0	1	2	2,138.4	0	0
083000805	Local, FEMA FMA, HUD CDBG-MIT	8.47	10.19	134	215	112	260	0	0	3.2	0	4,674.7	0	134	0	112	260	0	0	3	0	4,578.8	0	0
083000809	Local, FEMA FMA, HUD CDBG-MIT	12.19	12.33	8	9	0	1	0	0	4.8	1	5,229.0	0	0	0	0	0	0	0	0	0	1.4	0	0
083000811	Local, FEMA FMA, HUD CDBG-MIT	8.97	11.24	635	1,107	491	738	0	0	14.3	0	2,599.8	126	509	0	381	661	0	0	13	0	2,063.9	0	0

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083000709	Unkown	100-year	\$300,000	0%	No	N/A	No	0.59	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, relocations, transportation conflicts.	08000000122
083000712	10-year	100-year	\$2,179,500	0%	No	N/A	No	0.39	16,714	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000096
083000784	2-year	100-year	\$1,338,000	0%	No	N/A	No	0.06	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000109
083000786	5-year	100-year	N/A	0%	No	N/A	No	0.47	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000113
083000797	2-year	100-year	\$1,125,000	0%	No	N/A	No	0.39	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000800	2-year	100-year	\$514,000	0%	No	N/A	No	0.52	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000801	5-year	100-year	\$3,506,000	0%	No	N/A	No	0.52	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000113
083000805	2-year	100-year	\$1,361,000	0%	No	N/A	No	0.51	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000809	2-year	100-year	N/A	0%	No	N/A	No	0.27	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000811	2-year	100-year	\$262,000	0%	No	N/A	No	0.35	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
08300814	Dutch John Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040405, 120701040407, 120701040408, 120701040409	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	11.2	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$39,101,000
08300817	Fairchild Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040405, 120701040406	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	30.8	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$190,448,000
08300818	Flewellen Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	120402050100, 120701040308, 120701040309	08000013, 08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	20.7	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$542,724,992
08300820	Gapps Slough Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040402, 120701040403, 120701040408	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	12.6	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$48,302,000
08300821	Jones Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	120402050100, 120701040309, 120701040401, 120701040402	08000013, 08000014	Comprehensive Drainage Improvements	Community Submittal from Master Drainage Plan	21.7	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$556,012,032
08300823	Lateral IIB-7 & IIB-9 Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040405, 120701040408	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	5.7	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$62,287,000
08300827	Lower Dry Creek Channel Improvement	Channel improvements and re-configurations.	08000009	Fort Bend	120701040403, 120701040407, 120701040408, 120701040409	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	20.0	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$110,716,000
08300828	Seabourne Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040401, 120701040404, 120701040405, 120701040408	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	13.0	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$104,974,000
08300829	Turkey Creek Channel Improvements	Channel improvements and re-configurations at several key locations	08000009	Fort Bend	120701040406, 120701040407, 120701040409, 120701040501	08000013	Regional Channel Improvements	Community Submittal from Master Drainage Plan	23.4	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$86,161,000
08300834	Oyster Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120402050100, 120402050200, 120701040402, 120701040403	08000013, 08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	20.8	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$315,176,000
08300838	Lower Oyster Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120402050200, 120701040403, 120701040409	08000013, 08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	3.9	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$125,690,000

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083000814	Local, FEMA FMA, HUD CDBG-MIT	1.20	7.04	12	23	12	36	0	0	2.2	1	2,070.9	0	0	0	0	0	0	2	0	1,468.8	0	0	
083000817	Local, FEMA FMA, HUD CDBG-MIT	15.30	18.51	949	1,441	803	1,385	1	0	10.3	1	7,817.0	18	931	0	792	1,289	1	0	10	0	2,771.9	0	0
083000818	Local, FEMA FMA, HUD CDBG-MIT	4.47	5.75	77	178	40	136	0	0	1.1	6	1,508.0	19	58	0	22	59	0	0	0	0	0.0	0	0
083000820	Local, FEMA FMA, HUD CDBG-MIT	5.96	7.94	295	375	238	492	0	0	11.5	7	2,369.5	5	164	0	161	254	0	0	6	0	546.8	0	0
083000821	Local, FEMA FMA, HUD CDBG-MIT	6.40	10.93	829	1,884	737	1,594	4	0	18.2	71	1,988.0	179	47	0	45	138	4	0	0	0	0.8	0	0
083000823	Local, FEMA FMA, HUD CDBG-MIT	3.22	4.00	144	605	122	164	0	0	7.1	0	1,693.2	19	125	0	11	155	0	0	6	0	1,663.0	0	0
083000827	Local, FEMA FMA, HUD CDBG-MIT	17.61	18.81	343	369	219	489	2	0	14.4	20	5,058.4	2	0	0	0	0	2	0	0	0	94.1	0	0
083000828	Local, FEMA FMA, HUD CDBG-MIT	5.41	7.18	577	1,217	473	1,214	4	0	13.2	0	2,336.1	4	573	0	472	1,212	4	0	13	0	2,270.4	0	0
083000829	Local, FEMA FMA, HUD CDBG-MIT	7.76	10.89	39	160	24	46	0	0	2.5	14	3,908.5	2	22	0	10	29	0	0	1	3	3,393.4	0	0
083000834	Local, FEMA FMA, HUD CDBG-MIT	5.83	9.59	385	3,751	340	2,000	1	0	38.5	322	748.1	1	0	0	0	0	0	0	31	236	4.2	0	0
083000838	Local, FEMA FMA, HUD CDBG-MIT	1.66	2.56	60	325	37	367	0	0	3.7	29	289.6	0	0	0	0	0	0	0	2	20	2.5	0	0

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083000814	2-year	100-year	N/A	0%	No	N/A	No	0.27	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000817	2-year	100-year	\$142,000	0%	No	N/A	No	0.54	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000818	2-year	100-year	\$9,357,000	0%	No	N/A	No	0.05	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000110
083000820	2-year	100-year	\$295,000	0%	No	N/A	No	0.23	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000821	2-year	100-year	\$11,830,000	0%	No	N/A	No	0.06	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000110
083000823	2-year	100-year	\$498,000	0%	No	N/A	No	0.27	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000827	2-year	100-year	N/A	0%	No	N/A	No	0.24	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000828	2-year	100-year	\$183,000	0%	No	N/A	No	0.53	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000112
083000829	5-year	100-year	\$3,916,000	0%	No	N/A	No	0.47	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000113
083000834	2-year	100-year	N/A	0%	No	N/A	No	0.23	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000111
083000838	2-year	100-year	N/A	0%	No	N/A	No	0.14	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000111

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
08300841	Red Gully Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120402050100	08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	3.0	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$46,719,000
08300843	Bullhead Bayou Channels and Detention	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120701040402, 120402050100	08000013, 08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	6.2	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$62,498,000
08300847	Stafford Run Channels and Detentions	Channel improvements and re-configurations at several key locations, addition of in-line detention.	08000009	Fort Bend	120402050200	08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	2.2	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$15,612,000
08300853	Long Point Creek Channel Improvements	Channel improvements and re-configurations at several key locations.	08000009	Fort Bend	120402050200	08000014	Regional Channel Improvements	Community Submittal from Master Drainage Plan	3.1	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$8,760,000
08300855	Rabbs Bayou Detention	Proposal of regional detention basin.	08000009	Fort Bend	120701040401, 120701040402, 120701040403, 120701040408	08000013	Regional Detention	Community Submittal from Master Drainage Plan	11.5	Riverine, Local	Fort Bend County	Fort Bend County, Fort Bend County Drainage District	Yes	\$8,699,000
083001062	Hazelwood Crossing	Construction of a bridge to allow for neighborhood access during storm events.	08000009	McLennan	120602020801	08000002	Low Water Crossing or Bridge Improvements	Community Submittal	0.6	Riverine, Local	McLennan County	McLennan County, City of Lacey Lakeview	Yes	\$616,000
083001063	Panther Branch Crossing	Bridge improvements to allow for neighborhood access during storm events by relieving flooding at the crossing with Rock Springs Creek.	08000009	McLennan	120602040405	08000004	Low Water Crossing or Bridge Improvements	Community Submittal	0.6	Riverine, Local	McLennan County	McLennan County, City of Valley Mills	Yes	\$669,000
083001288	Diversion Improvements for South Rising Star	Improvements and extension to existing berm and construction of roadside ditch to direct flow to existing diversion channel.	08000009, 08000010	Eastland	120702010301	08000008	Regional Channel Improvements	Lower Brazos RFP - Task 12	1.6	Riverine	City of Rising Star	City of Rising Star, Eastland County	No	\$1,595,000
083001289	FM 219 and North Bosque River Crossing Improvement	Replacement of existing culverts with bridge. Benching along channel for mitigation.	08000007, 08000008	Bosque	120602040404	08000004	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	3.8	Riverine	City of Clifton	City of Clifton, Bosque County, TxDOT	No	\$2,733,000
083001290	Benching along Sulphur Creek Tributary	Benching along Sulphur Creek tributary.	08000009, 08000010	Lampasas	120702030306	08000010	Regional Channel Improvements	Lower Brazos RFP - Task 12	0.0	Riverine	City of Lampasas	City of Lampasas, Lampasas WCID, Lampasas County	No	\$1,132,000
083001291	Cemetery Creek Improvements	Channel and crossing improvements along Cemetery Creek - tributary to Sulphur Creek.	08000009	Lampasas	120702030306	08000010	Regional Channel Improvements	Lower Brazos RFP - Task 12	0.8	Riverine	City of Lampasas	City of Lampasas, Lampasas WCID, Lampasas County	Yes	\$13,305,000

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083000841	Local, FEMA FMA, HUD CDBG-MIT	1.44	1.69	579	1,146	555	2,411	0	0	10.2	75	162.8	0	0	0	0	0	0	0	7	37	85.1	0	0
083000843	Local, FEMA FMA, HUD CDBG-MIT	3.38	4.80	56	229	28	700	0	0	9.0	60	1,728.8	7	44	0	24	396	0	0	5	41	636.8	0	0
083000847	Local, FEMA FMA, HUD CDBG-MIT	0.53	1.05	160	1,005	110	251	0	0	9.2	77	10.2	0	0	0	0	0	0	0	3	21	2.0	0	0
083000853	Local, FEMA FMA, HUD CDBG-MIT	1.22	1.53	39	105	36	88	0	0	2.4	30	49.7	3	4	0	4	14	0	0	1	16	4.5	0	0
083000855	Local, FEMA FMA, HUD CDBG-MIT	2.51	3.98	276	1,012	260	891	0	0	12.4	78	800.6	0	0	0	0	0	0	0	1	2	6.2	0	0
083001062	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0	0
083001063	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	0	0	0	0	0	0	0	0	0	0.0	0	0
083001288	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.78	0.95	40	69	35	44	1	0	2.1	16	267.3	17	23	32	20	40	0	0	0	0	6.3	0	0
083001289	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.92	1.12	N/A	N/A	N/A	N/A	0	0	0.9	6	156.8	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0.3	0	0
083001290	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.04	0.04	15	17	3	32	0	1	0.3	6	0.4	14	6	1	0	17	0	0	0	1	0.2	0	0
083001291	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.27	0.34	630	1,000	327	4,168	8	3	6.6	56	2.2	614	35	50	303	4,101	5	0	1	0	1.0	0	0

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083000841	2-year	100-year	N/A	0%	No	N/A	No	0.36	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000111
083000843	2-year	100-year	\$1,420,000	0%	No	N/A	No	0.42	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000111
083000847	2-year	100-year	N/A	0%	No	N/A	No	0.58	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, Acquisitions, utility conflicts, environmental concerns.	08000000111
083000853	2-year	100-year	\$2,190,000	0%	No	N/A	No	0.31	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000111
083000855	10-year	100-year	N/A	0%	No	N/A	No	0.37	N/A	Agricultural, recreation, and water quality benefits.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements. The residual risk also lies in the upkeep of the detention basin.	Permitting, Acquisitions, utility conflicts, environmental concerns.	08000000120
083001062	10-year	100-year	N/A	0%	No	N/A	No	0.69	3,194	Road will be repaved when implementing bridge construction.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements. The residual risk also lies in the upkeep of the bridge being built.	Right-of-way, acquisitions, permitting, utility conflicts, environmental concerns , transportation conflicts.	08000000135
083001063	10-year	100-year	N/A	0%	No	N/A	No	0.28	983	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements. The residual risk also lies in the upkeep of the bridge being improved on.	Right-of-way, permitting, utility conflicts, environmental concerns , transportation conflicts.	08000000136
083001288	2-year	100-year	\$69,300	0%	No	N/A	No	0.59	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000074, 08000000075
083001289	50-year	100-year	N/A	0%	No	N/A	No	0.22	3,219	Road will be repaved when implementing bridge construction.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000076, 08000000077, 08000000078
083001290	5-year	100-year	\$188,700	0%	No	N/A	No	0.86	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000071, 08000000073
083001291	10-year	100-year	\$380,100	0%	No	N/A	No	0.72	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000071, 08000000072



## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
083001292	Comanche Detention	Addition of detention and channel benching	08000009	Comanche	120702010502	08000008	Comprehensive Drainage Improvements	Lower Brazos RFP - Task 12	7.0	Riverine	City of Comanche	City of Comanche, Comanche County	No	\$46,985,000
083001293	US180 Rock Creek Overbank Crossing	Culvert improvement and detention	08000009	Parker	120602011103	08000001	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	1.4	Riverine	Parker County, Palo Pinto County	Parker County, Palo Pinto County, TxDOT	No	\$10,129,000
083001294	US180 Rock Creek Tributary 1 Crossing	Culvert improvement and channel benching	08000009	Palo Pinto	120602011103	08000001	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	0.0	Riverine	Palo Pinto County	Palo Pinto County, TxDOT	No	\$1,237,000
083001295	Jim Neal Branch Tributary 2 Crossing	Culvert improvement	08000009	Eastland	120702010201	08000008	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	0.0	Riverine	Eastland County	Eastland County, TxDOT	No	\$477,000
083001296	Jim Neal Branch Tributary 1 Crossing	Culvert improvement and channel benching	08000009	Eastland	120702010201	08000008	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	0.1	Riverine	Eastland County	Eastland County, TxDOT	No	\$3,083,000
083001297	Jim Neal Branch Crossing	Culvert improvement and channel benching	08000009	Eastland	120702010201	08000008	Low Water Crossing or Bridge Improvements	Lower Brazos RFP - Task 12	0.0	Riverine	Eastland County	Eastland County, TxDOT	No	\$1,925,000
083001298	Prairie Wind Alternative 2	Includes channel excavation, creation of an additional channel, and (5)10'x6' RCB	08000007, 08000008, 08000009, 08000010	Erath	120602040102	North Bosque	Low Water Crossing or Bridge Improvements	North Bosque River Watershed FIF	1.1	Riverine, Local	City of Stephenville	City of Stephenville, Erath County	No	\$6,182,000
083001299	Lingleville Alternative 2	Includes (4)10'x6' RCB and upstream grading	08000007, 08000008	Erath	120602040102	North Bosque	Low Water Crossing or Bridge Improvements	North Bosque River Watershed FIF	0.5	Riverine	City of Stephenville	City of Stephenville, Erath County	No	\$2,014,000
083001300	County Road 256 Alternative 1	Includes raising the road, (7)10'x9' RCB, and grading along the river	08000007, 08000008, 08000009, 08000010	Erath	120602040103	North Bosque	Low Water Crossing or Bridge Improvements	North Bosque River Watershed FIF	3.0	Riverine	City of Stephenville	City of Stephenville, Erath County	No	\$4,145,000
083001301	Morgan Mill Alternative 1	Includes minor grading and (6)12'x7' RCB	08000007, 08000008, 08000009, 08000010	Erath	120602040103	North Bosque	Low Water Crossing or Bridge Improvements	North Bosque River Watershed FIF	2.8	Riverine	City of Stephenville	City of Stephenville, Erath County	No	\$2,661,000
083001302	Long St Alternative 1	Includes installing a 425' span bridge with road elevation on either side	08000007, 08000008	Erath	120602040101, 120602040102, 120602040103	North Bosque	Low Water Crossing or Bridge Improvements	North Bosque River Watershed FIF	94.7	Riverine	City of Stephenville	City of Stephenville, Erath County	No	\$8,993,000
083001303	Weaver Creek and Main Street Culvert Improvements	Detention pond, channel improvements, and culvert improvements.	08000009	Eastland	120702010105	Leon	Comprehensive Drainage Improvements	Leon River Watershed Study FIF	0.0	Riverine	City of Eastland	City of Eastland, Eastland County	No	\$6,848,000
083001304	Tributary 3 and UPRR Culvert Improvements	Culvert improvements; upstream and downstream channel improvements.	08000009	Eastland	120702010105	Leon	Comprehensive Drainage Improvements	Leon River Watershed Study FIF	0.0	Riverine	City of Eastland	City of Eastland, Eastland County	No	\$2,912,000
083001305	Lake Eastland CIP 3.5	Reconstruction of primary Lake Eastland spillway.	08000009	Eastland	120702010105	Leon	Comprehensive Drainage Improvements	Leon River Watershed Study FIF	0.0	Riverine	City of Eastland	City of Eastland, Eastland County	No	\$15,700,000

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083001292	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	3.80	4.26	201	254	127	538	0	2	6.5	51	773.4	71	40	14	29	55	0	0	1	2	26.1	0	0
083001293	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.65	0.76	20	30	N/A	82	0	0	0.6	8	3.2	4	5	1	N/A	31	0	0	0	5	0.5	0	0
083001294	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.01	0.01	0	0	N/A	0	0	0	0.1	2	N/A	0	0	0	N/A	0	0	0	0	0	0.0	0	0
083001295	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.01	0.01	1	1	N/A	0	0	0	0.0	1	N/A	1	0	0	N/A	0	0	0	0	1	0.0	0	0
083001296	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.06	0.06	2	2	2	0	0	0	0.2	1	2.5	2	0	0	N/A	0	0	0	0	1	0.0	0	0
083001297	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.02	0.03	2	2	N/A	0	0	0	0.1	1	0.0	1	0	0	N/A	0	0	0	0	1	0.0	0	0
083001298	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.06	0.06	8	10	8	23	0	1	0.3	10	0.0	0	8	10	8	23	0	1	0	9	0.0	0	0
083001299	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.02	0.02	0	0	0	0	0	1	0.1	10	0.0	0	0	0	0	0	0	1	0	9	0.0	0	0
083001300	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.29	0.32	4	4	4	2	0	1	0.1	10	0.0	3	1	0	1	0	0	0	0	8	0.0	0	0
083001301	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.14	0.15	18	22	10	31	0	1	0.3	5	0.0	5	13	13	7	20	0	1	0	5	0.0	0	0
083001302	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	10.59	10.72	5	28	5	10	0	1	0.2	10	0.0	0	0	0	0	0	0	1	0	10	0.0	0	0
083001303	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2.54	2.81	282	322	161	764	1	0	11.9	4	28.4	N/A	2	0	0	11	0	0	1	10	0.0	0	0
083001304	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2.53	2.82	229	288	113	583	1	0	11.7	0	27.6	N/A	55	33	48	192	0	0	1	0	0.2	0	0
083001305	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	2.53	2.80	277	317	160	756	1	0	12.0	0	26.6	N/A	7	4	1	19	0	0	1	0	1.2	0	0

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083001292	10-year	100-year	\$1,247,525	0%	No	N/A	No	0.87	4,106	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns.	08000000079, 08000000080
083001293	10-year	100-year	\$2,160,200	0%	No	N/A	No	0.38	13,359	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000083, 08000000084
083001294	10-year	100-year	N/A	0%	No	N/A	No	0.56	13,353	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000083, 08000000084
083001295	5-year	100-year	N/A	0%	No	N/A	No	0.63	353	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000081, 08000000082
083001296	5-year	100-year	N/A	0%	No	N/A	No	0.63	353	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000081, 08000000082
083001297	5-year	100-year	N/A	0%	No	N/A	No	0.63	353	Road will be repaved when implementing crossing improvements.	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	Right-of-way, permitting, utility conflicts, environmental concerns, transportation conflicts.	08000000081, 08000000082
083001298	< 2-Year	100-Year	\$772,750	11%	No	N/A	No	0.41	200	Riparian habitat	Continued risk for events beyond the 1% ACE.	Potential required environmental permitting, coordination during final design or construction anticipated.	08000000089, 08000000090, 08000000091
083001299	< 2-Year	100-Year	N/A	0%	No	N/A	No	0.41	7,206	None	Continued risk for events beyond the 1% ACE.	No major implementation issues identified, coordination during final design or construction anticipated.	08000000086, 08000000090, 08000000091
083001300	< 2-Year	5-Year	\$4,145,000	0%	No	N/A	No	0.39	336	None	Continued risk for events beyond the 20% ACE.	No major implementation issues identified, coordination during final design or construction anticipated.	08000000085, 08000000090, 08000000091
083001301	2-Year	100-Year	\$204,692	0%	No	N/A	No	0.57	10,668	None	Continued risk for events beyond the 1% ACE.	No major implementation issues identified, coordination during final design or construction anticipated.	08000000088, 08000000090, 08000000091
083001302	< 2-Year	100-Year	N/A	0%	No	N/A	No	0.68	244	None	Continued risk for events beyond the 1% ACE.	No major implementation issues identified, coordination during final design or construction anticipated.	08000000087, 08000000090, 08000000091
083001303	2-Year	100-Year	\$476,205	0%	No	N/A	No	0.70	N/A	Reduces flooding in high visibility area	Inefficient culvert operation from lack of maintenance.	Right of way, permitting	N/A
083001304	10-Year	100-Year	\$14,711	0%	No	N/A	No	0.70	N/A	Reduces flooding on railroad	Time delays from railroad coordinations.	Permitting	N/A
083001305	10-Year	100-Year	\$301,464	0%	No	N/A	No	0.70	N/A	Passes the %PMF and removes structures from TCEQ violation	Environmental delays from permitting.	Permitting	N/A

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
083001306	Mallard Lane	Proposed storm drainage system located along Summit Circle, Kingston Circle, Mallard Lane, and Greenlawn Drive. Approximately 2,000 linear ft.	08000009	Williamson	120702050405	San Gabriel	Storm Drain	City Personnel; City Drainage Master Plan	0.5	Riverine, Local	City of Taylor	City of Taylor	No	\$1,620,000
083001307	TH Johnson	Proposed channel located south of TH Johnson Drive and discharging into Bull Branch, including approximately 500 feet of new concrete channel, and the installation of 3 RCB culverts at Crystal Circle	08000009	Williamson	120702050405	San Gabriel	Regional Channel Improvements	City Personnel; City Drainage Master Plan	0.6	Riverine, Local	City of Taylor	City of Taylor	No	\$489,000
083001308	Davis St	Proposed storm sewer along Davis Street from 8th Street to 2nd Street that discharges to the existing outfall in the railroad drainage ditch to the north of the railroad and ties into 2nd st existing drainage system. Approximately 3,750 linear ft of RCP.	08000009	Williamson	120702050405	San Gabriel	Storm Drain	City Personnel; City Drainage Master Plan	0.5	Riverine, Local	City of Taylor	City of Taylor	No	\$4,270,000
083001309	Bel-Air	Proposed storm sewer system located along Bel-Air Drive, Dellinger Drive, and Randall Street that discharges into Bull Branch. Approximately 1,365 linear ft.	08000009	Williamson	120702050405	San Gabriel	Storm Drain	City Personnel; City Drainage Master Plan	0.2	Riverine, Local	City of Taylor	City of Taylor	No	\$903,000
083001310	Annie St	Proposed storm sewer along Annie Street, Howard Street, and 7th Street that discharges to a new outfall in the railroad drainage ditch to the south of 2nd street. Approximately 4,000 linear ft of RCP.	08000009	Williamson	120702050405	San Gabriel	Storm Drain	City Personnel; City Drainage Master Plan	0.5	Riverine, Local	City of Taylor	City of Taylor	No	\$2,626,000
083001311	Sun Valley Neighborhood Levee	Buyouts, construction of levee, and storm sewer.	08000009	Coryell	120702010902	Leon	Comprehensive Drainage Improvements	City of Gatesville MDP FIF	8.4	Riverine	City of Gatesville	City of Gatesville	No	\$1,594,290
083001312	Straws Mill Road LWC	Includes raising the road and adding culverts at crossing.	08000008	Coryell	120702010905	Leon	Low Water Crossing or Bridge Improvements	City of Gatesville MDP FIF	4.2	Riverine	City of Gatesville	City of Gatesville	No	\$1,021,710
083001313	Leon WWTP Parapet Wall	Construction of ring parapet.	08000009	Coryell	120702010902	Leon	Comprehensive Drainage Improvements	City of Gatesville MDP FIF	2.2	Riverine	City of Gatesville	City of Gatesville	Yes	\$642,000
083001314	Arrowood Lane Culvert	Construction of arch culvert and channel improvements.	08000008	Coryell	120702010902	Leon	Low Water Crossing or Bridge Improvements	City of Gatesville MDP FIF	2.2	Riverine	City of Gatesville	City of Gatesville	No	\$776,000

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083001306	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.14	N/A	35	N/A	33	105	0	0	0.0	0	N/A	33	2	N/A	2	6	0	0	0	0	N/A	0	0
083001307	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.19	N/A	10	N/A	10	30	0	0	0.0	0	N/A	10	0	N/A	0	0	0	0	0	0	N/A	0	0
083001308	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.15	N/A	23	N/A	17	111	0	0	0.0	0	N/A	10	13	N/A	9	67	0	0	0	0	N/A	0	0
083001309	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.05	N/A	9	N/A	9	27	0	0	0.0	0	N/A	8	1	N/A	1	3	0	0	0	0	N/A	0	0
083001310	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.15	N/A	14	N/A	14	42	0	0	0.0	0	N/A	6	8	N/A	8	24	0	0	0	0	N/A	0	0
083001311	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	105.00	154.00	43	0	43	129	0	0	0.4	1	0.0	0	43	0	43	129	0	0	0	1	70.0	0	0
083001312	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	1	0.4	1	0.0	0	0	0	0	0	0	1	0	1	0.0	0	0
083001313	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	0	3	0	0	9	1	0	0	0	0.0	0	0
083001314	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	1	0	0	0	0	0	0	0	0	0.0	0	0

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083001306	< 2-Year	100-Year	\$810,000	0%	No	N/A	No	0.33	N/A	None	Storm drain clogging.	None identified at this time.	080000000094
083001307	< 2-Year	100-Year	\$489,000	0%	No	N/A	No	0.33	N/A	None	Downstream channel erosion.	None identified at this time.	080000000094
083001308	< 2-Year	100-Year	\$328,000	0%	No	N/A	No	0.37	N/A	None	Storm drain clogging.	None identified at this time.	080000000095
083001309	< 2-Year	100-Year	\$903,000	0%	No	N/A	No	0.33	N/A	None	Storm drain clogging.	None identified at this time.	080000000094
083001310	< 2-Year	100-Year	\$438,000	0%	No	N/A	No	0.37	N/A	None	Storm drain clogging.	None identified at this time.	080000000095
083001311	10-Year	100-Year	\$31,107	0%	No	N/A	No	0.68	112	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	080000000092
083001312	2-Year	100-Year	N/A	0%	No	N/A	No	0.51	555	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	080000000093
083001313	Unknown	Unknown	N/A	0%	No	N/A	No	0.51	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	N/A
083001314	Unknown	Unknown	N/A	0%	No	N/A	No	0.68	25	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	N/A

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

General Information														
FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC 12s	Watersheds	Project Type	Project Source	Project Area	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Project Cost
083001315	SH 36 Culverts	Construction of 2 additional culverts at crossing.	08000008	Coryell	120702010902	Leon	Low Water Crossing or Bridge Improvements	City of Gatesville MDP FIF	2.2	Riverine	City of Gatesville	City of Gatesville	No	\$328,000
083001316	FM 929 Culverts	Construction of culvert and channel improvements.	08000008	Coryell	120702010906	Leon	Low Water Crossing or Bridge Improvements	City of Gatesville MDP FIF	0.0	Riverine	City of Gatesville	City of Gatesville	No	\$1,535,000

## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

		Flood Risk Information																						
FMP ID	Potential Funding Sources and Amount	Flood Risk											Reduction in Flood Risk											
		Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year (1% ACE) Flood Risk	Estimated Number of Structures at 500-year (0.2% ACE) Flood Risk	Residential Structures at 100-year (1% ACE) Flood Risk	Estimated Population at 100-year (1% ACE) Flood Risk	Critical Facilities at 100-year (1% ACE) Flood Risk	Number of Low Water Crossings 100-year (1% ACE) at Flood Risk	Estimated Length of Roads at 100-year (1% ACE) Flood Risk (mi)	Estimated Number of Road Closures	Estimated Farm & Ranch Land at 100-year (1% ACE) Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Residential Structures Removed from 100-year (1% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Length of Roads Removed from 100-year (1% ACE) Flood Risk (mi)	Estimated Reduction in Road Closure Occurrences	Estimated Farm & Ranch Land Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Facilities (if available)	Estimated Reduction in Injuries (if available)
083001315	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	1	1	0	1	3	0	0	0	0	0.0	0	0
083001316	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT	0.00	0.00	0	0	0	0	0	0	0.0	0	0.0	0	14	0	14	42	0	0	0	0	0.0	0	0



## Appendix 4.2: TWDB Table 13 - Potentially Feasible Flood Mitigation Projects

Other Benefits													
FMP ID	Pre-Project Level of Service	Post-Project Level of Service	Cost per Structure Removed	Percent Nature-Based Solution (by cost)	Negative Impact Caused by Project?	Negative Impact Mitigation	Water Supply Benefits	Social Vulnerability Index (SVI)	Traffic Count for Low Water Crossings	Other Benefits Provided by Projects	Residual Risks	Implementation Issues	Associated Model ID
083001315	Unknown	Unknown	N/A	0%	No	N/A	No	0.68	N/A	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	N/A
083001316	Unknown	Unknown	N/A	0%	No	N/A	No	0.35	1,469	None	The residual risks to life and property remains for flood events that exceed the design storm of the proposed improvements.	None identified at this time.	N/A

## Appendix 4.3

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000059	Evaluation of Flood Control Projects Phase 2	Implement design, construction, and maintenance criteria for new City-owned flood control projects; Document retrofitting/non-structural control activities on existing City-owned flood control structures	08000009	Fort Bend	1207010404, 1204020501, 1204020502	08000013, 08000014	Other	31	Riverine	City of Sugar Land	City of Sugar Land	No	\$500,000	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000071	Sugar Land MDP - Early Flood Warning System	Engage regional partners in developing a flood warning system.	08000016	Fort Bend	1207010404, 1204020501, 1204020502	08000013, 08000014	Flood Measurement and Warning	31	Riverine, Coastal	City of Sugar Land	City of Sugar Land	No	\$500,000	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000074	Sugar Land MDP - Regional Drainage & Drainage Entities	Consider establishing a single regional drainage entity to manage all aspects of drainage.	08000003	Fort Bend	1207010404, 1204020501, 1204020502	08000013, 08000014	Regulatory and Guidance	31	Riverine, Coastal, Local	City of Sugar Land	City of Sugar Land	No	\$50,000	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000121	Comanche County TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Comanche	1207020102, 1207020103, 1207020104, 1207020105, 1207020106, 1207020201	08000008, 08000009	Other	914	Riverine, Local	Comanche County	Comanche County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000130	City of Gustine TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Comanche	1207020105	08000008	Other	1	Riverine, Local	City of Gustine	City of Gustine	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000132	Eastland County Early Flood Warning System	Implement system to monitor flood waters.	08000016	Erath	1206020108, 1206020109, 1206020111, 1206020201, 1206020401, 1206020402, 1206020403, 1207020102, 1207020104, 1207020105, 1207020106	08000001, 08000002, 08000004, 08000008	Flood Measurement and Warning	1,085	Riverine, Local	Eastland County	Eastland County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000137	City of Carbon TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Eastland	1207020102, 1207020104	08000008	Other	1	Riverine, Local	City of Carbon	City of Carbon	No	\$500	\$500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000159	Fort Bend County Prevent River Bank Erosion	Control erosion of river bank to preserve channelization.	08000009	Fort Bend	1207010404, 1207010405, 1207010403, 1204020503, 1204020501, 1204020502	08000013, 08000014	Other	625	Riverine	Fort Bend County	Fort Bend County Drainage District, Fort Bend County	No	\$85,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000160	Fort Bend County Signage for Areas that Flood Easily	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Fort Bend	1207010404, 1207010405, 1207010403, 1204020503, 1204020501, 1204020502	08000013, 08000014	Other	625	Riverine, Coastal, Local	Fort Bend County	Fort Bend County Drainage District, Fort Bend County	No	\$50,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000161	Fort Bend County High Water Barricades	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Fort Bend	1207010404, 1207010405, 1207010403, 1204020503, 1204020501, 1204020502	08000013, 08000014	Other	625	Riverine, Coastal, Local	Fort Bend County	Fort Bend County Drainage District, Fort Bend County	No	\$50,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000169	City of Cresson TADD Barrier Installation	Increase awareness of flood risk and hazards.	08000019	Hood	1206020112, 1206020113	08000001	Other	5	Riverine, Local	City of Cresson	City of Cresson	No	\$15,000	\$1,500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000173	City of Lipan TADD Barrier Installation	Increase awareness of flood risk and hazards.	08000019	Hood	1206020111	08000001	Other	1	Riverine, Local	City of Lipan	City of Lipan	No	\$50,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000059	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000071	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000074	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000121	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000130	
082000130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000121	
082000132	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000137	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000159	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000160	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000161	
082000161	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000160	
082000169	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000173	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000176	City of Tolar TADD Barrier Installation	Increase awareness of flood risk and hazards.	08000019	Hood	1206020201	08000002	Other	1	Riverine, Local	City of Tolar	City of Tolar	No	\$50,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000203	Develop Database of Flood Risk Information & Mapping for Erath County	Improve and consolidate baseline data.	08000006	Erath	1206020108, 1206020109, 1206020111, 1206020201, 1206020401, 1206020402, 1206020403, 1207020102, 1207020104, 1207020105, 1207020106	08000001, 08000002, 08000004, 08000008	Other	1,085	Riverine, Local	Erath County	Erath County	No	\$1,500	\$1,500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000211	Brazos Country TADD Barrier Installation	Increase awareness of flood risk and hazards.	08000019	Austin	1207010403	08000013	Other	2	Riverine, Local	City of Brazos Country	City of Brazos Country	No	\$2,000	\$200	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000220	Bosque County TADD Barrier Installation	Increase awareness of flood risk and hazards.	08000019	Bosque	1206020206, 1206020203, 1206020204, 1206020201, 1206020301, 1206020302, 1206020402, 1206020403, 1206020404	08000002, 08000003, 08000004	Other	998	Riverine, Local	Bosque County	Bosque County Office of Emergency Management	No	\$4,000	\$400	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000247	Upgrade and Install Low Water Crossings in Bell County	Improve low water crossings to reduce flooding.	08000007	Bell	1207010101, 1207010104, 1207020110, 1207020111, 1207020203, 1207020305, 1207020304, 1207020401, 1207020402, 1207020505	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Infrastructure Projects	1,083	Riverine, Local	Bell County	Bell County	No	\$5,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000254	City of Killeen Automated High-Water Warning Signs	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000016	Bell	1207020111, 1207020203, 1207020305, 1207020304	08000008, 08000009, 08000010	Other	54	Riverine, Local	City of Killeen	City of Killeen	No	\$225,000	\$22,500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000260	City of Nolanville Automated High-Water Warning Signs	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000016	Bell	1207020111	08000008	Other	3	Riverine, Local	City of Nolanville	City of Nolanville	No	\$15,000	\$1,500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000270	City of Salado Elevate Low Water Crossings	Improve low water crossings to reduce flooding.	08000007	Bell	1207020304	08000010	Infrastructure Projects	2	Riverine, Local	City of Salado	City of Salado	No	\$5,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000280	Hamilton County High Water Signs and Gates	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Hamilton	1206020302, 1206020402, 1206020403, 1206020404, 1207020105, 1207020106, 1207020107, 1207020108, 1207020201, 1207020301	08000003, 08000004, 08000008, 08000009, 08000010	Other	833	Riverine, Local	Hamilton County	Hamilton County	No	\$100,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000283	Hamilton County Upgrade Low Water Crossings	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000007	Hamilton	1206020302, 1206020402, 1206020403, 1206020404, 1207020105, 1207020106, 1207020107, 1207020108, 1207020201, 1207020301	08000003, 08000004, 08000008, 08000009, 08000010	Infrastructure Projects	833	Riverine, Local	Hamilton County	Hamilton County	No	\$100,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000293	Participate with Milam County Emergency Response Board	Establish plan for emergency response to expedite public response.	08000016	Milam	1207020401, 1207020402	08000011	Other	1	Riverine, Local	City of Buckholts	City of Buckholts	No	\$500	\$500	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000305	Falls County Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Falls	1207010103, 1207010101, 1207010102, 1207010104, 1207010105, 1207020403, 1207020402	08000002, 08000005, 08000011	Infrastructure Projects	771	Riverine, Local	Falls County	Falls County	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000176	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000203	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000211	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000220	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000247	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081000259	082000270	
082000254	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000260	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000270	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081000245	082000247	
082000280	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081000289, 081001213		
082000293	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000308, 082000311

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000306	City of Lott Transform Flood-Prone Areas into Parks	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Falls	1207010103, 1207010101, 1207010104	08000005	Other	1	Local	City of Lott	City of Lott	No	\$120,000	\$120,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000308	City of Marlin Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Falls	1207010101, 1207010102	08000005	Infrastructure Projects	5	Riverine, Local	City of Marlin	City of Marlin	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000309	City of Marlin Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Falls	1207010101, 1207010102	08000005	Other	5	Local	City of Marlin	City of Marlin	No	\$50,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000310	Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Falls	1207010104	08000005	Other	1	Riverine, Local	City of Rosebud	City of Rosebud	No	\$10,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000311	City of Rosebud Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Falls	1207010104	08000005	Infrastructure Projects	1	Riverine, Local	City of Rosebud	City of Rosebud	No	\$100,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000326	City of Teague Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Freestone	1207010303	08000007	Other	2	Riverine, Local	City of Teague	City of Teague	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000342	Hill County Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020206, 1206020207, 1206020203, 1206020204, 1206020205, 1206020202, 1207010301	08000002, 08000007	Infrastructure Projects	661	Riverine, Local	Hill County	Hill County	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000343	Hill County Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Hill	1206020206, 1206020207, 1206020203, 1206020204, 1206020205, 1206020202, 1207010301	08000002, 08000007	Other	661	Local	Hill County	Hill County	No	\$120,000	\$120,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000345	Improve & Flood Proof Critical Facilities in City of Aquilla	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020205	08000002	Infrastructure Projects	1	Riverine, Local	City of Aquilla	City of Aquilla	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000346	City of Aquilla Flood Warning Signs	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Hill	1206020205	08000002	Other	1	Riverine, Local	City of Aquilla	City of Aquilla	No	\$7,000	\$700	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000349	City of Covington Automated Floodgates	Implementation of automated gates to block public from areas prone to flood risk.	08000016	Hill	1206020205	08000002	Other	1	Riverine, Local	City of Covington	City of Covington	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000350	City of Covington Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020205	08000002	Infrastructure Projects	1	Riverine, Local	City of Covington	City of Covington	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000351	City of Hillsboro Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020205	08000002	Infrastructure Projects	10	Riverine, Local	City of Hillsboro	City of Hillsboro	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000352	City of Hillsboro Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Hill	1206020205	08000002	Other	10	Local	City of Hillsboro	City of Hillsboro	No	\$50,000	\$50,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000353	City of Itasca Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020205	08000002	Infrastructure Projects	1	Riverine, Local	City of Itasca	City of Itasca	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000354	City of Mount Calm Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020207, 1207010301	08000002, 08000007	Infrastructure Projects	1	Riverine, Local	City of Mount Calm	City of Mount Calm	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000357	City of Whitney Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Hill	1206020204	08000002	Infrastructure Projects	2	Riverine, Local	City of Whitney	City of Whitney	No	\$750,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000358	City of Whitney Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Hill	1206020204	08000002	Other	2	Local	City of Whitney	City of Whitney	No	\$85,000	\$85,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000306	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	No			
082000308	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000305	
082000309	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	No			
082000310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	No			
082000311	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000305	
082000326	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000342	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000353, 082000357, 082000350, 082000354,
082000343	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes			082000352, 082000358
082000345	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000349	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000351	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000352	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes			082000343
082000353	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000354	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000357	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes			082000342
082000358	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes			082000343



## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000377	City of Lampasas Low Water Crossing Signs	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Lampasas	1207020303	08000010	Other	7	Riverine, Local	City of Lampasas	City of Lampasas	No	\$100,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000397	City of Marquez Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Leon	1207010303, 1207010304	08000007	Other	1	Riverine, Local	City of Marquez	City of Marquez	No	\$100,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000402	Limestone County Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Limestone	1206020207, 1207010103, 1207010102, 1207010105, 1207010301, 1207010302, 1207010303, 1207010304	08000002, 08000005, 08000007	Infrastructure Projects	830	Riverine, Local	Limestone County	Limestone County	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000403	Improve & Flood Proof Critical Facilities in City of Coolidge	Increase resiliency of critical facilities to flood events.	08000012	Limestone	1207010301	08000007	Infrastructure Projects	1	Riverine, Local	City of Coolidge	City of Coolidge	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000407	City of Kosse Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Limestone	1207010103, 1207010302	08000005, 08000007	Infrastructure Projects	1	Riverine, Local	City of Kosse	City of Kosse	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000408	City of Kosse Automated Floodgates	Implementation of automated gates to block public from areas prone to flood risk.	08000016	Limestone	1207010103, 1207010302	08000005, 08000007	Other	1	Riverine, Local	City of Kosse	City of Kosse	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000409	City of Mexia Improve & Flood Proof Critical Facilities	Increase resiliency of critical facilities to flood events.	08000012	Limestone	1207010301	08000007	Infrastructure Projects	4	Riverine, Local	City of Mexia	City of Mexia	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000410	City of Thornton Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Limestone	1207010302	08000007	Other	1	Riverine	City of Thornton	City of Thornton	No	\$85,000	\$85,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000498	Develop Evacuation Routes for City of Bryson	Establish evacuation routes to expedite public response to flood events.	08000016	Jack	1206020102	08000001	Other	1	Riverine, Local	City of Bryson	City of Bryson	No	\$5,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000507	City of Byson TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Jack	1206020102	08000001	Other	1	Riverine, Local	City of Bryson	City of Bryson	No	\$10,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000511	Improve & Flood Proof Critical Facilities in Young County	Increase resiliency of critical facilities to flood events.	08000012	Young	1206020101, 1206020102, 1206020105	08000001	Infrastructure Projects	402	Riverine, Local	Young County	Young County	No	\$1,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000516	City of Graham Develop Evacuation Routes	Establish evacuation routes to expedite public response to flood events.	08000016	Young	1206020101, 1206020105	08000001	Other	6	Riverine, Local	City of Graham	City of Graham	No	\$5,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000519	City of Graham TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Young	1206020101, 1206020105	08000001	Other	6	Riverine, Local	City of Graham	City of Graham	No	\$10,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000521	City of Graham Flood Proof Sewage Treatment Plan	Increase resiliency of critical facilities to flood events.	08000012	Young	1206020101, 1206020105	08000001	Infrastructure Projects	5	Riverine, Local	City of Graham	City of Graham	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000522	City of Graham Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Young	1206020101, 1206020105	08000001	Other	5	Riverine	City of Graham	City of Graham	No	\$1,000,000	\$1,000,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000529	City of Olney Develop Evacuation Routes	Establish evacuation routes to expedite public response to flood events.	08000016	Young	1206020101	08000001	Other	2	Riverine, Local	City of Olney	City of Olney	No	\$5,000	\$5,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000530	City of Olney Watertight Covers and Inflow Guard Implementation	Implementation of floodproofing features to increase resiliency of structure to flood events.	08000009	Young	1206020101	08000001	Infrastructure Projects	2	Riverine, Local	City of Olney	City of Olney	No	\$100,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000537	City of Olney Add Vegetation to River Banks	Control erosion of river bank to preserve channelization.	08000009	Young	1206020101	08000001	Other	2	Riverine	City of Olney	City of Olney	No	\$20,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000377	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000397	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000402	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000407, 082000409, 082000403	
082000403	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000402	
082000407	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000402	
082000408	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000409	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000402	
082000410	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	No			
082000498	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000507	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000511	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000519	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000521	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		081000518	
082000522	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	No			
082000529	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		81000534	
082000530	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000537	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes			082000546, 082000550

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000543	City of Olney TADD Promotion	Increase awareness of flood risk and hazards.	08000019	Young	1206020101	08000001	Other	2	Riverine, Local	City of Olney	City of Olney	No	\$10,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000546	City of Olney Maintain Natural Vegetation in Channels	Control erosion of banks to preserve channelization.	08000009	Young	1206020101	08000001	Other	2	Riverine	City of Olney	City of Olney	No	\$3,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000548	City of Olney Flood Proof Sewage Treatment Plan	Establish evacuation routes to expedite public response to flood events.	08000012	Young	1206020101	08000001	Infrastructure Projects	2	Riverine, Local	City of Olney	City of Olney	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000550	City of Olney Open Space Preservation Program	Preserve and create more open space to naturally store and discharge flood waters.	08000009	Young	1206020101	08000001	Other	2	Riverine	City of Olney	City of Olney	No	\$1,000,000	\$1,000,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000554	Robertson County Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Robertson	1207010103, 1207010105, 1207010106, 1207010305, 1207010302, 1207010303, 1207010304	08000005, 08000007	Other	862	Riverine, Local	Robertson County	Robertson County	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000557	City of Bremond Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Robertson	1207010103, 1207010105	08000005	Other	1	Riverine, Local	City of Bremond	City of Bremond	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000561	City of Calvert Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Robertson	1207010106	08000005	Other	4	Riverine, Local	City of Calvert	City of Calvert	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000565	City of Franklin Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Robertson	1207010106, 1207010305, 1207010304	08000005, 08000007	Other	1	Riverine, Local	City of Franklin	City of Franklin	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000569	City of Hearne Portable Flood Pumps	Purchase portable flood pumps to be used where most needed in flood events.	08000009	Robertson	1207010106	08000005	Other	4	Riverine, Local	City of Hearne	City of Hearne	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000570	Somervell County Low Water Crossings Mitigation	Improve low water crossings to reduce flooding.	08000007	Somervell	1206020113, 1206020203, 1206020201, 1206020403	08000001, 08000002, 08000004	Infrastructure Projects	191	Riverine, Local	Somervell County	Somervell County	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000575	City of Glen Rose Mitigate Low Water Crossings	Improve low water crossings to reduce flooding.	08000007	Somervell	1206020201	08000002	Infrastructure Projects	4	Riverine, Local	City of Glen Rose	City of Glen Rose	No	\$250,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000592	High Water Barricades on Meyersville Rd	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Other	616	Riverine, Local	Washington County	Washington County	No	\$100,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000593	High Water Barricades on County Roads	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Other	616	Riverine, Local	Washington County	Washington County	No	\$30,000	\$3,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000594	High Water Barricades on Winedale Road	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Other	616	Riverine, Local	Washington County	Washington County	No	\$100,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000595	High Water Barricades on Jeske Road	Implementation of signage/ barricades to notify public of areas prone to flood risk.	08000019	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Other	616	Riverine, Local	Washington County	Washington County	No	\$100,000	\$10,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-Year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000543	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000546	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes		082000537, 082000550	
082000548	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000550	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	100%	No	N/A	No	Yes		082000537, 082000546	
082000554	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000557, 082000561, 082000565, 082000569	
082000557	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000554	
082000561	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000554	
082000565	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000554	
082000569	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000554	
082000570	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081000579, 081001196, 081000572	082000575	
082000575	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081000579, 081001196, 081000572	082000570	
082000592	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000595, 082000593, 082000594	
082000593	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000595, 082000592, 082000594	
082000594	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000595, 082000592, 082000593	
082000595	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082000593, 082000592, 082000594	

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082000599	City of Brenham Low Water Crossing Improvements	Drainage feature improvements to increase capacity and ensure they are within standards.	08000009	Washington	1207010109, 1207010402	08000005, 08000013	Infrastructure Projects	13	Riverine, Local	City of Brenham	City of Brenham	No	\$2,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000631	Fort Bend County Early Flood Warning System	Installation of a flood monitoring system.	08000015	Fort Bend	1207010404, 1207010405, 1207010403, 1204020503, 1204020501, 1204020502	08000013, 08000014	Flood Measurement and Warning	625	Riverine, Local	Fort Bend County	Fort Bend County Drainage District, Fort Bend County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000645	Williamson County Early Flood Warning System	Installation of a flood monitoring system.	08000016	Williamson	1207010201, 1207020305, 1207020304, 1207020401, 1207020501, 1207020502, 1207020503, 1207020504, 1207020505	08000006, 08000010, 08000011, 08000012	Flood Measurement and Warning	1,120	Riverine, Local	Williamson County	Williamson County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000857	Project Brazos	Stabilization efforts for 11 identified locations along the Brazos River throughout Fort Bend County	08000009	Fort Bend	1207010404, 1207010405, 1207010403, 1204020503, 1204020501, 1204020502	08000013, 08000014	Infrastructure Projects	625	Riverine	Fort Bend County	Fort Bend County Drainage District	No	\$360,000,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000928	City of Georgetown Lift Station Floodproofing	Flood proof city lift stations and manholes located in the SFHA.	08000012	Williamson	1207020501, 1207020502, 1207020503, 1207020504, 1207020505	08000012	Infrastructure Projects	59	Riverine, Local	City of Georgetown	City of Georgetown	No	\$500,000	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082000933	City of Hutto Acquire Flood Prone Land	Dedicate acquired, undeveloped land to open space areas to prevent development.	08000009	Williamson	1207020504	08000012	Other	12	Riverine, Local	City of Hutto	City of Hutto	No	\$1,000,000	-	Local, TWDB FIF, FEMA HMGP, TWDB CWSRF, FEMA BRIC, FEMA FMA
082000938	City of Leander Automated Barriers	Install low water crossing automated barriers and warning signs.	08000007	Williamson	1207020501, 1207020502, 1207020504	08000012	Other	28	Riverine, Local	City of Leander	City of Leander	No	\$500,000	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA
082001024	City of Bryan Channel Maintenance Program Funding	Clearing of channels throughout the City to remove vegetation inhibiting the channels capacity.	08000003	Brazos	1207010107, 1207010306, 1207010307	08000005, 08000007	Infrastructure Projects	45	Riverine	City of Bryan	City of Bryan	No	-	-	Local, TWDB FIF, FEMA HMGP, FEMA BRIC, FEMA FMA
082001071	Austin County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Austin	1207010401, 1207010402, 1207010403	08000013	Regulatory and Guidance	502	Riverine, Local	Austin County	Austin County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001073	Bell County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Bell	1207010101, 1207010104, 1207020110, 1207020111, 1207020203, 1207020305, 1207020304, 1207020401, 1207020402, 1207020505	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Regulatory and Guidance	1,083	Riverine, Local	Bell County	Bell County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001074	Bosque County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Bosque	1206020206, 1206020203, 1206020204, 1206020201, 1206020301, 1206020302, 1206020402, 1206020403, 1206020404	08000002, 08000003, 08000004	Regulatory and Guidance	998	Riverine, Local	Bosque County	Bosque County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082000599	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	Yes	N/A	No	Yes	081001204		
082000631	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000645	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000857	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000633		
082000928	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082000933	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082001136	
082000938	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001024	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001071	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001073	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001074	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001076	Brazos County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Brazos	1207010106, 1207010107, 1207010108, 1207010305, 1207010306, 1207010307, 1207010308	08000005, 08000007	Regulatory and Guidance	589	Riverine, Local	Brazos County	Brazos County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001078	Burleson County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Burleson	1207010106, 1207010107, 1207010202, 1207010203, 1207010204, 1207010205	08000005, 08000006	Regulatory and Guidance	674	Riverine, Local	Burleson County	Burleson County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001081	Comanche County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Comanche	1207020102, 1207020103, 1207020104, 1207020105, 1207020106, 1207020201	08000008, 08000009	Regulatory and Guidance	914	Riverine, Local	Comanche County	Comanche County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001082	Coryell County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Coryell	1206020301, 1206020302, 1206020303, 1206020404, 1207020109, 1207020108, 1207020110, 1207020111, 1207020201, 1207020202, 1207020203, 1207020305, 1207020301, 1207020303	08000003, 08000004, 08000008, 08000009, 08000010	Regulatory and Guidance	1,052	Riverine, Local	Coryell County	Coryell County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001083	Eastland County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Eastland	1206020108, 1207020101, 1207020102, 1207020103, 1207020104	08000001, 08000008	Regulatory and Guidance	767	Riverine, Local	Eastland County	Eastland County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001084	Erath County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Erath	1206020108, 1206020109, 1206020111, 1206020201, 1206020401, 1206020402, 1206020403, 1207020102, 1207020104, 1207020105, 1207020106	08000001, 08000002, 08000004, 08000008	Regulatory and Guidance	1,085	Riverine, Local	Erath County	Erath County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001085	Falls County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Falls	1207010103, 1207010101, 1207010102, 1207010104, 1207010105, 1207020403, 1207020402	08000002, 08000005, 08000011	Regulatory and Guidance	771	Riverine, Local	Falls County	Falls County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001090	Grimes County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Grimes	1207010108, 1207010305, 1207010306, 1207010307, 1207010308	08000005, 08000007	Regulatory and Guidance	464	Riverine, Local	Grimes County	Grimes County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001091	Hamilton County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Hamilton	1206020302, 1206020402, 1206020403, 1206020404, 1207020105, 1207020106, 1207020107, 1207020108, 1207020201, 1207020301	08000003, 08000004, 08000008, 08000009, 08000010	Regulatory and Guidance	833	Riverine, Local	Hamilton County	Hamilton County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082001076	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001078	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001081	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001082	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001083	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001084	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001085	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001090	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001091	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			



## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001092	Hill County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Hill	1206020206, 1206020207, 1206020203, 1206020204, 1206020205, 1206020202, 1207010301	08000002, 08000007	Regulatory and Guidance	661	Riverine, Local	Hill County	Hill County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001093	Hood County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Hood	1206020111, 1206020112, 1206020113, 1206020201	08000001, 08000002	Regulatory and Guidance	432	Riverine, Local	Hood County	Hood County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001095	Johnson County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Johnson	1206020113, 1206020203, 1206020205, 1206020202	08000001, 08000002	Regulatory and Guidance	369	Riverine, Local	Johnson County	Johnson County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001096	Lampasas County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Lampasas	1207020202, 1207020203, 1207020305, 1207020302, 1207020301, 1207020303	08000009, 08000010	Regulatory and Guidance	564	Riverine, Local	Lampasas County	Lampasas County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001097	Lee County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Lee	1207010201, 1207010202, 1207010203	08000006	Regulatory and Guidance	530	Riverine, Local	Lee County	Lee County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001099	Limestone County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Limestone	1206020207, 1207010103, 1207010102, 1207010105, 1207010301, 1207010302, 1207010303, 1207010304	08000002, 08000005, 08000007	Regulatory and Guidance	830	Riverine, Local	Limestone County	Limestone County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001101	McLennan County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	McLennan	1206020206, 1206020207, 1206020208, 1206020205, 1206020301, 1206020302, 1206020303, 1206020404, 1207010101, 1207010102, 1207020110, 1207020402	08000002, 08000003, 08000004, 08000005, 08000008, 08000011	Regulatory and Guidance	1,056	Riverine, Local	McLennan County	McLennan County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001102	Milam County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Milam	1207010103, 1207010104, 1207010105, 1207010106, 1207010201, 1207010202, 1207010204, 1207020403, 1207020401, 1207020402, 1207020504, 1207020505	08000005, 08000006, 08000011, 08000012	Regulatory and Guidance	1,018	Riverine, Local	Milam County	Milam County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001104	Palo Pinto County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Palo Pinto	1206020102, 1206020103, 1206020104, 1206020105, 1206020106, 1206020107, 1206020108, 1206020109, 1206020110, 1206020111	08000001	Regulatory and Guidance	982	Riverine, Local	Palo Pinto County	Palo Pinto County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-Year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082001092	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001093	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001095	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001096	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001097	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001099	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001101	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001106	Robertson County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Robertson	1207010103, 1207010105, 1207010106, 1207010305, 1207010302, 1207010303, 1207010304	08000005, 08000007	Regulatory and Guidance	862	Riverine, Local	Robertson County	Robertson County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001107	Somervell County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Somervell	1206020113, 1206020203, 1206020201, 1206020403	08000001, 08000002, 08000004	Regulatory and Guidance	191	Riverine, Local	Somervell County	Somervell County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001109	Waller County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Waller	1207010108, 1207010109, 1207010401, 1207010402, 1207010403	08000005, 08000013, 08000014	Regulatory and Guidance	321	Riverine, Local	Waller County	Waller County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001110	Washington County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Regulatory and Guidance	616	Riverine, Local	Washington County	Washington County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001111	Williamson County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Williamson	1207010201, 1207020305, 1207020304, 1207020401, 1207020501, 1207020502, 1207020503, 1207020504, 1207020505	08000006, 08000010, 08000011, 08000012	Regulatory and Guidance	1,120	Riverine, Local	Williamson County	Williamson County	No	\$400,000	\$400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001112	Young County Regulatory Updates	Update floodplain ordinances/subdivision regulations and drainage criteria to implement the latest rainfall data and recommended regional standards.	08000003	Young	1206020101, 1206020102, 1206020105	08000001	Regulatory and Guidance	402	Riverine, Local	Young County	Young County	No	\$400,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001113	City of College Station Early Flood Warning System	Implement system to monitor flood waters, notify public officials of flooded roadways, and trigger automatic warnings for road users.	08000019	Brazos	1207010107, 1207010307	08000005, 08000007	Flood Measurement and Warning	51	Riverine	City of College Station	City of College Station	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001114	City of Bryan Early Flood Warning System	Implement system to monitor flood waters.	08000019	Brazos	1207010107, 1207010306, 1207010307	08000005, 08000007	Flood Measurement and Warning	45	Riverine	City of Bryan	City of Bryan	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001116	Bell Early Flood Warning System	Acquire and install early warning system for dam failure.	08000019	Bell	1207010101, 1207010104, 1207020110, 1207020111, 1207020203, 1207020305, 1207020304, 1207020401, 1207020402, 1207020505	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Flood Measurement and Warning	1,083	Riverine	Bell County	Bell County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001118	Bosque Early Flood Warning System	Identify sites where stream and rain gages need to be added or upgraded.	08000019	Bosque	1206020206, 1206020203, 1206020204, 1206020201, 1206020301, 1206020302, 1206020402, 1206020403, 1206020404	08000002, 08000003, 08000004	Flood Measurement and Warning	998	Riverine	Bosque County	Bosque County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082001106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001107	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001109	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001111	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001112	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001113	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001114	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001116	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001118	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001119	Comanche Early Flood Warning System	Install early warning system for flood hazard events.	08000019	Comanche	1207020102, 1207020103, 1207020104, 1207020105, 1207020106, 1207020201	08000008, 08000009	Flood Measurement and Warning	914	Riverine	Comanche County	Comanche County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001120	Erath Early Flood Warning System	Implement a mass notification system to provide flood warnings to residents.	08000019	Erath	1206020108, 1206020109, 1206020111, 1206020201, 1206020401, 1206020402, 1206020403, 1207020102, 1207020104, 1207020105, 1207020106	08000001, 08000002, 08000004, 08000008	Flood Measurement and Warning	1,085	Riverine	Erath County	Erath County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001121	Hamilton Early Flood Warning System	Install flood gages in flood prone areas.	08000019	Hamilton	1206020302, 1206020402, 1206020403, 1206020404, 1207020105, 1207020106, 1207020107, 1207020108, 1207020201, 1207020301	08000003, 08000004, 08000008, 08000009, 08000010	Flood Measurement and Warning	833	Riverine	Hamilton County	Hamilton County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001122	McLennan Early Flood Warning System	Implement system to monitor flood waters.	08000019	McLennan	1206020206, 1206020207, 1206020208, 1206020205, 1206020301, 1206020302, 1206020303, 1206020404, 1207010101, 1207010102, 1207020110, 1207020402	08000002, 08000003, 08000004, 08000005, 08000008, 08000011	Flood Measurement and Warning	1,056	Riverine	McLennan County	McLennan County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001123	Waller Early Flood Warning System	Install flood gages to monitor flood waters.	08000019	Waller	1207010108, 1207010109, 1207010401, 1207010402, 1207010403	08000005, 08000013, 08000014	Flood Measurement and Warning	321	Riverine	Waller County	Waller County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001124	Regional Public Awareness Program	Increase awareness of flood risk and hazards.	08000020	All		08000001, 08000002, 08000003, 08000004, 08000005, 08000006, 08000007, 08000008, 08000009, 08000010, 08000011, 08000012, 08000013, 08000014	Education and Outreach	23,357	Riverine, Local	Lower Brazos Regional Flood Planning Group	All Counties	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001125	Brazos Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Brazos	1207010106, 1207010107, 1207010108, 1207010305, 1207010306, 1207010307, 1207010308	08000005, 08000007	Property Acquisition and Structural Elevation	589	Riverine, Local	Brazos County	Brazos County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001126	Bell Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Bell	1207010101, 1207010104, 1207020110, 1207020111, 1207020203, 1207020305, 1207020304, 1207020401, 1207020402, 1207020505	08000005, 08000008, 08000009, 08000010, 08000011, 08000012	Property Acquisition and Structural Elevation	1,083	Riverine, Local	Bell County	Bell County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits										
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations					
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-Year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association	
082001119	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001120	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001121	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001123	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				
082001125	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000706, 081000718, 081000716, 081001004, 081000693, 081000689,	082001139, 082001140		
082001126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No				

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001127	Grimes Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Grimes	1207010108, 1207010305, 1207010306, 1207010307, 1207010308	08000005, 08000007	Property Acquisition and Structural Elevation	464	Riverine, Local	Grimes County	Grimes County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001128	Hill Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Hill	1206020206, 1206020207, 1206020203, 1206020204, 1206020205, 1206020202, 1207010301	08000002, 08000007	Property Acquisition and Structural Elevation	661	Riverine, Local	Hill County	Hill County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001129	Lee Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Lee	1207010201, 1207010202, 1207010203	08000006	Property Acquisition and Structural Elevation	530	Riverine, Local	Lee County	Lee County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001130	McLennan Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	McLennan	1206020206, 1206020207, 1206020208, 1206020205, 1206020301, 1206020302, 1206020303, 1206020404, 1207010101, 1207010102, 1207020110, 1207020402	08000002, 08000003, 08000004, 08000005, 08000008, 08000011	Property Acquisition and Structural Elevation	1,056	Riverine, Local	McLennan County	McLennan County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001131	Waller Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Waller	1207010108, 1207010109, 1207010401, 1207010402, 1207010403	08000005, 08000013, 08000014	Property Acquisition and Structural Elevation	321	Riverine, Local	Waller County	Waller County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001132	Washington Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Washington	1207010108, 1207010109, 1207010203, 1207010205, 1207010401, 1207010402	08000005, 08000006, 08000013	Property Acquisition and Structural Elevation	616	Riverine, Local	Washington County	Washington County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001134	Lee Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Lee	1207010201, 1207010202, 1207010203	08000006	Property Acquisition and Structural Elevation	530	Riverine, Local	Lee County	Lee County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001135	Burleson Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Burleson	1207010106, 1207010107, 1207010202, 1207010203, 1207010204, 1207010205	08000005, 08000006	Property Acquisition and Structural Elevation	674	Riverine, Local	Burleson County	Burleson County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001136	Williamson Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Williamson	1207010201, 1207020305, 1207020304, 1207020401, 1207020501, 1207020502, 1207020503, 1207020504, 1207020505	08000006, 08000010, 08000011, 08000012	Property Acquisition and Structural Elevation	1,120	Riverine, Local	Williamson County	Williamson County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001137	Young Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Young	1206020101, 1206020102, 1206020105	08000001	Property Acquisition and Structural Elevation	402	Riverine, Local	Young County	Young County	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-Year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082001127	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001128	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001129	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001130	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000884	082001143	
082001131	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001132	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001134	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001135	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001136	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082001141, 082000933, 082001142	
082001137	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			



## Appendix 4.3 - Table 14 Potentially Feasible FMSs

General Information															
FMS ID	FMS Name	Description	Associated Goals (ID)	Counties	HUC 10s	Watersheds	Strategy Type	Strategy Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Strategy Cost (\$)	Non-Recurring, Non-Capitol Costs (\$)	Potential Funding Sources and Amount
082001139	City of Bryan Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Brazos	1207010107, 1207010306, 1207010307	08000005, 08000007	Property Acquisition and Structural Elevation	45	Riverine, Local	City of Bryan	City of Bryan	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001140	City of College Station Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Brazos	1207010107, 1207010307	08000005, 08000007	Property Acquisition and Structural Elevation	51	Riverine, Local	City of College Station	City of College Station	No	\$500,000	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001141	City of Georgetown Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Williamson	1207020501, 1207020502, 1207020503, 1207020504, 1207020505	08000012	Property Acquisition and Structural Elevation	48	Riverine, Local	City of Georgetown	City of Georgetown	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001142	City of Leander Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	Williamson	1207020501, 1207020502, 1207020504	08000012	Property Acquisition and Structural Elevation	21	Riverine, Local	City of Leander	City of Leander	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001143	City of Waco Property Acquisition	Buyout program for structures located in flood hazard areas.	08000009	McLennan	1206020206, 1206020207, 1206020208, 1206020301, 1206020302, 1206020303, 1206020404, 1207010101	08000002, 08000003, 08000004, 08000005	Property Acquisition and Structural Elevation	100	Riverine, Local	City of Waco	City of Waco	No	\$500,000	\$1,400,000	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001304	Lower Brazos Additional Gauges	Final assessment of placement and constructability of recommended gauges from preliminary analysis. Coordination between entities to integrate gauges into USGS system.	08000020	All		08000001, 08000002, 08000003, 08000004, 08000005, 08000006, 08000007, 08000008, 08000009, 08000010, 08000011, 08000012, 08000013, 08000014	Flood Measurement and Warning	23,357	Riverine, Local	Lower Brazos Regional Flood Planning Group	All Counties	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT
082001305	Lower Brazos Flood Warning Portal	Development of interface to incorporate regional and local data system information for public use in the Lower Brazos Region.	08000020	All		08000001, 08000002, 08000003, 08000004, 08000005, 08000006, 08000007, 08000008, 08000009, 08000010, 08000011, 08000012, 08000013, 08000014	Flood Measurement and Warning	23,357	Riverine, Local	Lower Brazos Regional Flood Planning Group	All Counties	No	-	-	Local, TWDB FIF, TWDB CWSRF, FEMA HMGP, FEMA BRIC, FEMA FMA, HUD CDBG-MIT

## Appendix 4.3 - Table 14 Potentially Feasible FMSs

FMS ID	Flood Risk Information																				Other Benefits									
	Flood Risk										Reduction in Flood Risk										Other Benefits					FMX Associations				
	Area in 100-year (1% ACE) Floodplain (sq mi)	Area in 500-year (0.2% ACE) Floodplain (sq mi)	Estimated Number of Structures at 100-year Flood Risk	Residential Structures at Flood Risk	Estimated Population at Flood Risk	Critical Facilities at Flood Risk	Number of Low Water Crossings at Flood Risk	Estimated Number of Road Closures	Estimated Length of Roads at Flood Risk (mi)	Estimated Farm & Ranch Land at Flood Risk (ac)	Number of Structures with Reduced 100-year (1% ACE) Flood Risk	Number of Structures Removed from 100-year (1% ACE) Flood Risk	Number of Structures Removed from 500-year (0.2% ACE) Flood Risk	Estimated Population Removed from 100-year (1% ACE) Flood Risk	Critical Facilities Removed from 100-year (1% ACE) Flood Risk	Number of Low Water Crossings Removed from 100-year (1% ACE) Flood Risk	Estimated Reduction in Road Closure Occurrences	Estimated Length of Roads from 100-year Flood Risk (mi)	Estimated Active Farm & Ranch Land Removed from 100-year Flood Risk (ac)	Estimated Reduction in Fatalities (if available)	Estimated Reduction in Injuries (if available)	Cost/ Structure Removed	Consideration of Nature-Based Solution	Negative Impact	Negative Impact Mitigation	Water Supply Benefit	Association with other FMEs, FMSs, and FMPs	FME Association	FMS Association	FMP Association
082001139	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000706, 081000718, 081000716, 081001004, 081000693, 081000689, 081001002, 081001005	082001125, 08200140	
082001140	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000706	082001125, 082001139	
082001141	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082001136	
082001142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes		082001136	
082001143	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	Yes	081000884	082001130	
082001304	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			
082001305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0%	No	N/A	No	No			

# Appendix 4.4

### Appendix 4.4 Infeasible FMSs and FMPs

Halff Associates, Inc.

Infeasible FMSs and FMPs			
Project ID	Project Name	Project Classification	Reason for Infeasibility
82000061	Wellington Estates Drainage Anlysis	FMS	Project area is less than 1 square mile.
82000276	Pottsville Drainage Improvements	FMS	Project area is less than 1 square mile.
82000310	Open Space Preservation Program	FMS	Project area is less than 1 square mile.
82000311	Improve & Flood Proof Critical Facilities	FMS	Project area is less than 1 square mile.
82000328	Culvert and Drainage Ditch Improvements	FMS	Project area is less than 1 square mile.
82000344	Debris Removal Program	FMS	Project area is less than 1 square mile.
82000349	Automated Floodgates	FMS	Project area is less than 1 square mile.
82000350	Improve & Flood Proof Critical Facilities	FMS	Project area is less than 1 square mile.
82000354	Improve & Flood Proof Critical Facilities	FMS	Project area is less than 1 square mile.
83000036	Downtown Drainage Improvements	FMP	Project area is less than 1 square mile.
83000059	Oyster Creek Bridge Drainage Impact Analysis	FMP	Project area is less than 1 square mile.
83000060	Oyster Creek Watershed Drainage Improvements	FMP	Project is superseded by FBCDD DMP.
83000149	Culvert Upgrade at Longhorn Trail & Crossing Creek	FMP	Project area is less than 1 square mile.
83000151	Low Water Crossing Upgrades at Marlin Rd & Paint Creek	FMP	Project area is less than 1 square mile.
83000152	Replace Paint Creek Road Bridge	FMP	Project area is less than 1 square mile.
83000157	Construction of Regional Detention Facility	FMP	Outside of project area.
83000174	Howard Lake Dam Improvements	FMP	Project area is less than 1 square mile.
83000238	Somerville High School Drainage Improvements	FMP	Project area is less than 1 square mile.
83000261	Expand 10th Street Retention Pond	FMP	Project area is less than 1 square mile.
83000264	FM 439 Spur Culvert	FMP	Project area is less than 1 square mile.
83000288	Hamilton Wastewater Diversion Channel	FMP	Project area is less than 1 square mile.
83000330	Remove Railroad Trestle near Cedar Creek	FMP	Project area is less than 1 square mile.
83000332	Milroy Terrace Erosion Control	FMP	Project area is less than 1 square mile.

### Appendix 4.4 Infeasible FMSs and FMPs

Half Associates, Inc.

Project ID	Project Name	Project Classification	Reason for Infeasibility
83000336	Foster Street Drainage Improvements	FMP	Project area is less than 1 square mile.
83000337	Buckingham Lane Drainage Improvements	FMP	Project area is less than 1 square mile.
83000347	Expand Drainage Ditches West of Avenue B	FMP	Project area is less than 1 square mile.
83000355	Expand Drainage Ditches North of Clark Avenue	FMP	Project area is less than 1 square mile.
83000380	Upgrade Middle Yegua Creek Crossing	FMP	Project area is less than 1 square mile.
83000381	Reroute CR 302 to Avoid Low Water Crossing	FMP	Project area is less than 1 square mile.
83000382	Upgrade CR 400 Drainage Structure	FMP	Project area is less than 1 square mile.
83000383	Upgrade CR 455 Drainage Structure at Indian Camp Branch	FMP	Project area is less than 1 square mile.
83000386	Upgrade CR 226 Drainage Structure at Cummins Creek	FMP	Project area is less than 1 square mile.
83000509	Flood Proof Sewage Treatment Plan	FMP	Project area is less than 1 square mile.
83000606	Improve Crossing Structure near Beck Street and West Main Street	FMP	Project area is less than 1 square mile.
83000742	Oak Hill Phase 1A & 1B	FMP	Project area is less than 1 square mile.
83000744	Courtney Lane	FMP	Project area is less than 1 square mile.
83000747	Avenue D	FMP	Project area is less than 1 square mile.
83000748	January Street	FMP	Project area is less than 1 square mile.
83000749	Avenue B	FMP	Project area is less than 1 square mile.
83000750	MLK Drive	FMP	Project area is less than 1 square mile.
83000751	US 190	FMP	Project area is less than 1 square mile.
83000755	Tangelwood Drive & Thoroughbred Subdivision Drainage Project	FMP	Project area is less than 1 square mile.
83000758	Trimmier Creek Tributary Improvements 1	FMP	Project area is less than 1 square mile.
83000759	Trimmier Creek Tributary Improvements 2	FMP	Project area is less than 1 square mile.
83000760	Old Nolanville Road Drainage Improvements	FMP	Project area is less than 1 square mile.
83000761	Harker Heights Tributary 1 Drainage Improvements	FMP	Project area is less than 1 square mile.
83000763	Kensington Place - Green Slopes	FMP	Project area is less than 1 square mile.

### Appendix 4.4 Infeasible FMSs and FMPs

Halff Associates, Inc.

Project ID	Project Name	Project Classification	Reason for Infeasibility
83000769	Old Settlers Boulevard at Dam 14 Tributary	FMP	Project area is less than 1 square mile.
83000771	The Woods - Oak Hollow 1	FMP	Project area is less than 1 square mile.
83000772	The Woods - Oak Hollow 2	FMP	Project area is less than 1 square mile.
83000778	Greenlawn Boulevard at Gilleland Creek	FMP	Project area is less than 1 square mile.
83000879	Oakwood Channel & Bridge Improvements	FMP	Project area is less than 1 square mile.
83000883	Floyd Casey Stream Restoration & Culvert Improvements	FMP	Project area is less than 1 square mile.
83000893	Panther Way & Old Hewitt Road	FMP	Project area is less than 1 square mile.
83000894	Hewitt Elementary & Applewood/ Lindenwood	FMP	Project area is less than 1 square mile.
83000920	Beck Street and West Main Street Improvements	FMP	Project area is less than 1 square mile.
83000929	River Oaks Stabilization	FMP	Project area is less than 1 square mile.
83000945	Improve Chandler Branch Tributary	FMP	Project area is less than 1 square mile.
83000947	Early Warning System for Low Water Crossing	FMP	Project area is less than 1 square mile.

## Appendix 4.5

## Appendix 4.5

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TO: Texas Water Development Board DATE: July 2023

FROM: Lower Brazos Regional Flood Planning Group

SUBJECT: Lower Brazos Flood Early Warning System Investigation

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### Purpose

In February 2022, the Texas Water Development Board provided the Lower Brazos Regional Flood Planning Group (RFPG) with additional funding and an additional project schedule to allow for the RFPG to prepare an amendment of the Final Regional Flood Plan (RFP). The objective of this amendment as set forth by the TWDB was to “perform identified potential Flood Management Evaluations (FMEs) to, for example, evaluate flood risks in areas with currently limited flood risk data, and to evaluate flood risk reduction solutions, including feasibility studies and preliminary engineering needed to identify, evaluate, and recommend additional potentially feasible Flood Mitigation Projects (FMPs).”

The Lower Brazos RFPG discussed several efforts that could be performed to fulfill the scope provided by the TWDB. One of these efforts was to perform an evaluation of current Flood Early Warning Systems (FEWS) throughout the region to identify locations in need of improved monitoring or gauge systems to provide alerts of flooding conditions. This evaluation was consistent with several of the overarching goals and themes within the Lower Brazos RFP. Having better information during storm events allows residents to make more informed decisions and contributes to the overarching goal of the regional flood planning effort – to protect against the loss of life and property. This primary goal is reflected in *Chapter 3: Floodplain Management Practices and Flood Protection Goals* which includes four strategies aiming to increase the coverage of flood warning systems and gauges in the Lower Brazos region and *Chapter 7: Flood Response Information and Activities* which discusses the importance of FEWS in a community’s preparation and response to severe rain events. Additionally, the need for more FEWS and gauges was a recurring sentiment voiced by the public throughout the Lower Brazos Survey, public meetings, and the flood mitigation actions submitted for inclusion in the Lower Brazos RFP.

### Existing Systems and Coordination

The first step in identifying potential locations in need of FEWS and gauges in the Lower Brazos Region was determining where systems and gauges are already in place. Although related, gauges and FEWS were looked at separately for some of this analysis. In this document, gauges are singular instruments used to measure, store, and transmit stage and flow information of streams, rivers, lakes, and other significant bodies of water. Conversely, FEWS refers to an integrated system used by a local community or region, that is reliant on gauge or other live measurement data, to calculate, display, or notify entities and residents of flood risk. These systems vary across the flood planning region and can incorporate feedback systems such as websites, text alerts, and sirens to provide real-time information during flooding events. Localized FEWS often serve a singular entity or community and provide flood risk data in a way that is most applicable to the areas flood risk type, rainfall, terrain, and drainage infrastructure. Regional FEWS are hosted by state or federal agencies and provide general flood risk data for entire networks of streams and rivers throughout the state or country.

Lower Brazos Survey results and regional entities such as the United States Geological Survey (USGS) and National Weather Service (NWS) were consulted to understand what methods communities currently utilize to provide

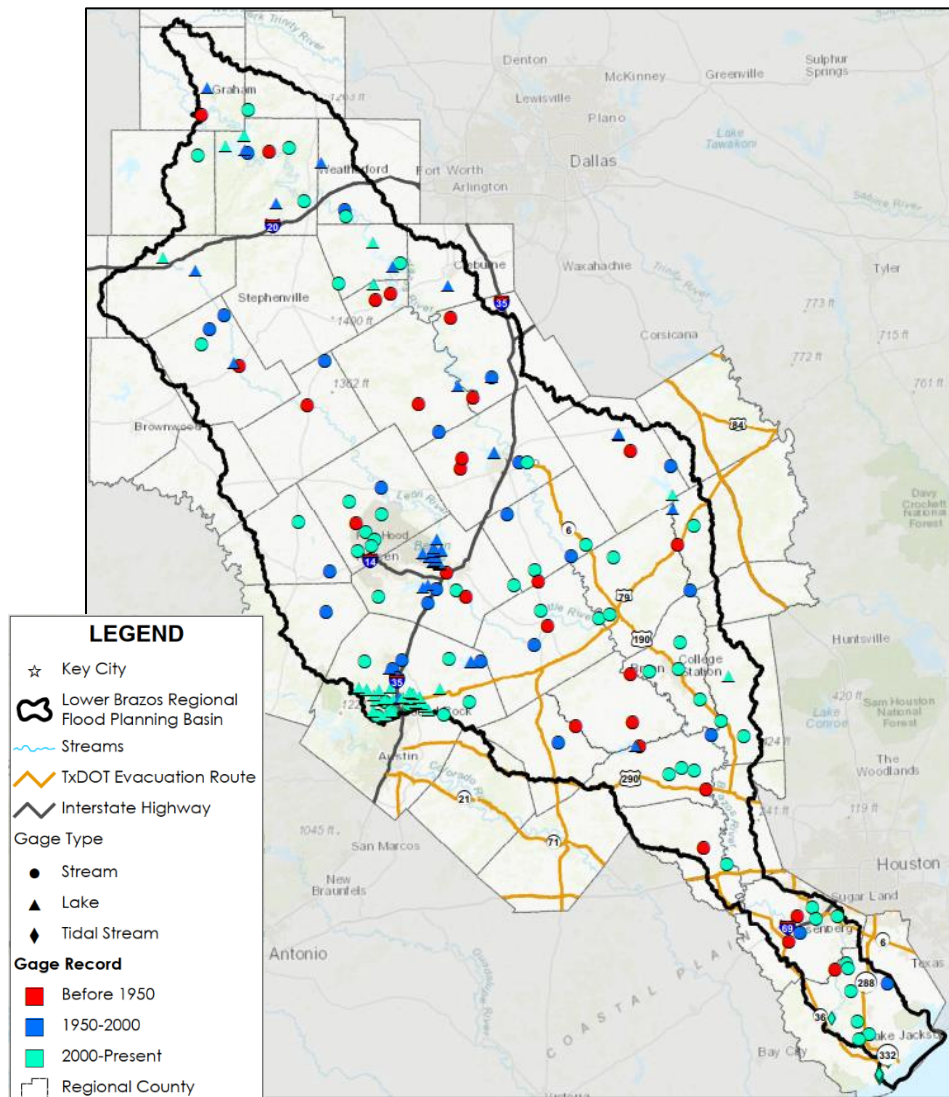


flood related warnings during severe rain events. Both regional and local systems were identified based on publicly available information. A gap analysis was then performed to identify additional locations where FEWS could benefit communities with high flood risk.

### USGS Gages

The USGS has an extensive gauge network across the nation ([Water Resources of the United States—National Water Information System \(NWIS\) Mapper \(usgs.gov\)](https://water.usgs.gov/nwis/)). This network consists of many types of gauges including atmospheric, springs, groundwater, and surface-water sites. However, for the evaluation of FEWS and gauges in the Lower Brazos Region, only surface-water sites were of interest. USGS surface-water gauges can be found along major tributaries, rivers, streams, and lakes across the Lower Brazos Region, as seen in *Figure 1*. Over 170 active riverine and reservoir gauges were identified within the region. These gauges date back to as early as 1905 and provide an average of 30,000 record counts each.

**Figure 1 USGS Gage Distribution**



The USGS NWIS Mapper was one of the major sources used to identify existing gauge information that could be leveraged within an FEWS. For information on active rain events, gauges with live data are invaluable to

communities in identifying where severe flooding may occur, where roads may become impassible, and where to focus their response efforts. However, there are additional benefits provided by gauges with historical flow or water surface elevation records. Gauges can be used to also predict the potential flows and water surface elevations during storm events.

Gauges with over 30 years of data records can be utilized to document peak flows and corresponding water surface elevations. These records can then be used to determine flows and water surface elevations for frequency storm events. This information can be leveraged to map potential flood risk for different recurrence intervals, identify structures that may be prone to frequent flooding, and inform communities on when rain events may become severe flooding events. Within the Lower Brazos Region, there are many gauges with periods of record well over 30 years, as shown in Exhibit A. These gauges are well distributed throughout the region, mostly near population centers and lakes.

### ***NWS System***

Another tool available to the flood planning region is the National Water Model ([Office of Water Prediction \(noaa.gov\)](https://www.noaa.gov)). This tool simulates and forecasts how water moves throughout streams and rivers across the nation by utilizing many real time data points, including USGS gauges, as simulation checkpoints. Users can view live short (18 hour), medium (10 day), and long (30 day) range flow forecasts. Future updates to the National Water Model will include the integration of hydraulic and hydrologic models from federal, state, and local entities that will utilize the forecasted flows to project Flood Inundation Mapping (FIM).

In discussion with representatives from the NWS that work within the Lower Brazos Region, the accuracy and performance of the National Water Model would be bolstered by adding more gauges to the reference network. Gauges provide points for the modeling data to tie in to measured historical and live data, increasing the accuracy of the overall mapping and prediction results.

### ***InFRM***

The Interagency Flood Risk Management (InFRM) team created a tool that provides flood risk information to portions of the Lower Brazos Region and other areas across the state of Texas. This system utilizes the data collected at USGS gages, compounded with NWS forecasting, to create estimated flood inundation mapping. Using the Flood Decision Support Tool (<https://webapps.usgs.gov/infrm/fdst/?region=fema6>) users can view inundation extents and depths for current stage levels at incorporated USGS gages, estimated mapping for simulated stage conditions, and stage trends at gages with noticeable WSE increases or decreases. The InFRM Flood Decision Support Toolbox provides valuable information to communities that have data within their area. However, there are currently a limited number of USGS gages currently incorporated into the system, each with only a few miles of associated inundation mapping upstream and downstream of the gage, leaving many areas to rely on the USGS and NWS systems that provide more complete coverage of the region.

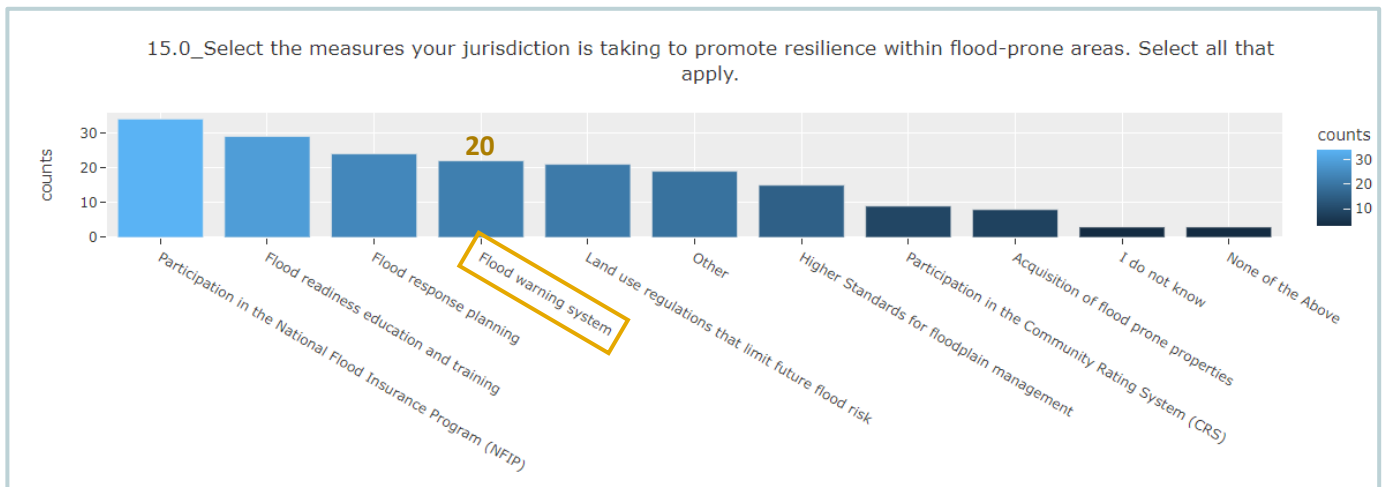
### ***Local Flood Warning Systems***

An assessment of local flood warning systems was performed using publicly available information and survey data. Results from the Lower Brazos Interest Group Survey, discussed in *Chapter 10: Adoption of Plan and Public Participation*, and the flood mitigation actions received and gathered as discussed in *Chapter 4: Assessment and Identification of Flood Mitigation Needs*, were used to determine general interest in FEWS and gauges throughout the region. A desktop analysis was also performed to evaluate what systems are currently in place in communities across the Lower Brazos Region.

Survey Results

Four questions in the 2021 Lower Brazos Interest Group Survey gave communities the opportunity to express interest or ongoing efforts in respect to FEWS and gauges. In response to these questions, 36 entities indicated interest in developing or advancing their flood warning capacity. These responses can be seen in *Figure 2* through *Figure 5*.

**Figure 2 Interest Group Survey Question 15 Responses**



**Figure 3 Interest Group Survey Question 32 Responses**

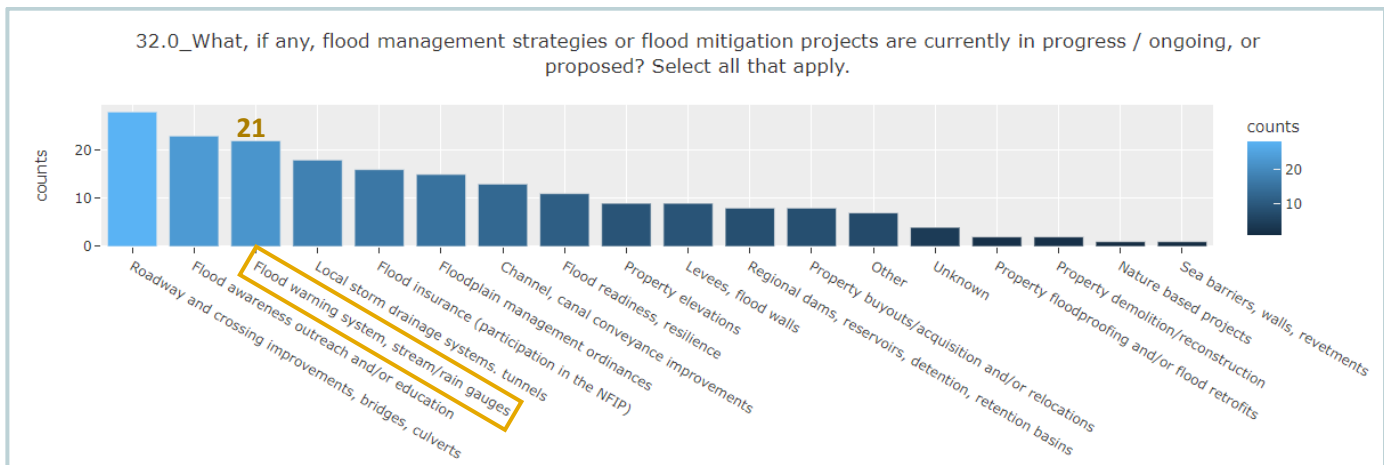


Figure 4 Interest Group Survey Question 42 Responses

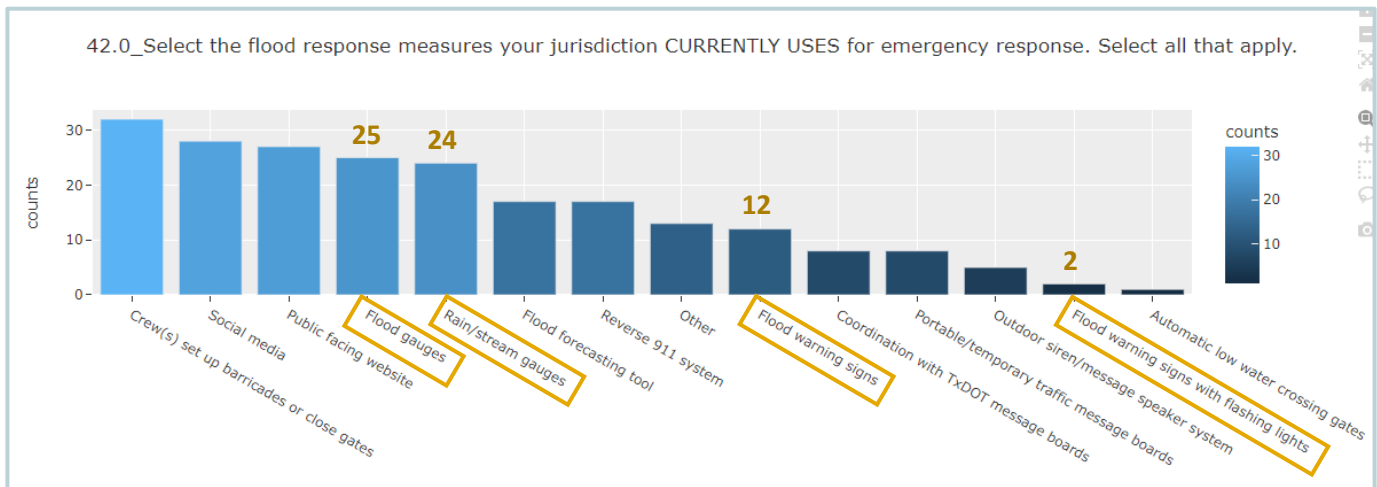
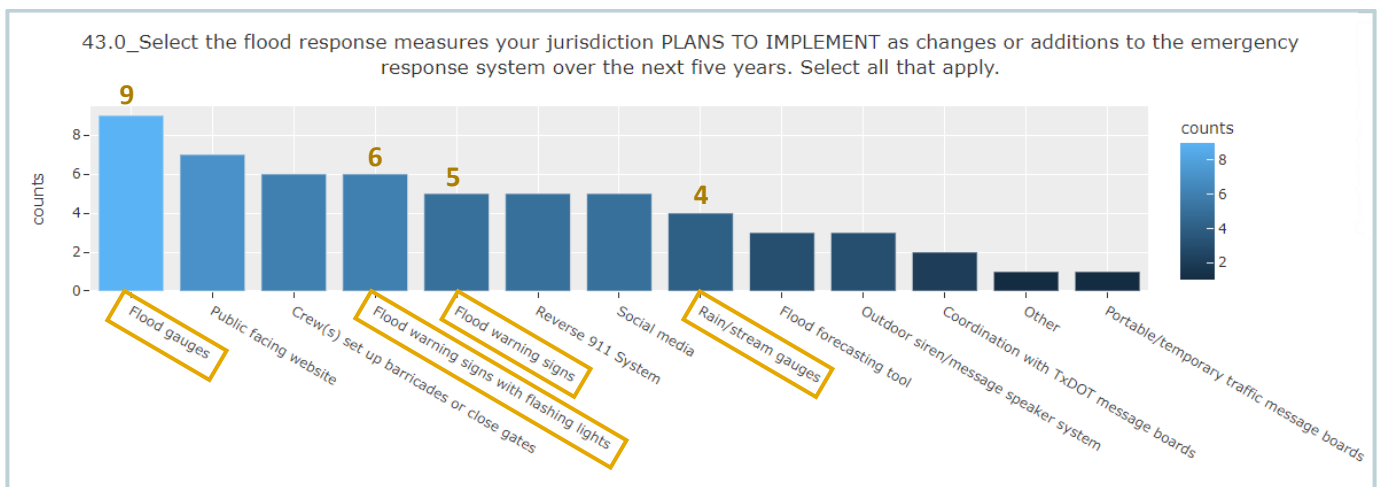


Figure 5 Interest Group Survey Question 43 Responses



The use of flood warning systems varies across the region. Of the 36 entities that expressed interest, only seven had local systems or gauges that they currently utilize for flood warning. Over half of the entities did not have any information on flood warning available for residents. Ten of the 36 rely on information from regional systems, including the National Weather Model and USGS gauges, to inform flood response actions such as road closures and notifications to residents of severe flooding conditions.

Although these responses represent only a small portion of all the entities in the Lower Brazos Region, the interest in FEWS and gauges, and the current lack of local systems, was found to represent the region as a whole. Entity websites, Hazard Mitigation Plans, and other publicly available documentation was referenced to determine the existing systems, or lack of, in major cities and counties that did not provide survey responses. Interest in implementing local systems, and current dependence on regional systems and gauges, was found to extend to entities outside of those that responded to the Lower Brazos Survey.

## High Risk Areas

To help prioritize where additional gauges and FEWS would be most beneficial, gaps in coverage were cross referenced with high-risk locations.

### 4A Flood Risk

Results from *Chapter 4A.3: Areas with Significant Flood Risk Gaps and Flood Mitigation Needs* were leveraged to define areas of high flood risk. This previously completed analysis incorporated 11 categories that assess flood risk as well as the ability of communities to respond to severe flood events:

- Number of Buildings in Flood-Prone Areas
- Number of Low Water Crossings
- Agricultural Areas in Flood-Prone Areas
- Number of Critical Facilities in Flood-Prone Areas
- Number of Communities not Participating in NFIP
- Number of Communities Participating in CRS with Rating Lower than 10
- Damaged or Failing Infrastructure
- Availability of a Hazard Mitigation Action Plan
- Number of Disaster Declarations
- Number of FEMA Claims
- Social Vulnerability Index

Exhibit A shows the locations of the existing gauges within the Lower Brazos Region contrasted with areas of highest flood risk.

This information was overlaid with existing USGS gauges to determine high flood risk areas lacking significant gauge coverage. As a result, ten areas were identified as potential candidates for FEWS or additional gauges:

- Southwest Erath County
- Williamson County
- McLennan County
- West Waller County
- Southern Lower Brazos (including Brazoria and Fort Bend Counties)
- Brazos and Navasota River Confluence
- West Bell County
- Central Burleson County
- Nolan River Watershed
- Aquilla Lake Watershed

Each of these areas was further investigated to determine the types of flood risk present, number of structures at risk, major roads affected during flood events, and low water crossings in the vicinity. Additionally, the type of flood risk experienced within the identified areas was determined through evaluation of the contributing drainage areas, flood sources, and typical depths of flooding. This information was cross referenced with the land use and density of population centers within the locations to determine whether the communities would benefit more from gauges or FEWS. Further analysis that may consider riverbed slope, flood depth, base flows, land use and other factors is recommended to prioritize gauges.

## *Evacuation Routes*

Another critical element used to identify locations that could benefit from additional gauges were the evaluation of evacuation routes. Evacuation routes are critical during natural disasters, which often involve extreme flooding conditions. Stream crossings along all TxDOT evacuation routes were analyzed to determine if there are currently any gauges, flood warning signs, or other flood response infrastructure to monitor potential overtopping. Locations where streams are prone to overtopping the road without flood warning infrastructure, were considered as optimal locations for gauge placement. Exhibit B shows evacuation crossings with and without gauges.

Many of the major stream crossings flagged as not having gauge data, do have gauges several miles upstream or downstream of the point of interest that help inform flooding conditions. However, several of the minor stream crossings, including those prone to overtopping, did not have nearby gauge coverage. These locations were further investigated, especially if they also fell within one of the ten locations identified as potential candidates for installing FEWS or additional gauges.

## *NWS Gauge Wishlist*

The final piece of data that was used to identify potential locations for additional gauges or FEWS was a gauge “wish list” provided by the Galveston Branch of the NWS. This list was developed by the NWS through a survey sent to regional stakeholders in the southernmost portion of the Lower Brazos watershed. Using local knowledge, a list of locations that would most benefit from additional gauging was compiled.

Since the NWS gauge wish list was compiled several years ago, some of the high priority locations have been addressed in recent years. However, there were some locations that coincided with the evacuation routes and high flood risk areas that were considered during this analysis. These locations were given priority, regardless of surrounding at-risk structure counts or low water crossings.

## **Recommendations**

Recommendations were tailored based on flood risk types and sources as well as the size of population centers within the identified areas.

Since local FEWS are somewhat costly to implement and maintain, communities with populations greater than 20,000 in high flood risk areas may consider the use of these systems. In contrast, gauges were recommended for more rural areas to monitor rainfall and water surface conditions. By partnering with the USGS, or other regional entities, these rural communities could tie into a larger gauge network and more extensive flood risk data without having to develop or maintain their own website interfaces, modeling, or forecasting technologies.

Additional consideration was given to the type of flood risk and number of flooding sources. Gauges provide a significant amount of information along large riverine networks; however, they may not provide sufficient information on urban structural flooding and ponding caused by localized flooding through dense population centers. For areas with many sources of flooding, or localized flooding issues, local FEWS were recommended to provide more granular data. The recommended locations for gauges and local FEWS can be seen in Exhibit C.

The recommendations provided based on the analysis performed have not been prioritized or ranked. However, the data used to determine the placement recommendations could be used to determine an implementation plan that could include prioritization based on severity of need, or viability of the placement.

## Gauge Locations to Support Regional Flood Early Warning Systems

The West Waller County area was identified as being better suited for potential gauge placements and incorporation into regional FEWS. Being a rural county comprised of small towns, there is not a population center large enough to support a local FEWS. However, there is significant riverine flooding along several of the tributaries that contribute to the Brazos River which forms the western boundary of the county. Three potential gauge locations were identified at major road and stream crossings: two at TxDOT evacuation routes, one at a location identified within the NWS gauge wish list, and over 1,500 nearby at-risk structures.

The Southern Lower Brazos area has significant population centers along with a number flood sources. However, several entities within the identified area have local systems and gauges. This coverage provides data on localized flooding for Sugar Land and many of the Levee Improvement Districts (LIDs) within the southern portions of Fort Bend County and northern portions of Brazoria County. Due to this existing infrastructure, two potential gauges were recommended for locations without a localized system that have severe riverine flooding. Both locations were identified in the NWS gauge wish list, and one coincides with a TxDOT evacuation route. These potential gauge locations can be seen in *Table 1*.

**Table 1 Potential Gauge Locations in Southern Portion of Lower Brazos Region**

Gauge Location	Interest Area	TxDOT Evacuation Route	On NWS Wish List
I10 and Bessie’s Creek	West Waller County	Yes	No
FM 1887 and Irons Creek	West Waller County	No	No
US 290 and Clear Creek	West Waller County	Yes	Yes
FM 1093 and Orchard Creek	Southern Lower Brazos	No	Yes
FM 288 and Bastrop Bayou	Southern Lower Brazos	Yes	Yes

Other potential gauges locations were recommended for the central and northern portions of the Lower Brazos watershed. However, there are not established TxDOT evacuation routes in this region, and the NWS gauge wish list does not cover this portion of the watershed. Therefore, potential gauge locations were driven by the number of nearby at-risk structures and low water crossings.

Williamson County is like the Southern Lower Brazos area in that it has dense population, multiple sources of flooding, and existing local systems and gauges. Two potential gauge locations were identified for locations with over 1,000 nearby structures at-risk and several nearby low water crossings that are not covered by the local systems in the southwestern portion of the county.

In the McLennan County area there were no identified public facing local FEWS. However, the InFRM Flood Decision Tool does provide coverage for a segment of the Brazos River which is central to the county. Additional flooding in the County is caused by many tributaries that ultimately contribute to the Brazos River. Potential gauge locations were identified along the outskirts of the City of Waco in more rural areas that could not support a local FEWS. The identified locations are at the intersections of large tributaries and major thoroughfares with over 500 nearby at-risk structures.

Potential gauge locations were also identified along major creeks and streams for several of the more rural counties with high flood risk. In Southwest Erath County, near the confluence of the Brazos and Navasota Rivers,

Central Burleson, and Aquilla Lake Watershed, gauges were placed at locations with multiple nearby low water crossings and hundreds of nearby at-risk structures. These potential gauge locations can be seen in *Table 2*.

**Table 2 Potential Gauge Locations in Northern Portion of Lower Brazos Region**

Gauge Location	Interest Area	At-Risk Structures	LWCs
FM 1660 and San Gabriel River	Williamson County	530	4
FM 397 and Bull Branch	Williamson County	170	4
US 84 and Harris Creek	McLennan County	150	2
FM 317 and South Bosque River	McLennan County	150	4
SH 6 and Cedar Creek	Brazos and Navasota River Confluence	410	4
SH 22 and Hackberry Creek	Aquilla Lake Watershed	70	3
FM 166 and Davidson Creek	Central Burleson County	140	1
FM 8 and North Bosque River	Southwest Erath County	290	10

These gauge locations are representative of areas with high flood risk that could likely benefit from the data provided by a riverine gauge. However, further investigation would be needed to determine if these locations are viable placements for constructability and maintenance. Vibrations caused by vehicular traffic on crossing roads, bridge safety, and ease of access would need to be vetted before funding for construction and implementation could be pursued. To account for this, as well as coordination needs between local entities and regional partners, the potential gauge placements were grouped together as a Flood Management Strategy (FMS) with a total estimated strategy cost of \$150,000. As locations and sponsors are further vetted and finalized, estimated construction and maintenance costs would need to be calculated for each gauge.

### **Local Flood Early Warning System Development**

A few major population centers within the Lower Brazos Region were identified as optimum locations for developing local FEWS. The cities of Killeen, Cleburne, Stephenville, Waco, and Georgetown are all located in areas with high flood risk with multiple sources of flooding, and have a limited number of USGS gauges. The ongoing flood warning efforts and infrastructure in these five cities were further investigated.

Most of the identified locations do not have any public facing flood warning system. Some currently depend on regional systems to inform their residents on emergencies involving flooding. The City of Cleburne and City of Killeen have warning sirens and text systems that notify residents of emergency conditions. However, these systems are intended to be used for all emergency conditions and are not supported by any local gauging or live flood risk data. The cities of Waco, Stephenville, and Georgetown do not have public facing local flood warning systems. The recommended locations for local FEWS are summarized in *Table 3*.



**Table 3 Potential Local FEWS Locations**

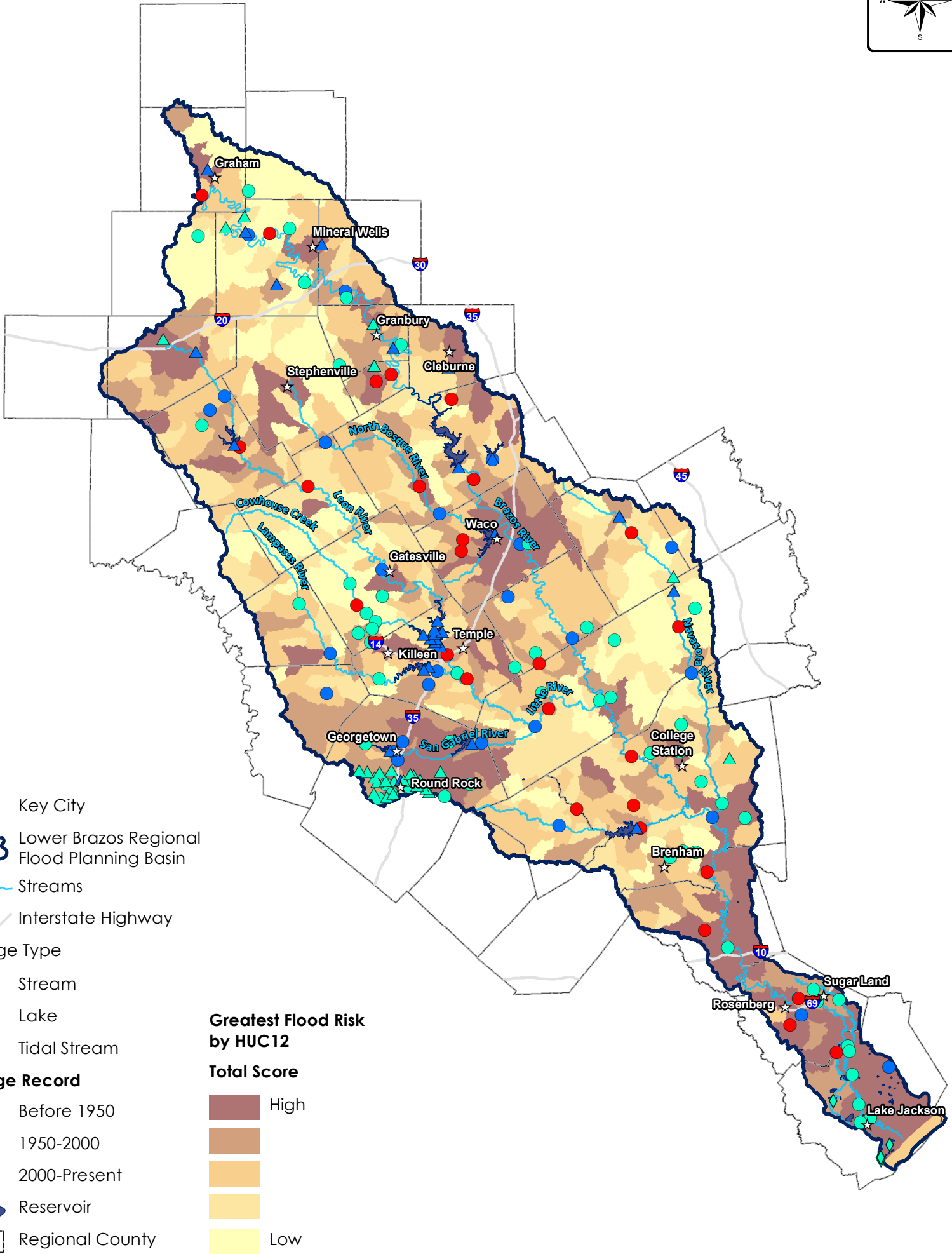
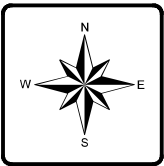
FME ID	FME Name	At-Risk Structures	Community Population	FME Cost
081001115	City of Killeen FEWS	1,200	153,000	\$100,000
081001117	City of Cleburne FEWS	1,200	31,000	\$100,000
081001300	City of Stephenville FEWS	360	21,000	\$100,000
081001301	City of Waco FEWS	6,500	138,000	\$100,000
081001302	City of Georgetown FEWS	1,200	67,000	\$100,000

Although these cities were identified as potentially viable locations for local FEWS implementation, the needs and capabilities of the entities are not identical. Due to this, FMEs are recommended for each city with a cost estimate of \$100,000 to study the implementation of a local FEWS. After these evaluations, FMPs could be developed and included in the Lower Brazos Regional Flood Plan to pursue funding needs associated with implementation and construction of a local FEWS and supporting gauges.

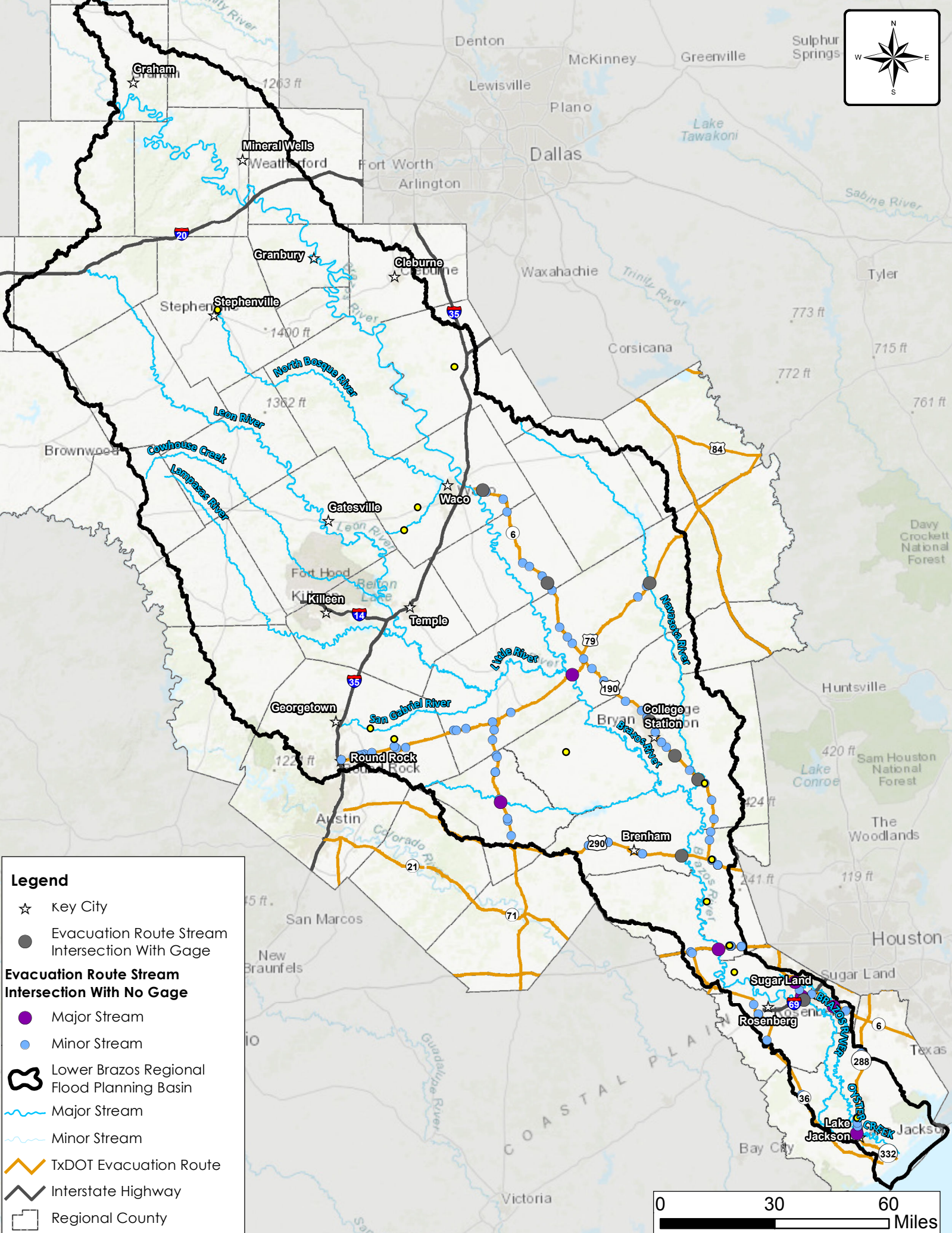
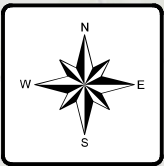
## Conclusion

The potential gauge and local FEWS locations identified in this memorandum are representative of areas with high flood risk that would benefit from the information provided by additional flood warning. However, these recommendations are not exhaustive. Many other cities and locations throughout the region could benefit from the information provided by gauges and FEWS. These systems can bolster modeling and mapping by providing historical information to estimate frequency storms more accurately, provide information to entities on how likely roads and structures are to be inundated during storm events, and be used in forecasting. By increasing the number of gauges and FEWS in the Lower Brazos Region, the public will have access to better information on flooding conditions and be able to make more informed decisions during storm events.

# Exhibit A

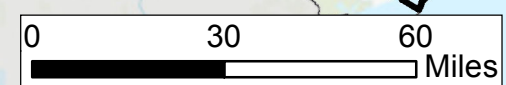


## Exhibit B

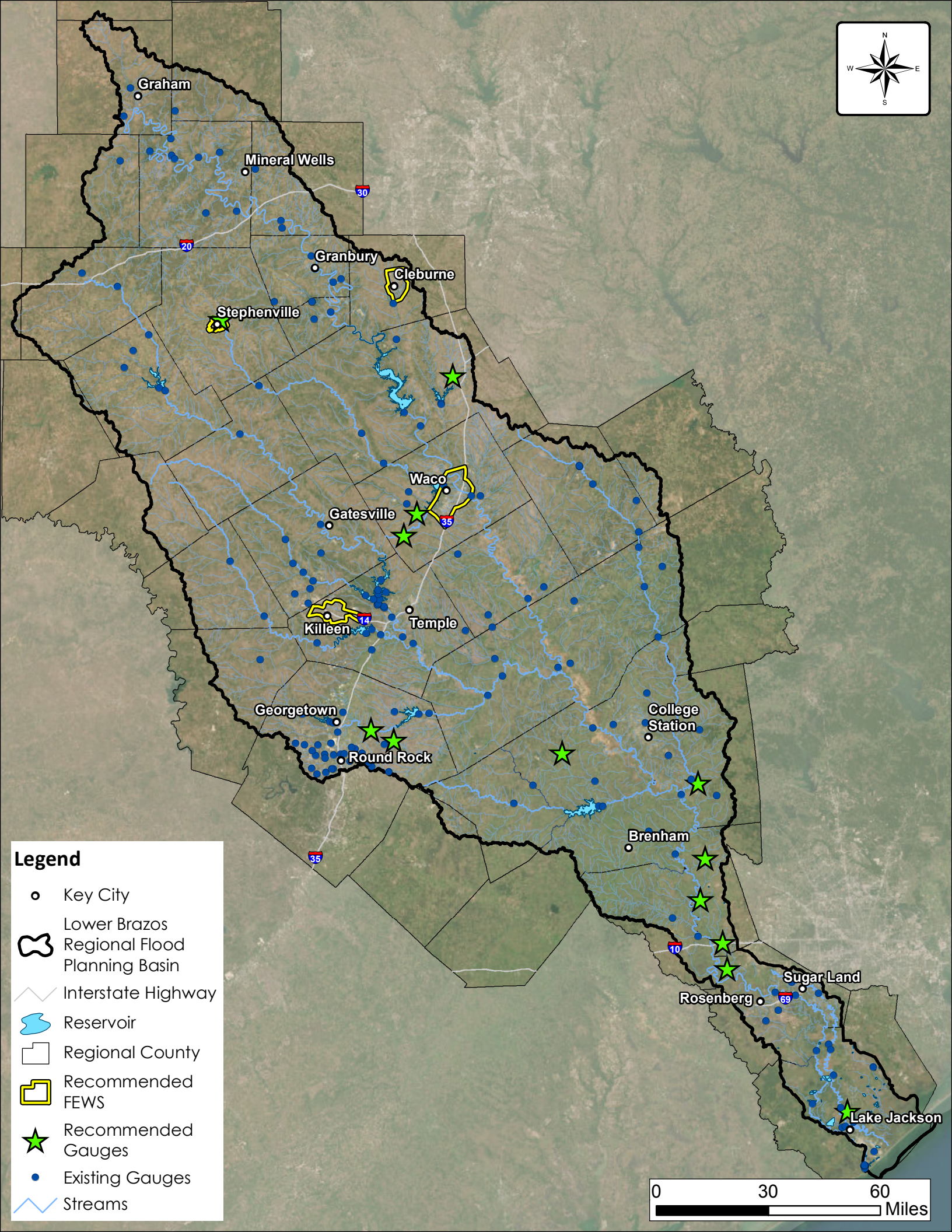
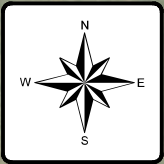


**Legend**

- ☆ Key City
- Evacuation Route Stream Intersection With Gage
- Evacuation Route Stream Intersection With No Gage
- Major Stream
- Minor Stream
- Lower Brazos Regional Flood Planning Basin
- Major Stream
- Minor Stream
- TxDOT Evacuation Route
- Interstate Highway
- Regional County

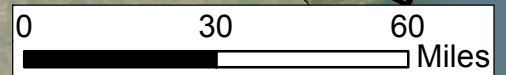


## Exhibit C



**Legend**

- Key City
- Lower Brazos Regional Flood Planning Basin
- Interstate Highway
- Reservoir
- Regional County
- Recommended FEWS
- ★ Recommended Gauges
- Existing Gauges
- Streams



## Appendix 4.6



# Appendix 4.6

TO: Texas Water Development Board DATE: July 2023  
 FROM: Lower Brazos Regional Flood Planning Group  
 SUBJECT: Development of Regional Watershed Studies and Additional FMPS

## Purpose

The primary goal of Task 12 for the Lower Brazos Regional Flood Planning Group (RFPG) was to provide better information for communities who lack sufficient resources to develop flood risk modeling and flood risk reduction projects on their own. Areas of elevated flood risk were identified, and potential mitigation solutions were developed for communities to consider.

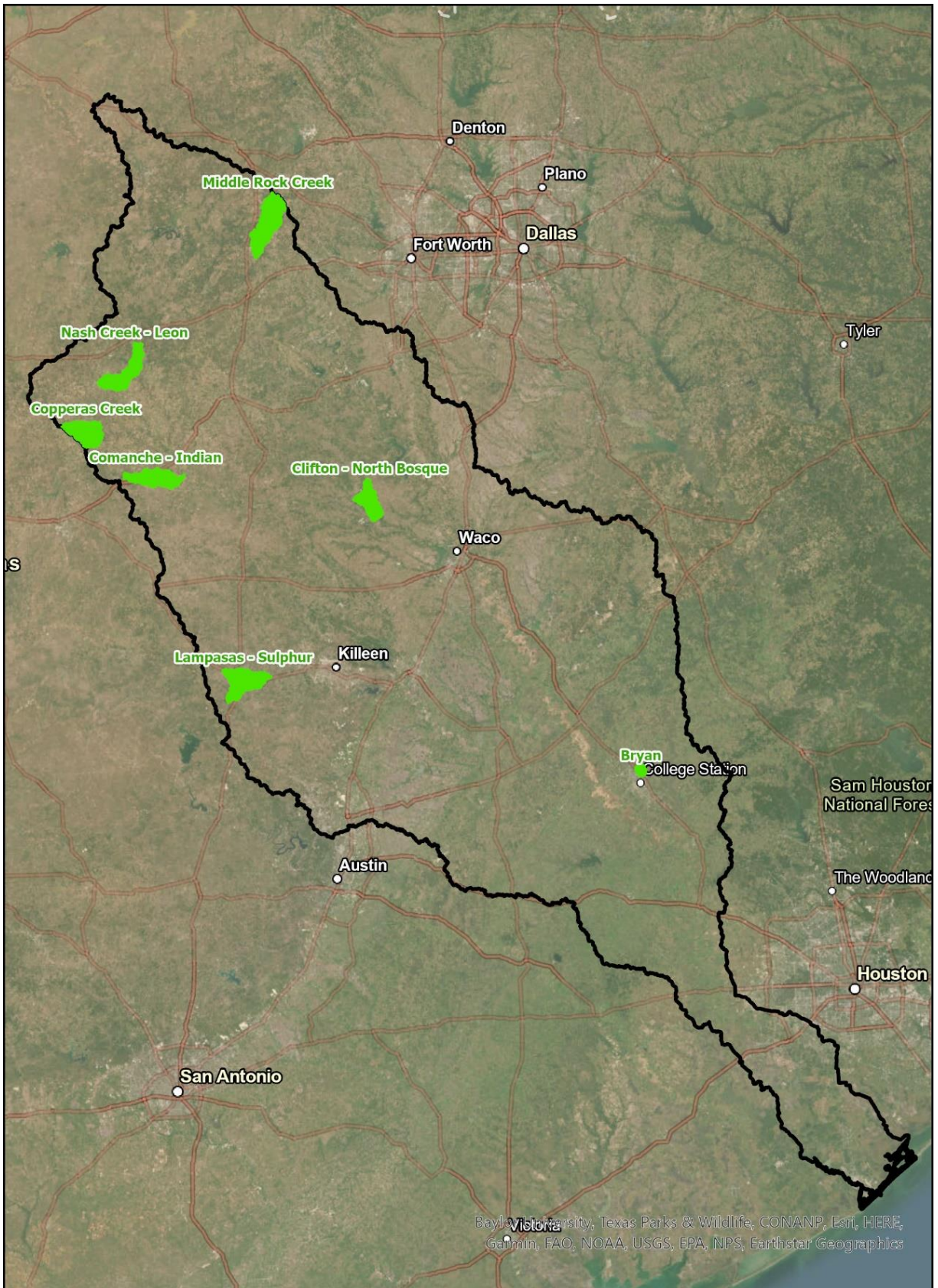
The RFPG utilized Flood Risk and Flood Risk Data Gaps information from Task 4A to prioritize previously identified Drainage Master Plan Flood Management Evaluations (FMEs) within the region. These FMEs largely adhered to the U.S. Geological Survey (USGS) defined Hydrologic Unit Codes (HUCs) to ensure the identified FMEs characterize drainage areas. FMEs with the highest weighted scores (75% Flood Risk & 25% Flood Risk Data Gaps) and with costs below \$1,000,000 were considered for further analysis in Task 12, as shown in *Table 1*. Lower cost FMEs were considered in order to study as many areas as possible within the available budget.

In total, existing conditions hydraulic models were developed for six (6) regional watershed studies, and ten (10) FMPS total were developed from analysis of model results. Additionally, one (1) FME submitted to the RFPG by the City of Bryan was elevated to FMP status using the best available existing conditions model data. *Figure 1* shows the locations studied under Task 12.

**Table 1 Regional Watershed Study Selection Scoring**

Study Name	Area (sq mi)	Low Water Crossings	At-Risk Structures
Comanche-Indian Creek HUC	54.6	5	347
Lampasas-Sulphur Creek HUC	65.5	5	836
Copperas Creek HUC	54.2	5	199
Nash-Leon Creek HUC	58.1	2	13
Clifton – North Bosque HUC	41.5	5	352
Middle Rock Creek HUC	22.3	1	82

Figure 1 Studied Areas



## Data Collection

The following data was collected to develop hydraulic models for the six (6) study areas:

- Terrain data sourced from Texas Natural Resources Information System (TNRIS) (1m resolution)
- 2019 National Land Cover Database (NLCD) land cover raster
- Atlas 14 rainfall data
- USDA SSURGO soil data
- Field measurements for critical drainage structures

## Existing Flood Condition Assessment

For the regional watershed study areas, 2D Rain-on-mesh models were developed using the data listed in the section above. This modeling methodology consisted of applying a precipitation hyetograph boundary condition directly to a 2D area that was defined based on topography. HEC-HMS version 4.10 was used to calculate the precipitation hyetographs from NOAA Atlas 14 point precipitation tables, and HEC-RAS version 6.3.1 was then used to compute flood depths using precipitation hyetographs calculated in HEC-HMS and normal depth boundary conditions. The 2D rain-on-mesh modeling allowed the RFPG’s consultant to perform a rapid assessment of the study areas to identify flooding hot spots and develop potential FMPS.

An infiltration layer was developed in RASMapper using the Curve Number (CN) method. Chapter 9 of the *USDA Hydrology National Engineering Handbook* was referenced to define CN values based on USDA SSURGO hydrologic soil groups and 2019 NLCD data. For all study areas, ARC II values were used with an initial abstraction ratio of 0.05 based on research completed at the University of Arizona (Woodward, 2003) that indicated initial abstraction ratios should be determined based on location. Flood Insurance Study (FIS) discharge tables were used to validate the resulting infiltration rates. Additionally, impervious cover percentages were defined for the following NLCD classifications in order to ensure that runoff began at a realistic time during the simulation:

- Developed, High Intensity: 80%
- Developed, Medium Intensity: 65%
- Developed, Low Intensity: 55%
- Open Water: 80%

Curve numbers associated with “Developed, Open Space” land use were assigned to the classifications above since increased runoff due to level of development was accounted for by assigning impervious cover percentages.

The modeling for the City of Bryan did not utilize the same 2D rain-on-mesh methodology, as a previously developed, more detailed 2D model was used to define existing conditions for project development. This model utilized flow hydrograph boundary conditions defined within channel features instead of a precipitation hyetograph.

Lidar data was referenced to delineate breaklines along critical features. Elevated features such as roads, berms, dams, and railroads were delineated to ensure 2D mesh alignment along the high point. Stream banks were also delineated using breaklines to align the 2D cell faces perpendicular to the flow through the channels. Bridges and culverts were initially modeled by modifying the underlying terrain and later replaced with SA/2D connections in areas requiring additional detail.

NLCD land cover data was used to define Manning's n values throughout the study areas. Refinements to the land cover data were made within channel banks of streams with contributing drainage areas greater than 1 square mile. This was particularly important because the base land cover data is not refined enough to capture stream features.

Three different n value conditions based on depth were considered for each NLCD classification:

- Channel: within stream banks, manually defined based on review of aerial imagery
- Overbank: greater than 6" of flooding depth
- Rain-on-mesh: less than 6" of flooding depth

For differentiating between overbank and rain-on-mesh n values, an initial HEC-RAS simulation was computed using channel and overbank n values. Using the simulation results, all areas below 6" of flood depth were classified with rain-on-mesh n values. This adjustment accounted for higher roughness in areas experiencing only shallow flow. As depth and velocity of flow increases, modeled roughness decreases. To reflect this, n values for overbank areas were modeled as lower than their rain-on-mesh counterparts and channel n values had the lowest of all classifications.

## Hot Spot Identification

Following the rapid assessment modeling of the study areas, flood hot spots were identified from the model results. TWDB structure data was intersected with initial model flood depth results to identify structures subject to low (< 6"), medium (6" to 12"), or high (>12") flood risk. The resulting data was used to identify potential hot spots of elevated flood risk and areas in need of additional model detail. Field measurements were obtained for key bridges and culverts affecting flooding conditions in identified hot spots to improve model accuracy. Flood risk hot spots for each studied geography are discussed further in subsequent sections.

### *Coordination with Local Communities*

The RFPG's engineer contacted local communities within the regional watershed study areas to validate findings from the hydraulic models, verify flood risk hot spot locations, and obtain support for FMPS identified in Task 12. Correspondence with the City of Comanche validated model results showing the flooding effects of Indian Creek. The City of Lampasas confirmed that nuisance flooding occurs along Cemetery Creek where the RFPG identified elevated flood risk, but also directed the RFPG to an additional location on Gibson Branch, a separate tributary that contributes to Sulphur Creek. Both of these entities supported the FMPS developed in their regions. The City of Bryan previously identified roadway flooding issues along Carters Creek and supported the RFPG's proposed FMP to address the problem. For the other locations, clear direction from stakeholders was not obtained to inform existing conditions modeling or project development. The outcomes of all stakeholder outreach efforts are summarized in *Table 2* below.

**Table 2 Stakeholder Outreach**

Study Name	Community	Contact Type	Response
Comanche-Indian Creek HUC	City of Comanche	Conference call with floodplain administrator	Positive with official approval of FMP.
Lampasas-Sulphur Creek HUC	City of Lampasas	Conference call with floodplain administrator	Positive with tentative approval of FMPS.
Copperas Creek HUC	City of Rising Star	Email correspondence with city administrator	Delayed with some interest in the study. No response yet on FMP.
Clifton - North Bosque HUC	City of Clifton	Emailed and left voicemail with city administrator	No response as of June 2023.
Nash-Leon Creek HUC	Eastland County	Call with Precinct 2 commissioner	Low interest in FMP.
Middle Rock Creek HUC	City of Mineral Wells	Emailed and left voicemail with city administrator	No response as of June 2023.
Carters Creek FME to FMP	City of Bryan	Discussed project with engineering staff	Positive with official approval of FMP.

## Alternative Development and Recommendations

Project alternative development occurred in parallel to efforts to engage stakeholders. To remain in alignment with the overarching goal of identifying regional solutions, the RFPG focused primarily on reducing flood risk for locations with more than 1 square mile of contributing drainage area.

### *Lampasas-Sulphur HUC*

The Lampasas-Sulphur HUC-12 was evaluated with a focus on Lampasas, Texas, the largest population center within the watershed. Several hot spots were identified within the neighborhoods north of Sulphur Creek. However, upon further analysis, flooding along Cemetery Creek – a tributary to Sulphur Creek – was found to be an optimal location for a proposed project. Residential structures and streets south of the Soil Conservation Service Site 9 Reservoir experience frequent flooding from a combination of inadequate topographic relief within the neighborhood leading to extensive ponding and overflow from Cemetery Creek. To address the flooding issues, culvert and channel improvements along the creek were modeled to determine adequate sizing that would contain the 1 percent annual chance event. Channel benching was proposed along the downstream portion of the channel through Campbell Park to mitigate any increases in water surface elevation (WSE) or discharges caused by the channel improvements. Exhibits A1 – A4 show existing conditions flood risk and the proposed FMP described above, and a summary of the FMP is provided in *Table 3*.

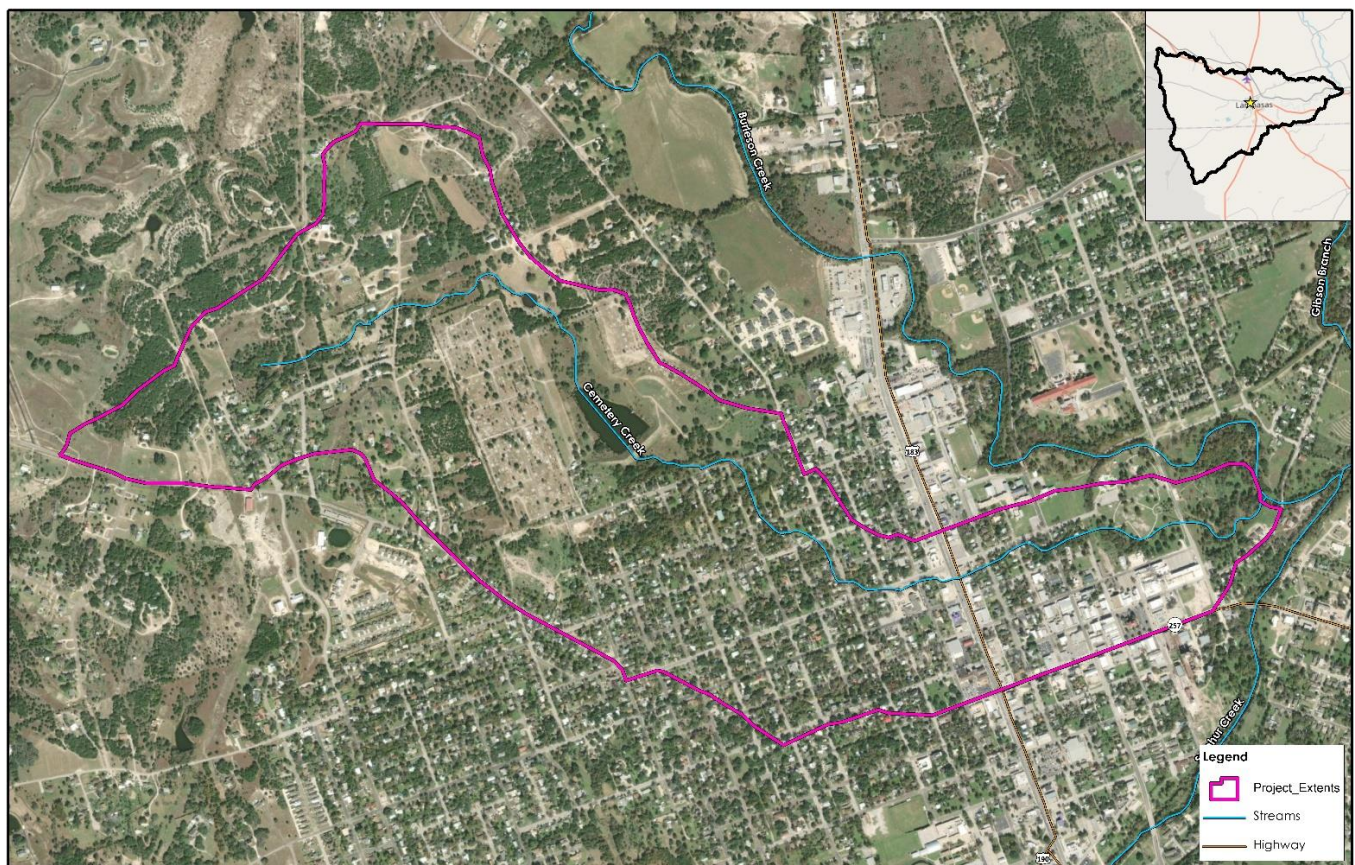
After meeting with stakeholders representing the City of Lampasas, an additional area along Gibson Branch – another tributary to Sulphur Creek – was evaluated for flood risk solutions. South of E Avenue J, five residential structures experience frequent flooding and loss of mobility during storm events. Although the flood risk is largely localized, the homes become inaccessible during frequent storms causing the residents to lose access to

emergency services. Benching of the existing creek was determined to be the most viable alternative to reduce flood risk for the identified structures. This expansion of the creek would provide WSE reductions to the identified structures, as well as several other nearby homes. In addition, the alternative includes removing a segment of E Avenue H which currently restricts flow and does not provide singular ingress or egress to any of the residents. Exhibits A5 and A6 show the proposed FMP described above, and a summary of the FMP is provided in Table 3 and the location of the project can be seen in *Figure 2* and *Figure 3*.

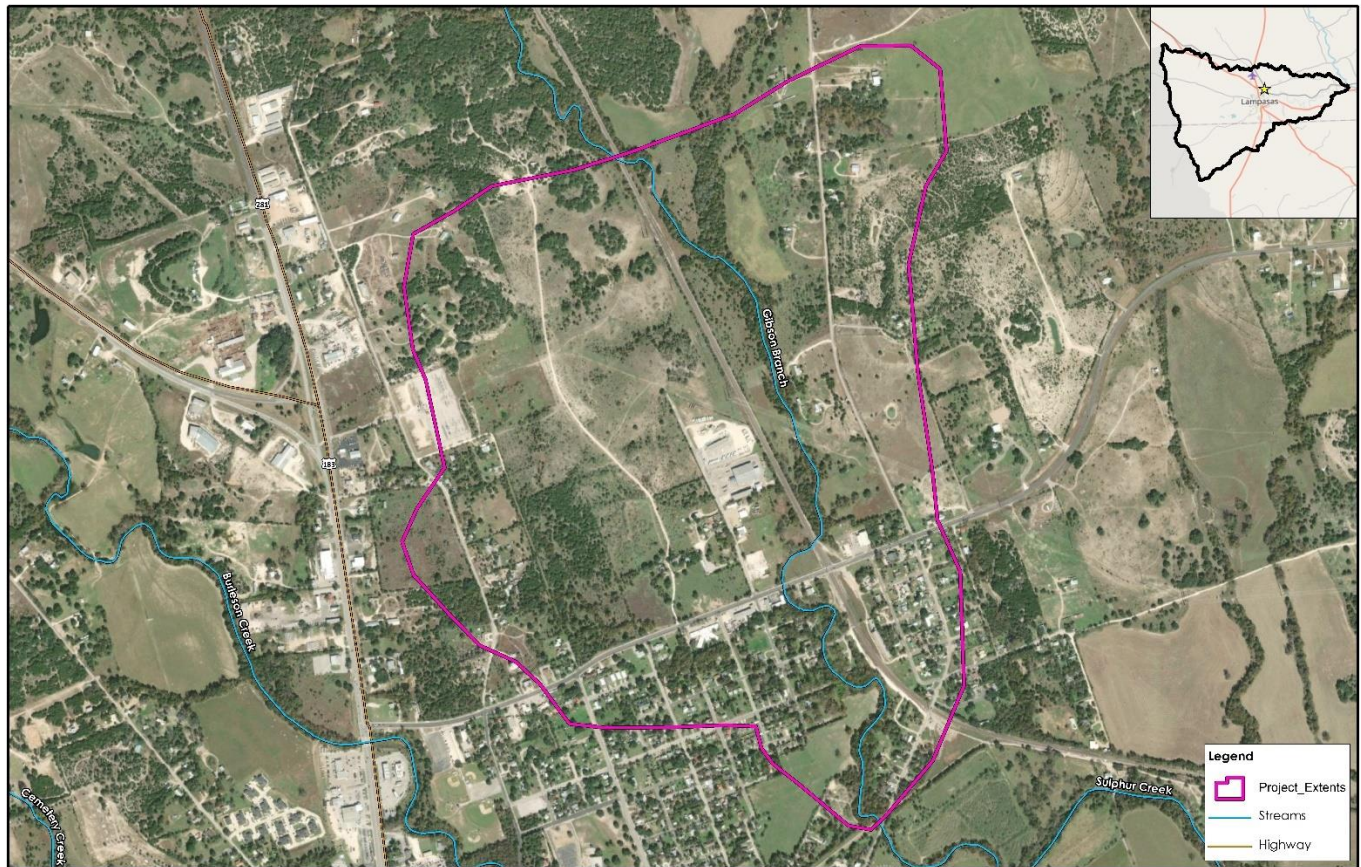
**Table 3 Summary of Lampasas-Sulphur FMPS**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
Cemetery Creek Improvements	Improvements to 16 culverts and almost 1 linear mile of channel along Cemetery Creek.	Removes or reduces flood risk to 640 structures.	\$13,305,000
Benching along Gibson Branch	Benching of almost ½ linear miles of Gibson Branch and removal of E Ave H.	Removes or reduces flood risk to 20 structures.	\$1,132,000

**Figure 2 Lampasas-Sulphur HUC Project Area 1**



**Figure 3 Lampasas-Sulphur HUC Project Area 2**



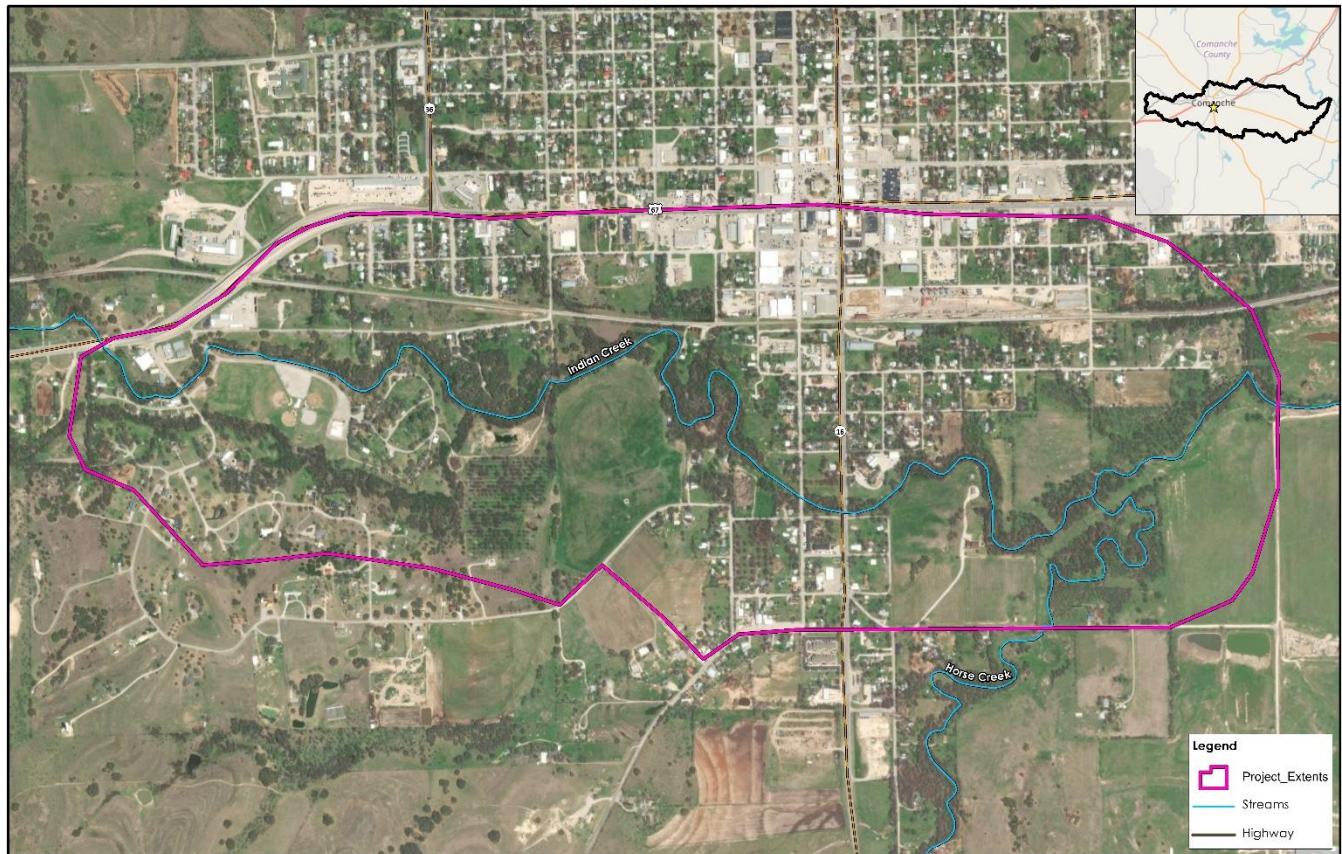
### ***Comanche-Indian HUC***

In the City of Comanche, a flood risk hot spot was identified on the north overbank of Indian Creek around S Austin St. To address flooding issues, in-line and off-line detention was modeled at multiple sites, both adjacent to and upstream of the area of interest. Ultimately, the off-line site immediately adjacent to the area of interest was selected since it is downstream of the confluence near Comanche City Park, and the associated basin attenuates flows from both Indian Creek and its main tributary. Channel benching was also proposed to provide localized WSE reductions to the channel bank where overflows occur. Exhibits B1 – B4 show existing conditions flood risk and the proposed FMP described above, and a summary of the FMP is provided in *Table 4* and the project extents can be seen in *Figure 4*.

**Table 4 Summary of Comanche-Indian FMP**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
Comanche Detention	Addition of regional detention providing over XX acre-feet of detention.	Removes or reduces flood risk to 110 structures.	\$46,985,000

**Figure 4 Comanche-Indian HUC Project Extents**



### **Copperas Creek HUC**

The Copperas Creek HUC`12 watershed contains one small population center, Rising Star, Texas. Although the town is in the upstream portion of the watershed, existing conditions modeling indicated that it experiences several pockets of severe flooding. Some of the flooding is directly along Copperas Creek which runs directly through the center of the town. However, this flooding is caused by a combination of riverine flooding from Copperas Creek, localized flooding from inadequate drainage through the surrounding neighborhoods, and riverine flooding from smaller creeks that feed into Copperas Creek. It was determined that flood mitigation for these structures would require several types of costly structural improvements.

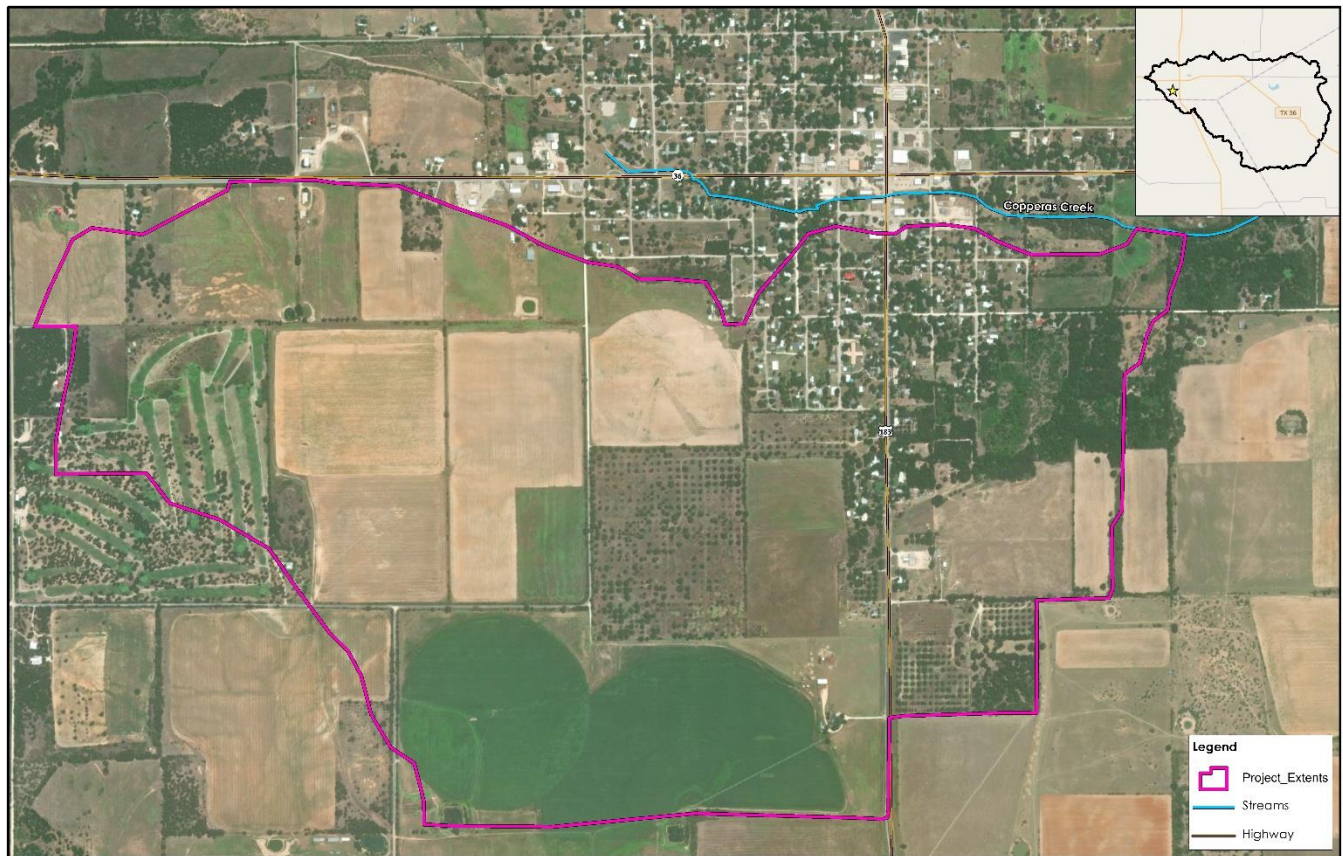
Another hot spot on the south side of Copperas Creek was determined to be more viable for mitigation. This neighborhood experiences flooding caused by flow traveling from agricultural areas to the southwest towards Copperas Creek in the northeast. A small diversion channel along the east side of the neighborhood and a berm on the west side are the only existing drainage infrastructure contributing to flood relief. Increasing the capacity and reach of both of these features was determined to be the most cost-efficient solution to reducing flood risk. By increasing the berm height and length, more flow would be detained during severe storm events. In addition, by extending the diversion channel alongside the south side of the neighborhood, this flow could be redirected around the residential homes into Copperas Creek. Exhibits C1 – C4 show existing conditions flood risk and the proposed FMP described above, and a summary of the FMP is provided in *Table 5* and the project extents can be seen in *Figure 5*.



**Table 5 Summary of Copperas Creek FMP**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
Diversion Improvements for South Rising Star	Increase height of existing berm and lengthen existing diversion channel by 1 linear mile. Addition of 28 acre-feet of detention to mitigate flow increases.	Removes or reduces flood risk to 40 structures.	\$1,595,000

**Figure 5 Copperas Creek HUC Project Area**



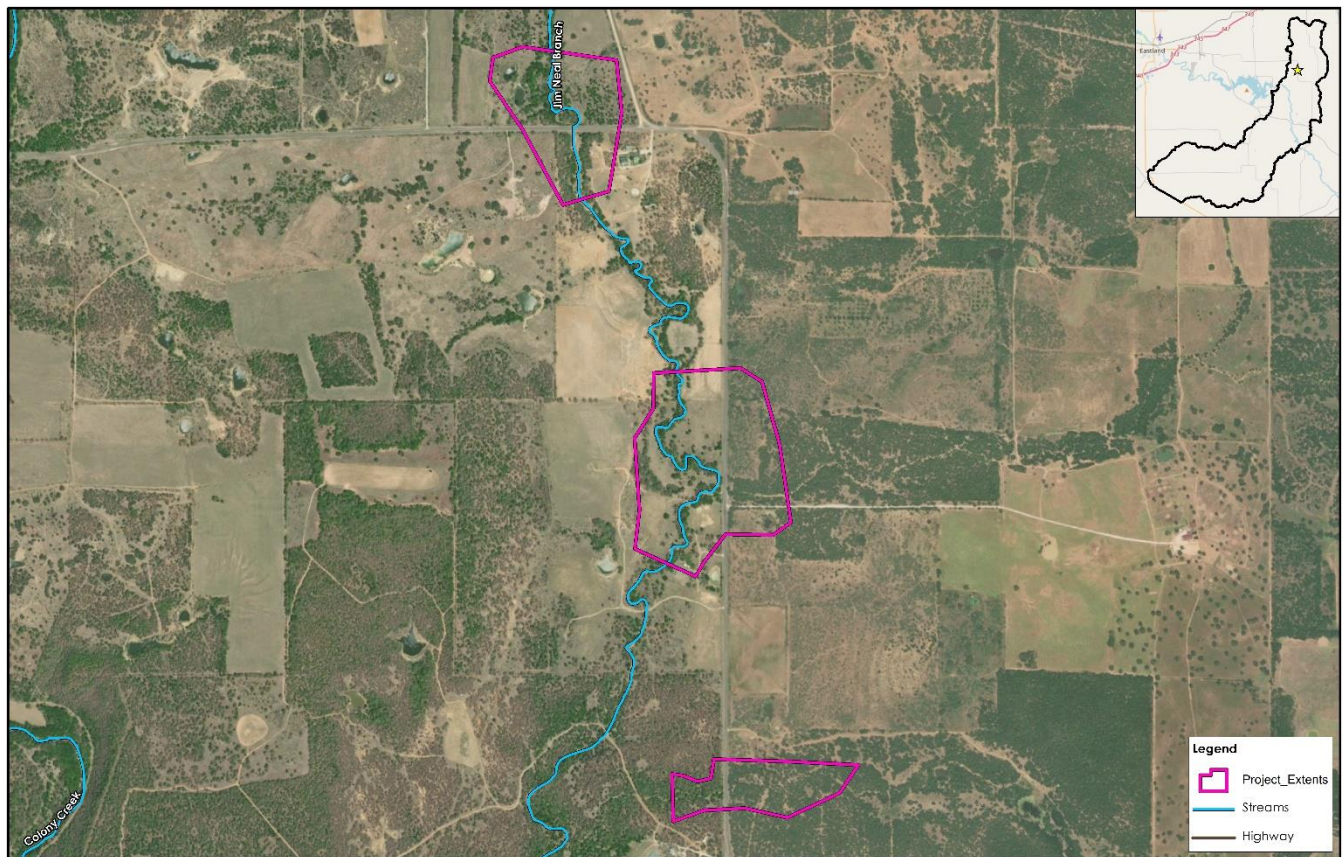
### **Nash-Leon Creek HUC**

In the Nash-Leon Creek HUC-12, the RFPG focused study efforts on the Nash Creek and Jim Neal Branch subwatersheds; flooding effects of the Leon River were not modeled. Since this area is sparsely populated, existing conditions model results were reviewed for locations of roadway overtopping during all frequency storms. The RFPG decided to focus effort on several Farm to Market (FM) roads that cross through the study area. Many road segments were identified that overtop during the 1 percent chance event, but three (3) locations along FM 570 in the Jim Neal Branch subwatershed were identified as being more prone to overtopping during flooding as frequent as the 10 percent chance event. At each of these locations, projects were proposed that include elevating the roadway above the 1 percent chance WSE, culvert upgrades, and any mitigation volume necessary to offset impacts due to improved conveyance. Exhibits D1 – D6 show existing conditions flood risk and the proposed FMPS described above, and a summary of the FMPS are provided in *Table 6* and shown in *Figure 6*.

**Table 6 Summary of Nash-Leon FMPs**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
Jim Neal Branch Crossing	Culvert and road improvements at crossing. Benching to mitigate flow increases.	Increases mobility by reducing flood risk to FM 570.	\$1,925,000
Jim Neal Branch Tributary 1 Crossing	Culvert and road improvements at crossing. Benching to mitigate flow increases.	Increases mobility by reducing flood risk to FM 570.	\$3,083,000
Jim Neal Branch Tributary 2 Crossing	Culvert and road improvements at crossing.	Increases mobility by reducing flood risk to FM 570.	\$477,000

**Figure 6 Nash-Leon HUC Project Areas**



### **Clifton – North Bosque HUC**

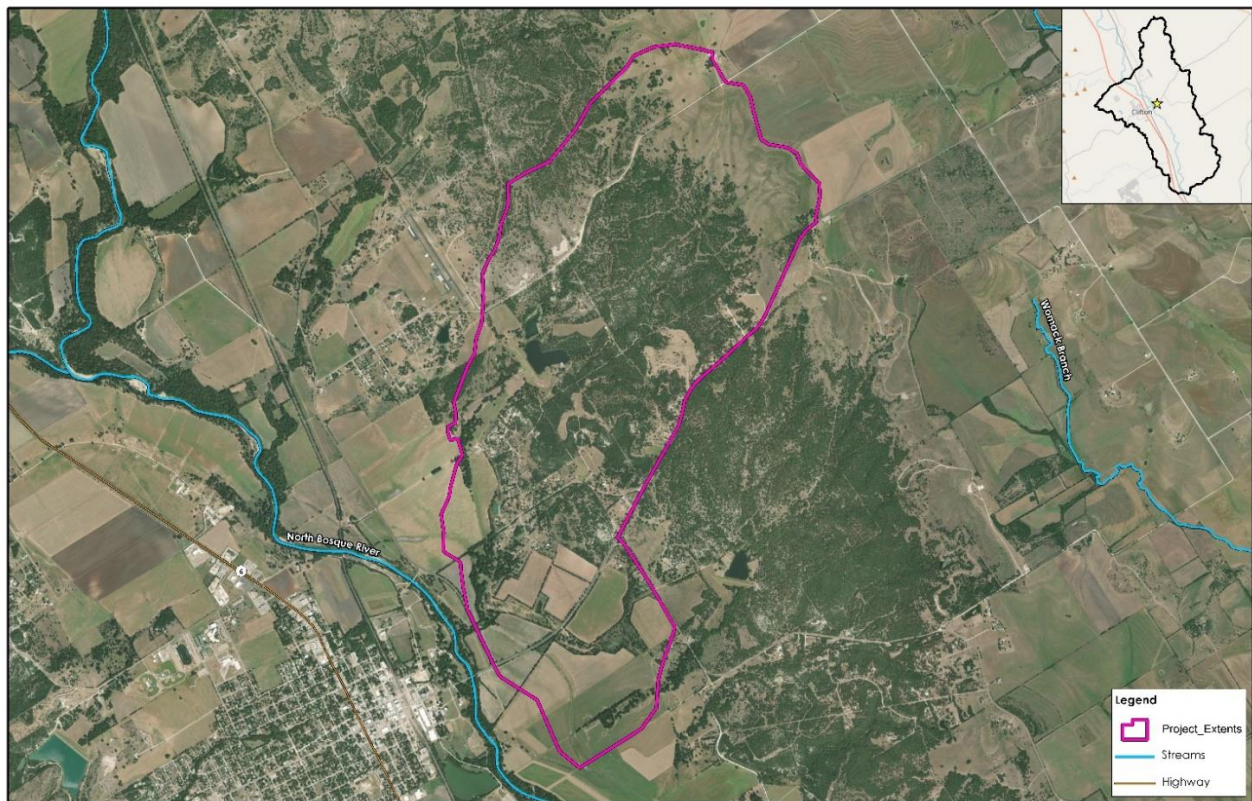
The Clifton – North Bosque study area centers around Clifton, Texas with the North Bosque River running through the western portion of the town. The identified study area was discovered to have a large contributing drainage area that increase flows within the North Bosque River, the main source of flooding within Clifton, Texas. To account for this, a large, less detailed model was created to characterize several upstream HUCs and determine accurate incoming flows to the study area.

Existing conditions analysis initially indicated several structures with severe flooding issues. In particular, two critical facilities were flagged as having flood depths greater than one foot during the 1 percent annual chance event in the southwest portion of the town. However, further investigation of these flooding concerns revealed that flood relief is likely already provided by an extensive underground storm sewer network that runs throughout the City. Estimates of the storm sewer pipe sizes and inlets were incorporated into the model and the updated existing conditions showed only minor structural inundation throughout the City. However, along the western edge of the City, some of the major thoroughfares were found to become impassible during severe storm events. In particular, a tributary crossing FM 219 just west of North Bosque River causes severe flooding in the 1 percent annual chance event and restricts access to Clifton from the west. Since Clifton has the only hospital in the vicinity, this restriction could affect rural residents not able to access emergency medical care during storm events. To relieve flooding along FM 219, it is proposed that the road be raised to allow room for a bridge to replace the existing culverts. Benching along the channel would also be required to mitigate for an increase in flows and WSEs caused by the crossing improvement. Exhibits E1 – E4 show existing conditions flood risk and the proposed FMPs described above, and a summary of the FMP is provided in *Table 7* and shown in *Figure 7*.

**Table 7 Summary of Clifton-North Bosque FMP**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
FM 219 and North Bosque River Crossing Improvements	Raising of FM 219 and construction of bridge at crossing. Benching to mitigate flow increases.	Increases mobility by reducing flood risk to FM 219.	\$27,330,000

**Figure 7 Clifton-North Bosque HUC Project Area**



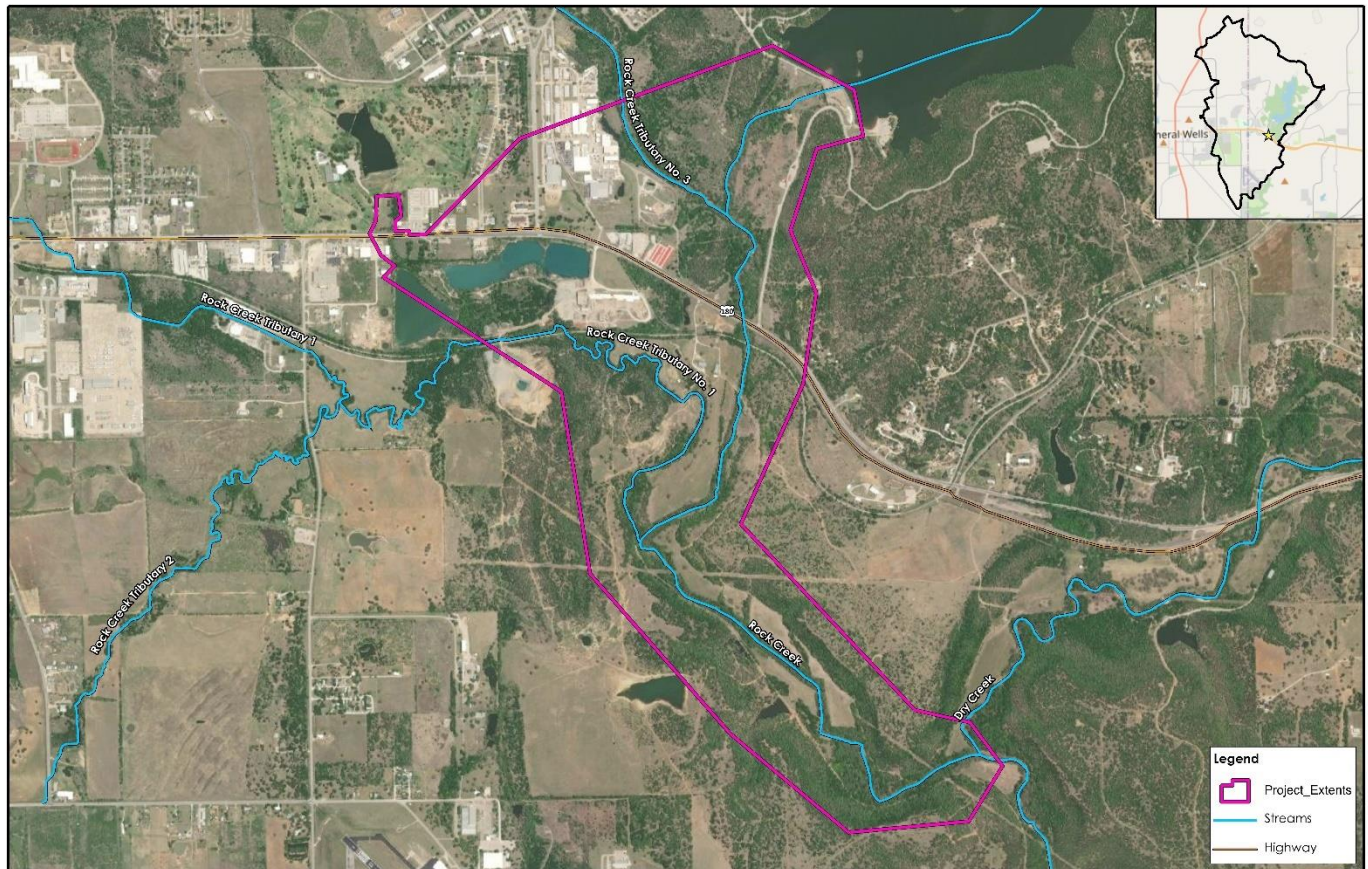
### *Middle Rock Creek*

The Middle Rock Creek HUC-12 covers the eastern half of the City of Mineral Wells and includes Lake Mineral Wells. The existing conditions analysis for this study area showed low riverine flood risk to buildings, so the RFPG focused on roadway crossings. Multiple crossings were identified that overtop during the 2 percent chance event, but the RFPG focused particularly on two locations along US 180, a principal route connecting Mineral Wells to the DFW Metroplex. At the crossing adjacent to the entrance of the Holiday Hills Golf Course, improvements include elevating the roadway above the 1 percent chance WSE, culvert upgrades, and downstream channel benching to offset impacts due to improved conveyance. In the west overbank of Rock Creek, substantial roadway overtopping occurs without infrastructure in place to convey stormwater. The project proposed at this location includes elevating the roadway above the 1 percent chance WSE, installation of new culverts, swales to convey stormwater to culvert inlets, and a detention basin with inline and offline components immediately downstream of the roadway crossing. Exhibits F1 – F5 show existing conditions flood risk and the proposed FMPS described above, and a summary of the FMPS are provided in *Table 8* and shown in *Figure 8*.

**Table 8 Summary of Middle Rock Creek FMPS**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
US 180 Rock Creek Overbank Crossing	Culvert improvement and additional of swales at crossing. Detention to mitigate flow increases.	Increases mobility by reducing flood risk to US 180.	\$10,129,000
US 180 Rock Creek Tributary 1 Crossing	Culvert and road improvements at crossing. Benching to mitigate flow increases.	Increases mobility by reducing flood risk to US 180.	1,237,000

**Figure 8 Middle Rock HUC Project Area**



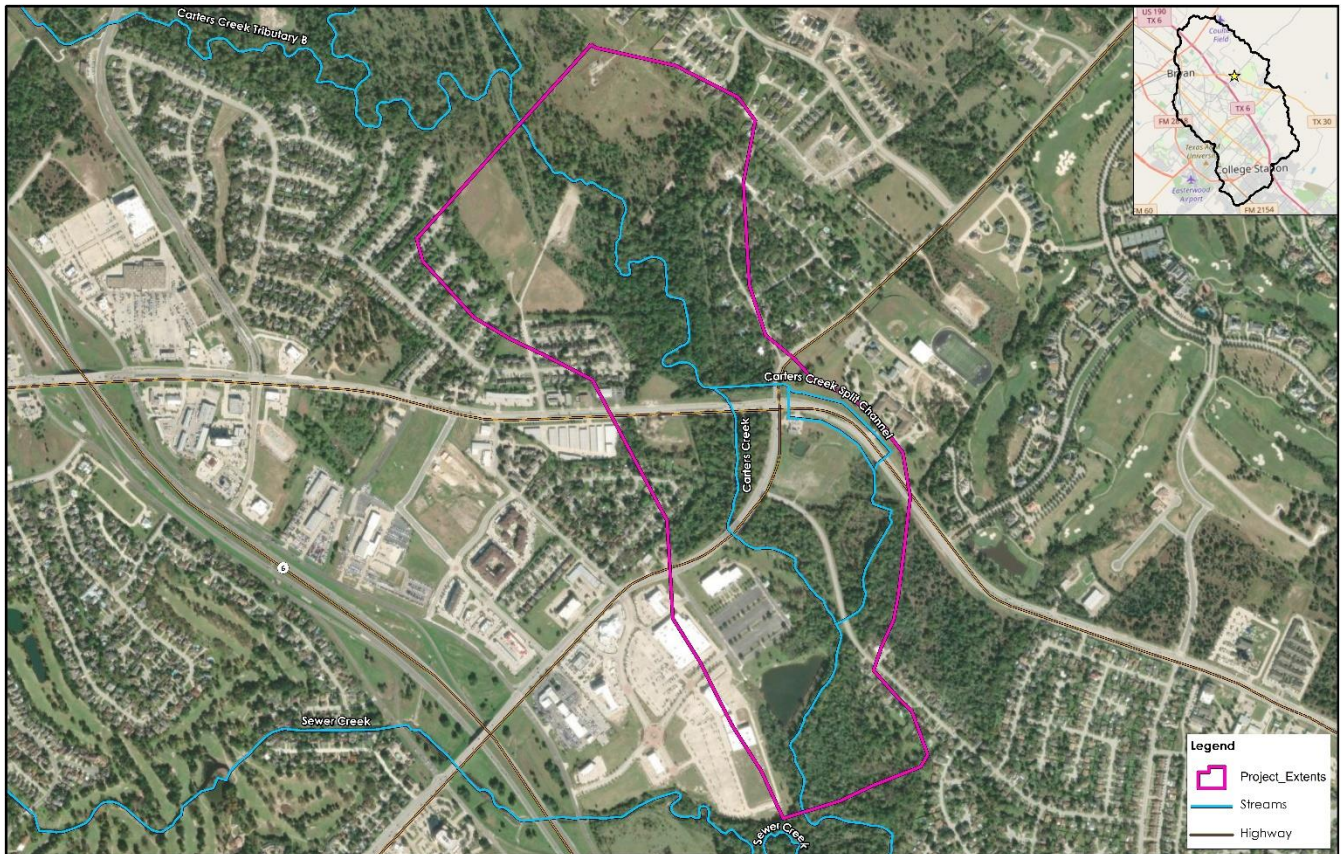
### **Bryan**

The City of Bryan submitted an FME to the RFPG related to roadway inundation near Carters Creek. After review of a highly-detailed 2D hydraulic model representing existing conditions, it was determined that a single comprehensive project reducing flood stages along Carters Creek would address issues at each of the locations identified by the City. The project involved construction of additional bridges at two of the roadways to eliminate the restriction to flow on Carters Creek. Mitigation measures to offset impacts from increased discharges include the construction of channel benches and auxiliary channels, as well as an offline detention basin at the downstream end of the site. Exhibit G1 – G3 show existing conditions flood risk and the proposed FMP described above, and a summary of the FMP is provided in *Table 9* and shown in *Figure 9*.

**Table 9 Summary of Bryan FMP**

FMP Name	Description of Improvements	Description of Benefits	Estimated FMP Cost
Bryan Boonville and Briarcrest Bridges	Addition of bridges at two crossings. Benching or channel improvements to 1 linear stream mile. Detention to mitigate flow increases.	Removes or reduces flood risk to 16 structures. Increases mobility by reducing flood risk to multiple thoroughfares.	\$12,313,000

Figure 9 Bryan Project Area



## Benefits and Costs

### Costs

Class 5 cost estimates as defined by the Association for the Advancement of Cost Engineering (AACE) were determined to be relevant for the projects described in this memorandum. Costs were calculated for each FMP by calculating approximate quantities for construction activities using model data, including but not limited to the following:

- Land acquisition
- Clearing
- Excavation
- Filling
- Installation of conveyance infrastructure (culverts, spillways, etc.)

Additionally, all fees for further design and management of construction activities are included, as well as contingencies to account for the approximate nature of cost estimates.

### Benefit Cost Analysis

Benefit-cost ratios (BCRs) were calculated using the TWDB provided benefit-cost analysis (BCA) tool. A detailed description of the methodology used to calculate BCRs for the FMPs identified in Task 12 is provided in Chapter 4, section 4B.5.c of the Lower Brazos Regional Flood Plan. All cost and benefit data for the FMPs identified in Task 12

is shown in *Table 10*. Metrics for all FMPS required by the TWDB are provided in Appendix 5.2 and Appendix 5.4 of the Lower Brazos Regional Flood Plan.

**Table 10 FMP Costs and Benefits**

FMP	Study Area	Sponsor	Cost (2020 US Dollars)	BCR
Diversion Improvements for South Rising Star	Copperas Creek HUC	City of Rising Star	\$1,595,000	0.93
FM 219 and North Bosque River Crossing Improvement	Clifton – North Bosque HUC	City of Clifton	\$2,733,000	0.65
Benching along Gibson Branch	Lampasas – Sulphur Creek HUC	City of Lampasas	\$1,132,000	0.26
Cemetery Creek Improvements	Lampasas – Sulphur Creek HUC	City of Lampasas	\$13,305,000	0.08
Comanche Detention	Comanche-Indian Creek HUC	City of Comanche	\$46,985,000	0.02
US180 Rock Creek Overbank Crossing	Middle Rock Creek HUC	City of Mineral Wells	\$10,129,000	0.22
US180 Rock Creek Tributary 1 Crossing	Middle Rock Creek HUC	City of Mineral Wells	\$1,237,000	0.02
FM 570 Jim Neal Branch Tributary 2 Crossing	Nash-Leon Creek HUC	Eastland County	\$477,000	0.01
FM 570 Jim Neal Branch Tributary 1 Crossing	Nash-Leon Creek HUC	Eastland County	\$3,083,000	0.03
FM 570 Jim Neal Branch Crossing	Nash-Leon Creek HUC	Eastland County	\$1,925,000	0.02
Bryan Boonville and Briarcrest Bridges	Carters Creek FME to FMP	City of Bryan	\$12,313,000	0.09

## Conclusion

The RFPG was tasked with performing identified FMEs and also identifying, evaluating, and recommending additional FMPS. FMEs were conducted for six (6) regional watershed studies, and ten (10) FMPS total were developed from analysis of model results. Additionally, one (1) FME from the City of Bryan was elevated to an FMP from an FME using the best available existing conditions model data. Four of the FMPS received local support and were recommended as FMPS to be included in the Regional Flood Plan.

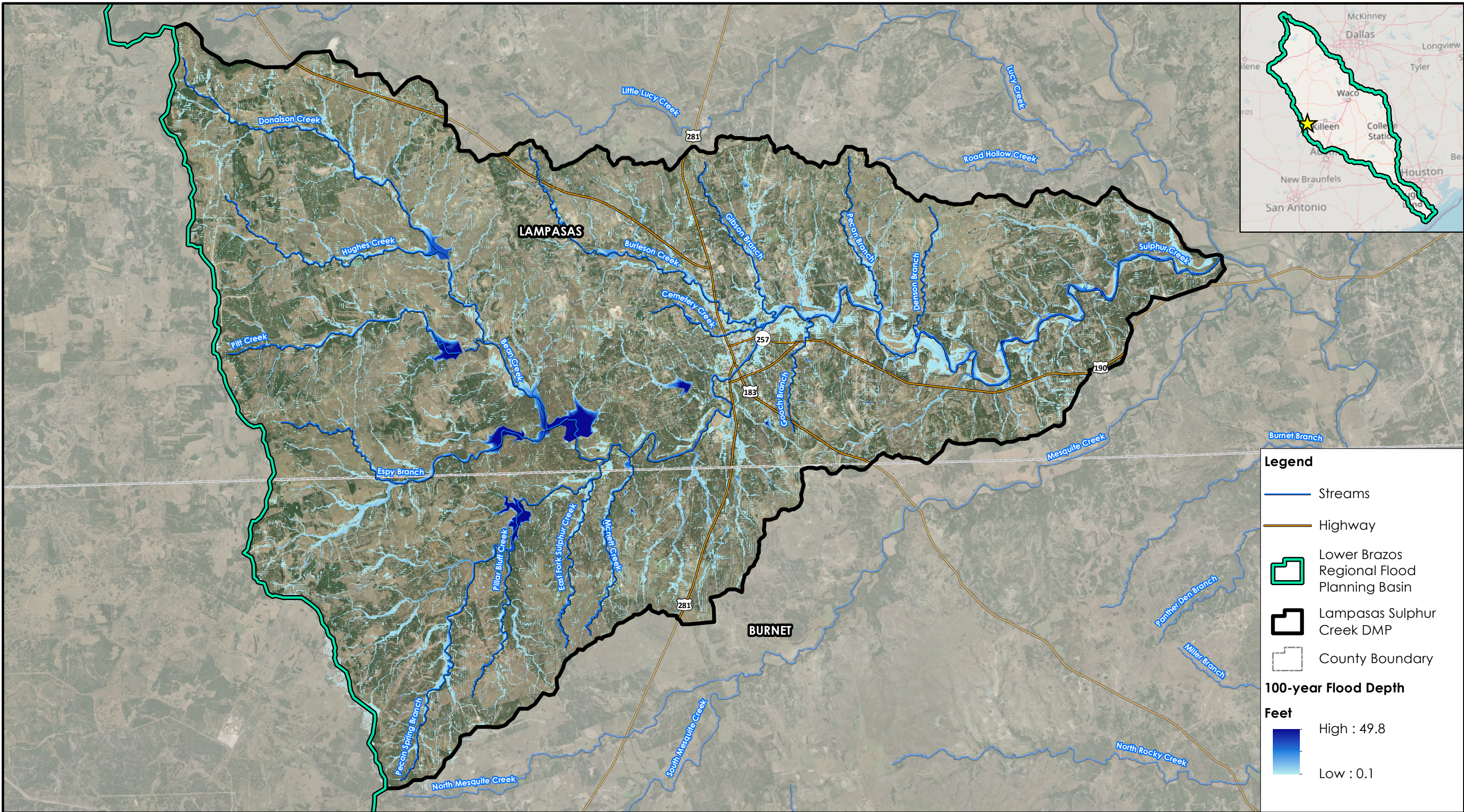
## Citations

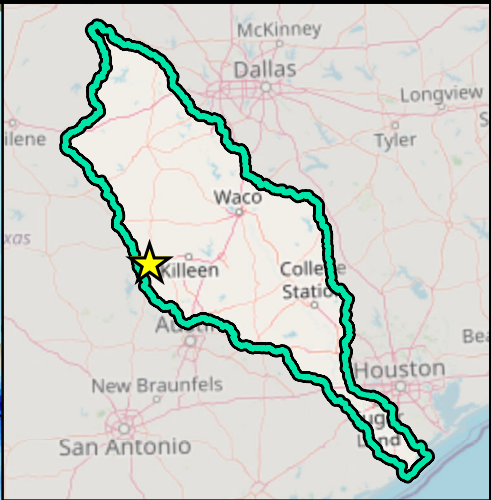
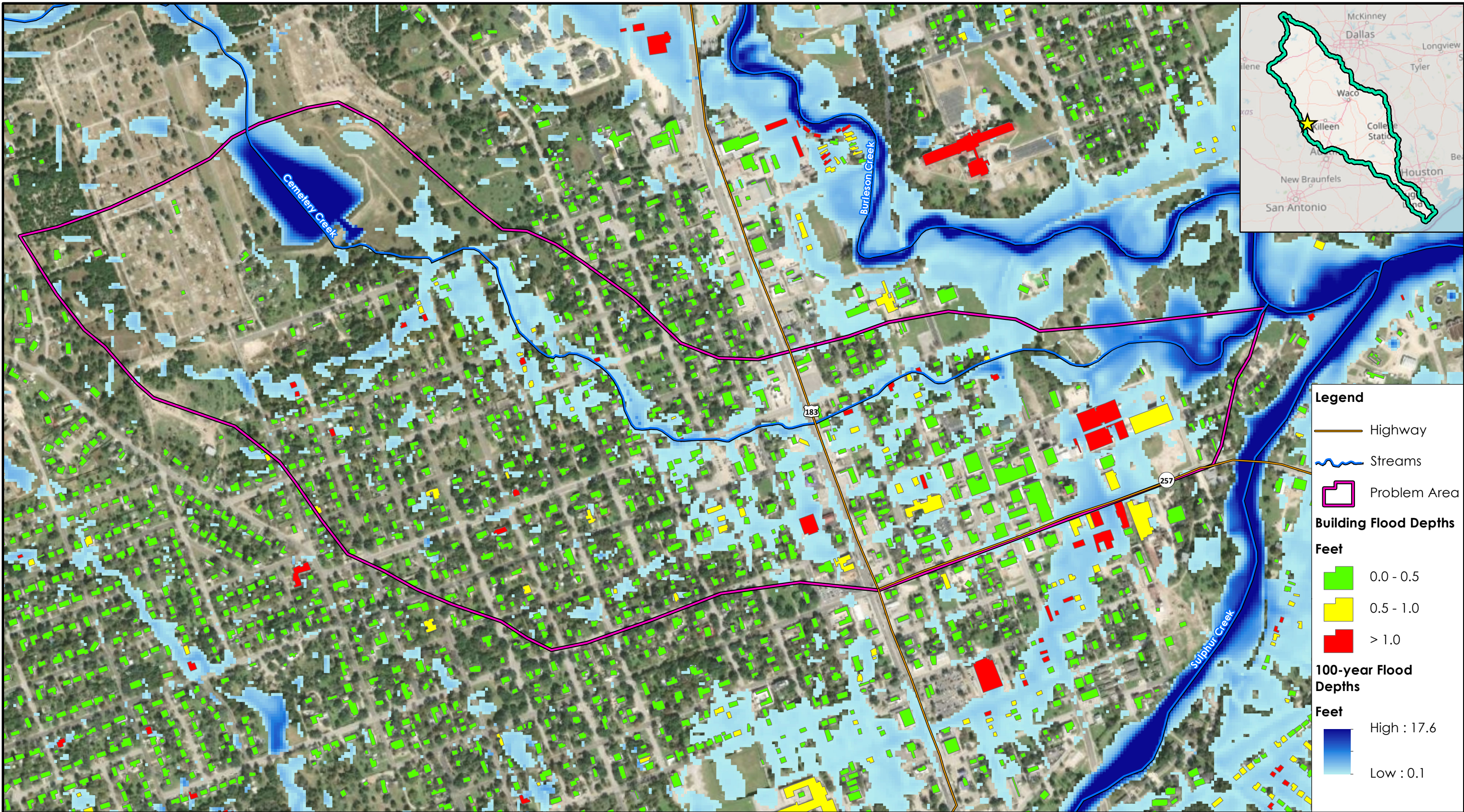
United States Department of Agriculture (2004). Chapter 9: Hydrologic Soil-Cover Complexes. *Part 630 Hydrology National Engineering Handbook*. [7306.pdf \(usda.gov\)](#)

Woodward, D. E., & Hawkins, R. H. (2003). Runoff Curve Number Method: Examination of the Initial Abstraction Ratio. *World Water and Environmental Resources Congress*. <https://doi.org/10.1061/40685>



## Exhibits A1-A6





**Legend**

- Highway
- Streams
- Problem Area

**Building Flood Depths**

Feet

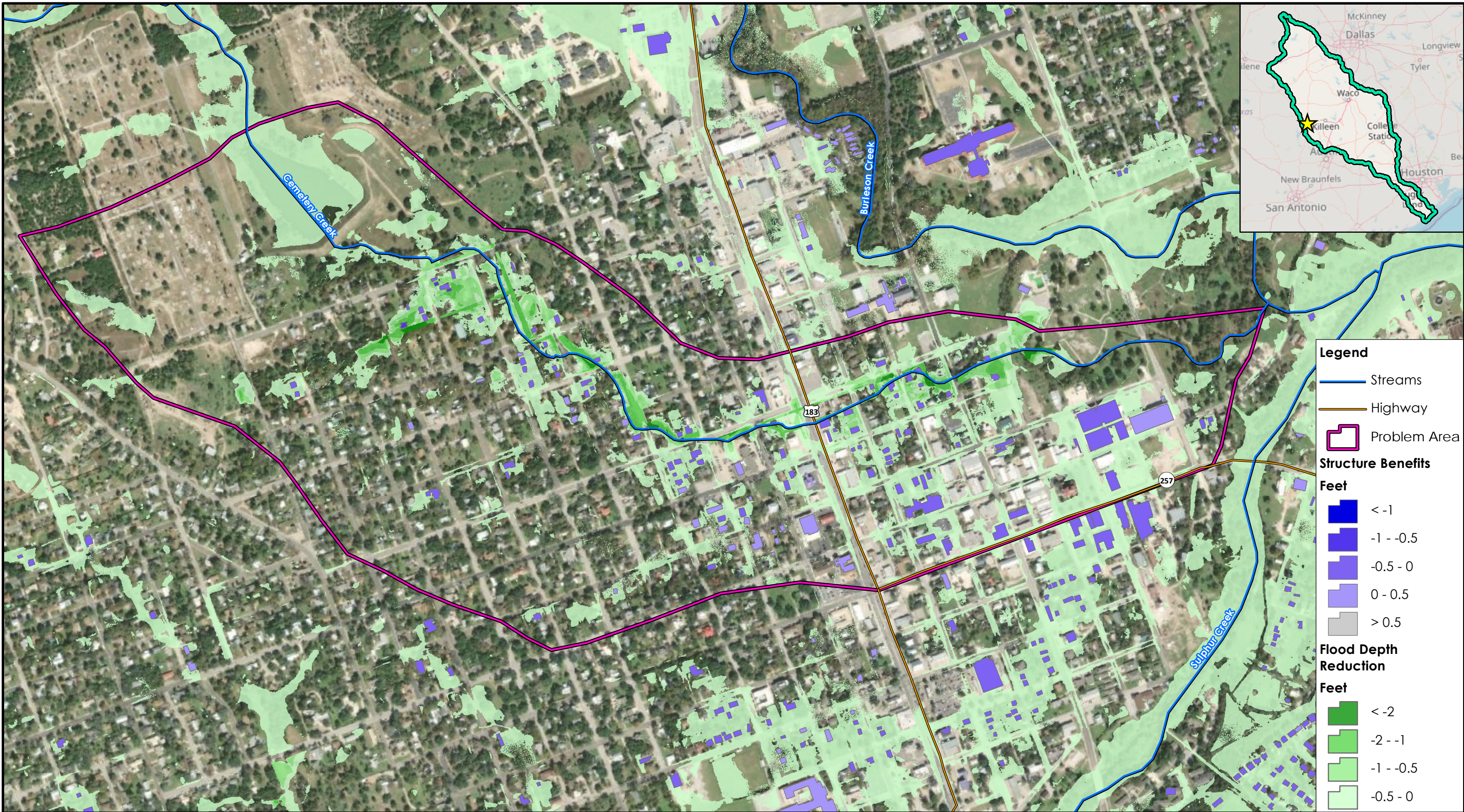
- 0.0 - 0.5
- 0.5 - 1.0
- > 1.0

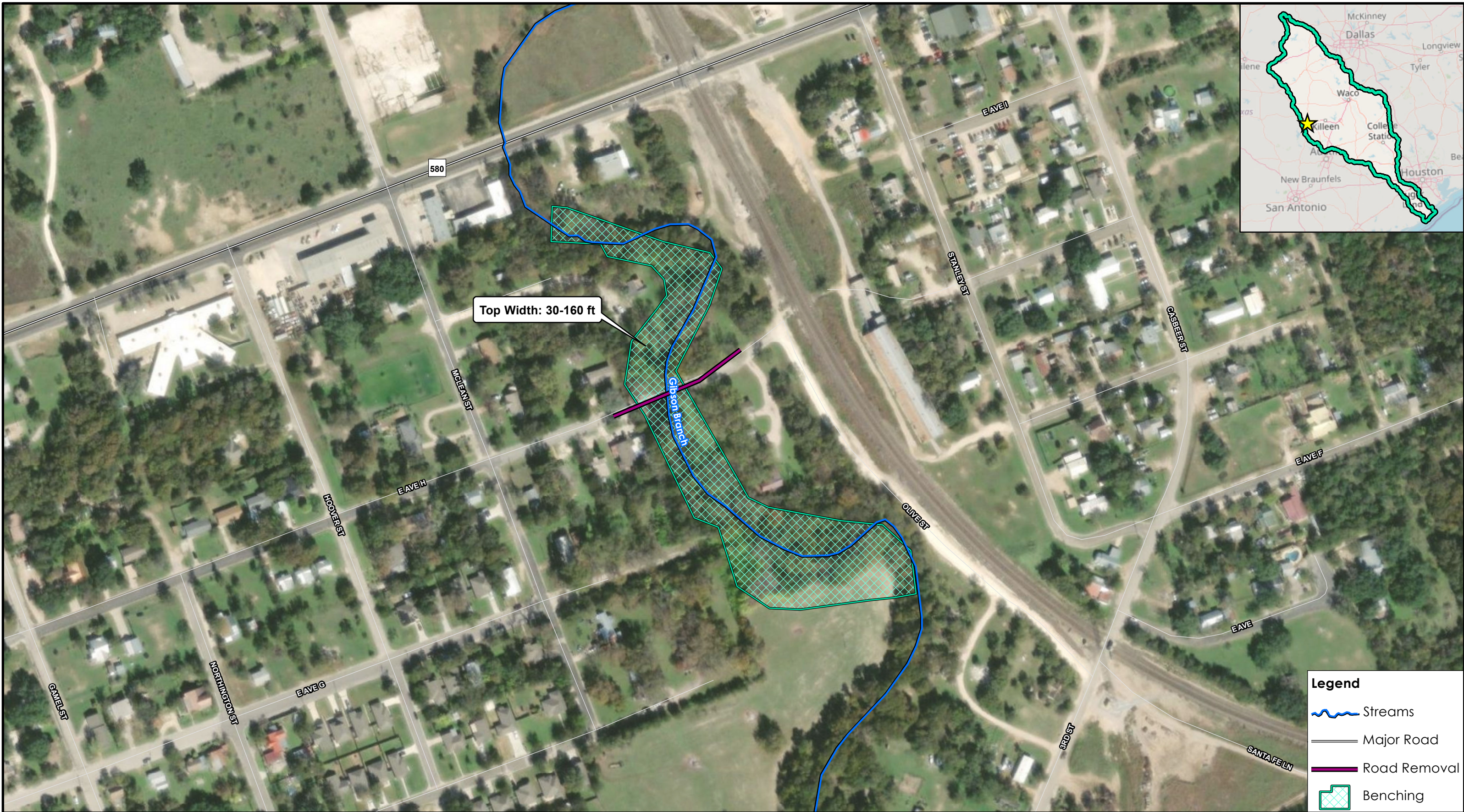
**100-year Flood Depths**

Feet





- High : 17.6
- Low : 0.1



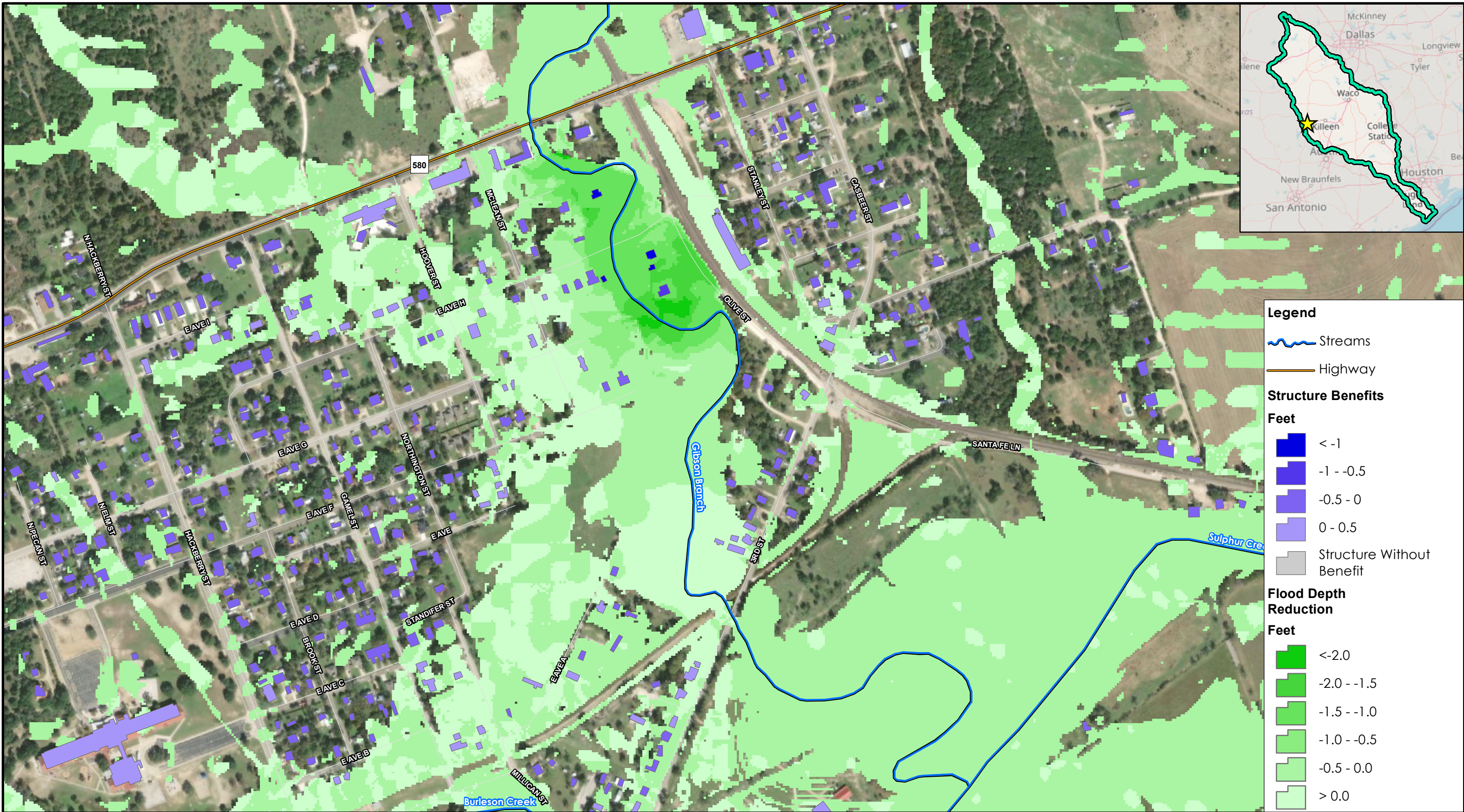




**Legend**

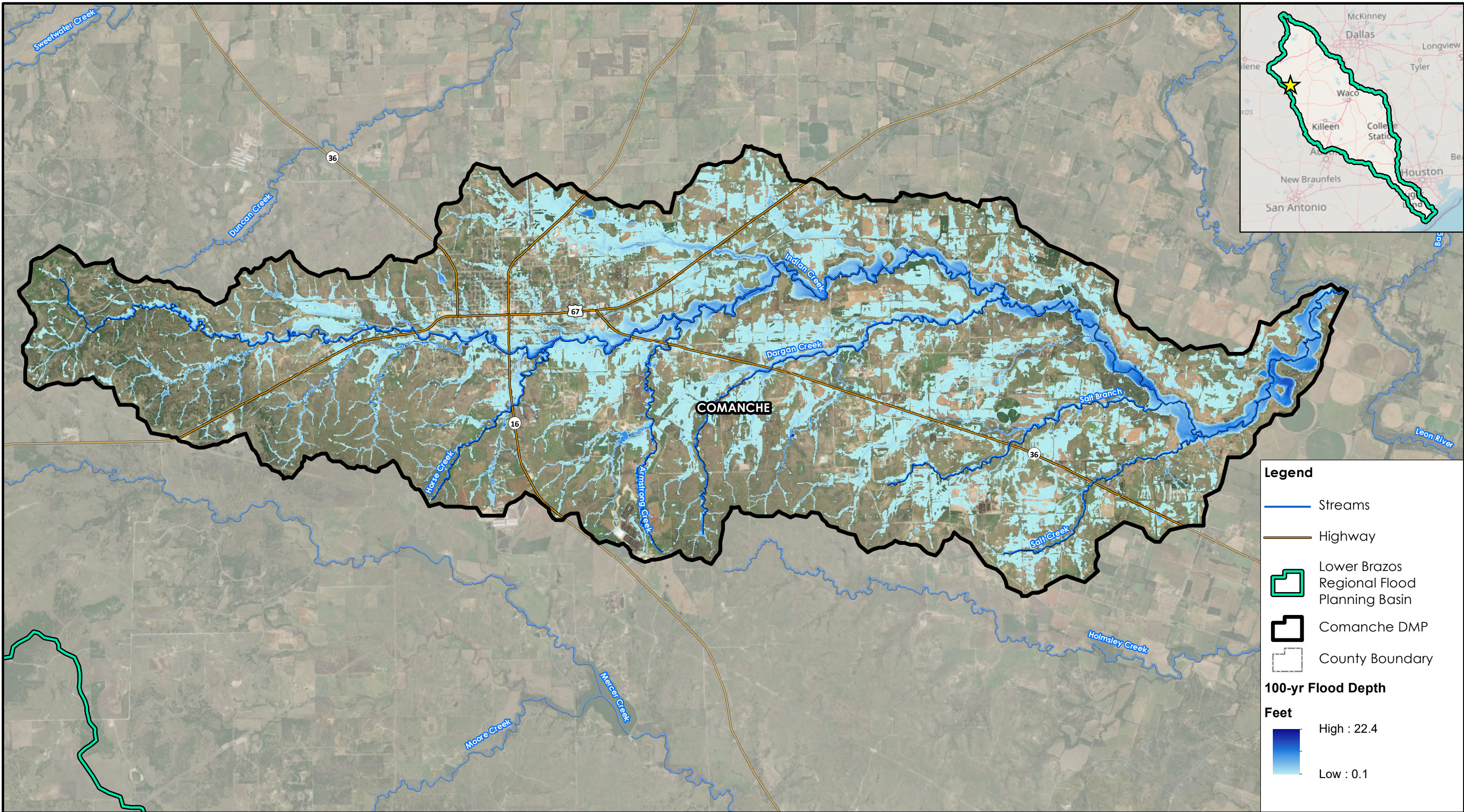
-  Streams
-  Major Road
-  Road Removal
-  Benching

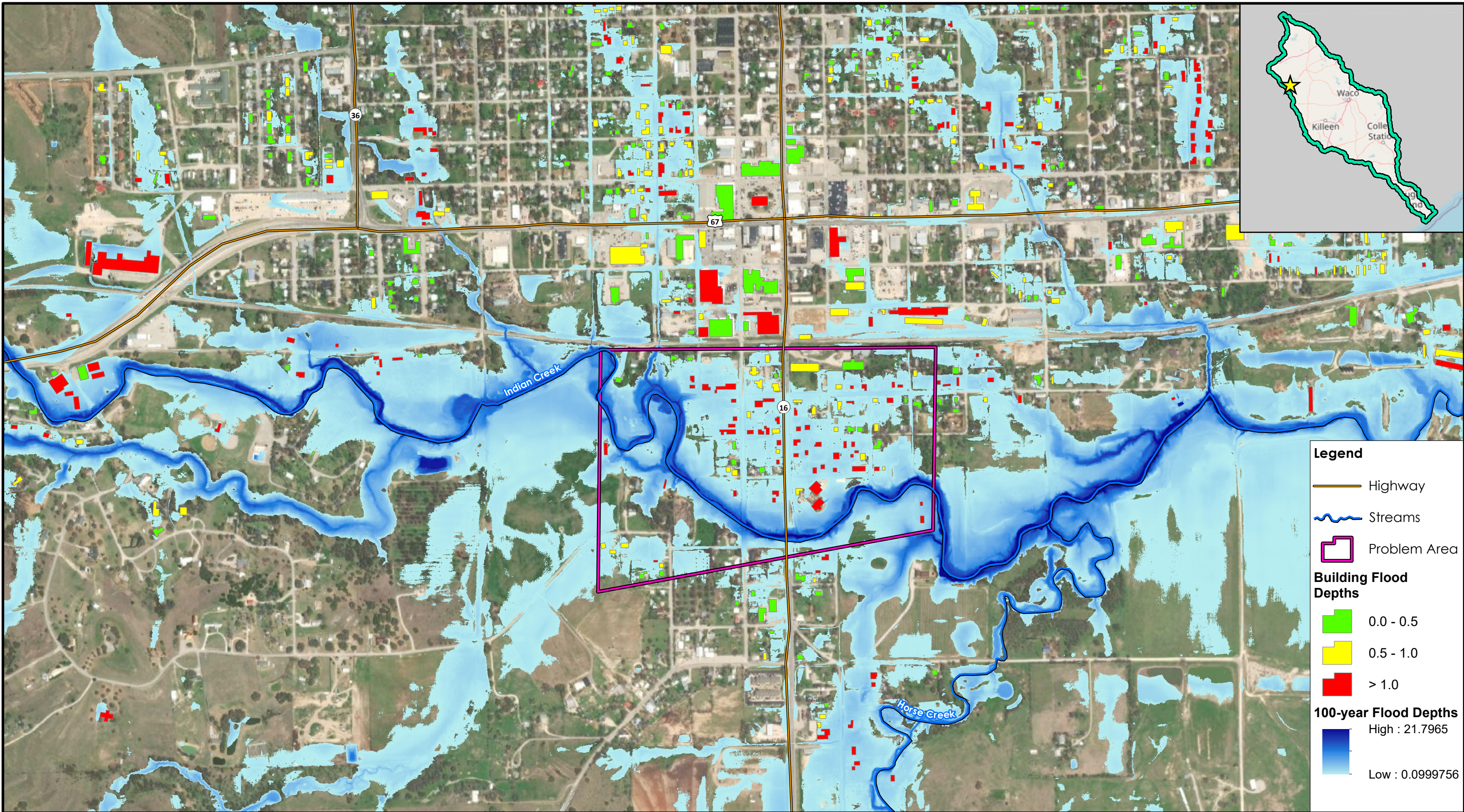




## Exhibits B1-B4







**Legend**

- Highway
- Streams
- Problem Area

**Building Flood Depths**

- 0.0 - 0.5
- 0.5 - 1.0
- > 1.0

**100-year Flood Depths**

High : 21.7965

Low : 0.0999756

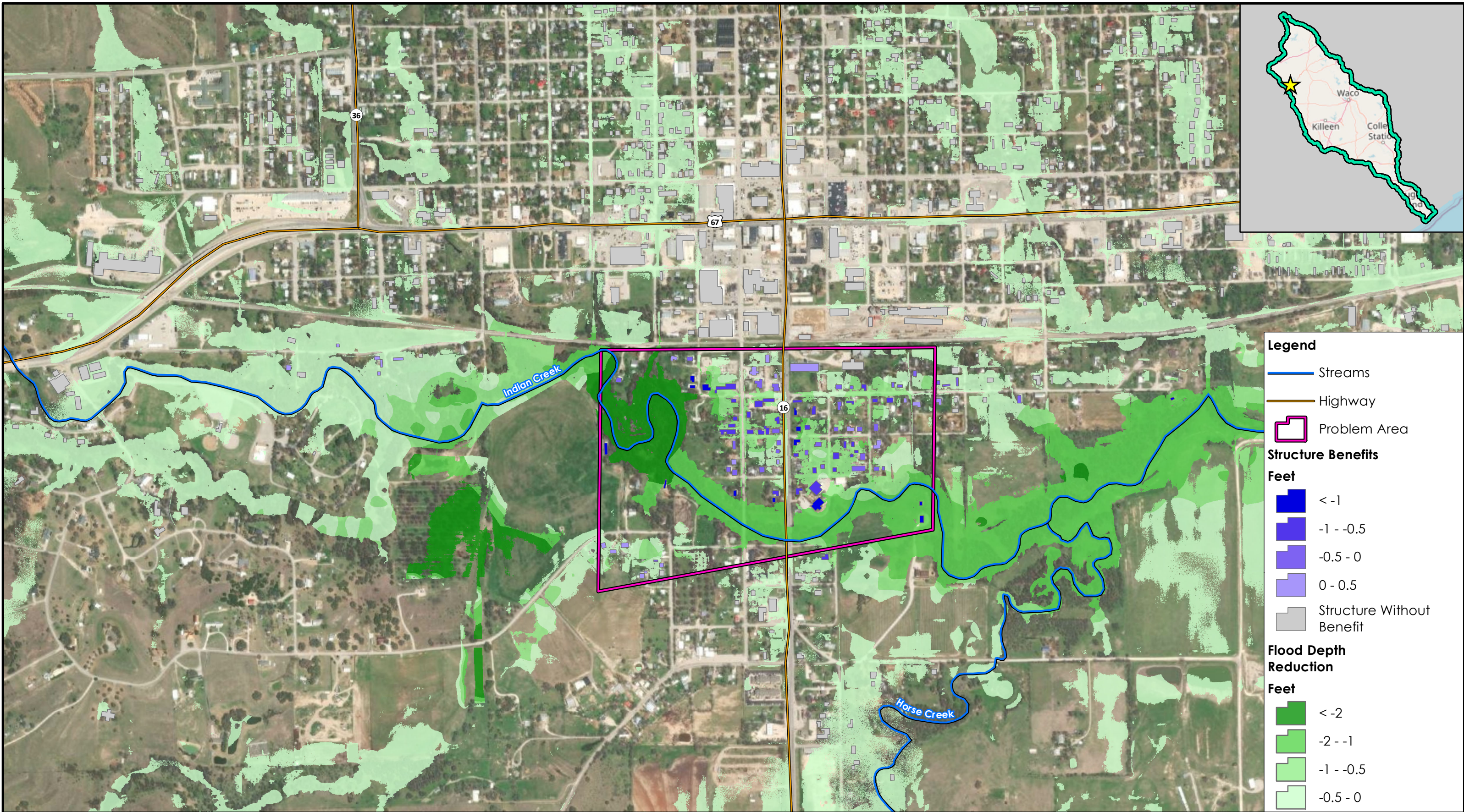
LOWER BRAZOS  
REGIONAL FLOOD  
PLANNING GROUP  
**REGION 8**

# Comanche Detention City of Comanche 100-year Problem Area Map

0 600 1,200 Feet

June 13, 2023





**Legend**

- Streams
- Highway
- Problem Area

**Structure Benefits**

Feet

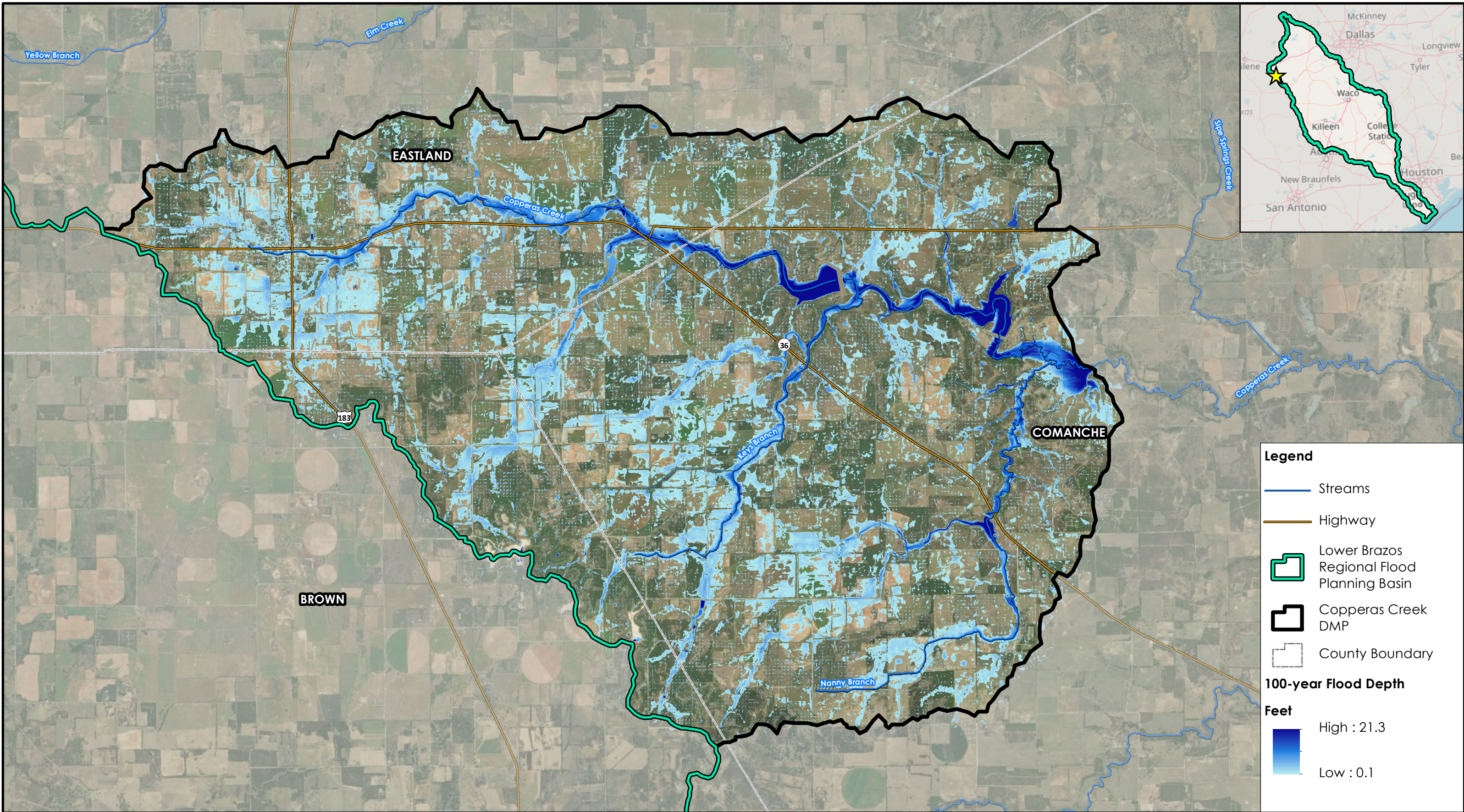
- < -1
- 1 - -0.5
- 0.5 - 0
- 0 - 0.5
- Structure Without Benefit

**Flood Depth Reduction**






Feet

- < -2
- 2 - -1
- 1 - -0.5
- 0.5 - 0

## Exhibits C1-C4





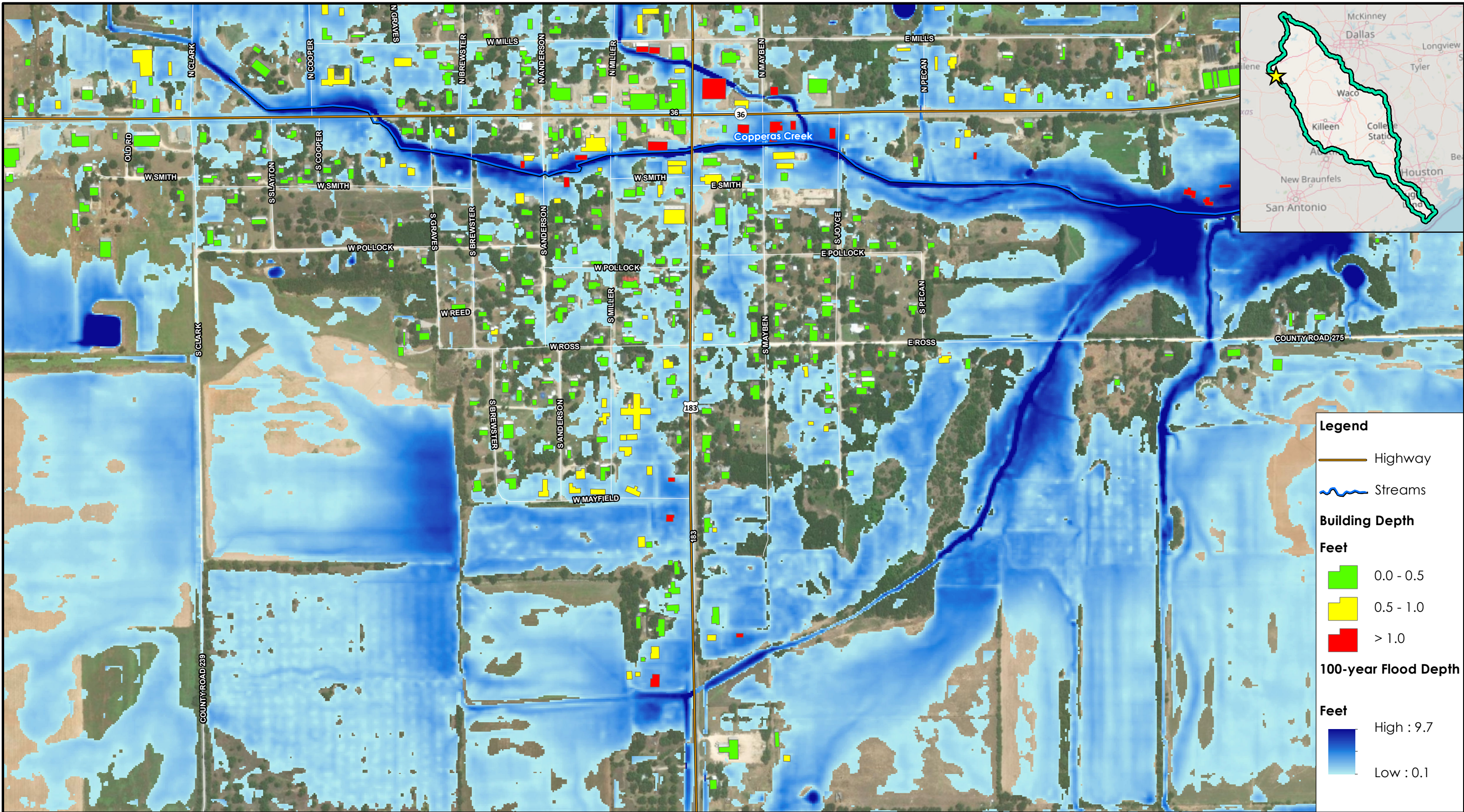
**Legend**

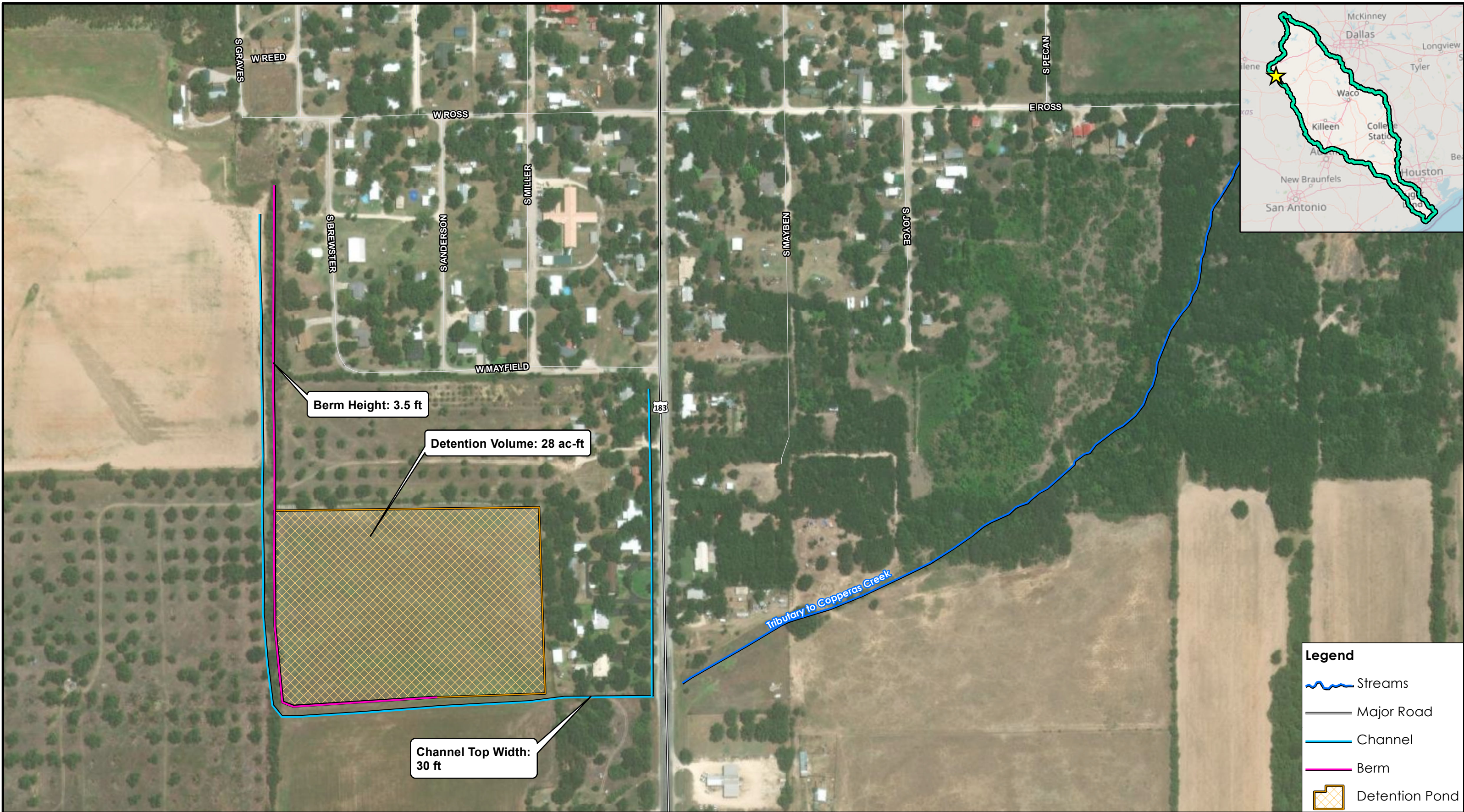
-  Streams
-  Highway
-  Lower Brazos Regional Flood Planning Basin
-  Copperas Creek DMP
-  County Boundary

**100-year Flood Depth**






**Feet**

-  High : 21.3
-  Low : 0.1

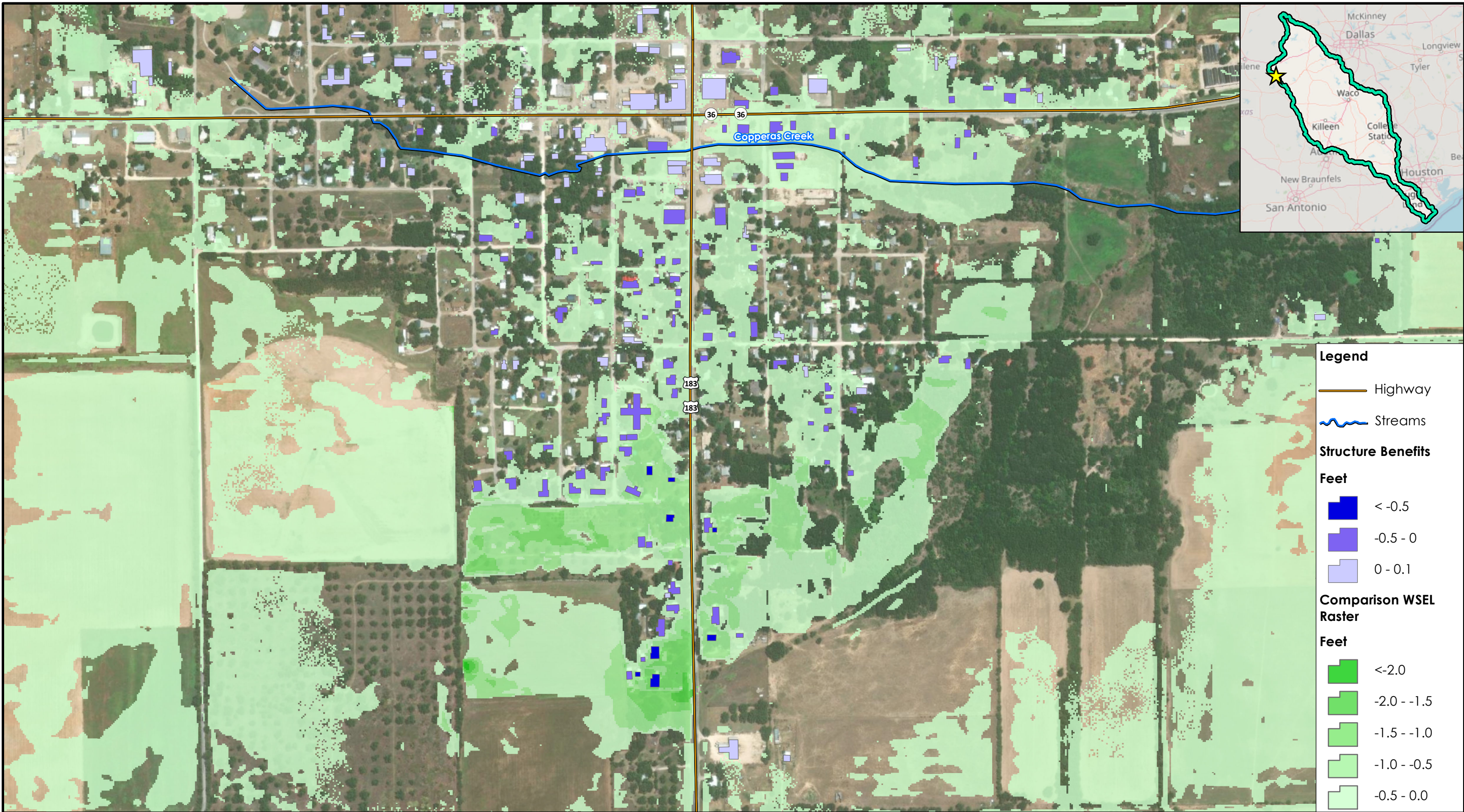




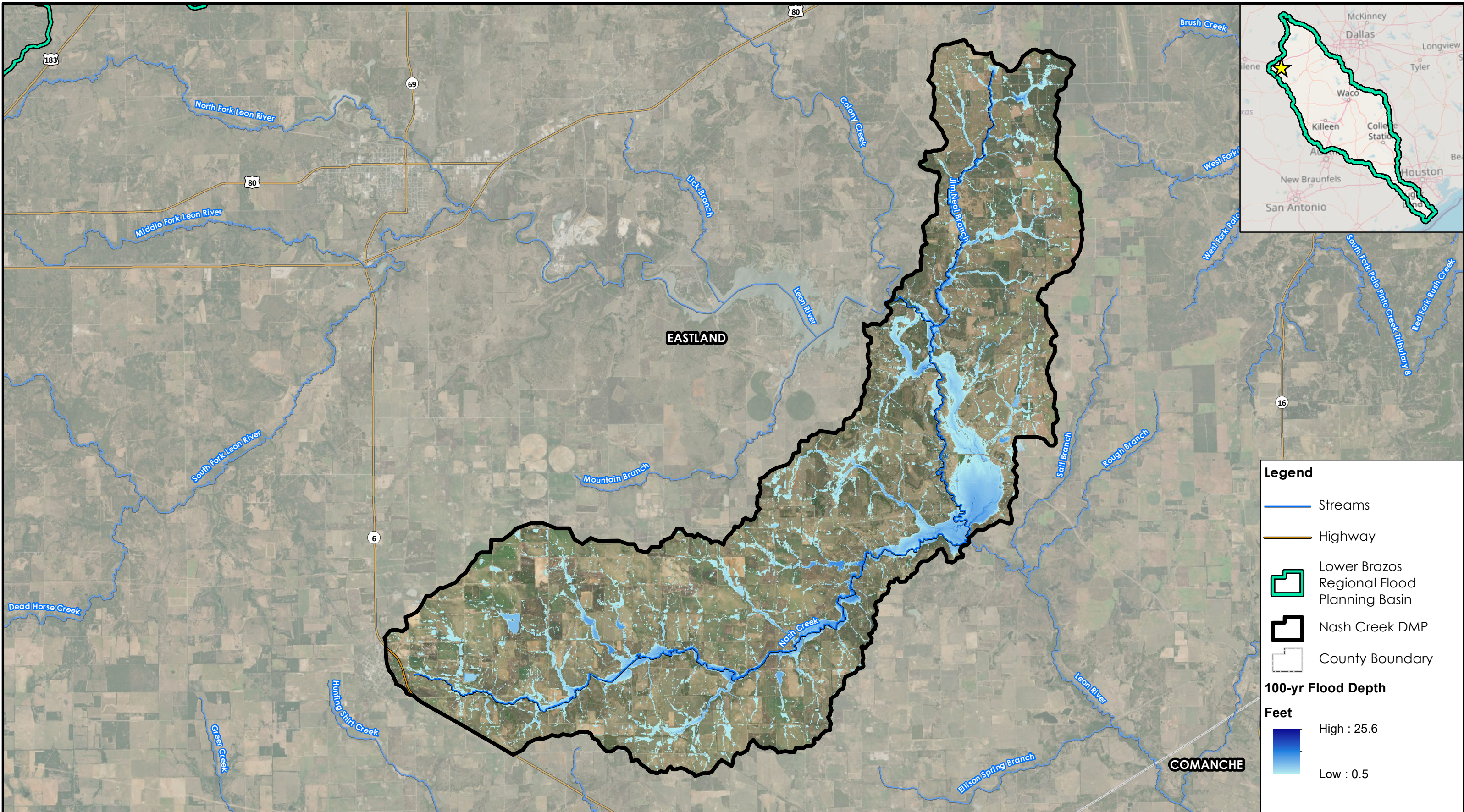
**Legend**

-  Streams
-  Major Road
-  Channel
-  Berm
-  Detention Pond





## Exhibits D1-D6



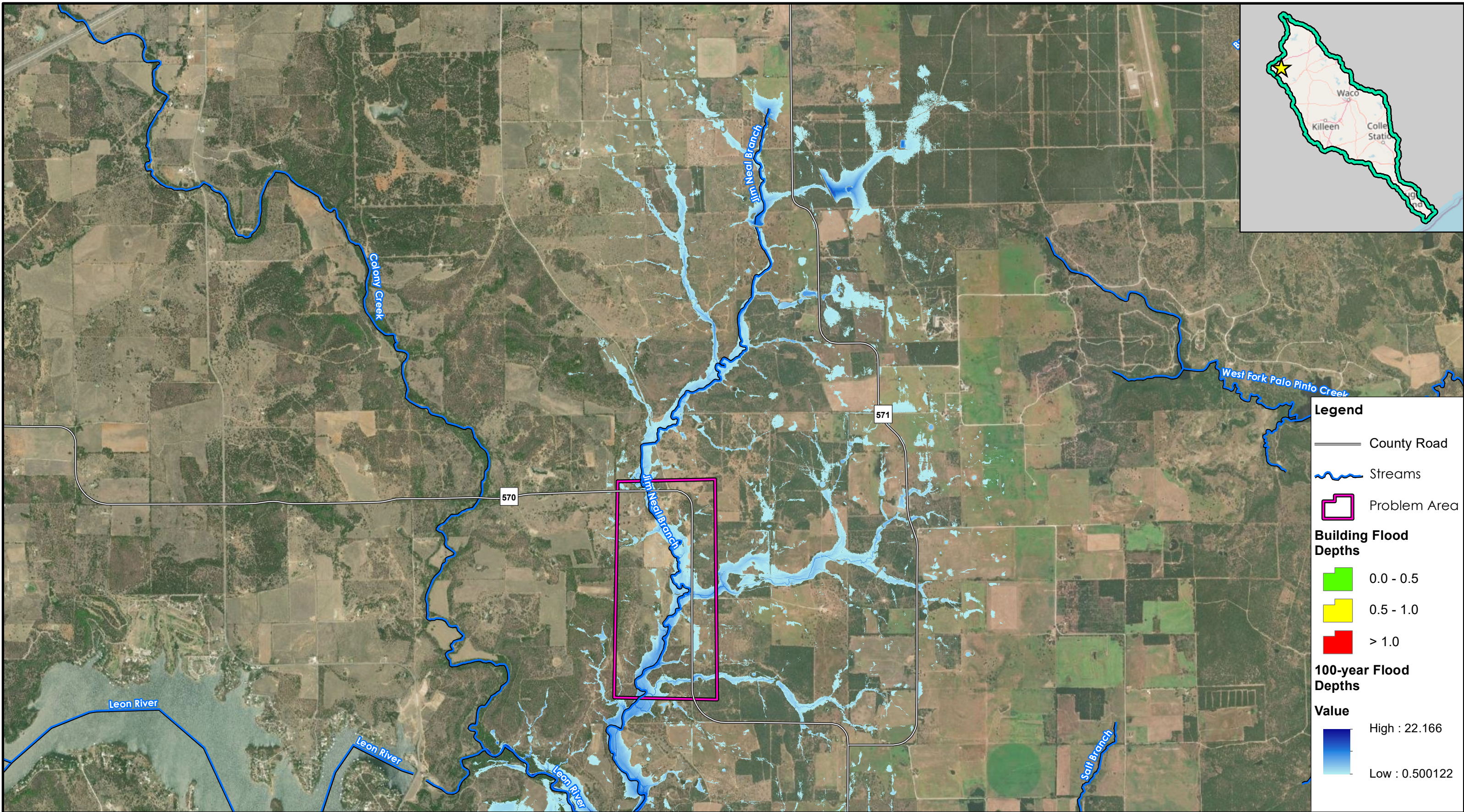
**Legend**

- Streams
- Highway
- Lower Brazos Regional Flood Planning Basin
- Nash Creek DMP
- County Boundary

**100-yr Flood Depth**

**Feet**

- High : 25.6
- Low : 0.5



**Legend**

- County Road
- Streams
- Problem Area

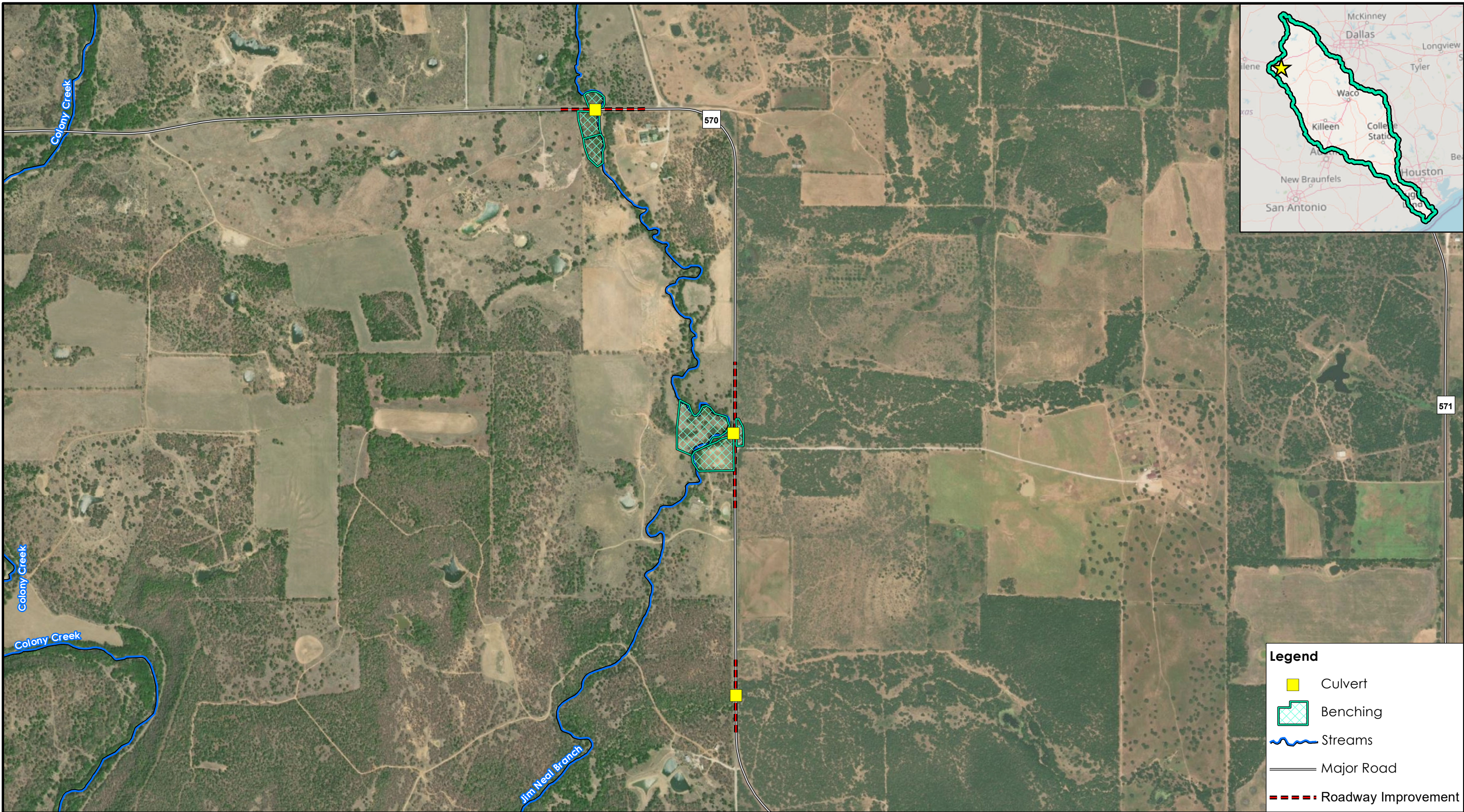
**Building Flood Depths**

- 0.0 - 0.5
- 0.5 - 1.0
- > 1.0 depth color swatch"/> > 1.0

**100-year Flood Depths**

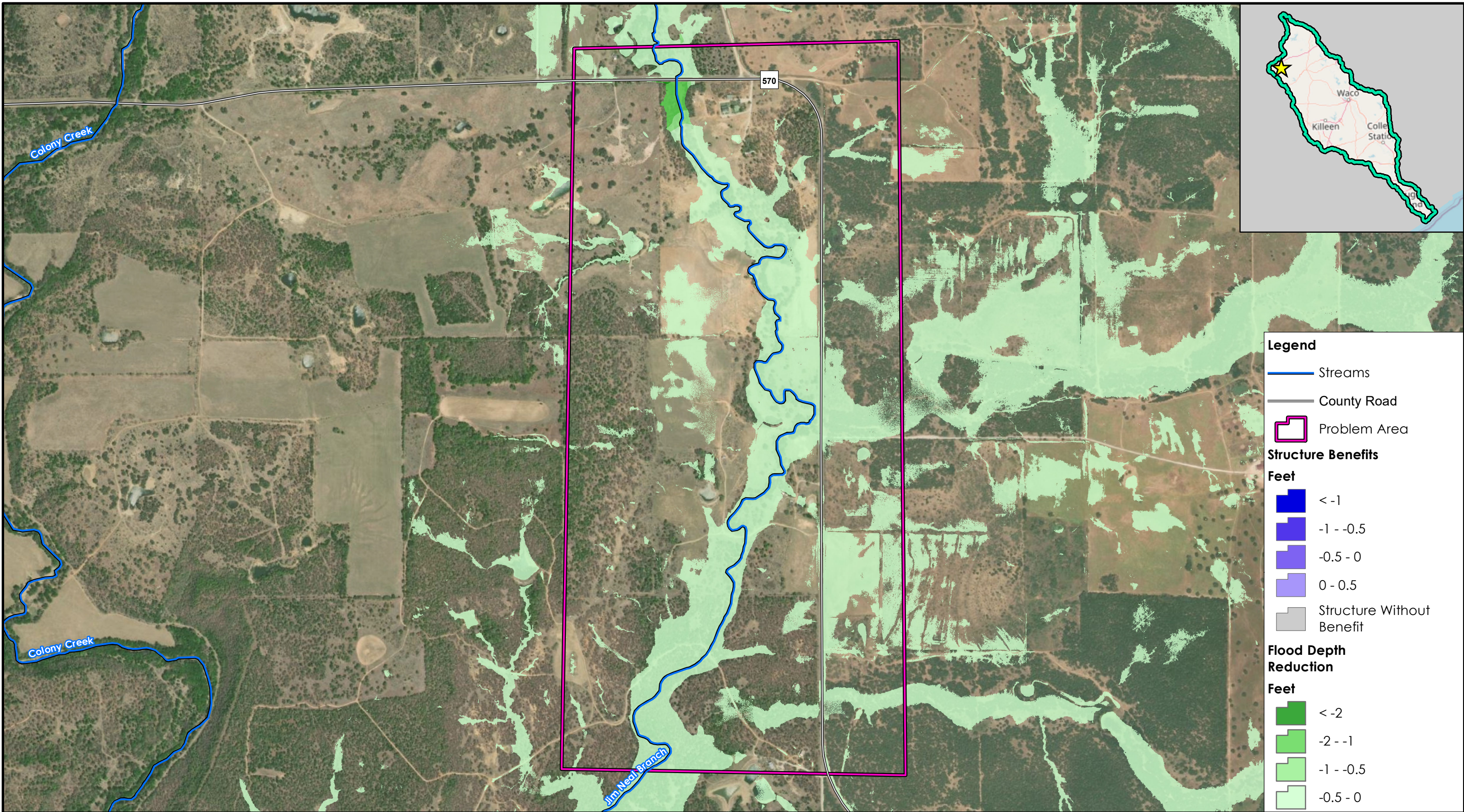
**Value**

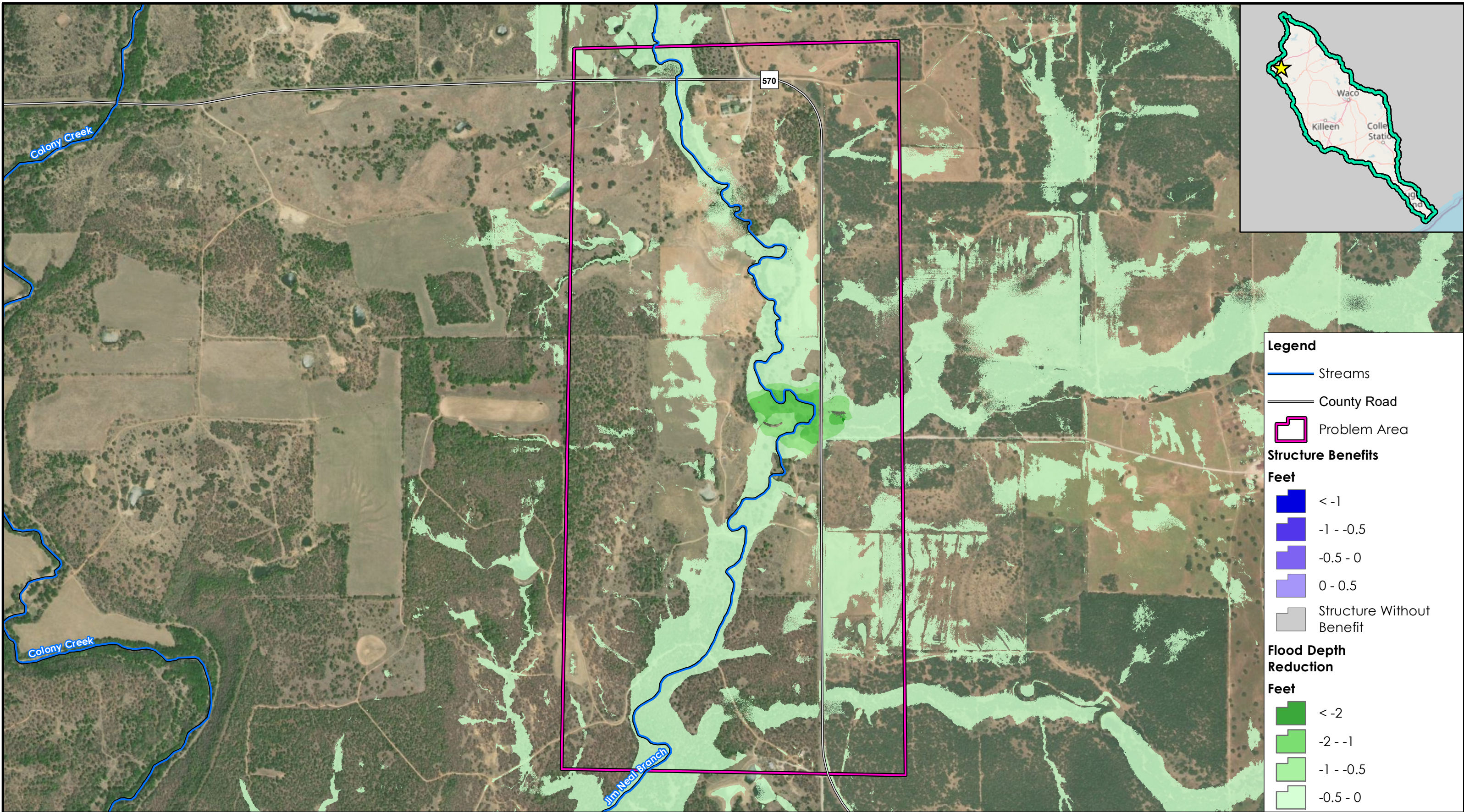
- High : 22.166
- Low : 0.500122

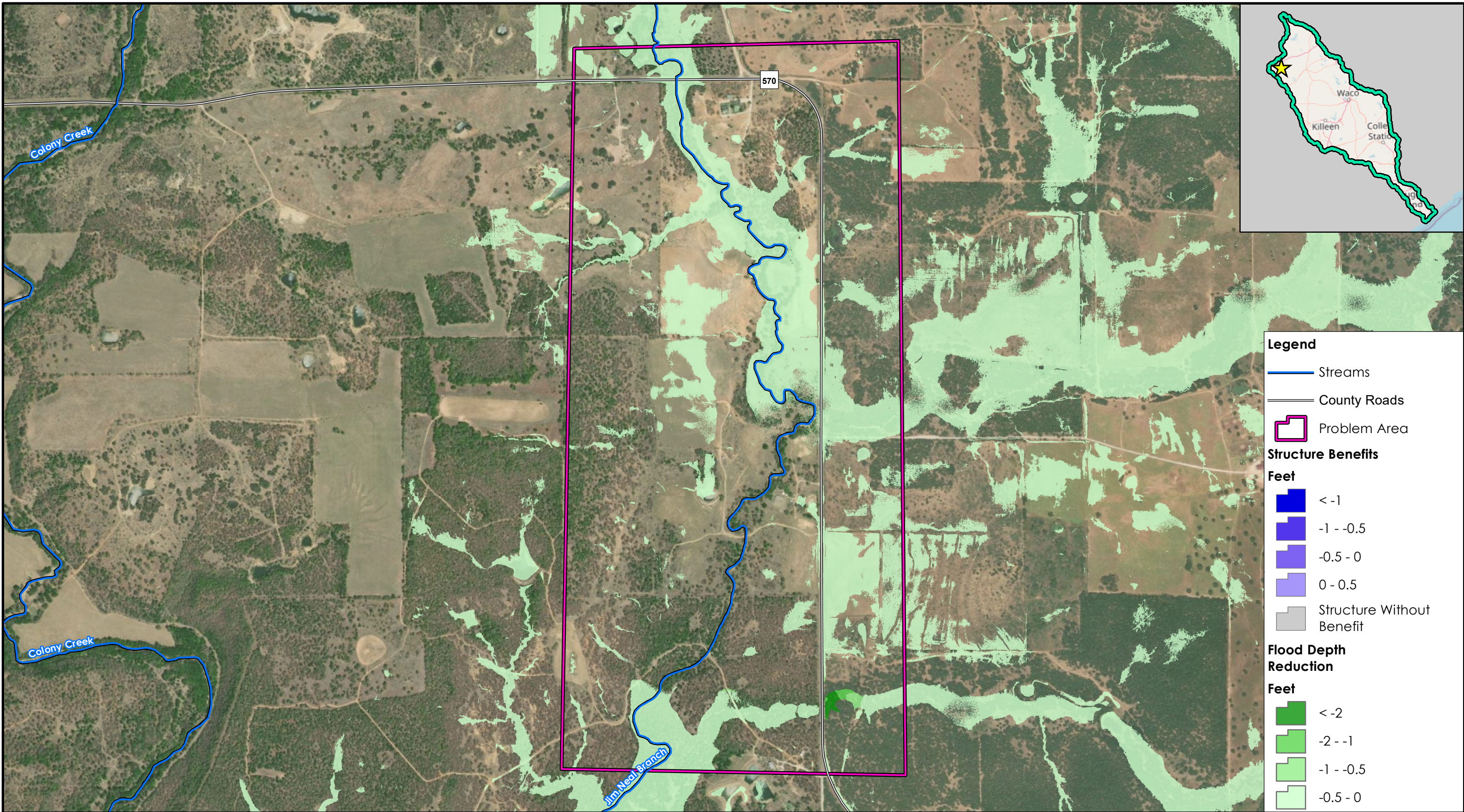


**Legend**

- Culvert
- Benching
- Streams
- Major Road
- Roadway Improvement

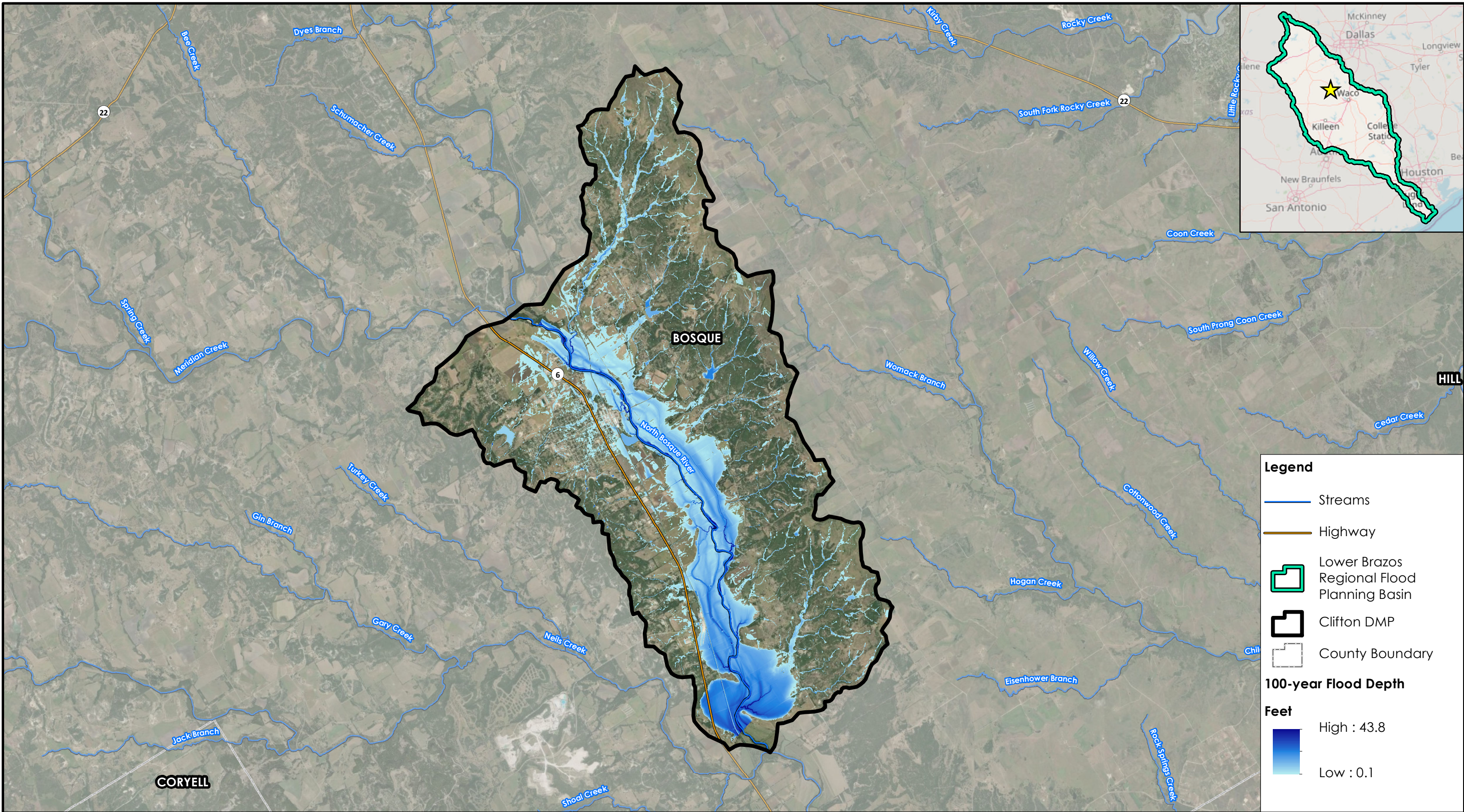




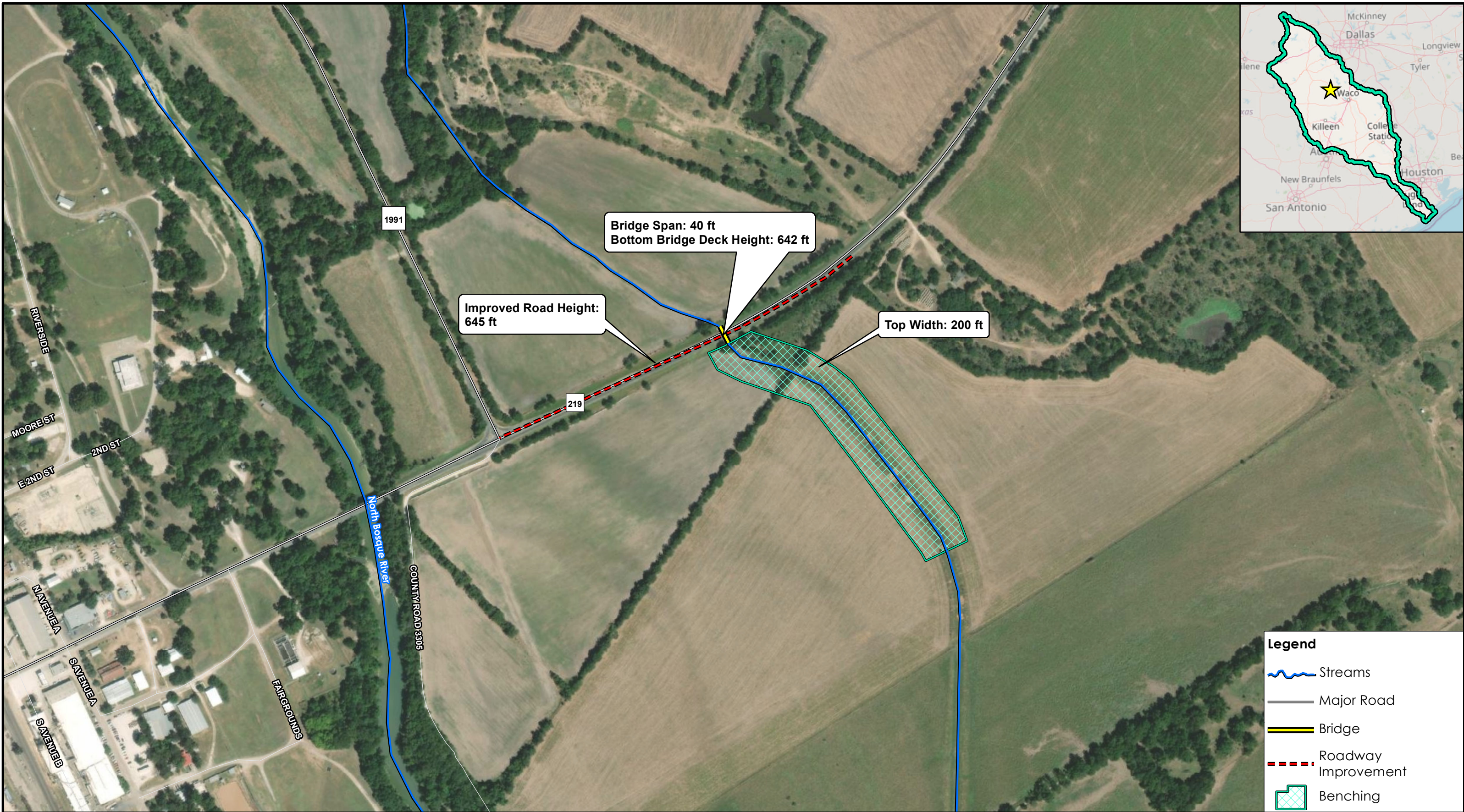




## Exhibits E1-E4

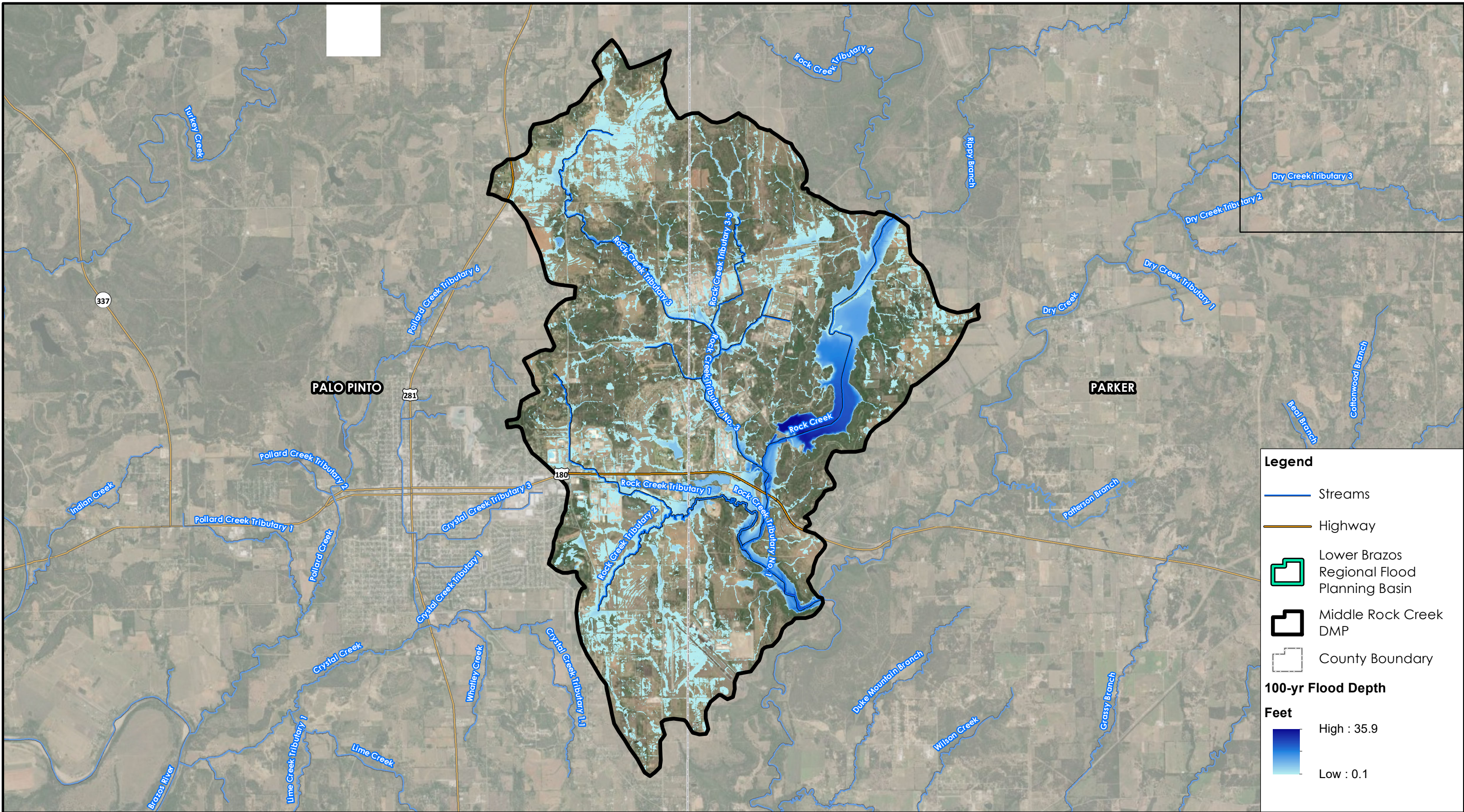


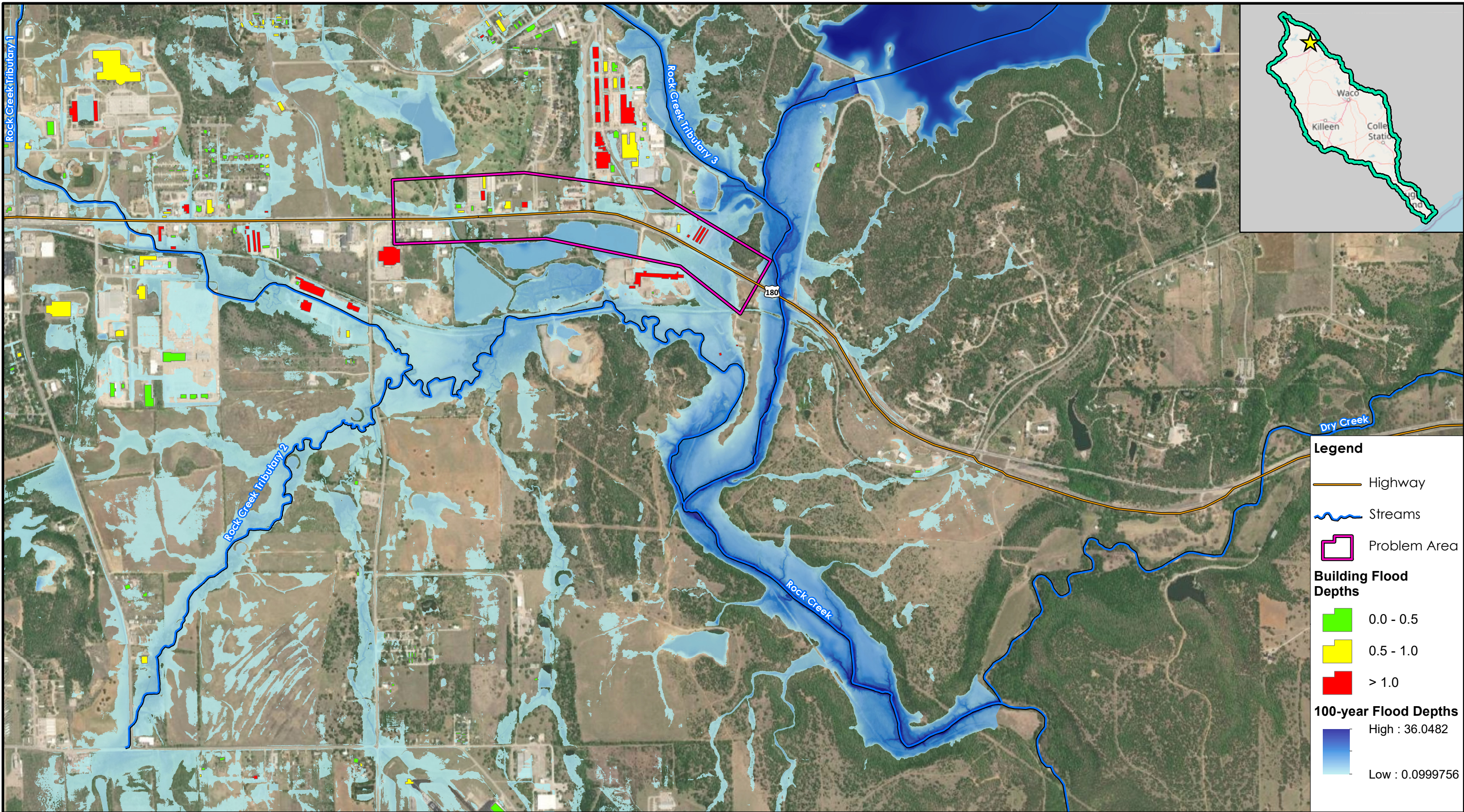






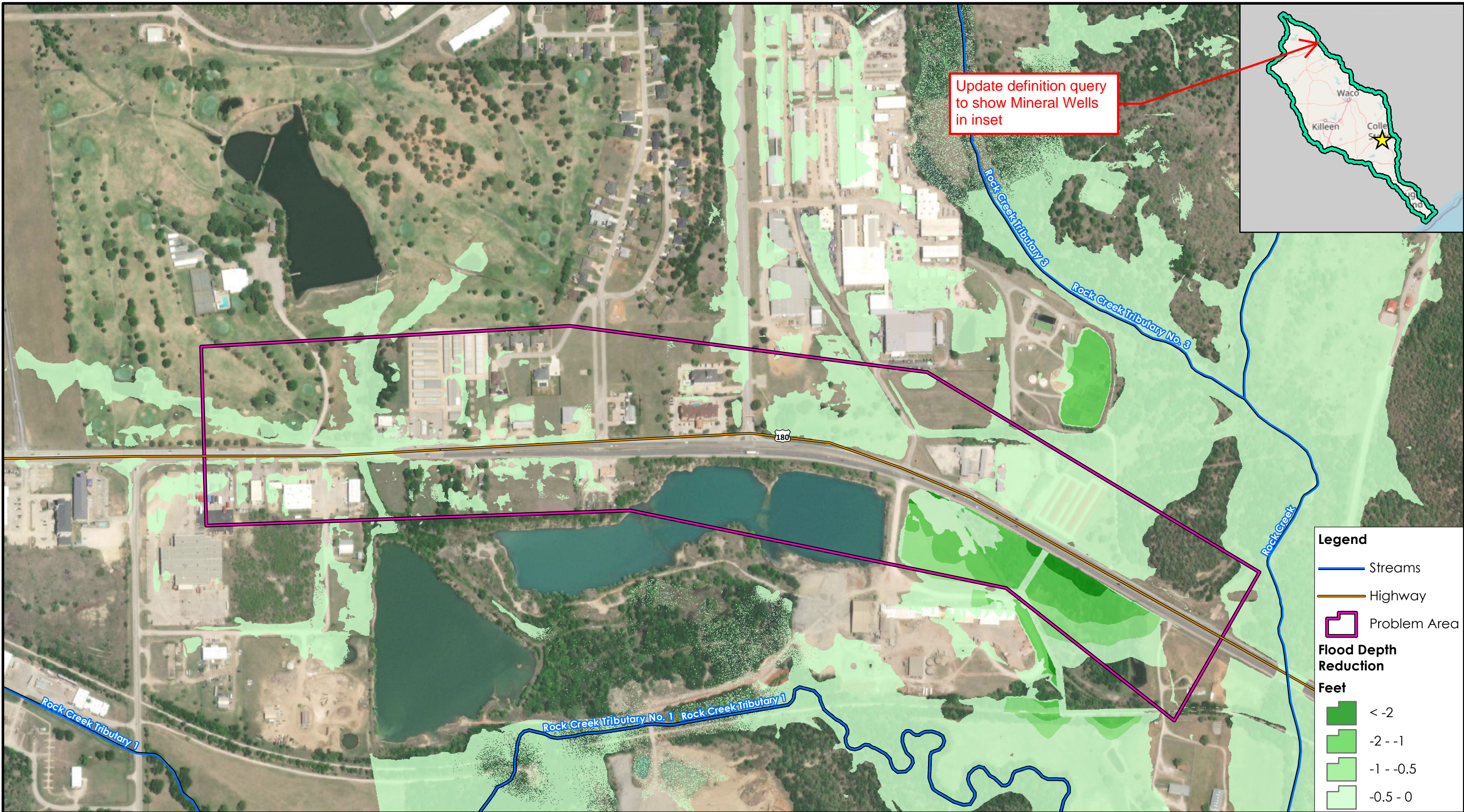
## Exhibits F1-F5

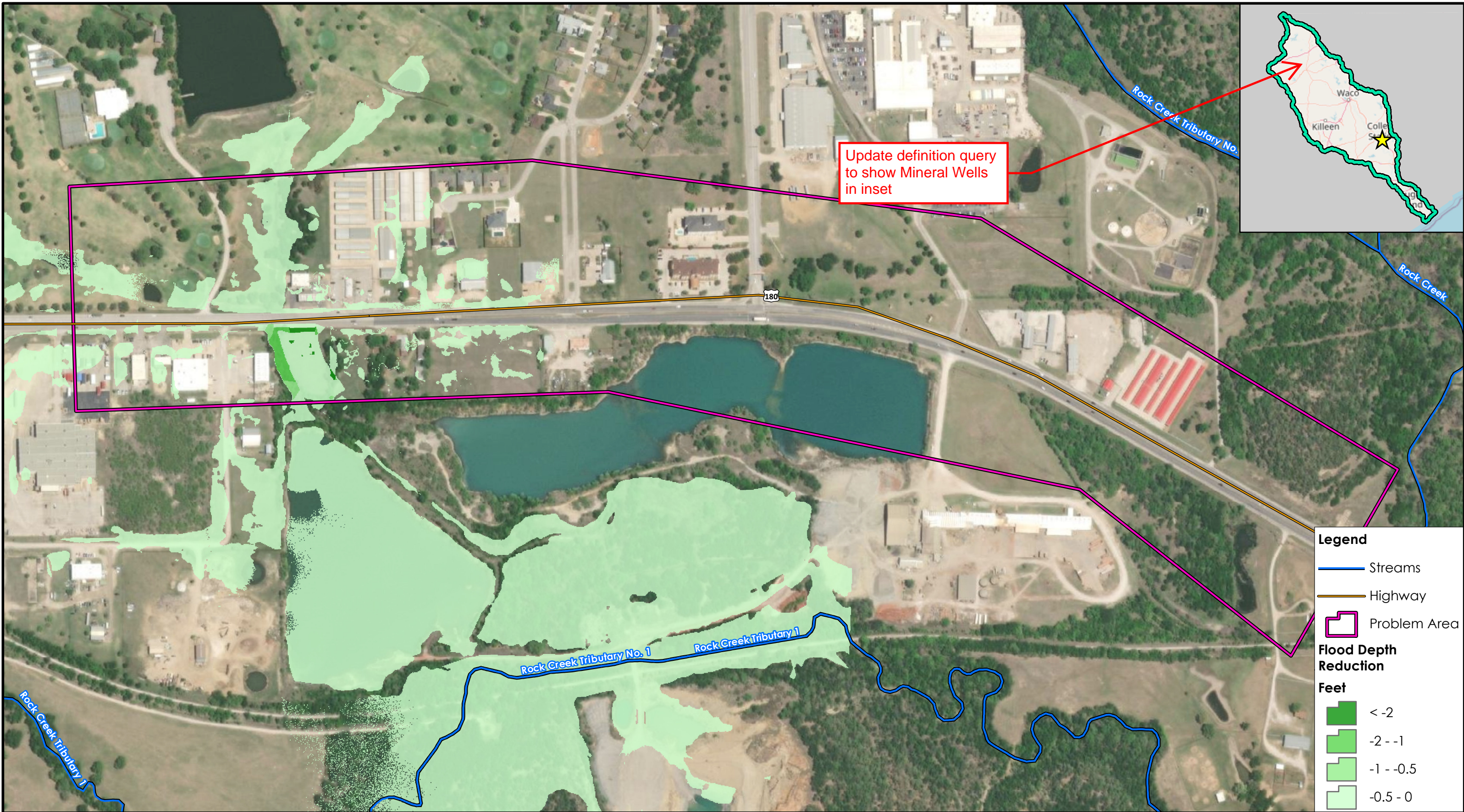












Update definition query to show Mineral Wells in inset

**Legend**

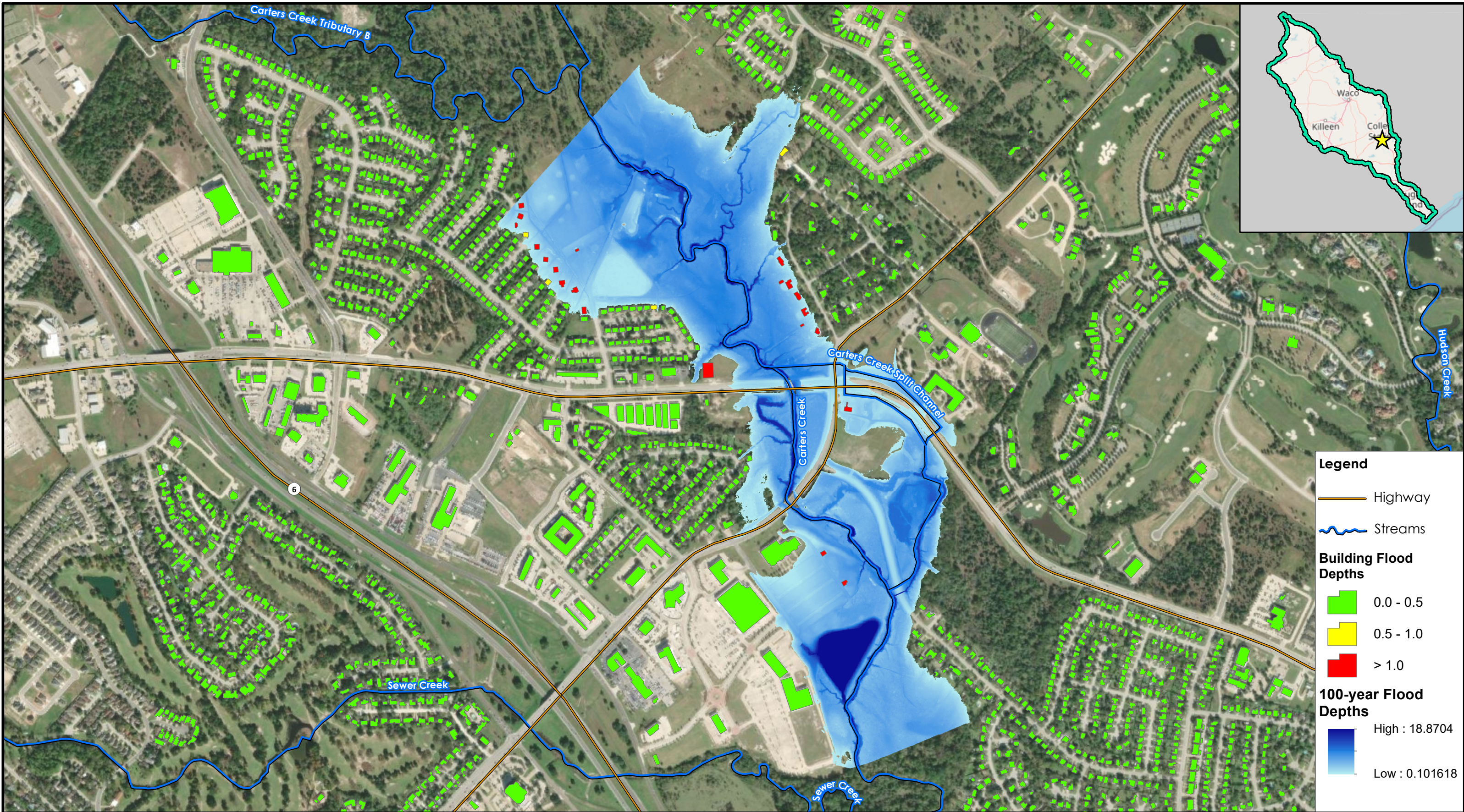
- Streams
- Highway
- Problem Area

**Flood Depth Reduction**

**Feet**

- < -2
- 2 - -1
- 1 - -0.5
- 0.5 - 0

## Exhibits G1-G3



**Legend**

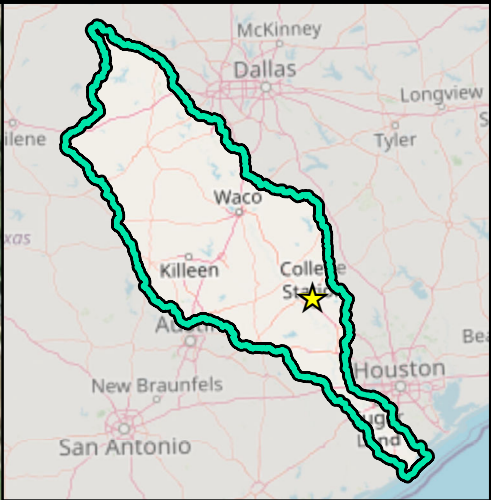
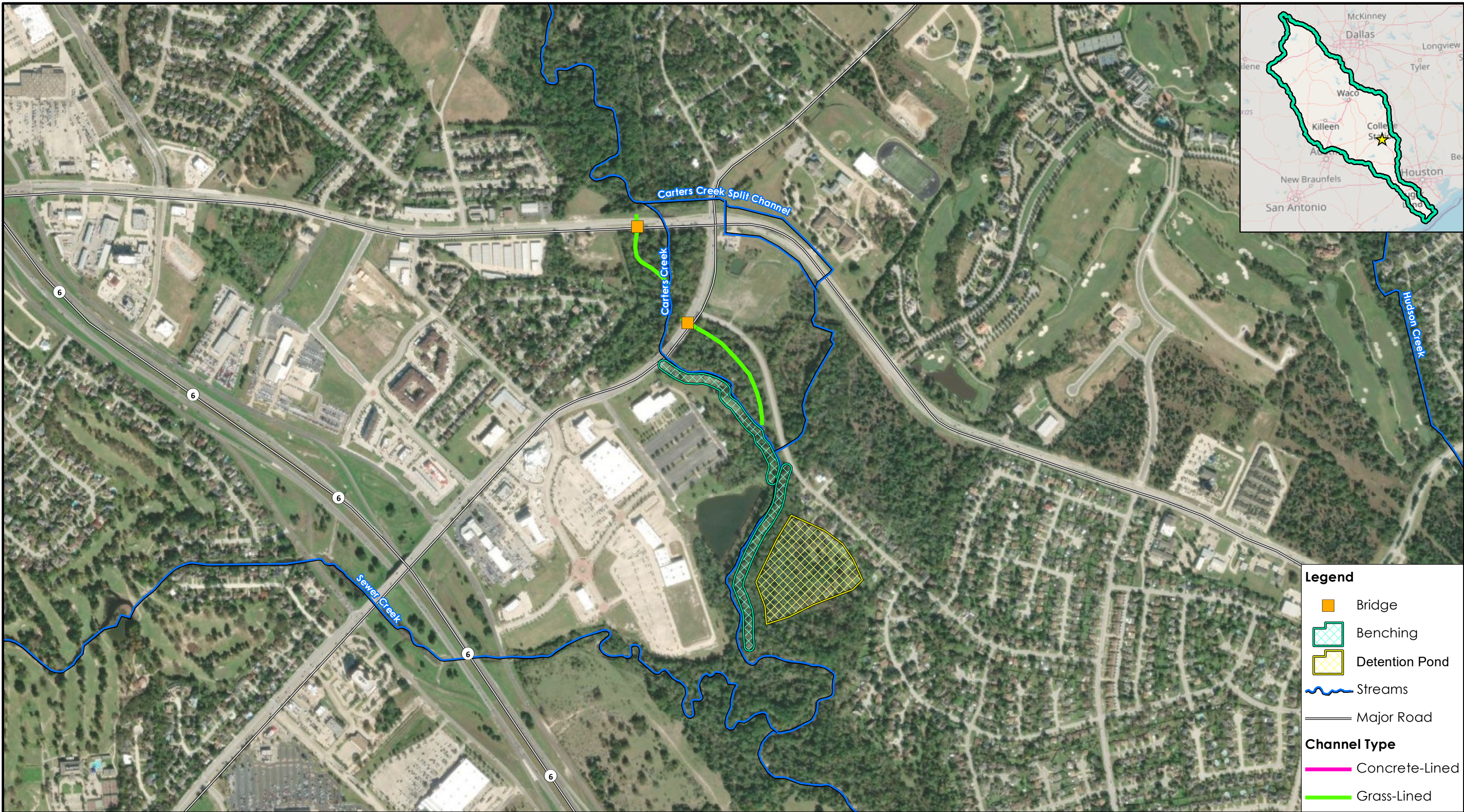
- Highway
- Streams

**Building Flood Depths**

- 0.0 - 0.5
- 0.5 - 1.0
- > 1.0

**100-year Flood Depths**

- High : 18.8704
- Low : 0.101618



**Legend**

- Orange square: Bridge
- Green hatched box: Benching
- Yellow hatched box: Detention Pond
- Blue wavy line: Streams
- Grey line: Major Road

**Channel Type**

- Pink line: Concrete-Lined
- Green line: Grass-Lined



