

ATTACHMENT A

***Insert Section 5.2.5 on Page 154, as Pages 154(1), 154(2), 154(3), and 154(4).
Insert Section 5.3.15.2(a) On Page 5-210, as Pages 5-210, and 5-210b.***

5.2.5 *Lake Alan Henry Pipeline to Lubbock with Water Treatment Plant at Lubbock—Lake Alan Henry Source of Water*

5.2.5.1 *Description of Option*

This option would include the construction of a pipeline from Lake Alan Henry, which has a firm yield of 29,900 acft/yr, to the City of Lubbock (Figure 5-12). A new 27-MGD surface water treatment plant would need to be constructed to treat this new supply (Figure 5-12). For purposes of this evaluation, the water treatment plant is assumed to be located near the southeast corner of Lubbock, with the treated water being additional supply for the City of Lubbock and its customers.

5.2.5.2 *Quantity of Water Available*

The quantity available for this option is the estimated firm yield of Lake Alan Henry, which is 29,900 acft/yr.

5.2.5.3 *Environmental Issues*

The environmental issues associated with this option are for pipeline rights-of-way and sites for the water treatment plant and storage facilities. Since routes and sites can be selected to avoid sensitive wildlife habitat and cultural resources, there would be very little, if any, environmental issues of significant concern.

5.2.5.4 *Engineering and Costing*

Costs for this option include the raw water transmission pipeline, pump stations, a surface water treatment plant, water storage tanks, pipeline right-of-way, land

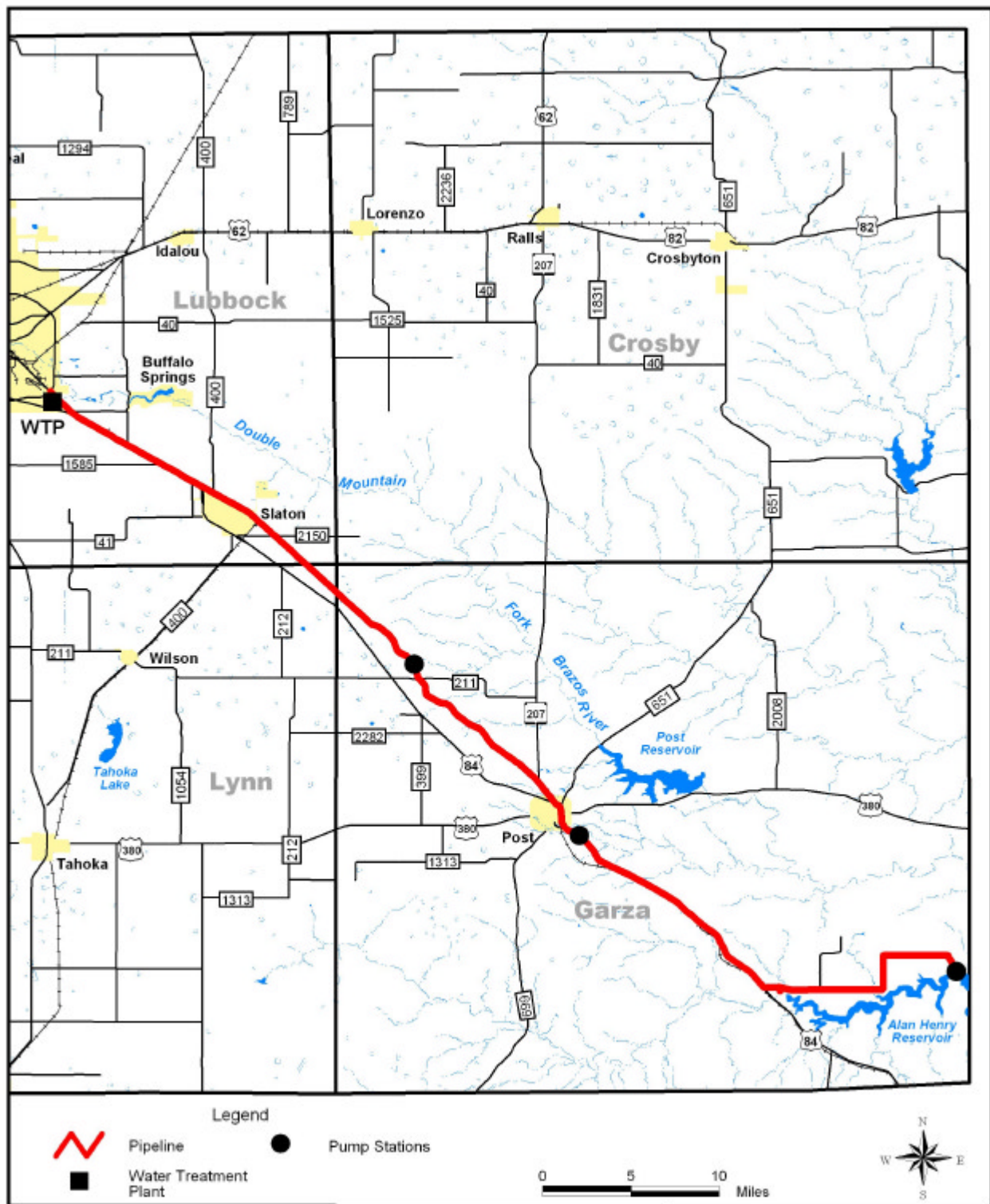


Figure 5-12. Lake Alan Henry Pipeline and Water Treatment Plant

for water treatment plant and storage tanks, engineering, environmental and archeological studies, permitting, mitigation, and interest during construction. The following assumptions and conditions were used in the costing of this option.

- The firm yield of Lake Alan Henry is 29,900 acft/yr. The pipeline is sized to transport the full firm yield at a uniform daily rate.
- The new surface water treatment plant would have a capacity of 27-MGD, and is sized to treat the full firm yield of lake Alan Henry at a uniform daily rate. Cost of land for pipeline easements is \$8,712 per acre. Cost of land for pump stations, storage tanks, and a water treatment plant is \$1,500 per acre.
- The costs given are for treated water at the new water treatment plant and do not include costs of distributing the treated water from the water treatment plant to the end users.
- The costs for raw water from Lake Alan Henry are \$148 per acft.
- Engineering, legal costs, and contingencies are calculated as 30 percent of the construction costs for the pipeline and 35 percent for all other facilities.
- Environmental and archeological studies, mitigation, and permitting costs are calculated as 100 percent of the land cost.
- Interest during construction is calculated at an annual rate of 6 percent with a 4 percent annual rate of return on funds balances during construction, which is estimated to be for a period of 4 years.

The total project cost for this option was estimated at \$123,963,000 (Table 5-67a). Financing the project for 30 years at 6 percent annual interest results in an annual expense of \$9,006,000 for debt service (Table 5-67a). Annual O&M costs total \$3,036,000 (Table 5-67a). The total annual cost, including debt service, raw water cost, O&M cost, and power cost, totals \$20,730,000 (Table 5-67a). For an annual delivery of 29,900 acft/yr, the resulting cost of treated water at the water treatment plant ready for distribution to end users is \$693 per acft (Table 5-67a).

5.2.5.5 Implementation Issues

Implementation of this option will require financing, rights-of-way and sites for facilities, state and federal permits for stream crossings, environmental and cultural resources studies, and mitigation for any environmental and cultural resources that might be affected.

Table 5-67a.
Cost Estimate for
Lake Alan Henry and Pipeline and Water Treatment Plant (29,900 acft/yr)
Llano Estacado Region

<i>Item</i>	<i>Estimated Cost for Facilities (2nd quarter 1999)</i>
Capital Costs	
Intake and Pump Station (27 MGD)	\$6,201,000
Water Treatment Plant (27 MGD)	20,735,000
Transmission Pump Stations (2)	10,044,000
Transmission Pipeline (42 in dia., 61 miles)	<u>40,387,000</u>
Total Capital Cost	\$77,367,000
Engineering, Legal Costs and Contingencies (30% for pipeline & 35% for all other)	\$25,059,000
Environmental Studies and Permitting (100% Of land costs)	1,560,000
Land Acquisition and Surveying (261 acres)	2,878,000
Interest During Construction (4 years)	<u>17,099,000</u>
Total Project Cost	\$123,963,000
Annual Costs	
Debt Service (6 percent for 30 years)	\$9,006,000
Intake, Pipeline, and Pump Station Operation and Maintenance	785,000
Water Treatment Plant Operation and Maintenance	2,251,000
Cost of Raw Water (29,900 acft/yr @ \$148 per acft.) ¹	4,425,200
Pumping Energy Costs (63,445,091 kW-hr @ \$0.06/kW-hr)	<u>4,263,000</u>
Total Annual Cost¹	\$20,730,000
Available Project Yield (acft/yr)	29,900
Annual Cost of Water (\$ per acft)²	\$693
Annual Cost of Water (\$ per 1,000 gallons)²	\$2.13
¹ Cost of raw water at Lake Alan Henry is \$148 per acft..	
² Annual Cost of Water is for treated water at the water treatment plant and does not include costs associated with distribution within municipal systems.	

Insert on Page 5-210 before Subsection 5.3.14.3 (The City of New Deal)

5.3.15.2(a) The City of Lubbock

5.3.15.2(a).1 Description of Supply

- **Source:** Lake Alan Henry
- **Current Supply:** Adequate to meet demands until approximately 2032, at which time additional supplies will be needed.

5.3.15.2(a).2 Options Considered

Table 5-131a lists the water management strategies, references to the report section detailing the strategy, the project’s annual cost, and unit costs that were considered for the City of Lubbock.

**Table 5-131a.
Water Management Strategies Considered for the City of Lubbock**

Option	Yield (acft/yr)¹	Approximate Cost²	
		Annual Cost³	Unit (\$/acft)
Lake Alan Henry Pipeline (Sec. 5.2.5)	29,900	\$20,730,000 ⁴	\$693 ⁴
¹ The project’s estimated firm yield. ² Costs are Annual Cost and Unit Cost (\$/acft per year). Unit cost is for full utilization of project capacity at uniform daily rate. ³ Includes debt service at 6% annual interest for 30 years. ⁴ Cost is for 2050. See Table 5-67a for annual and unit costs.. ⁵ Source of Cost Estimate: Section 5.2.5.			

5.3.15.2(a).3 Water Supply Plan

Working within the planning criteria established by the Llano Estacado RWPG and TWDB, the following water supply plan is recommended to augment the water supply of the City of Lubbock through 2050:

- Pipeline from Lake Alan Henry to Lubbock, with Water Treatment Plant at Lubbock. Need to have pipeline and treatment plant in operation by about 2032.

5.3.15.2(a).4 Costs

Costs of the recommended plan for the City of Lubbock to meet 2050 shortages are:

a. Lake Alan Henry Pipeline and water Treatment plant (See Section 5.2.5 for cost summary of this option):

- Cost Source: Section 5.2.5, Table 5-67a
- Date to be Implemented: 2032
- Total Project Cost: \$123,963,000
- Annual Cost: See Table 5-131b for a cost summary of this option.

**Table 5-131b.
Recommended Plan Costs by Decade for the City of Lubbock**

Plan Element	2000	2010	2020	2030	2040	2050
Lake Alan Henry Pipeline and Water Treatment Plant						
Projected Shortage (acft/yr)	0	0	0	0	0	0
Quantity Available (acft/yr)	0	0	0	0	29,900	29,900
Annual Cost (\$/yr)	-	-	-	-	\$20,730,000	\$20,730,000
Unit Cost (\$/acft)	-	-	-	-	\$693	\$693

Subsections 5.3.15.3 on Page 5-210 and following subsections remain unchanged.

Reference #	Water Mangement Strategy
1	Water Supply from Nearby Groundwater Sources for Cities Projected to Need Additional Municipal Supply
2	Interconnect Cities and Feedlots (Source of Water to Include Hartley and Roberts Counties) - Maximum Delivery Rate of 52,000 acft/yr
3	Precipitation Enhancement
4	Brush Control
5	Desalt Brackish Groundwater
6	Use of Reclaimed Water
7	Municipal Water Conservation
8	Irrigation Water Conservation
9	Agricultural Water Conservation Practices on Farms
10	Recovery of Capillary Water
11	Cistern Well Construction
12	Post Reservoir - Raw Water at the Reservoir
13	Research and Development of Drought Tolerant Crops and New Technology
14	Interconnect Cities and Industries (Sources of Water to Include Lake Alan Henry and Post Reservoir)
15	Import Water
16	Reuse of Municipal Effluent for Potable Supply
17	Stormwater Capture, Treatment, and Use
18	Lake Alan Henry Pipeline to Lubbock with Water Treatment Plant at Lubbock

	EARTH		150260000	O	260	175	140	12	4c1	O	140	12	14021	OGALLALA AQUIFER
	EARTH		150260000	O	260	175	140	12	4a7	O	140	12	14021	OGALLALA AQUIFER
	FARWELL		150295000	O	295	200	185	12	4c1	O	185	12	18521	OGALLALA AQUIFER
	FARWELL		150295000	O	295	200	185	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	FARWELL		150295000	O	295	200	185	12	4a7	O	185	12	18521	OGALLALA AQUIFER
	FRIONA		150318000	O	318	220	185	12	4c1	O	185	12	18521	OGALLALA AQUIFER
	FRIONA		150318000	O	318	220	185	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	FRIONA		150318000	O	318	220	185	12	4a7	O	185	12	18521	OGALLALA AQUIFER
	HALE CENTER		150372000	O	372	258	95	12	4c1	O	95	12	09521	OGALLALA AQUIFER
	HALE CENTER		150372000	O	372	258	95	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	HART		150382000	O	382	700	35	12	4c1	O	35	12	03521	OGALLALA AQUIFER
	HEREFORD		150397000	O	397	274	59	2	4c2	A	103	1	10321	OGALLALA AQUIFER
	HEREFORD		150397000	O	397	274	59	2	4c1	O	59	2	05926	DOCKUM AQUIFER
	IDALOU		150431000	O	431	295	152	12	4c1	O	152	12	15221	OGALLALA AQUIFER
	IDALOU		150431000	O	431	295	152	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	IRRIGATION		151004009	O	1004	1004	9	12	4a8	O	9	12	00921	OGALLALA AQUIFER
	IRRIGATION		151004035	O	1004	1004	35	12	4a8	O	35	12	03521	OGALLALA AQUIFER
	IRRIGATION		151004040	O	1004	1004	40	12	4a8	O	40	12	04021	OGALLALA AQUIFER
	IRRIGATION		151004054	O	1004	1004	54	2	4a8	O	54	2	05421	OGALLALA AQUIFER
	IRRIGATION		151004077	O	1004	1004	77	12	4a8	O	77	12	07721	OGALLALA AQUIFER
	IRRIGATION		151004085	O	1004	1004	85	12	4a8	O	85	12	08521	OGALLALA AQUIFER
	IRRIGATION		151004095	O	1004	1004	95	2	4a8	O	95	2	09521	OGALLALA AQUIFER

	IRRIGATION		151004095	O	1004	1004	95	12	4a8	O	95	12	09521	OGALLALA AQUIFER
	IRRIGATION		151004110	O	1004	1004	110	12	4a8	O	110	12	11021	OGALLALA AQUIFER
	IRRIGATION		151004185	O	1004	1004	185	12	4a8	O	185	12	18521	OGALLALA AQUIFER
	IRRIGATION		151004219	O	1004	1004	219	12	4a8	O	219	12	21921	OGALLALA AQUIFER
	IRRIGATION		151004223	O	1004	1004	223	12	4a8	O	223	12	22321	OGALLALA AQUIFER
	KRESS		150480000	O	480	891	219	2	4c1	O	219	2	21921	OGALLALA AQUIFER
	KRESS		150480000	O	480	891	219	2	4c2	A	103	1	10321	OGALLALA AQUIFER
	LOCKNEY		150534000	O	534	365	77	12	4c1	O	77	12	07721	OGALLALA AQUIFER
	LUBBOCK		150546000	O	546	370	152	12	4c18	O	85	12	12510	LAKE ALAN HENRY
	MORTON		150610000	O	610	415	40	12	4c1	O	40	12	04021	OGALLALA AQUIFER
	MORTON		150610000	O	610	415	40	12	4a7	O	40	12	04021	OGALLALA AQUIFER
	NEW DEAL		150630000	O	630	922	152	12	4c1	O	152	12	15221	OGALLALA AQUIFER
	NEW DEAL		150630000	O	630	922	152	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	OLTON		150656000	O	656	442	140	12	4c1	O	140	12	14021	OGALLALA AQUIFER
	OLTON		150656000	O	656	442	140	12	4a7	O	140	12	14021	OGALLALA AQUIFER
	PLAINS		150702000	O	702	470	251	14	4c1	O	251	14	25121	OGALLALA AQUIFER
	PLAINS		150702000	O	702	470	251	14	4a7	O	251	14	25121	OGALLALA AQUIFER
	REGIONAL		150000000	O					4i3					
	REGIONAL		150000000	O					4i4					
	REGIONAL		150000000	O					4h5					
	REGIONAL		150000000	O					4b6					

	REGIONAL		150000000	O					4a9					
	REGIONAL		150000000	O					4o10					
	REGIONAL		150000000	O					4o11					
	REGIONAL		150000000	O					4j12					
	REGIONAL		150000000	O					4o13					
	REGIONAL		150000000	O					4j14					
	REGIONAL		150000000	O					4b16					
	REGIONAL		150000000	O					4o17					
	SEAGRAVES		150813000	O	813	548	83	14	4c1	O	83	14	08321	OGALLALA AQUIFER
	SEAGRAVES		150813000	O	813	548	83	14	4a7	O	83	14	08321	OGALLALA AQUIFER
	SHALLOWATER		150821000	O	821	553	152	12	4c1	O	152	12	15221	OGALLALA AQUIFER
	SHALLOWATER		150821000	O	821	553	152	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	SUDAN		150866000	O	866	748	140	12	4c1	O	140	12	14021	OGALLALA AQUIFER
	SUDAN		150866000	O	866	748	140	12	4c2	A	103	1	10321	OGALLALA AQUIFER
	SUDAN		150866000	O	866	748	140	12	4a7	O	140	12	14021	OGALLALA AQUIFER
	SUNDOWN		150870000	O	870	587	110	14	4c1	O	110	14	11021	OGALLALA AQUIFER
	WHITEFACE		150965000	O	965	991	40	12	4c1	O	40	12	04021	OGALLALA AQUIFER
	WHITEFACE		150965000	O	965	991	40	12	4a7	O	40	12	04021	OGALLALA AQUIFER
	WILSON		150976000	O	976	993	153	12	4c1	O	153	12	15321	OGALLALA AQUIFER
	WOLFFORTH		150984000	O	984	664	152	12	4c1	O	152	12	15221	OGALLALA AQUIFER

Capital	<i>Total Annual Cost for Year</i>						<i>Value of Total Supply During Drought of Record</i>							
Costs	2000	2010	2020	2030	2040	2050	2000	2010	2020	2030	2040	2050		
2486792		706	266	295	113	81	0	206	622	534	669	573		
			681	681	681	271	0	0	432	423	416	405		
			266	295	113	81	0	0	168	177	184	195		
			681	681	681	271	0	0	168	177	184	405		
799568			275	205	228	103	0	0	207	382	343	308		
			681	681	681	271	0	0	155	155	155	155		
		65	65	65	65	65	0	4	6	6	5	5		
963840		175	194	217	72	80	0	586	528	472	424	382		
1111264		187	174	193	93	85	0	418	575	518	679	611		
		681	681	681	271	271	0	441	441	441	441	441		
485936		134	148	164	67	74	0	416	375	338	304	274		
4939748	1337	1483	222	88	98	79	213	192	1934	2154	1940	1949		
3306336			288	200	222	87	0	0	883	1627	1465	1319		
293128000			681	681	681	271	0	0	1270	1270	1270	1270		
		23	23	23	23	23	0	61	127	124	126	129		

850872				176	160	178	0	0	0	403	575	517		
		12	12	12	12	12	0	33	65	67	67	69		
1111264		267	167	161	110	85	0	213	599	752	677	609		
		681	681	681	271	271	0	562	562	562	562	562		
		7	7	7	7	7	0	71	146	152	159	169		
1680096			130	129	143	77	0	0	1323	1610	1449	1304		
			681	681	681	271	0	0	1137	1137	1137	1137		
		9	9	9	9	9	0	47	103	108	107	113		
711480				186	138	153	0	0	0	211	595	536		
				681	681	681	0	0	0	415	415	415		
458936					137	152	0	0	0	0	407	366		
			681	681	681	271	0	0	5433	5433	5433	5433		
3302816			241	241	257	243	0	0	1450	2817	3059	2753		
1285504			183	175	195	83	0	0	612	764	688	619		
			681	681	681	271	0	0	543	543	543	543		
696582	27	30	34	37	41	46	1319	1187	1068	962	865	779		
20468466	22	25	27	31	34	38	47358	42622	38360	34524	31072	27964		
0	0	0	0	0	0	0	0	0	0	0	0	0		
24467850	46	51	57	63	70	78	27400	24660	22194	19975	17977	16179		
45325656	40	44	49	54	60	67	59112	53201	47881	43093	38783	34905		
2122722	35	39	43	48	53	59	3120	2808	2527	2274	2047	1842		
45591984	39	43	48	54	60	66	26187	23568	21211	19090	17181	15463		

	39	43	48	54	60	66	33876	30488	27440	24696	22226	20004		
11131254	43	48	53	59	66	73	13324	11992	10792	9713	8742	7868		
5854410	24	27	30	33	37	41	12538	11284	10156	9140	8226	7404		
33502716	43	48	54	60	66	74	39709	35738	32164	28948	26053	23448		
0	0	0	0	0	0	0	0	0	0	0	0	0		
904112		217	240	267	70	78	0	396	357	322	290	261		
		681	681	681	271	271	0	95	95	95	95	95		
485936			134	149	165	67	0	0	415	374	337	304		
123963000							20730000	20730000			29900	29900	Revised per TWDB Comments; additional supply already included in current supplies.	6/27/01 errata text quotes \$693 for 2040,2050 annual cost. Entered \$693 into database pending confirmation from Stefan CKR
1027840		161	127	141	97	72	0	437	1003	903	813	732		
		25	25	25	25	25	0	34	68	65	66	65		
695024		236	183	204	100	72	0	209	386	347	312	281		
		681	681	681	271	271	0	110	110	110	110	110		
1027840			121	134	149	69	0	0	1057	952	857	771		
		11	11	11	11	11	0	60	121	121	122	123		
982916			136	151	168	69	0	0	830	748	674	606		
		9	9	9	9	9	0	44	91	96	97	101		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		

							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
							0	0	0	0	0	0		
1157156		152	168	187	69	76	0	830	748	674	606	546		
		27	27	27	27	27	0	31	59	56	52	52		
583132		121	127	141	91	74	0	432	583	525	473	426		
		681	681	681	271	271	0	468	468	468	468	468		
861916		168	162	174	91	74	0	432	583	525	473	426		
		681	681	681	271	271	0	322	322	322	322	322		
		12	12	12	12	12	0	48	96	97	95	97		
808676		123	130	144	85	74	0	641	775	697	627	565		
485936				137	152	169	0	0	0	407	366	329		
		38	38	38	38	38	0	5	9	8	7	7		
485936			162	143	158	100	0	0	211	390	351	316		
808676			122	136	151	70	0	0	821	739	665	599		

Table 12
Recommended Management Strategies by City and Category

Name	User ID Codes					
	Identifier	Group	Sequence	City	County	Basin
ABERNATHY	150001000	O	1	1	95	12
ABERNATHY	150001000	O	1	1	152	12
AMHERST	150022000	O	22	811	140	12
ANTON	150033000	O	33	22	110	12
BOVINA	150101000	O	101	68	185	12
COUNTY OTHEI	150996095	O	996	757	95	12
DENVER CITY	150241000	O	241	160	251	14
DIMMITT	150249000	O	249	167	35	12
EARTH	150260000	O	260	175	140	12
FARWELL	150295000	O	295	200	185	12
FRIONA	150318000	O	318	220	185	12
HALE CENTER	150372000	O	372	258	95	12
HART	150382000	O	382	700	35	12
HEREFORD	150397000	O	397	274	59	2
IDALOU	150431000	O	431	295	152	12
IRRIGATION	151004009	O	1004	1004	9	12
IRRIGATION	151004035	O	1004	1004	35	12
IRRIGATION	151004040	O	1004	1004	40	12
IRRIGATION	151004054	O	1004	1004	54	2
IRRIGATION	151004077	O	1004	1004	77	12
IRRIGATION	151004085	O	1004	1004	85	12
IRRIGATION	151004095	O	1004	1004	95	2
IRRIGATION	151004095	O	1004	1004	95	12
IRRIGATION	151004110	O	1004	1004	110	12
IRRIGATION	151004185	O	1004	1004	185	12
IRRIGATION	151004219	O	1004	1004	219	12
IRRIGATION	151004223	O	1004	1004	223	12
KRESS	150480000	O	480	891	219	2
LOCKNEY	150534000	O	534	365	77	12
LUBBOCK	150546000	O	546	370	152	12
MORTON	150610000	O	610	415	40	12
NEW DEAL	150630000	O	630	922	152	12
OLTON	150656000	O	656	442	140	12
PLAINS	150702000	O	702	470	251	14
SEAGRAVES	150813000	O	813	548	83	14
SHALLOWATER	150821000	O	821	553	152	12
SUDAN	150866000	O	866	748	140	12
SUNDOWN	150870000	O	870	587	110	14
WHITEFACE	150965000	O	965	991	40	12

WILSON	150976000	O	976	993	153	12
WOLFFORTH	150984000	O	984	664	152	12

<i>Supply ID</i>				
WMS	Type	Provider	S. Group	S. County
LOCAL GROUNDWATER DEVELOPMENT (ABERNATHY)	4c1		O	95
LOCAL GROUNDWATER DEVELOPMENT (ABERNATHY)	4c1		O	95
LOCAL GROUNDWATER DEVELOPMENT (AMHERST)	4c1		O	140
LOCAL GROUNDWATER DEVELOPMENT (ANTON)	4c1		O	110
LOCAL GROUNDWATER DEVELOPMENT (BOVINA)	4c1		O	185
LOCAL GROUNDWATER DEVELOPMENT (COUNTY OTHER)	4c1		O	95
LOCAL GROUNDWATER DEVELOPMENT (DENVER CITY)	4c1		O	251
LOCAL GROUNDWATER DEVELOPMENT (DIMMITT)	4c1		O	35
LOCAL GROUNDWATER DEVELOPMENT (EARTH)	4c1		O	140
LOCAL GROUNDWATER DEVELOPMENT (FARWELL)	4c1		O	185
LOCAL GROUNDWATER DEVELOPMENT (FRIONA)	4c1		O	185
LOCAL GROUNDWATER DEVELOPMENT (HALE CENTER)	4c1		O	95
LOCAL GROUNDWATER DEVELOPMENT (HART)	4c1		O	35
LOCAL GROUNDWATER DEVELOPMENT (HEREFORD)	4c1		O	59
LOCAL GROUNDWATER DEVELOPMENT (IDALOU)	4c1		O	152
IRRIGATION WATER CONSERVATION (BAILEY COUNTY)	4a8		O	9
IRRIGATION WATER CONSERVATION (CASTRO COUNTY)	4a8		O	35
IRRIGATION WATER CONSERVATION (COCHRAN COUNTY)	4a8		O	40
IRRIGATION WATER CONSERVATION (CROSBY COUNTY)	4a8		O	54
IRRIGATION WATER CONSERVATION (FLOYD COUNTY)	4a8		O	77
IRRIGATION WATER CONSERVATION (GARZA COUNTY)	4a8		O	85
IRRIGATION WATER CONSERVATION (HALE COUNTY)	4a8		O	95
IRRIGATION WATER CONSERVATION (HALE COUNTY)	4a8		O	95
IRRIGATION WATER CONSERVATION (HOCKLEY COUNTY)	4a8		O	110
IRRIGATION WATER CONSERVATION (PARMER COUNTY)	4a8		O	185
IRRIGATION WATER CONSERVATION (SWISHER COUNTY)	4a8		O	219
IRRIGATION WATER CONSERVATION (TERRY COUNTY)	4a8		O	223
LOCAL GROUNDWATER DEVELOPMENT (KRESS)	4c1		O	219
LOCAL GROUNDWATER DEVELOPMENT (LOCKNEY)	4c1		O	77
PIPELINE FROM LAKE ALAN HENRY	4c18		O	85
LOCAL GROUNDWATER DEVELOPMENT (MORTON)	4c1		O	40
LOCAL GROUNDWATER DEVELOPMENT (NEW DEAL)	4c1		O	152
LOCAL GROUNDWATER DEVELOPMENT (OLTON)	4c1		O	140
LOCAL GROUNDWATER DEVELOPMENT (PLAINS)	4c1		O	251
LOCAL GROUNDWATER DEVELOPMENT (SEAGRAVES)	4c1		O	83
LOCAL GROUNDWATER DEVELOPMENT (SHALLOWATER)	4c1		O	152
LOCAL GROUNDWATER DEVELOPMENT (SUDAN)	4c1		O	140
LOCAL GROUNDWATER DEVELOPMENT (SUNDOWN)	4c1		O	110
LOCAL GROUNDWATER DEVELOPMENT (WHITEFACE)	4c1		O	40

LOCAL GROUNDWATER DEVELOPMENT (WILSON)	4c1	O	153
LOCAL GROUNDWATER DEVELOPMENT (WOLFFORTH)	4c1	O	152

		Source Name	Capital Costs	<i>Value for Supply from This St</i>			
S. Basin	Identifier			2000	2010	2020	2030
12	09521	OGALLALA AQUIFER	2486792	0	206	622	534
12	09521	OGALLALA AQUIFER		0	0	168	177
12	14021	OGALLALA AQUIFER	799568	0	0	207	382
12	11021	OGALLALA AQUIFER	963840	0	586	528	472
12	18521	OGALLALA AQUIFER	1111264	0	418	575	518
12	09521	OGALLALA AQUIFER	485936	0	416	375	338
14	25121	OGALLALA AQUIFER	4939748	213	192	1934	2154
12	03521	OGALLALA AQUIFER	3306336	0	0	883	1627
12	14021	OGALLALA AQUIFER	850872	0	0	0	403
12	18521	OGALLALA AQUIFER	1111264	0	213	599	752
12	18521	OGALLALA AQUIFER	1680096	0	0	1323	1610
12	09521	OGALLALA AQUIFER	711480	0	0	0	211
12	03521	OGALLALA AQUIFER	458936	0	0	0	0
2	05926	DOCKUM AQUIFER	3302816	0	0	1450	2817
12	15221	OGALLALA AQUIFER	1285504	0	0	612	764
12	00921	OGALLALA AQUIFER	696582	1319	1187	1068	962
12	03521	OGALLALA AQUIFER	20468466	47358	42622	38360	34524
12	04021	OGALLALA AQUIFER	0	0	0	0	0
2	05421	OGALLALA AQUIFER	24467850	27400	24660	22194	19975
12	07721	OGALLALA AQUIFER	45325656	59112	53201	47881	43093
12	08521	OGALLALA AQUIFER	2122722	3120	2808	2527	2274
2	09521	OGALLALA AQUIFER	4559184	26187	23568	21211	19090
12	09521	OGALLALA AQUIFER		33876	30488	27440	24696
12	11021	OGALLALA AQUIFER	11131254	13324	11992	10792	9713
12	18521	OGALLALA AQUIFER	5854410	12538	11284	10156	9140
12	21921	OGALLALA AQUIFER	33502716	39709	35738	32164	28948
12	22321	OGALLALA AQUIFER	0	0	0	0	0
2	21921	OGALLALA AQUIFER	904112	0	396	357	322
12	07721	OGALLALA AQUIFER	485936	0	0	415	374
12	12510	LAKE ALAN HENRY	123963000				
12	04021	OGALLALA AQUIFER	1027840	0	437	1003	903
12	15221	OGALLALA AQUIFER	695024	0	209	386	347
12	14021	OGALLALA AQUIFER	1027840	0	0	1057	952
14	25121	OGALLALA AQUIFER	982916	0	0	830	748
14	08321	OGALLALA AQUIFER	1157156	0	830	748	674
12	15221	OGALLALA AQUIFER	583132	0	432	583	525
12	14021	OGALLALA AQUIFER	861916	0	432	583	525
14	11021	OGALLALA AQUIFER	808676	0	641	775	697
12	04021	OGALLALA AQUIFER	485936	0	0	0	407

12 15321	OGALLALA AQUIFER	485936	0	0	211	390
12 15221	OGALLALA AQUIFER	808676	0	0	821	739

<i>category</i>		Exceptions	Scenario
2040	2050		
669	573		
184	195		
343	308		
424	382		
679	611		
304	274		
1940	1949		
1465	1319		
575	517		
677	609		
1449	1304		
595	536		
407	366		
3059	2753		
688	619		
865	779 a		
31072	27964 a		
0	0 a		
17977	16179		
38783	34905		
2047	1842		
17181	15463		
22226	20004		
8742	7868		
8226	7404 a		
26053	23448 a		
0	0 a		
290	261		
337	304		
29900	29900		
813	732		
312	281		
857	771		
674	606		
606	546		
473	426		
473	426		
627	565		
366	329		

Revised per TWDB comments, additional supply already i

351
665

316
599

included in current supplies.

