



Appendix 2.1

Recommended Water Management Strategies and Costs Estimates

Region	Total Capital Costs	Net Total Water Supply Volume From All Recommended Water Management Strategies (acre-feet per year)					
		2010	2020	2030	2040	2050	2060
A	\$562,404,683	157,876	208,031	272,405	328,644	374,506	412,146
B	\$202,266,500	44,811	72,407	70,702	83,717	81,968	81,021
C	\$13,202,929,595	607,295	1,162,261	1,598,166	1,787,820	2,459,448	2,653,248
D	\$32,579,707	12,756	17,928	23,371	43,248	70,821	108,742
E	\$688,858,000	34,340	50,160	73,758	91,584	113,172	137,737
F	\$557,434,543	97,470	161,911	234,272	241,818	241,053	239,250
G	\$1,076,323,034	496,473	540,656	610,832	637,385	714,141	736,032
H	\$5,460,520,392	532,146	923,612	1,065,928	1,104,529	1,261,852	1,300,639
I	\$613,434,703	111,275	173,994	192,295	217,687	302,176	324,756
J	\$14,371,600	6,910	6,913	10,755	13,255	13,258	14,869
K	\$358,174,068	377,398	520,917	551,442	591,826	623,976	861,930
L	\$5,222,408,000	236,642	344,710	364,177	398,784	586,700	732,779
M	\$1,086,122,427	206,460	370,894	464,973	569,769	687,212	807,587
N	\$789,515,000	15,586	42,155	78,238	116,615	117,987	149,496
O	\$818,630,071	603,135	607,728	561,382	515,331	479,097	441,511
P	\$0	50,701	46,762	43,046	39,474	35,850	32,468
Total	\$30,685,972,323	3,591,274	5,251,039	6,215,742	6,781,486	8,163,217	9,034,211

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
A	a.1	MUNICIPAL CONSERVATION	\$0	\$489	—	1,893	3,420	3,709	4,012	4,255	\$489
A	a.2	IRRIGATION CONSERVATION	\$144,969,383	\$6	120,276	154,584	188,892	223,202	257,507	282,549	\$5
A	a.3	MANUFACTURING CONSERVATION	\$0	\$489	336	874	1,596	1,619	1,639	1,672	\$489
A	a.4	CRWA EXPAND GROUNDWATER SUPPLY	\$79,398,000	na	15,148	15,148	20,148	25,148	30,148	30,148	na
A	a.5	VOLUNTARY TRANSFER FROM OTHER USERS	\$11,324,000	\$48	9,400	18,800	22,300	23,900	24,600	26,300	\$14
A	a.6	DRILL ADDITIONAL GROUNDWATER WELL	\$57,274,900	\$200	2,500	5,600	19,800	20,900	25,700	24,700	\$113
A	a.7	TEMPORARY OVERDRAFT OF OGALLALA AQUIFER	\$30,986,100	\$418	7,916	8,732	9,874	12,523	13,198	13,652	\$90
A	a.8	EXPAND ROBERTS COUNTY WELL FIELD - AMARILLO	\$164,357,400	\$690	—	—	—	11,210	11,210	22,420	\$690
A	a.9	REUSE	\$1,829,300	\$143	2,300	2,400	2,500	2,600	2,700	2,700	\$63
A	a.10	CONVEYANCE FOR PALO DURO RESERVOIR	\$72,265,600	\$1,917	—	—	3,875	3,833	3,792	3,750	\$300
B	b.1	MUNICIPAL CONSERVATION	\$0	\$270	253	917	979	1,026	1,044	1,855	\$112
B	b.2	ENCLOSE CANAL LATERALS IN PIPE	\$58,500,000	\$390	—	—	—	14,600	14,600	14,607	\$41
B	b.4	DEVELOP OTHER AQUIFER SUPPLIES	\$855,000	\$502	245	245	245	245	245	245	\$194
B	b.5	PURCHASE WATER (WITH INFRASTRUCTURE) ALL OTHERS - GROUNDWATER	\$1,452,000	\$1,041	350	350	350	350	350	350	\$735
B	b.6	NITRATE REMOVAL PLANT	\$577,000	\$1,430	50	50	50	50	50	50	\$420
B	b.7	DEVELOP TRINITY AQUIFER SUPPLIES	\$855,000	\$502	241	241	241	241	241	241	\$197
B	b.8	REDISTRIBUTE AND DEVELOP SEYMOUR AQUIFER SUPPLIES	\$1,355,500	\$306	664	664	664	664	664	664	\$128
B	b.9	WASTEWATER REUSE	\$49,595,000	\$1,149	—	11,000	11,000	11,134	11,134	11,134	\$377
B	b.10	EMERGENCY INTERCONNECT MILLERS CREEK RESERVOIR	\$673,000	\$1,238	250	250	250	250	250	250	\$1,238
B	b.11	WICHITA BASIN CHLORIDE CONTROL PROJECT	\$77,500,000	\$681	8,800	26,500	26,500	26,500	26,500	26,500	\$226
B	b.12	PURCHASE WATER - BYERS AND LAKESIDE	\$0	\$569	23	23	23	23	23	23	\$569
B	b.13	PURCHASE WATER (WITH INFRASTRUCTURE) ALL OTHERS - SURFACE WATER	\$10,804,000	\$1,041	3,152	3,152	3,152	3,152	3,152	3,152	\$735
B	b.14	INCREASE WATER CONSERVATION POOL AT LAKE KEMP	\$100,000	<\$1	25,783	23,765	21,748	19,732	17,715	15,700	<\$1
B	b.15	SEASONAL CONSERVATION POOL	\$0	<\$1	5,000	5,250	5,500	5,750	6,000	6,250	<\$1

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
C	c.1	MUNICIPAL CONSERVATION - ACCELERATED	\$0	\$691	7,354	5,585	466	—	—	—	na
C	c.2	MUNICIPAL CONSERVATION - BASIC	\$0	\$221	42,672	94,277	123,907	156,614	195,977	240,884	\$71
C	c.3	MUNICIPAL CONSERVATION - EXPANDED	\$1,097,572	\$198	2,988	13,389	32,221	42,034	46,465	51,025	\$243
C	c.4	GOLF COURSE CONSERVATION	\$0	\$214	56	937	1,803	2,260	2,690	3,121	\$211
C	c.5	MANUFACTURING CONSERVATION	\$0	\$214	—	130	1,529	2,258	2,457	2,617	\$211
C	c.6	WOODBINE AQUIFER	\$19,338,000	na	3,857	3,413	3,410	3,498	3,622	3,801	na
C	c.7	CARRIZO WILCOX AQUIFER	\$1,810,450	\$114	635	809	808	1,030	1,030	1,030	\$78
C	c.8	SUPPLEMENTAL WELLS	\$404,045,874	na	—	—	—	—	—	—	na
C	c.9	TRINITY AQUIFER	\$24,336,300	na	6,701	3,387	4,333	5,959	7,651	7,808	na
C	c.10	TRWD THIRD PIPELINE AND REUSE	\$626,347,000	\$405	84,556	169,045	178,818	183,332	186,048	188,765	\$100
C	c.11	CONVEYANCE AND TREATMENT PROJECT	\$5,478,000	na	—	—	—	—	—	—	na
C	c.12	PURCHASE REUSE WATER FROM WATER PROVIDER	\$0	na	2,274	1,825	1,633	1,465	1,391	1,474	na
C	c.13	EAST FORK REUSE PROJECT	\$288,879,000	\$286	81,400	96,400	102,000	102,000	102,000	102,000	\$69
C	c.14	DALLAS WATER UTILITIES REUSE	\$454,882,000	\$178	40,760	100,866	176,749	184,481	193,929	203,912	\$62
C	c.15	NTMWD WILSON CREEK REUSE	\$1,150,000	\$3	26,956	35,941	35,941	35,941	35,941	35,941	na
C	c.16	TRINITY RIVER AUTHORITY LAS COLINAS REUSE	\$9,222,000	\$212	—	7,000	7,000	7,000	7,000	7,000	\$117
C	c.17	TRA DALLAS COUNTY REUSE	\$21,781,000	\$157	—	3,000	3,000	3,000	3,000	3,000	\$96
C	c.18	TRA ELLIS COUNTY REUSE	\$86,216,000	\$273	20,000	20,000	30,000	30,000	40,000	40,000	\$155
C	c.19	TRA FREESTONE COUNTY REUSE	\$31,578,000	\$226	—	—	10,000	10,000	20,000	20,000	\$169
C	c.20	TRA KAUFMAN COUNTY REUSE	\$24,946,000	\$235	—	7,500	15,000	15,000	15,000	15,000	\$175
C	c.21	TRA DENTON CREEK WWTP REUSE	\$6,090,000	\$345	7,500	15,000	15,000	15,000	15,000	15,000	\$65
C	c.22	TRA 10-MILE CREEK REUSE PROJECT	\$290,000	\$128	250	250	250	250	250	250	\$72
C	c.23	WAXAHACHIE/TRA INDIRECT REUSE	\$19,682,000	\$584	3,112	2,963	2,684	2,405	2,125	1,846	\$79
C	c.24	CONVEYANCE PROJECT WITH INFRASTRUCTURE - REUSE	\$291,957,453	na	5,979	12,600	12,600	13,800	13,800	13,800	na
C	c.25	ENNIS REUSE	\$27,127,000	\$28,462	—	70	135	1,037	2,269	3,696	\$304
C	c.26	DIRECT REUSE	\$76,879,000	\$5	14,837	19,233	30,398	29,942	35,538	39,410	\$38

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
C	c.27	INDIRECT REUSE	\$144,777,000	na	14,068	32,156	31,923	31,690	31,457	31,226	na
C	c.28	NTMWD INTERIM PURCHASE FROM DWU	\$0	na	—	—	—	—	—	—	na
C	c.29	LAKE FASTRILL	\$569,170,000	\$456	—	—	—	—	112,100	112,100	\$456
C	c.30	LAKE RALPH HALL	\$211,153,000	\$613	—	29,600	29,600	29,600	29,600	29,600	\$94
C	c.31	LOWER BOIS D ARC CREEK RESERVOIR	\$399,190,000	\$283	—	123,000	121,000	119,000	117,000	115,000	\$50
C	c.32	MARVIN NICHOLS RESERVOIR	\$2,159,053,000	\$554	—	—	244,920	262,420	489,840	489,840	\$239
C	c.33	TOLEDO BEND PROJECT	\$1,096,458,000	\$623	—	—	—	—	200,000	200,000	\$623
C	c.34	ADDITIONAL DRY YEAR SUPPLY	\$0	na	20,000	—	—	—	—	—	na
C	c.35	ADDITIONAL YIELD FROM LAKE LAVON	\$270,000	\$2	11,000	10,000	9,000	8,000	7,000	6,000	na
C	c.36	AQUIFER STORAGE AND RECOVERY	\$2,300,000	na	—	—	—	—	—	—	na
C	c.37	BED AND BANKS PERMIT	\$50,000	na	—	—	—	—	—	—	na
C	c.38	COLLIN-GRAYSON MUNICIPAL ALLIANCE SYSTEM	\$51,454,400	\$2,327	543	1,260	2,059	2,428	4,808	730	\$450
C	c.39	CONVEYANCE AND TREATMENT PROJECT	\$0	na	—	—	—	—	—	—	na
C	c.40	CONVEYANCE PROJECT WITH INFRASTRUCTURE	\$114,368,720	na	4,851	11,526	14,825	16,493	20,553	21,658	na
C	c.41	COOKE COUNTY PROJECT	\$35,933,000	\$1,380	—	2,202	2,202	3,840	3,840	3,840	\$485
C	c.42a	FACILITY IMPROVEMENTS - SURFACE WATER	\$1,291,348,000	na	—	—	—	—	—	—	na
C	c.42b	FACILITY IMPROVEMENTS - REUSE	\$663,740,400	na	—	—	—	—	—	—	na
C	c.43	FANNIN COUNTY PROJECT	\$55,458,000	na	—	—	—	—	—	—	na
C	c.44	GRAYSON COUNTY PROJECT	\$215,365,000	\$4,306	—	14,572	14,572	26,129	26,129	26,129	\$703
C	c.45	LAKE FORK CONNECTION	\$362,916,000	\$274	120,000	119,312	118,468	117,624	116,781	115,937	\$57
C	c.46	LAKE PALESTINE CONNECTION	\$414,447,000	\$352	—	111,460	110,840	110,220	109,600	108,980	\$83
C	c.47	LAKE TEXOMA - AUTHORIZED (BLEND)	\$201,829,000	\$558	—	38,250	57,105	54,105	100,460	112,460	\$59
C	c.48	LAKE TEXOMA - INTERIM PURCHASE FROM GTUA	\$15,833,000	\$92	20,000	—	—	—	—	—	na
C	c.49	MUENSTER LAKE	\$11,189,000	\$9,144	93	183	220	263	322	385	\$402
C	c.50	NEW CONTRACTS FROM EXISTING SOURCES	\$0	na	—	—	—	—	—	—	na

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)						Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)
					2010	2020	2030	2040	2050	2060	
C	c.51	NTMWD INTERIM PURCHASE FROM DWU	\$1,350,000	na	—	—	—	—	—	na	
C	c.52	NTMWD UPPER SABINE BASIN SUPPLY	\$60,232,000	\$168	30,000	20,000	10,000	10,000	10,000	\$239	
C	c.53	OKLAHOMA WATER TO NTMWD, TRWD, UTRWD	\$477,214,000	\$456	—	—	—	—	—	\$456	
C	c.54	PURCHASE SURFACE WATER FROM WATER PROVIDER	\$0	na	25,120	31,747	35,602	34,675	39,762	na	
C	c.55	RED RIVER DIVERSION	\$1,982,000	\$501	—	—	—	—	1,121	\$249	
C	c.56	TRA TARRANT COUNTY PROJECT	\$40,656,000	na	—	—	—	—	—	na	
C	c.57	TRWD EAGLE MOUNTAIN CONNECTION	\$130,595,000	na	—	—	—	—	—	na	
C	c.58a	WATER TREATMENT PLANTS AND EXPANSIONS - SURFACE WATER	\$1,308,436,426	na	—	—	—	—	—	na	
C	c.58b	WATER TREATMENT PLANTS AND EXPANSIONS - REUSE	\$170,993,000	na	—	—	—	—	—	na	
C	c.59	WRIGHT PATMAN - REALLOCATION OF FLOOD POOL	\$572,036,000	\$489	—	—	112,100	112,100	112,100	\$489	
D	d.1	NEW GROUNDWATER WELLS	\$27,764,102	\$1,344	1,946	2,518	3,093	4,571	6,129	7,801	\$267
D	d.2	INCREASE EXISTING CONTRACT	\$0	\$570	—	—	—	—	—	5	\$499
D	d.3	PURCHASE SURFACE WATER FROM WATER PROVIDER	\$0	na	54	167	113	90	297	300	na
D	d.4	INCREASE EXISTING SURFACE WATER CONTRACT	\$0	\$570	1,554	2,019	4,346	19,201	40,192	66,296	\$499
D	d.5	NEW SURFACE WATER CONTRACTS	\$4,815,605	\$307	8,726	12,595	15,022	18,473	23,463	33,583	\$146
D	d.6a	PURCHASE REUSE WATER FROM WATER PROVIDER	\$0	na	476	314	300	300	300	300	na
D	d.6b	PURCHASE SURFACE WATER FROM WATER PROVIDER	\$0	\$332	—	315	497	613	440	457	\$332
E	e.1	IMPORT FROM DELL VALLEY	\$502,743,000	\$1,970	—	—	16,000	16,000	33,000	50,000	\$628
E	e.2	CONSERVATION	\$0	\$136	29,359	29,148	26,279	24,100	22,837	23,437	\$171
E	e.3	IMPORT FROM DIABLO FARMS	\$23,113,000	\$353	—	—	—	10,000	10,000	10,000	\$353
E	e.4	ADDITIONAL TWO WELLS	\$1,000,000	\$8	—	—	—	—	665	2,146	\$5
E	e.5	ADDITIONAL ONE WELL	\$500,000	\$81	—	—	—	62	284	505	\$10
E	e.6	ADDITIONAL SMALL-MUD WELLS	\$6,750,000	\$6	2,075	4,385	6,242	7,682	9,138	10,832	\$6

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)
					2010	2020	2030	2040	2050	
E	e.7	ADDITIONAL DOMESTIC WELLS	\$5,416,000	\$25	1,096	1,561	1,920	2,284	2,708	\$25
E	e.8	PURCHASE WATER FROM EPWU	\$0	\$378	194	421	775	950	1,124	\$378
E	e.9	PURCHASE WATER FROM EPWU	\$0	\$333	631	1,236	2,235	2,709	3,182	\$333
E	e.10	PURCHASE FROM EPWU	\$0	\$333	823	1,757	3,304	4,037	4,770	\$333
E	e.11	PURCHASE FROM EPWU	\$0	\$333	374	881	1,776	2,210	2,645	\$333
E	e.12	PURCHASE WATER FROM EPWU	\$0	\$776	189	404	752	916	1,081	\$776
E	e.13	PURCHASE WATER FROM EPWU	\$0	\$1,174	1,436	2,249	3,622	4,196	5,110	\$1,174
E	e.14	PURCHASE WATER FROM EPWU	\$0	\$474	169	3,975	6,579	8,322	10,448	\$474
E	e.15	DIRECT REUSE	\$45,842,000	\$442	2,387	5,531	11,820	14,964	18,109	\$223
E	e.16	ADDITIONAL SURFACE WATER	\$103,494,000	\$659	—	10,000	20,000	20,000	20,000	\$283
F	f.1	DESALINATION	\$131,451,830	\$955	—	6,721	16,221	16,221	16,221	\$451
F	f.2	MUNICIPAL CONSERVATION	\$0	\$540	2,699	6,501	8,481	9,091	9,727	\$154
F	f.3	IRRIGATION CONSERVATION	\$43,152,601	\$49	—	37,906	72,244	72,246	72,247	\$52
F	f.4	DEVELOP CENOZOIC AQUIFER SUPPLIES	\$155,706,000	\$962	—	—	13,600	19,600	19,600	\$229
F	f.5	VOLUNTARY REDISTRIBUTION OF EXISTING SUPPLIES - GROUNDWATER	\$0	\$27	5,393	10,630	5,950	5,960	5,973	\$266
F	f.6	BOTTLED WATER PROGRAM	\$135,320	\$19,033	2	2	2	2	2	\$9,976
F	f.7	DEVELOP OTHER AQUIFER SUPPLIES	\$464,000	\$570	100	100	100	100	100	\$170
F	f.8	DEVELOP HICKORY AQUIFER SUPPLIES	\$92,861,400	\$1,078	160	160	12,160	12,160	12,160	\$415
F	f.9	REPLACEMENT WELL	\$2,659,092	\$1,036	435	435	435	435	435	\$504
F	f.10	REUSE	\$100,889,000	\$972	—	12,380	12,710	12,710	12,710	\$290
F	f.11	VOLUNTARY REDISTRIBUTION OF EXISTING SUPPLIES - SURFACE WATER	\$0	\$27	786	794	10,617	10,977	10,859	\$266
F	f.12	SUBORDINATION AND RELATED INFRASTRUCTURE	\$16,110,200	\$16	85,321	83,721	80,764	79,031	76,710	\$0
F	f.13	REHABILITATION OF PIPELINE	\$6,238,600	\$254	2,274	2,261	2,233	2,220	2,206	\$54
F	f.14	NEW WATER TREATMENT PLANT AND STORAGE FACILITIES	\$2,482,500	na	—	—	—	—	—	na
F	f.15	VOLUNTARY REDISTRIBUTION - NEW INFRASTRUCTURE	\$5,284,000	\$2,527	300	300	300	300	300	\$990

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
G	g.1	CONJUNCTIVE USE (LAKE GRANGER AUGMENTATION)	\$303,288,000	\$749	—	—	—	—	54,390	54,390	\$749
G	g.2	MUNICIPAL WATER CONSERVATION	\$0	\$380	5,522	14,780	15,696	16,777	18,936	21,406	\$380
G	g.3	IRRIGATION WATER CONSERVATION	\$0	\$139	3,914	6,356	8,674	8,456	8,238	8,027	\$161
G	g.4	MANUFACTURING WATER CONSERVATION	\$0	na	355	684	1,082	1,203	1,317	1,430	na
G	g.5	MINING WATER CONSERVATION	\$0	na	383	681	983	1,012	1,040	1,074	na
G	g.6	STEAM-ELECTRIC CONSERVATION	\$0	na	3,408	6,018	9,135	10,349	11,997	13,281	na
G	g.7	ADDITIONAL CARRIZO AQUIFER DEVELOPMENT	\$66,058,178	\$333	18,295	22,195	26,645	29,045	32,895	34,645	\$369
G	g.8	VOLUNTARY REDISTRIBUTION - GROUNDWATER	\$0	\$678	10	10	10	10	10	10	\$686
G	g.9	NITRATE TREATMENT	\$694,000	\$588	100	100	100	100	100	100	\$588
G	g.10	REALLOCATION OF SOURCE	\$0	\$345	50	50	50	50	50	50	\$345
G	g.11	TRINITY AQUIFER DEVELOPMENT (INCLUDES TEMPORARY OVERDRAFTS)	\$8,398,500	\$279	2,451	2,544	2,630	2,630	2,630	2,630	\$294
G	g.12	ADDITIONAL GULF COAST AQUIFER DEVELOPMENT	\$312,000	\$104	250	250	250	250	250	250	\$104
G	g.13	CHAMPION WELL FIELD - PHASES 1 & 2	\$10,982,675	\$733	1,400	1,695	1,437	2,574	2,684	3,148	\$682
G	g.14	ADDITIONAL SEYMOUR AQUIFER DEVELOPMENT	\$0	na	55	50	47	46	44	42	na
G	g.15	BRACKISH GROUNDWATER	\$268,188	\$126	200	200	200	200	200	200	\$126
G	g.16	WASTEWATER REUSE	\$22,437,000	\$296	37,084	37,395	37,681	48,094	54,727	56,852	\$341
G	g.17	PURCHASE REUSE WATER FROM WATER PROVIDER	\$0	\$815	—	—	237	335	404	515	\$815
G	g.18	TRA-DALLAS COUNTY REUSE	\$79,257,000	\$215	—	—	20,000	20,000	20,000	20,000	\$215
G	g.19	CONVEYANCE PROJECT REUSE WITH INFRASTRUCTURE	\$1,987,747	\$815	3,458	4,617	4,111	4,332	3,848	4,361	\$815
G	g.20	BRECKENRIDGE RESERVOIR (CEDAR RIDGE SITE)	\$82,755,000	\$182	34,520	34,520	34,520	34,520	34,520	34,520	\$182
G	g.21	BRUSHY CREEK RESERVOIR	\$6,301,610	\$257	2,000	2,000	2,000	2,000	2,000	2,000	\$257
G	g.22	BOSQUE COUNTY REGIONAL PROJECT	\$12,467,000	\$3,295	950	950	1,050	1,050	1,050	1,050	\$3,473
G	g.23	BRA SYSTEM OPERATIONS PERMIT	\$61,643,000	\$46-\$2,356	302,735	302,735	302,735	302,735	302,735	302,735	\$46-\$2,356
G	g.24	CLEAR FORK SCALPING INTO HUBBARD CREEK RESERVOIR	\$115,300,000	\$1,440	7,000	7,000	7,000	7,000	7,000	7,000	\$1,440
G	g.25	INTERCONNECT CITY OF WACO SYSTEM WITH COMMUNITIES	\$0	\$816	21,503	18,994	25,473	28,964	34,329	40,454	\$816

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
G	g.26	LAKE ALAN HENRY SUPPLY FOR LAKE ALAN HENRY WSC	\$0	\$2,804	50	50	50	50	50	50	\$2,804
G	g.27	LAKE PALO PINTO OFF-CHANNEL RESERVOIR	\$19,314,000	\$521	—	—	3,110	3,110	3,110	3,110	\$521
G	g.28	MIDWAY PIPELINE PROJECT	\$15,877,760	\$1,286	1,243	1,243	1,243	1,243	1,243	1,243	\$1,286
G	g.29	MILLERS CREEK AUGMENTATION	\$18,222,000	\$373	4,870	4,870	4,870	4,870	4,870	4,870	\$373
G	g.30	PRIORITY CALL AGREEMENT	\$0	\$26	17,630	17,630	17,630	17,630	17,630	17,630	\$26
G	g.31	RAISE LEVEL OF GIBBONS CREEK RESERVOIR	\$8,003,000	\$160	3,870	3,870	3,870	3,870	3,870	3,870	\$160
G	g.33	SUBORDINATION	\$0	\$26	1,822	1,832	1,622	1,506	1,373	1,231	\$26
G	g.34	SURFACE WATER TO WILLIAMSON COUNTY FROM LAKE TRAVIS	\$201,602,000	\$721	—	20,928	49,400	49,400	49,650	49,650	\$658
G	g.35	VOLUNTARY REDISTRIBUTION - SURFACE WATER	\$13,959,376	\$678	19,455	24,475	26,412	28,843	29,541	35,039	\$686
G	g.36	WHEELER BRANCH OFF-CHANNEL RESERVOIR	\$27,195,000	\$1,176	1,800	1,800	1,800	1,800	1,800	1,800	\$1,176
G	g.37	CONVEYANCE PROJECT WITH INFRASTRUCTURE	\$0	\$815	—	—	1,761	2,867	3,191	4,679	\$815
G	g.38	CONVEYANCE PROJECT WITH INFRASTRUCTURE	\$0	\$815	74	101	106	183	2,134	2,431	\$815
G	g.39	PURCHASE SURFACE WATER FROM WATER PROVIDER	\$0	\$815	16	33	322	281	285	259	\$815
H	h.1	MUNICIPAL CONSERVATION - LARGE MUNICIPAL	\$0	\$276	38,094	57,392	67,182	75,550	85,057	95,894	\$161
H	h.2	MUNICIPAL CONSERVATION - MEDIUM MUNICIPAL	\$0	\$156	2,724	2,944	3,311	3,560	3,912	4,395	\$156
H	h.3	MUNICIPAL CONSERVATION - SMALL MUNICIPAL	\$0	\$154	587	597	616	631	659	698	\$154
H	h.4	IRRIGATION CONSERVATION	\$615,740	\$83	77,881	77,881	77,881	77,881	77,881	77,881	\$83
H	h.5	FREEPORT DESALINATION PLANT	\$255,699,000	\$1,300	11,200	11,200	11,200	11,200	22,400	28,000	\$1,300
H	h.6	NEW GROUNDWATER WELLS	\$173,153,800	\$308	40,622	74,430	58,419	68,778	80,228	90,993	\$38
H	h.7	WASTEWATER REUSE FOR INDUSTRY	\$234,158,000	\$1,486	—	67,200	67,200	67,200	67,200	67,200	\$1,183
H	h.8	HOUSTON INDIRECT WASTEWATER REUSE	\$0	\$64	—	—	—	—	52,525	52,525	\$64
H	h.9	NHCRWA INDIRECT WASTEWATER REUSE	\$0	\$120	—	—	—	—	15,000	31,400	\$120
H	h.10	ALLENS CREEK RESERVOIR	\$471,279,231	\$131	—	—	97,410	97,410	97,410	97,410	\$131
H	h.11	LITTLE RIVER RESERVOIR, OFF CHANNEL	\$96,512,000	\$500	—	—	—	—	32,110	32,110	\$500

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)
					2010	2020	2030	2040	2050	
H	h. 12	INCREASE EXISTING CONTRACTS	\$153,279,966	\$132	66,596	68,161	68,326	68,326	68,335	\$151
H	h. 13	CONTRACTUAL TRANSFERS	\$0	na	20,321	20,588	20,706	20,852	21,002	na
H	h. 14	TRA TO HOUSTON CONTRACT	\$2,732,138,878	\$125	—	123,221	141,710	141,710	141,710	\$125
H	h. 15	LUCE BAYOU TRANSFER	\$239,000,000	na	—	—	—	—	—	na
H	h. 16	HOUSTON TO GCWA TRANSFER	\$102,382,000	\$315	—	—	—	28,000	28,000	\$315
H	h. 17	LAKE HOUSTON ADDITIONAL YIELD	\$13,788,268	\$120	3,226	9,465	6,470	3,470	970	\$120
H	h. 18	HOUSTON BAYOUS PERMIT (INTERRUPTIBLE SUPPLY)	\$9,013,000	na	—	—	—	—	—	na
H	h. 19	BRAZOS SALTWATER BARRIER	\$30,300,000	na	—	—	—	—	—	na
H	h. 20	TRA TO SJRA TRANSFER	\$0	\$125	—	50,000	50,000	50,000	50,000	\$125
H	h. 21	NEW CONTRACTS FROM EXISTING SOURCES - SURFACE WATER	\$688,863,444	na	198,238	285,647	281,653	281,658	278,662	na
H	h. 22	NEW CONTRACTS FROM EXISTING SOURCES - REUSE	\$22,295,592	na	7,855	7,855	14,740	14,740	14,740	na
H	h. 23	BRA SYSTEM OPERATIONS PERMIT	\$238,041,473	\$45	118,714	118,714	118,714	118,714	118,714	\$45
I	i. 1	MUNICIPAL CONSERVATION	\$0	\$579	187	596	1,255	1,571	1,916	\$84
I	i. 2	NEW WELLS - CARRIZO WILCOX AQUIFER (INCLUDES TEMPORARY OVERDRAFTS)	\$19,533,358	\$209	5,231	7,033	14,266	16,100	16,511	\$131
I	i. 3	TEMPORARY OVERDRAFT OF CARRIZO WILCOX AQUIFER	\$0	\$49	100	—	9	35	134	\$49
I	i. 4	NEW WELLS - QUEEN CITY AQUIFER	\$3,724,934	\$459	177	371	695	884	1,193	\$224
I	i. 5	NEW WELLS - GULF COAST AQUIFER (INCLUDES TEMPORARY OVERDRAFTS)	\$8,900,190	\$315	1,263	2,375	3,385	3,549	3,549	\$108
I	i. 6	NEW WELLS - YEGUA JACKSON AQUIFER	\$206,245	\$211	—	—	202	202	202	\$122
I	i. 7	INDIRECT REUSE	\$3,601,700	\$324	1,660	1,966	2,677	2,677	2,676	\$146
I	i. 8	NEW WATER TREATMENT PLANT	\$11,423,800	na	—	—	—	—	—	na
I	i. 9	NEW SOURCE - LAKE COLUMBIA	\$387,107,500	\$505	75,700	75,700	75,700	75,700	75,700	\$780
I	i. 10	TOLEDO BEND PROJECT	\$0	\$0	—	—	—	50,000	50,000	\$0
I	i. 11	PURCHASE WATER FROM PROVIDER (1)	\$18,535,162	\$387	8,955	41,275	56,313	64,687	74,810	\$99

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)
					2010	2020	2030	2040	2050	
I	i.12	PURCHASE WATER FROM PROVIDER (2)	\$38,924,116	\$406	23,797	24,102	28,498	38,456	45,472	\$336
I	i.13	PURCHASE WATER FROM PROVIDER (3)	\$31,385,922	\$1,088	827	3,293	15,731	18,929	23,003	\$549
I	i.14	FOREST GROVE RESERVOIR PROJECT	\$5,696,900	\$350	—	2,000	2,500	4,500	4,500	\$124
I	i.15	TEMPORARY PUMPING FACILITIES	\$432,500	\$46	1,500	—	—	—	—	na
I	i.16	EXPAND LOCAL SURFACE WATER SUPPLIES	\$1,639,900	\$120	50	150	989	999	1,189	\$46
I	i.17	NECHES BASIN SUBORDINATION	\$0	na	9,819	9,833	9,848	9,876	9,890	na
I	i.18	ANGELINA COUNTY REGIONAL PROJECT	\$55,299,706	\$1,025	5,605	5,605	5,605	14,011	14,011	\$794
I	i.19	WATER TREATMENT PLANT EXPANSION	\$27,022,770	na	—	—	—	—	—	na
J	j.1	CONSERVATION: WATER AUDIT AND LOSS AUDIT (CAMP WOOD)	\$0	\$500	2	2	2	2	2	\$500
J	j.2	CONSERVATION: WATER AUDIT AND LOSS AUDIT (KERRVILLE)	\$0	\$454	44	47	49	52	53	\$377
J	j.3	CROP RESIDUE MANAGEMENT AND CONSERVATION TILLAGE (BANDERA COUNTY)	\$0	na	125	125	125	125	125	na
J	j.4	CROP RESIDUE MANAGEMENT AND CONSERVATION TILLAGE (KERR COUNTY)	\$0	na	865	865	865	865	865	na
J	j.5	IRRIGATION SCHEDULING (BANDERA COUNTY)	\$0	na	58	58	58	58	58	na
J	j.6	IRRIGATION SCHEDULING (KERR COUNTY)	\$0	na	398	398	398	398	398	na
J	j.7	LOW PRESSURE CENTER PIVOT SPRINKLER SYSTEMS (BANDERA COUNTY)	\$2,400	\$47	4	4	4	4	4	\$47
J	j.8	LOW PRESSURE CENTER PIVOT SPRINKLER SYSTEMS (KERR COUNTY)	\$1,200	\$47	2	2	2	2	2	\$47
J	j.9	ADDITIONAL WELLS IN A REMOTE WELL FIELD	\$7,512,000	\$199	3,000	3,000	5,500	5,500	5,500	\$45
J	j.10	DRILL GROUNDWATER WELLS	\$206,000	\$122	172	172	172	172	172	\$36
J	j.11	PURCHASE WATER FROM UGRA	\$0	na	—	—	3,840	3,840	5,450	na
J	j.12	INCREASED WATER TREATMENT AND ASR CAPACITY	\$6,650,000	\$346	2,240	2,240	2,240	2,240	2,240	\$150
K	k.1	DESALINATION	\$96,537,717	\$429	29,568	29,568	29,568	29,568	29,568	\$429
K	k.2	CITY OF AUSTIN CONSERVATION	\$0	\$312	7,600	13,000	25,000	29,500	33,537	\$51
K	k.3	MUNICIPAL CONSERVATION	\$0	\$475	2,947	6,104	11,834	14,706	17,778	\$82

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
K	k.4	RECOMMENDATION OF NEW RICE VARIETIES (LCRA/SAWS)	\$0	\$0	—	35,297	35,297	35,297	35,297	35,297	\$0
K	k.5	HB 1437 ON-FARM CONSERVATION	\$2,903,692	\$10	4,000	4,000	4,000	4,000	14,800	25,000	\$10
K	k.6	IRRIGATION DISTRICT CONVEYANCE IMPROVEMENTS (LCRA/SAWS)	\$0	\$0	—	46,184	46,184	46,184	46,184	46,184	\$0
K	k.7	ON-FARM CONSERVATION (LCRA/SAWS)	\$0	\$0	—	36,519	36,519	36,519	36,519	36,519	\$0
K	k.8	ONION CREEK RECHARGE DAMS	\$6,808,000	\$160	—	—	4,000	4,000	4,000	5,043	\$127
K	k.9	WATER TRANSFER - GROUNDWATER	\$0	na	—	48	117	171	232	319	na
K	k.10	WATER ALLOCATION - GROUNDWATER	\$336,232	\$0	7	7	14	14	14	14	\$370
K	k.11	EXPANSION OF CARRIZO-WILCOX AQUIFER	\$13,029,307	\$178	4,301	4,644	6,317	3,895	7,984	12,891	\$288
K	k.12	EXPANSION OF EDWARDS BZ AQUIFER	\$615,224	\$4,293	17	110	207	305	422	513	\$142
K	k.13	EXPANSION OF ELLENBURGER-SAN SABA AQUIFER	\$0	\$89	38	61	90	122	152	243	\$17
K	k.14	EXPANSION OF GULF COAST AQUIFER	\$1,279,964	\$57	4,502	4,277	3,670	2,584	1,212	1,456	\$231
K	k.15	EXPANSION OF HICKORY AQUIFER	\$465,000	\$3,142	62	62	62	261	261	261	\$760
K	k.16	EXPANSION OF MARBLE FALLS AQUIFER	\$4,707,248	\$586	681	756	788	836	1,143	1,542	\$443
K	k.17	EXPANSION OF QUEEN CITY AQUIFER	\$0	\$57	98	40	40	31	24	17	\$330
K	k.18	EXPANSION OF SPARTA AQUIFER	\$0	\$25	188	208	129	129	129	129	\$36
K	k.19	EXPANSION OF TRINITY AQUIFER	\$9,981,864	\$1,562	945	1,166	1,423	1,404	1,439	1,393	\$1,060
K	k.20	EXPANSION OF OTHER AQUIFER	\$457,814	\$162	—	—	—	—	300	791	\$62
K	k.21	DEVELOPMENT OF CARRIZO-WILCOX AQUIFER	\$3,373,240	\$14,650	—	—	—	—	23	1,012	\$349
K	k.22	DEVELOPMENT OF ELLENBURGER-SAN SABA AQUIFER	\$6,714,654	\$1,478	478	478	478	442	386	334	\$2,115
K	k.23	DEVELOPMENT OF TRINITY AQUIFER	\$12,188,098	\$3,386	—	394	869	1,354	1,932	2,224	\$600
K	k.24	DEVELOPMENT OF OTHER AQUIFER	\$3,342,242	\$18	4,291	4,291	4,370	4,582	4,839	5,180	\$84
K	k.25	CONJUNCTIVE USE OF GROUNDWATER (LCRA/SAWS)	\$0	\$0	—	62,000	62,000	62,000	62,000	62,000	\$0
K	k.26	TEMPORARY OVERDRAFT OF ELLENBURGER-SAN SABA AQUIFER	\$0	\$0	176	97	27	—	—	—	na
K	k.27	TEMPORARY OVERDRAFT OF GULF COAST AQUIFER	\$0	\$17	—	—	—	—	—	47	\$17

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
K	k.28	TEMPORARY OVERDRAFT OF QUEEN CITY AQUIFER	\$0	\$28	21	10	—	—	—	—	na
K	k.29	TEMPORARY OVERDRAFT OF TRINITY AQUIFER	\$2,146,288	\$40,982	—	—	6	126	234	333	\$738
K	k.30	CITY OF AUSTIN RETURN FLOWS	\$0	\$0	43,163	45,723	48,283	55,842	58,402	65,962	\$0
K	k.31	DOWNSTREAM RETURN FLOWS	\$0	\$0	—	—	349	1,396	2,618	3,490	\$0
K	k.32	CITY OF AUSTIN DIRECT REUSE (MUNICIPAL & MANUFACTURING)	\$178,059,959	\$2,763	7,600	13,000	18,800	25,000	29,500	33,537	\$626
K	k.33	CITY OF AUSTIN DIRECT REUSE (STEAM ELECTRIC)	\$0	\$445	1,680	2,881	7,083	8,285	12,486	13,690	\$445
K	k.34	CITY OF AUSTIN INDIRECT REUSE (STEAM ELECTRIC)	\$0	\$0	9,810	10,004	13,418	21,272	21,386	27,411	\$0
K	k.35	LOWER COLORADO RIVER AUTHORITY CONTRACT RENEWALS	\$0	\$115	2,006	19,228	46,692	92,583	125,005	306,405	\$115
K	k.36	CITY OF AUSTIN CONTRACT RENEWALS	\$0	\$332	5,746	6,491	10,484	11,167	11,846	12,491	\$343
K	k.37	NEW LOWER COLORADO RIVER AUTHORITY CONTRACTS	\$0	\$115	151	574	7,224	8,219	8,927	9,708	\$115
K	k.38	AMEND LOWER COLORADO RIVER AUTHORITY CONTRACTS	\$0	\$115	4,547	5,338	5,725	7,447	9,750	10,818	\$115
K	k.39	PURCHASE WATER FROM CANYON LAKE	\$0	na	225	825	825	825	833	863	na
K	k.40	CONSTRUCT GUADALUPE BLANCO RIVER AUTHORITY PIPELINE	\$10,451,633	\$743	2,800	2,800	2,800	2,800	2,800	2,982	\$698
K	k.41	PURCHASE WATER FROM CITY OF AUSTIN	\$2,280,200	\$963	1,100	1,100	1,100	1,100	1,100	1,100	\$963
K	k.42	HB 1437 FOR WILLIAMSON COUNTY	\$0	\$144	144	277	393	484	607	731	\$144
K	k.43	GOLDTHWAITE OFF-CHANNEL RESERVOIR	\$0	na	—	—	—	—	—	—	na
K	k.44	GOLDTHWAITE CHANNEL DAM	\$2,495,692	na	—	—	—	—	—	—	na
K	k.45	LOWER COLORADO RIVER AUTHORITY INTERRUPTIBLE SUPPLY	\$0	\$0	238,156	162,892	123,534	84,176	44,819	5,461	\$0
K	k.46	FIRM UP RUN OF RIVER WITH OFF-CHANNEL RESERVOIR (LCRA/SAWS)	\$0	\$0	—	—	—	—	—	47,000	\$0
K	k.47	WATER TRANSFER - SURFACE WATER	\$0	na	3	17	31	42	64	125	na
K	k.48	WATER ALLOCATION - SURFACE WATER	\$0	\$0	124	114	105	97	89	82	\$370
K	k.49	PURCHASE WATER FROM WEST TRAVIS COUNTY REGIONAL	\$0	\$115	223	332	416	433	444	449	\$115
L	l.1	BRACKISH GROUNDWATER DESALINATION (WILCOX AQUIFER)	\$93,405,000	\$1,502	5,662	5,662	5,662	5,662	5,662	5,662	\$304
L	l.2	LCRA/SAWS WATER PROJECT	\$2,069,013,000	\$1,326	—	—	—	—	150,000	150,000	\$1,326

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
L	L.3	EDWARDS AQUIFER RECHARGE - TYPE 2 PROJECTS	\$367,192,000	\$1,355	13,451	13,451	13,451	13,451	13,451	21,577	\$213
L	L.4	CRWA DUNLAP PROJECT - INCLUDES TEMPORARY OVERDRAFTS	\$44,837,000	\$956	1,131	1,793	5,249	5,250	5,249	5,600	\$409
L	L.5	MUNICIPAL WATER CONSERVATION	\$0	\$494	13,232	22,743	31,617	40,531	53,924	72,566	\$432
L	L.6	IRRIGATION WATER CONSERVATION	\$0	\$111	14,089	11,387	8,789	7,477	7,477	7,477	\$103
L	L.7	INDUSTRIAL, STEAM-ELECTRIC POWER GENERATION, AND MINING WATER CONSERVATION	\$0	na	4,650	9,923	13,351	17,694	23,133	29,884	na
L	L.8	SEAWATER DESALINATION	\$891,321,000	\$1,390	-	-	-	-	-	84,012	\$1,390
L	L.9	EDWARDS TRANSFERS	\$0	\$135	64,312	66,231	67,834	68,936	70,099	71,335	\$135
L	L.10	LOCAL GROUNDWATER (CARRIZO-WILCOX AQUIFER) - INCLUDES TEMPORARY OVERDRAFTS	\$44,342,000	\$438	7,722	10,946	13,573	16,544	20,282	24,821	\$266
L	L.11	LOCAL GROUNDWATER (GULF COAST AQUIFER)	\$4,822,000	\$904	390	390	390	390	390	780	\$455
L	L.12	LOCAL GROUNDWATER (TRINITY AQUIFER)	\$32,010,000	\$879	21,182	21,182	21,182	21,182	21,182	21,587	\$383
L	L.13	LOCAL GROUNDWATER (BARTON SPRINGS EDWARDS-AQUIFER)	\$0	\$135	150	150	150	150	200	200	\$135
L	L.14	REGIONAL CARRIZO FOR BEXAR COUNTY SUPPLY - INCLUDES TEMPORARY OVERDRAFTS	\$486,604,000	\$862	56,188	56,188	56,188	56,188	56,188	56,188	\$297
L	L.15	REGIONAL CARRIZO FOR SSLGC PROJECT EXPANSION - INCLUDES TEMPORARY OVERDRAFTS	\$26,649,000	\$441	12,800	12,800	12,800	12,800	12,800	12,800	\$260
L	L.16	WELLS RANCH PROJECT - INCLUDES TEMPORARY OVERDRAFTS	\$21,755,000	\$690	3,400	3,400	3,400	3,400	3,400	3,400	\$260
L	L.17	HAYS/CALDWELL CARRIZO PROJECT - INCLUDES TEMPORARY OVERDRAFTS	\$97,776,000	\$694	-	-	-	2,000	4,500	15,000	\$694
L	L.18	PURCHASE FROM WWP (LNRA)/REDISTRIBUTION OF SUPPLIES	\$0	\$897	46	145	322	499	489	489	\$897
L	L.19	PURCHASE FROM WWP (GUADALUPE-BLANCO RIVER AUTHORITY)	\$0	\$108	-	-	-	675	3,775	8,064	\$108
L	L.20	SAWS RECYCLED WATER PROGRAM - PHASED EXPANSION	\$154,764,000	\$434	18,712	23,510	28,064	31,453	34,155	36,258	\$434
L	L.21	CRWA SIESTA PROJECT	\$34,544,000	\$852	1,000	5,042	5,042	5,042	5,042	5,042	\$354
L	L.22	RECYCLED WATER PROGRAMS	\$0	\$321	587	1,081	1,560	8,385	9,390	10,376	\$535
L	L.23	CANYON RESERVOIR - DOWNSTREAM DIVERSIONS	\$23,322,000	\$952	10,619	14,155	7,437	12,937	19,809	27,150	\$175
L	L.24	WIMBERLEY AND WOODCREEK WATER SUPPLY FROM CANYON RESERVOIR	\$36,980,000	\$989	770	1,459	2,177	2,874	3,939	4,636	\$409

Note: "na" = not available/applicable

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
L	I.25	LGWSP CAPACITY FOR GBRA NEEDS	\$793,072,000	\$1,344	—	63,072	63,072	63,072	63,072	63,072	\$441
L	I.26	SURFACE WATER RIGHTS	\$0	\$2,792	—	—	2,867	2,867	2,867	2,867	\$2,792
M	m.1	BRACKISH GROUNDWATER DESALINATION	\$342,474,689	\$506	37,740	44,886	48,010	53,662	66,034	69,962	\$554
M	m.2	ADVANCED MUNICIPAL WATER CONSERVATION	\$8,772,994	\$112	2,495	5,375	10,858	15,142	19,726	24,412	\$144
M	m.3	IRRIGATION CONVEYANCE SYSTEM CONSERVATION	\$130,830,386	\$121	91,160	182,313	191,435	200,551	209,667	218,783	\$121
M	m.4	ON-FARM WATER CONSERVATION	\$194,569,720	\$253	36,528	73,085	109,614	146,144	182,698	219,228	\$254
M	m.5	SEAWATER DESALINATION	\$15,939,836	\$768	125	125	143	6,049	6,421	7,902	\$768
M	m.6	ADDITIONAL GROUNDWATER WELLS	\$43,982,595	\$304	4,477	12,864	24,199	27,592	29,095	31,416	\$367
M	m.7	NON-POTABLE REUSE	\$47,645,645	\$415	2,196	8,865	11,988	18,863	28,175	44,661	\$601
M	m.8	POTABLE REUSE	\$4,743,581	\$706	1,120	1,120	1,120	1,120	1,120	1,120	\$706
M	m.9	BROWNSVILLE WEIR AND RESERVOIR	\$66,545,188	\$537	20,643	20,643	20,643	20,643	20,643	20,643	\$537
M	m.10	ACQUISITION OF WATER RIGHTS THROUGH PURCHASE	\$209,159,938	\$543	9,533	18,439	40,169	69,506	108,970	149,612	\$561
M	m.11	ACQUISITION OF WATER RIGHTS THROUGH CONTRACT	\$5,542,799	\$456	288	604	1,454	2,195	3,076	4,603	\$456
M	m.12	ACQUISITION OF WATER RIGHTS THROUGH URBANIZATION	\$15,915,057	\$368	155	2,575	5,340	8,302	11,587	15,245	\$368
N	n.1	IRRIGATION WATER CONSERVATION	\$0	\$69-\$174	17	52	103	169	248	342	\$173
N	n.2	MANUFACTURING WATER CONSERVATION	\$0	\$225	1,260	1,418	1,576	1,734	1,892	2,050	\$225
N	n.3	MINING WATER CONSERVATION	\$0	highly variable	244	548	878	1,246	1,653	2,084	highly variable
N	n.4	SEAWATER DESALINATION	\$248,919,000	\$1,341	—	—	—	18,200	18,200	18,200	\$1,341
N	n.5	GULF COAST AQUIFER SUPPLIES	\$48,338,000	\$537	12,975	13,535	13,535	13,535	13,535	20,535	\$537
N	n.6	RECLAIMED WASTEWATER	\$1,500,000	\$725	250	250	250	250	250	250	\$725
N	n.7a	NUECES OFF-CHANNEL RESERVOIR	\$155,028,000	\$597	—	—	—	19,005	19,005	19,005	\$597
N	n.7b	NUECES FEASIBILITY PROJECTS - LCC/CC PIPELINE	\$105,428,000	\$447	—	25,000	25,000	25,000	25,000	25,000	\$447
N	n.8	STAGE II LAKE TEXANA	\$149,185,000	\$788	—	—	—	—	—	23,000	\$788

Appendix 2.1 (Continued)

Region	ID	Recommended Water Management Strategy	Total Capital Costs	First Decade Estimated Annual Average Unit Cost (\$/acre-foot/year)	Water Supply Volume (acre-feet per year)					Year 2060 Estimated Annual Average Unit Cost (\$/acre-foot/year)	
					2010	2020	2030	2040	2050		2060
N	n.9	VOLUNTARY REDISTRIBUTION OF EXISTING SUPPLIES	\$0	\$500	736	999	1,175	1,321	1,440	1,615	\$500
N	n.10	GARWOOD PIPELINE	\$81,117,000	\$505	-	-	35,000	35,000	35,000	35,000	\$505
N	n.11	MUNICIPAL CONSERVATION	\$0	\$328	104	353	721	1,155	1,764	2,415	\$333
O	o.1	BRACKISH GROUNDWATER DESALINATION LUBBOCK	\$10,051,230	\$506	-	3,360	3,360	3,360	3,360	3,360	\$506
O	o.2	MUNICIPAL WATER CONSERVATION	\$0	\$624	5,809	10,583	10,729	10,264	10,206	10,424	\$925
O	o.3	IRRIGATION WATER CONSERVATION	\$353,510,000	\$54	554,396	498,956	449,061	404,156	363,739	327,366	\$84
O	o.4	LOCAL GROUNDWATER DEVELOPMENT	\$33,727,161	\$99	14,888	21,117	24,520	23,839	24,080	22,649	\$89
O	o.5	PURCHASE FROM LUBBOCK	\$0	\$709	61	61	61	61	61	61	\$291
O	o.6	CITY OF LUBBOCK WELL FIELD	\$7,718,000	\$294	5,600	5,600	5,600	5,600	5,600	5,600	\$294
O	o.7	EXPAND BAILEY COUNTY WELL FIELD	\$2,541,000	\$38	5,600	5,600	5,600	5,600	5,600	5,600	\$38
O	o.8	CRWA EXPAND GROUNDWATER SUPPLY	\$0	\$160	16,511	16,511	16,511	16,511	16,511	16,511	\$160
O	o.9	REUSE	\$29,746,680	\$1,259	-	2,240	2,240	2,240	2,240	2,240	\$1,259
O	o.10	JIM BERTRAM LAKE SYSTEM (LAKE 7 AND 8) EXPANSION LUBBOCK	\$150,759,000	\$688	-	21,200	21,200	21,200	21,200	21,200	\$688
O	o.11	NORTH FORK SCALPING OPERATION LUBBOCK	\$50,055,000	\$1,074	-	-	-	-	4,000	4,000	\$1,074
O	o.12	LAKE ALAN HENRY SUPPLY FOR LAKE ALAN HENRY WSC	\$5,613,000	\$2,804	270	270	270	270	270	270	\$1,293
O	o.13	LAKE ALAN HENRY PIPELINE FOR THE CITY OF LUBBOCK	\$174,909,000	\$1,196	-	22,230	22,230	22,230	22,230	22,230	\$1,196
P	p.1	TEMPORARY OVERDRAFTING - GULF COAST AQUIFER - JACKSON COUNTY	\$0	\$33	15,735	15,751	15,769	15,791	15,812	15,834	\$33
P	p.2	TEMPORARY OVERDRAFTING - GULF COAST AQUIFER - WHARTON COUNTY	\$0	\$33	34,920	30,866	26,955	23,184	19,549	16,145	\$33
P	p.3	PURCHASE/REDISTRIBUTION OF SUPPLIES	\$0	\$0	46	145	322	499	489	489	\$0

