



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 | |
| C | c.27 | INDIRECT REUSE | \$144,777,000 | na | 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 | \$94 |
| C | c.31 | LOWER BOIS D ARC CREEK RESERVOIR | \$399,190,000 | \$283 | — | 123,000 | 119,000 | 117,000 | 115,000 | \$50 |
| C | c.32 | MARVIN NICHOLS RESERVOIR | \$2,159,053,000 | \$554 | — | — | 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 | 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 | 2,428 | 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 | 16,493 | 20,553 | 21,658 | na |
| C | c.41 | COOKE COUNTY PROJECT | \$35,933,000 | \$1,380 | — | 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 | 26,129 | 26,129 | 26,129 | \$703 |
| C | c.45 | LAKE FORK CONNECTION | \$362,916,000 | \$274 | 120,000 | 119,312 | 118,468 | 116,781 | 115,937 | \$57 |
| C | c.46 | LAKE PALESTINE CONNECTION | \$414,447,000 | \$352 | — | 111,460 | 110,220 | 109,600 | 108,980 | \$83 |
| C | c.47 | LAKE TEXOMA - AUTHORIZED (BLEND) | \$201,829,000 | \$558 | — | 38,250 | 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 | 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 | — | — | — | — | 115,000 | \$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 | LWSP 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 |

