

### Water for Texas 2017 State Water Plan: Amendment #2

The following changes were made to the 2017 State Water Plan as a result of minor amendments to the 2016 Region G and Region K Regional Water Plans, a substitution of an alternative water management strategy (WMS) in the 2016 Region L Regional Water Plan, and the designation of the Cross Timbers Aquifer as a minor aquifer<sup>1</sup>. This state water plan amendment contains the following revisions specifically<sup>2</sup>:

- 1. Adds a new recommended WMS for the City of Waco to supply treated surface water from Lake Waco to ten utilities in McLennan County. The amendment adds two WMSs and three water management strategy projects (WMSPs) to the 2016 Region G Regional Water Plan. The WMSs provide 1,049-1,407 acre-feet per year (AFY) in assigned WMS supply from 2020-2070 and the WMSPs, sponsored by Waco, Riesel, and McLennan County-Other, add \$30,686,000 in capital costs to the plan. The amendment also removes one recommended WMS and one recommended WMSP and designates them as alternative, removing 917 AFY of WMS supply from 2020-2070 and \$3,811,00 in capital costs from the plan.
- Adds a new recommended WMS and associated WMSP for the Creedmoor-Maha Water Supply Corporation (CMWSC) to replace and upsize water supply transmission lines. The amendment adds one WMS and one WMSP sponsored by the CMWSC for 20–33 AFY in demand reduction from 2020-2070 and \$4,501,080 in capital costs to the 2016 Region K Regional Water Plan.
- 3. Removes the previously recommended Guadalupe-Blanco River Authority (GBRA) Mid-Basin Water Supply Project-Surface Water and Aquifer Storage and Recovery WMS and its one associated WMSP sponsored by the GBRA and designates them as alternative. It also removes the Texas Water Alliance Regional Carrizo Aquifer Development WMS and its one associated WMSP sponsored by Texas Water Alliance and designates them as alternative. These WMSs are replaced by the GBRA Mid-Basin Conjunctive Use WMS with one associated WMSP sponsored by the GBRA. The amendment adds 19 WMSs and one WMSP to the 2016 Region L Regional Water Plan. This reassigns 6,992-40,982 AFY from 2020-2070 that was assigned WMS supply in the removed WMSs and the WMSP adds \$700,897,000 in capital costs to the plan. The amendment also removes 15 recommended WMSs and two recommended WMSPs that are now designated as alternative and removes \$1,016,013,000 in capital costs from the plan.
- 4. Designates the Cross Timbers Aquifer as a new minor aquifer covering all or parts of 31 counties.

<sup>&</sup>lt;sup>1</sup> This amendment was approved by the Texas Water Development Board on December 7, 2017.

<sup>&</sup>lt;sup>2</sup> The WMS and WMSP counts specified in this amendment are based on WMS and recipient water user group combinations. Counts for Regions G and L may differ from high-level summaries.

To incorporate the amendment, the following specific changes were made to the 2017 State Water Plan:

# Capital costs, projects sponsored by municipal water user groups (WUGs) and wholesale water providers (WWPs), and number of recommended WMSPs

All references to the total capital costs recommended in the plan (\$63 billion) change to remove \$283,739,920 in capital costs. The updated total capital costs recommended in the plan changes to \$62.7 billion. References to the total capital costs that are associated with projects sponsored by municipal WUGs and WWPs that provide water to municipal water users are also adjusted to account for the decrease in capital costs. Additionally, references to the specific project counts change to incorporate the five recommended WMSPs added and three recommended WMSPs removed by this amendment. This changes text on pages 3, 11, 41, 42, 87, 88, 98, 100; Figures 4.1 and 4.2, and Table 8.2. Updated values are highlighted in the figures and tables below.

## Figure 4.1 - Total capital costs, by required online decade, of all recommended water management strategy projects (in billions)\*



\* Statewide total in this graph is slightly more than the \$62.7 billion estimated costs due to rounding.



Figure 4.2 - Total capital costs of all recommended water management strategy projects by wholesale water providers and water user group sponsor type (in billions)

| Region | 2020     | 2030     | 2040    | 2050     | 2060    | 2070    | Total capital<br>cost | Number<br>of<br>projects <sup>a</sup> |
|--------|----------|----------|---------|----------|---------|---------|-----------------------|---------------------------------------|
| A      | \$270    | \$348    | \$60    | \$18     | \$0     | \$170   | \$866                 | 81                                    |
| В      | \$291    | \$0      | \$339   | \$0      | \$0     | \$0     | \$630                 | 21                                    |
| С      | \$3,730  | \$5,457  | \$3,304 | \$6,728  | \$3,119 | \$1,296 | \$23,635              | 557                                   |
| D      | \$697    | \$11     | \$17    | \$413    | \$22    | \$80    | \$1,241               | 120                                   |
| E      | \$843    | \$42     | \$514   | \$274    | \$258   | \$0     | \$1,930               | 45                                    |
| F      | \$917    | \$190    | \$35    | \$58     | \$0     | \$0     | \$1,201               | 145                                   |
| G      | \$3,63 I | \$579    | \$69    | \$42     | \$21    | \$6     | \$4,348               | 217                                   |
| Н      | \$2,946  | \$4,853  | \$1,612 | \$836    | \$578   | \$54    | \$10,879              | 717                                   |
| I      | \$1,362  | \$737    | \$562   | \$77     | \$0     | \$16    | \$2,754               | 58                                    |
| J      | \$115    | \$0      | \$29    | \$0      | \$0     | \$0     | \$144                 | 55                                    |
| К      | \$3,073  | \$506    | \$142   | \$42     | \$12    | \$3     | \$3,777               | 124                                   |
| L      | \$5,279  | \$201    | \$7     | \$2,253  | \$2     | \$19    | \$7,761               | 60                                    |
| М      | \$1,202  | \$123    | \$81    | \$41     | \$386   | \$33    | \$1,866               | 195                                   |
| N      | \$178    | \$331    | \$0     | \$1      | \$0     | \$0     | \$510                 | 18                                    |
| 0      | \$452    | \$192    | \$87    | \$2      | \$80    | \$1     | \$814                 | 112                                   |
| Р      | \$332    | \$0      | \$0     | \$0      | \$0     | \$0     | \$332                 | 11                                    |
| Texas  | \$25,318 | \$13,570 | \$6,857 | \$10,787 | \$4,478 | \$1,678 | \$62,688              | 2,536                                 |

 

 Table 8.2 - Capital costs, by required online decade, of all recommended water management

strategy projects by region (in millions)

<sup>a</sup> Some projects are associated with multiple sponsors.

#### Weight-averaged unit costs

Weight-averaged unit costs are changed to incorporate new unit costs. This changes Table 8.5. Updated values are highlighted in the table below.

| Table 8.5 - Weight-averaged unit costs ( | dollars per acre-foc | ot)* of strategy water : | supplies by |
|--|----------------------|--------------------------|-------------|
| region and strategy type in 2070         |                      |                          |             |

| Water management               |          |          |          |         |          |            |           |          |         |       |         |       |         |       |         |       |         |
|--------------------------------|----------|----------|----------|---------|----------|------------|-----------|----------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| strategy type                  | Α        | В        | с        | D       | E        | F          | G         | н        | 1       | J     | к       | L     | м       | N     | ο       | Р     | Texas   |
| Aquifer storage & recovery     | na       | na       | na       | na      | \$296    | \$480      | \$252     | na       | na      | \$205 | \$645   | \$209 | na      | na    | \$243   | na    | \$419   |
| Conjunctive use                | \$106    | na       | na       | na      | \$361    | na         | \$1,031   | \$928    | na      | na    | na      | \$615 | na      | na    | \$106   | na    | \$699   |
| Direct potable reuse           | na       | \$950    | na       | na      | \$1,212  | \$1,041    | \$740     | na       | na      | na    | na      | \$743 | \$1,137 | na    | \$2,065 | na    | \$1,134 |
| Groundwater desalination       | na       | na       | na       | na      | \$415    | \$718      | na        | \$850    | na      | na    | na      | \$698 | \$1,146 | \$646 | \$1,713 | na    | \$713   |
| Groundwater wells & other      | \$314    | \$635    | \$350    | \$522   | \$756    | \$226      | \$357     | \$582    | \$303   | \$236 | \$774   | \$588 | \$66    | \$120 | \$256   | na    | \$476   |
| Indirect reuse                 | na       | \$360    | \$111    | \$288   | \$563    | na         | \$125     | \$398    | na      | na    | \$46    | na    | na      | na    | na      | na    | \$283   |
| Irrigation conservation        | \$17     | \$53     | \$310    | na      | \$55     | na         | \$230     | \$112    | na      | na    | \$163   | na    | \$531   | \$230 | \$42    | \$134 | \$147   |
| Municipal conservation         | \$446    | \$254    | \$154    | \$591   | \$226    | \$437      | \$460     | \$257    | \$182   | \$381 | \$319   | \$652 | \$464   | \$483 | \$599   | \$345 | \$374   |
| New major reservoir            | na       | \$482    | \$563    | \$95    | \$267    | \$710      | \$450     | \$72     | \$270   | na    | \$585   | \$596 | na      | \$595 | \$179   | \$33  | \$470   |
| Other conservation             | na       | \$573    | \$310    | na      | na       | \$794      | na        | na       | na      | na    | na      | na    | \$1,899 | na    | na      | na    | \$190   |
| Other direct reuse             | na       | na       | \$285    | na      | na       | \$267      | \$290     | \$210    | na      | \$58  | \$1,157 | \$356 | \$505   | \$341 | na      | na    | \$423   |
| Other strategies               | \$8      | \$280    | na       | na      | na       | \$308      | na        | na       | na      | na    | \$2,978 | na    | \$10    | na    | na      | na    | \$1,249 |
| Other surface water            | na       | \$361    | \$571    | \$490   | \$356    | \$83       | \$324     | \$245    | \$437   | \$99  | \$176   | \$606 | \$222   | \$508 | \$427   | na    | \$381   |
| Seawater desalination          | na       | na       | na       | na      | na       | na         | na        | \$1,461  | na      | na    | na      | \$611 | \$3,708 | \$550 | na      | na    | \$1,431 |
| * Unit costs include a mixture | of proje | cts, som | e of whi | ch will | be beyon | d their de | bt servic | e period | by 2070 | ).    |         |       |         |       |         |       |         |

na = not applicable or not available.

#### **Recommended WMS count and volumes**

References to the specific count of recommended WMSs are changed to incorporate the 22 recommended WMSs added and 16 recommended WMSs removed by this amendment. Strategy supply in 2040 is also adjusted. This changes Table 8.1. Updated values are highlighted in the table below.

| Region             | 2020             | 2030              | 2040      | 2050      | 2060      | 2070      | Number of strategies |
|--------------------|------------------|-------------------|-----------|-----------|-----------|-----------|----------------------|
| А                  | 178,000          | 310,000           | 490,000   | 554,000   | 595,000   | 637,000   | 140                  |
| В                  | 53,000           | 53,000            | 71,000    | 72,000    | 72,000    | 73,000    | 128                  |
| С                  | 192,000          | 427,000           | 670,000   | 900,000   | 1,147,000 | 1,436,000 | 2,341                |
| D                  | 176,000          | 205,000           | 269,000   | 294,000   | 335,000   | 369,000   | 137                  |
| E                  | 143,000          | I 58,000          | 186,000   | 212,000   | 241,000   | 268,000   | 64                   |
| F                  | 126,000          | I 60,000          | 185,000   | 196,000   | 202,000   | 212,000   | 291                  |
| G                  | 384,000          | 436,000           | 480,000   | 542,000   | 589,000   | 648,000   | 430                  |
| Н                  | 716,000          | 904,000           | I,468,000 | 1,572,000 | I,648,000 | 1,791,000 | 621                  |
| I                  | 269,000          | 433,000           | 488,000   | 530,000   | 575,000   | 594,000   | 86                   |
| J                  | 21,000           | 22,000            | 22,000    | 22,000    | 22,000    | 22,000    | 64                   |
| К                  | 436,000          | 498,000           | 547,000   | 619,000   | 678,000   | 745,000   | 265                  |
| L                  | 180,000          | 268,000           | 331,000   | 419,000   | 519,000   | 610,000   | 264                  |
| М                  | 282,000          | 351,000           | 418,000   | 498,000   | 599,000   | 669,000   | 478                  |
| Ν                  | 51,000           | 109,000           | 103,000   | 97,000    | 98,000    | 98,000    | 54                   |
| 0                  | 139,000          | 177,000           | 224,000   | 228,000   | 251,000   | 253,000   | 124                  |
| Р                  | 62,000           | 62,000            | 63,000    | 63,000    | 63,000    | 63,000    | 14                   |
| Texas <sup>a</sup> | 3,408,000        | 4,573,000         | 6,015,000 | 6,818,000 | 7,634,000 | 8,488,000 | 5,501                |
| Statewide totals   | may vary between | tables due to rou | nding.    |           |           |           |                      |

References to the volumetric share of WMSs by water resource will be revised for surface water and groundwater resources. The approximate volume of strategy supply from groundwater resources is also changed from approximately 810,000 to approximately 840,000 acre-feet per year. This changes text on pages 8 and 90; and Figures ES.6, 8.1, and 8.2. Updated values are highlighted in the figures below.







Figure 8.2 - Annual volume of recommended water management strategies by region and water resource in 2070 (thousands of acre-feet)

References to the volumetric share of WMS by strategy type and the number of WUGs relying on different types of water management strategies for aquifer storage and recovery, conjunctive use, and groundwater wells & other are adjusted by this amendment. This changes text on pages 94, 96, and 100; Figure ES. 7 and 8.3; and Tables 8.3 and 8.4. Updated values are highlighted in the figures and tables below.



Figures ES.7 and 8.3 - Share of recommended water management strategies by strategy type in 2070

| Water management                             |                 |            |           |           |           |           |
|--|-----------------|------------|-----------|-----------|-----------|-----------|
| strategy type                                | 2020            | 2030       | 2040      | 2050      | 2060      | 2070      |
| Aquifer storage & recovery                   | 46,000          | 80,000     | 80,000    | 110,000   | 116,000   | 123,000   |
| Conjunctive use                              | 47,000          | 71,000     | 92,000    | 85,000    | 95,000    | 105,000   |
| Direct potable reuse                         | 33,000          | 45,000     | 54,000    | 66,000    | 76,000    | 87,000    |
| Drought management                           | 152,000         | 178,000    | 199,000   | 208,000   | 217,000   | 226,000   |
| Groundwater desalination                     | 70,000          | 73,000     | 86,000    | 92,000    | 100,000   | 111,000   |
| Groundwater wells & other                    | 304,000         | 424,000    | 467,000   | 534,000   | 570,000   | 618,000   |
| Indirect reuse                               | 230,000         | 288,000    | 516,000   | 569,000   | 577,000   | 649,000   |
| Irrigation conservation                      | 639,000         | 809,000    | 1,084,000 | 1,175,000 | I,267,000 | 1,330,000 |
| Municipal conservation                       | 204,000         | 333,000    | 435,000   | 562,000   | 686,000   | 811,000   |
| New major reservoir                          | 220,000         | 406,000    | 525,000   | 679,000   | 786,000   | 1,100,000 |
| Other conservation                           | 76,000          | 98,000     | 126,000   | 145,000   | I 68,000  | 203,000   |
| Other direct reuse                           | 163,000         | 222,000    | 257,000   | 297,000   | 331,000   | 371,000   |
| Other strategies                             | 30,000          | 31,000     | 37,000    | 41,000    | 46,000    | 51,000    |
| Other surface water                          | 1,193,000       | I,489,000  | 2,001,000 | 2,189,000 | 2,495,000 | 2,586,000 |
| Seawater desalination                        | 3,000           | 25,000     | 54,000    | 65,000    | 105,000   | 116,000   |
| Texas <sup>a</sup>                           | 3,410,000       | 4,572,000  | 6,013,000 | 6,817,000 | 7,635,000 | 8,487,000 |
| <sup>a</sup> Statewide totals may yary betwe | on tables due t | o rounding |           |           |           |           |

Table 8.3 - Annual volume of recommended water management strategies by strategy type (acre-feet)

<sup>a</sup> Statewide totals may vary between tables due to rounding.

| Table 8.4 - Number of water user | groups relying on diff | ferent types of water ma | inagement |
|----------------------------------|------------------------|--------------------------|-----------|
| strategies by region             |                        |                          |           |

| Water management           |    |    |     |    |    |    |    |     |    |    |    |     |    |    |    |   |       |
|----------------------------|----|----|-----|----|----|----|----|-----|----|----|----|-----|----|----|----|---|-------|
| strategy type              | Α  | в  | с   | D  | E  | F  | G  | н   | I  | J  | к  | L   | м  | N  | o  | Р | Texas |
| Aquifer storage & recovery | 0  | 0  | 0   | 0  | 1  | 9  | 9  | 0   | 0  | 2  | 7  | 4   | 0  | 0  | 1  | 0 | 33    |
| Conjunctive use            | 3  | 0  | 0   | I  | 1  | 0  | 2  | 59  | 0  | 0  | 1  | Ш   | 0  | 0  | 8  | 0 | 86    |
| Direct potable reuse       | 0  | I  | 0   | 0  | I  | 5  | I  | 0   | 0  | 0  | 0  | 2   | 28 | 0  | 2  | 0 | 40    |
| Drought management         | 0  | 0  | 0   | 0  | 0  | 1  | 5  | 0   | 0  | I  | 81 | 31  | 0  | 0  | 0  | 7 | 126   |
| Groundwater desalination   | 0  | 0  | 0   | 0  | 8  | 4  | 0  | 6   | 0  | I  | 0  | 9   | 24 | I  | 3  | 0 | 56    |
| Groundwater wells & other  | 31 | 25 | 27  | 32 | 17 | 42 | 70 | 34  | 9  | 20 | 35 | 53  | 25 | 5  | 32 | 0 | 457   |
| Indirect reuse             | 0  | 17 | 220 | 5  | 1  | 0  | 5  | 29  | 3  | 0  | 5  | 0   | 0  | 0  | 0  | 0 | 285   |
| Irrigation conservation    | 20 | 10 | 10  | 0  | 2  | 30 | 18 | 8   | 0  | 0  | 3  | 7   | 8  | 2  | 21 | 0 | 139   |
| Municipal conservation     | 36 | 22 | 268 | 9  | 12 | 57 | 96 | 244 | П  | П  | 52 | 104 | 67 | 22 | 40 | 5 | 1,056 |
| New major reservoir        | 0  | 17 | 247 | 4  | 1  | 4  | 31 | 26  | 15 | 0  | 27 | 3   | 0  | 4  | 1  | 0 | 380   |
| Other conservation         | 0  | П  | П   | 6  | 0  | 36 | 53 | 13  | 0  | 0  | 0  | 3   | 20 | 4  | 0  | 0 | 157   |
| Other direct reuse         | 0  | 0  | 10  | 0  | 0  | 10 | 16 | 14  | 0  | I  | 10 | 7   | 3  | 3  | 0  | 0 | 74    |
| Other strategies           | 8  | 1  | 0   | 0  | 0  | 22 | I  | 0   | 0  | 6  | 9  | 0   | 7  | 0  | 0  | 0 | 54    |
| Other surface water        | 0  | 17 | 283 | 38 | 2  | 35 | 61 | 53  | 32 | 3  | 7  | 4   | 44 | 5  | 2  | 0 | 586   |
| Seawater desalination      | 0  | 0  | 0   | 0  | 0  | 0  | 0  | I   | 0  | 0  | 0  | 2   | 4  | 3  | 0  | 0 | 10    |

#### **Minor aquifers of Texas**

References to the number of minor aquifers (21) and the map of minor aquifers are changed to incorporate one new minor aquifer added by this amendment. This changes text on page 65 (new language in bold) and Figure 6.5:

"Groundwater in Texas comes from nine major and **22** minor aquifers as well as other formations around the state. Major aquifers produce large amounts of water over large areas (Figure 6.4), whereas minor aquifers produce minor amounts of water over large areas or major amounts of water over small areas (Figure 6.5). **In 2017, the TWDB identified a new minor aquifer, the Cross Timbers Aquifer, in north-central Texas. This aquifer was designated on the basis of recent hydrogeologic studies and review of groundwater production data.** The Cross Timbers Aquifer covers all or parts of 31 **counties and ranks approximately in the middle of annual water use for the minor aquifers, with over 18,000 acre-feet per year of water produced annually from 2010 to 2015.** 

The geologic formations of the Cross Timbers Aquifer are primarily composed of limestone, shale, and sandstone. Formations in most of the study area are exposed at the land surface (outcrop areas) and generally dip to the west. Documented water levels in the aquifer are generally stable over time, with most water levels within 100 feet of land surface. Water quality is generally fresh to slightly saline. The Cross Timbers Aquifer supplies water primarily for domestic and stock uses, though industrial and public supply wells also obtain water from these formations."





Please note that groundwater availability and supply volumes are not adjusted as part of this amendment but will be reflected for the Cross Timbers Aquifer in the 2022 State Water Plan.



#### 2017 State Water Plan: Amendment #2

The following changes were made to the 2017 State Water Plan as a result of minor amendments to the 2016 Regions G and K Regional Water Plans and a substitution of an alternative water management strategy in the 2016 Region L Regional Water Plan. Previously recommended water management strategies designated as alternative through the amendment are reflected in strikethrough in the table below. This amendment was approved by the Texas Water Development Board on December 7, 2017.

#### ADDITIONS AND REVISIONS TO THE LIST OF RECOMMENDED WATER MANAGEMENT STRATEGIES

| State      Name        State      Stat  | Water Use | r                      | Water            |  |   |                         |                   |                  |                  |                   |                  |
|---|-----------|------------------------|------------------|--|---|-------------------------|-------------------|------------------|------------------|-------------------|------------------|
| Water      Under Sum All And Proceedings of Control Proc                                   | Group     |                        | management       |  |   |                         |                   |                  |                  |                   |                  |
| Image      Mater      Note:      Restart      Open State      Note:   | Primary   |                        | strategy sponsor |  |   |                         |                   |                  |                  |                   |                  |
| G      COUNT-OFMERTIONAL      DTHE SUMACE WATER      P1      109      1/22      1/14      1/35        6      NEELL      COUNT-OFMERTION      DTHE SUMACE WATER      P3      P3 <t< th=""><th>Region</th><th>Water User Group</th><th>region</th><th>Recommended water management strategy</th><th>Related water management strategy types</th><th>2020</th><th>2030</th><th>2040</th><th>2050</th><th>2060</th><th>2070</th></t<>   | Region    | Water User Group       | region           | Recommended water management strategy                            | Related water management strategy types | 2020                    | 2030              | 2040             | 2050             | 2060              | 2070             |
| G      BBBL      G      PLEARMAN COUNTY ASSERTS THRATION      OPHES MERCE VARIES      PLEARMAN COUNTY ASSERTS THRATE      PLEAR   | G         | COUNTY-OTHER, MCLENNAN | G                | MCLENNAN COUNTY ARSENIC MITIGATION                               | OTHER SURFACE WATER                     | 971                     | 1,029             | 1,092            | 1,163            | 1,239             | 1,325            |
| K      COUNTRY-DITIE, NAT      L      GRA- HEMPS - CONJUNCTIVE LIKE (CONTINUE ALL MARKED DERIGNMENT)      CONJUNCTIVE LIKE      0      0      1.118      0.114      0.1   | G         | RIESEL                 | G                | MCLENNAN COUNTY ARSENIC MITIGATION                               | OTHER SURFACE WATER                     | 78                      | 78                | 78               | 78               | 80                | 82               |
| K      COUNTY OTHER LIVES      6   | К         | COUNTY-OTHER, HAYS     | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 1,169            | 6,714             | 5,276            |
| K      CARENDADAHAAN ANCE      K      UNDERTVICATION      20      21      24      27      90      11        CANNOT COMMAN VIC      CANAL MOVES      CANAL MOVES      0      67      2.373      4.095      5.14      7.44      7.4      7.0      7.  | К         | COUNTY-OTHER, HAYS     | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | 0                 | 6,332            |
| CANYON LAG WAIT IN      CONJUNCTIVE US      0      471      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      2,373      40%      30         | К         | CREEDMOOR-MAHA WSC     | К                | URGENT WATER LOSS REDUCTION PROJECT - CMWSC                      | MUNICIPAL CONSERVATION                  | 20                      | 22                | 24               | 27               | 30                | 33               |
| L      GENAL HEAVY      L      GERAL HEAVY      CONJUNCTIVE USE      0      471      2173      4085      5414      7448        L      GORDANT SUD      L      GRAN. HEAVY      CONJUNCTIVE USE      0 </td <td></td> <td>CANYON LAKE WATER</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |           | CANYON LAKE WATER      |                  |  |   |                         |                   |                  |                  |                   |                  |
| L      GORANT SLO      L      GRAM. HWSPCONJUNCTIVE USE WARAR (DIFTION 3A)      CONSULTIVE USE GORA      L120      L120 <td>L</td> <td>SERVICE COMPANY</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT</td> <td>CONJUNCTIVE USE</td> <td>0</td> <td>671</td> <td>2,373</td> <td>4,095</td> <td>5,814</td> <td>7,468</td>   | L         | SERVICE COMPANY        | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 671               | 2,373            | 4,095            | 5,814             | 7,468            |
| L      LOCKHART      L      GBA. HBWS* - COUNCTIVE USE (20170) XJ CARRZO DEVLOPMENT      CONUNCTIVE USE      1.120      1.120      1.424      1.464      7.40      2.00        L      LOCKHART      L      GBA. HBWS* - COUNCTIVE USE (20170) XJ CARRZO DEVLOPMENT      CONUNCTIVE USE      0 <td>L</td> <td>goforth sud</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)</td> <td>CONJUNCTIVE USE</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>525</td>   | L         | goforth sud            | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | 0                 | 525              |
| L      LOCKHART      L      GBA. HBMSP - CONJUNCTIVE US WARK (PTION 34)      CONJUNCTIVE USE      0      0      0      0      1.187        L      LULING      L      GBA. HBMSP - CONJUNCTIVE USE WARK (PTION 34)      CONJUNCTIVE USE      0  | L         | LOCKHART               | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 1,120                   | 1,120             | 1,120            | 1,484            | 760               | 0                |
| L      LULING      L      GBA. HMV97 - CONJUNCTIVE USE (OPTION 3A) . CARRED DEPLICIPHENT      CONJUNCTIVE USE      1.480 <td>L</td> <td>LOCKHART</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)</td> <td>CONJUNCTIVE USE</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1,187</td> <td>2,402</td>   | L         | LOCKHART               | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | 1,187             | 2,402            |
| L      LULING      L      GRAN. HBWSP. CONJUNCTIVE USE WARS. (PDTION 1A)      CONJUNCTIVE USE      0      0      0.0      1.644      1.875        L      MANUKATURING, COMAL      L      GRAN. HBWSP. CONJUNCTIVE USE WARS. (PDTION 1A)      CONJUNCTIVE USE      0      0      0      4129      7.10      6.00        L      MANUKATURING, COMAL      L      GRAN. HBWSP. CONJUNCTIVE USE WARS. (PDTION 1A)      CONJUNCTIVE USE      0      0      0      163      444      654        L      MANUKATURING, COMAL      L      GRAN. HBWSP. CONJUNCTIVE USE (DDTION 1A)      CONJUNCTIVE USE      0 <td< td=""><td>L</td><td>LULING</td><td>L</td><td>GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT</td><td>CONJUNCTIVE USE</td><td>1,680</td><td>1,680</td><td>I,680</td><td>1,680</td><td>0</td><td>0</td></td<>   | L         | LULING                 | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 1,680                   | 1,680             | I,680            | 1,680            | 0                 | 0                |
| L      GRAN MAYER CONJUNCTIVE US (OPTION 3A) - CARIZED DEVELOPMENT      CONJUNCTIVE US      4130      4481      5.112      1.197      0      0        L      MANUFACTUNING, CONLAL      L      GRAN - MMAYE - CONJUNCTIVE US WARK (OPTION 3A)      CONJUNCTIVE US      0      0      4.232      7.120      830        L      NEDERWAID      L      GRAN - MMAYE - CONJUNCTIVE US WARK (OPTION 3A)      CONJUNCTIVE US      0      0      0.0      1.432      444      844        L      NEDERWAID      L      GRAN - MMAYE - CONJUNCTIVE US WARK (OPTION 3A)      CONJUNCTIVE US      0      0      0.0      0.0      1.46      200        L      SAN MARCOS      L      GRAN - MMAYE - CONJUNCTIVE US WARK (OPTION 3A)      CONJUNCTIVE US      0 <t< td=""><td>L</td><td>LULING</td><td>L</td><td>GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)</td><td>CONJUNCTIVE USE</td><td>0</td><td>0</td><td>0</td><td>0</td><td>I,684</td><td>1,875</td></t<>   | L         | LULING                 | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | I,684             | 1,875            |
| L      MANUFACTURING, COMAL      L      GBAA. HBMSP. CONJUNCTIVE USE WARB, (OPTION 1A)      CONJUNCTIVE USE      0      0      4.922      7.120      8.074        L      MANUFACTURING,      L      GBAA. HBMSP. CONJUNCTIVE USE (OPTION 1A)      CONJUNCTIVE USE      6.2      81      105      134      0      0      0      164      920        L      MEDBRWALD      L      GBAA. HBMSP. CONJUNCTIVE USE (OPTION 1A)      CONJUNCTIVE USE      0      0      0      164      920        L      SAN MARCOS      L      GBAA. HBMSP. CONJUNCTIVE USE (OPTION 1A). CARIZO DEVELOPHENT      CONJUNCTIVE USE      0      0      0      4581      5707        STEAM ELECTRE PROVER      L      GBAA. HBMSP. CONJUNCTIVE USE (OPTION 3A). CARIZO DEVELOPHENT      CONJUNCTIVE USE      0   | L         | MANUFACTURING, COMAL   | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 4,130                   | 4,881             | 5,612            | ۱,947            | 0                 | 0                |
| L      MANUFACTUNING,      L      GBRA.HBW/SP.CONJUNCTIVE USE (VOTION 3A)      CONJUNCTIVE USE      0      0      13      444      845        L      MEDERWALD      L      GBRA.HBW/SP.CONJUNCTIVE USE (VOTION 3A)      CONJUNCTIVE USE      0      0      0      0      164      2031        L      SAN MARCOS      L      GBRA.HBW/SP.CONJUNCTIVE USE (VOTION 3A)      CONJUNCTIVE USE      0      0      0      0      164      2031        SISTAMEETINE CONJUNCTIVE USE (VOTION 3A)      CONJUNCTIVE USE      0<  | L         | MANUFACTURING, COMAL   | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 4,292            | 7,120             | 8,074            |
| L      NIEDERWALD      L      GBRA - MBWSP: CONJUNCTIVE USE (OPTION 13). CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      0      164      233        L      SAN MARCOS      L      GBRA - MBWSP: CONJUNCTIVE USE (OPTION 13). CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      0      0      458      5777        L      SAN MARCOS      L      GBRA - MBWSP: CONJUNCTIVE USE (OPTION 13). CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      0      0      0      458      5777        STEART ELECTRIC POWER.      L      GBRA - MBWSP: CONJUNCTIVE USE (OPTION 13). CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      11899      0 <td>L</td> <td>MANUFACTURING,</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)</td> <td>CONJUNCTIVE USE</td> <td>0</td> <td>0</td> <td>0</td> <td>163</td> <td>494</td> <td>854</td>  | L         | MANUFACTURING,         | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 163              | 494               | 854              |
| L      ONEDERWALD      L      GBA. HBWSP. CONJUNCTIVE USE (OPTION 13A)      CONJUNCTIVE USE      0      0      0      166      203        L      SAN HARCOS      L      GBA. HBWSP. CONJUNCTIVE USE (OPTION 13A)      CONJUNCTIVE USE      0      0      2.387      0      0      0      4.581      5.717        STEAM BLCTRIC FOWR.      L      CONJUNCTIVE USE (OPTION 13A)      CONJUNCTIVE USE      0      0      2.994      1.320      0      0      0      4.581      5.717        STEAM BLCTRIC FOWR.      L      GBA. HBWSP. CONJUNCTIVE USE (OPTION 13A)      CONJUNCTIVE USE      0      0      1.499      0      0      0      0      0      1.499      0      0      0      0      1.499      0      0      0      0      1.499      0      0      0      0      1.491      1.201      1.123      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223      1.223 </td <td>L</td> <td>NIEDERWALD</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT</td> <td>CONJUNCTIVE USE</td> <td>62</td> <td>81</td> <td>105</td> <td>134</td> <td>0</td> <td>0</td>  | L         | NIEDERWALD             | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 62                      | 81                | 105              | 134              | 0                 | 0                |
| L      GAN MARCOS      L      GRA- MBKVPS - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0   | L         | NIEDERWALD             | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | 166               | 203              |
| L      GAN MARCOS      L      GRA - MBXVSP - CONJUNCTIVE USE (WASR, (OPTION 3.A)      CONJUNCTIVE USE      0      0      4.581      5.717        STRAM BLECTRE FORVER.  | L         | SAN MARCOS             | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 0                 | 2,380            | 3,471            | 0                 | 0                |
| STAM FLECTINC POWER,      CONJUNCTIVE USE (OPTION 3.4) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      0      0        STAM FLECTINC FOWER,      STAM FLECTINC FOWER,      CONJUNCTIVE USE (OPTION 3.4) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      11.899      0      0      0      0        L      WITMBERLEY      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3.4) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      12.4      45.6      77.8      10.33        L      WITMBERLEY      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3.4) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      23.6      56.4      93.4      1.23.2        G      COUNTY-OTHER, MAYS      L      GBRA - MBWSP - SURACE-WATER WAR SR (OPTION 3.2)      AQUIFR STORAGE AND RECOVERY      0      0      0      2.02.9      2.22.0        K      COUNTY-OTHER, MAYS      L      TWAR REGIONAL-CARRIZO AQUIFRE DEVELOPMENT      - GROUNDWATER WELLS AND OTHER      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91.7      91  | L         | SAN MARCOS             | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 0                | 0                | 4,581             | 5,717            |
| L      VICTORIA      L      GRA-NEWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      2.994      1.300      0      0      0        STEAM ELECTRIC FOWER.       GBRA-NBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      1.499      0      0      0        L      WIMBERLEY      L      GBRA-NBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      236      564      934      1.233        G      COUNTY-OTHER, MCLENNAN G.      WITH UPGRADE-CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      236      564      934      1.233        K      COUNTY-OTHER, MAXS      L      GBRA-MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0 </td <td></td> <td>STEAM ELECTRIC POWER,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |           | STEAM ELECTRIC POWER,  |                  |  |   |                         |                   |                  |                  |                   |                  |
| STEAM ELCTRIC POWER,    VICTORIA    L    GRA- HBWSP- CONJUNCTIVE USE (OPTION 3A)    CARRIZO DEVELOPMENT    CONJUNCTIVE USE    0    0    11.899    0    0    0      L    WIMBERLEY    L    GBA- HBWSP- CONJUNCTIVE USE (OPTION 3A)    CARRIZO DEVELOPMENT    CONJUNCTIVE USE    0    0    124    456    778    10.033      L    WIMBERLEY    L    GBA- HBWSP- CONJUNCTIVE USE (OPTION 3A)    CARRIZO DEVELOPMENT    CONJUNCTIVE USE    0    0    236    564    924    12.23      G    COUNTY-OTHER, MAYS    L    GBRA- MBWSP- SURFACE WATER WARK ARR OPTION 3C)    AQUIFER STORAGE AND ARECOVERY    0    0    0    2.029    7.230      K    COUNTY-OTHER, MAYS    L    TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT    CROUNDWATER WELLS AND OTHER    0<   | L         | VICTORIA               | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 2,994             | 1,320            | 0                | 0                 | 0                |
| L      VICTORIA      L      GBRA - MBWSP - CONJUNCTIVE USE WICKS (OPTION 3A)      CONJUNCTIVE USE      0      0      1.189      0      0      0        L      WIMBERLEY      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      1.74      455      778      1.033        L      WIMBERLEY WSC      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      2.36      554      914      1.223        C      COUNTY-OTHER, MCLENNAN      C      WITP UPGRADE FOR AREEMIC RMANAL      GROUNDWATER WELLS AND OTHER      91.7      <  |           | STEAM ELECTRIC POWER,  |                  |  |   |                         |                   |                  |                  |                   |                  |
| L      WINBERLEY      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      174      456      778      1033        L      WINBERLEY WSC      L      GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      174      456      778      1033        C      COUNTY-OTHER, MCLENNAN C      WTP UPGRADE FOR ARSENIC REMOVAL      CROUNDWATER WELLS AND OTHER      917      91   | L         | VICTORIA               | L                | GBRA - MBWSP - CONJUNCTIVE USE W/ASR (OPTION 3A)                 | CONJUNCTIVE USE                         | 0                       | 0                 | 11,899           | 0                | 0                 | 0                |
| L      WINDERLEY WSC      L      GRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT      CONJUNCTIVE USE      0      0      236      564      934      1,233        G      COUNTY-OTHER, MCLENNANI G      WTPUPGRADE FOR ABSENIC REMOVAL      -GROUNDWATTER WELLS AND OTHER      917 <td>L</td> <td>WIMBERLEY</td> <td>L</td> <td>GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT</td> <td>CONJUNCTIVE USE</td> <td>0</td> <td>0</td> <td>174</td> <td>456</td> <td>778</td> <td>1,033</td>  | L         | WIMBERLEY              | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 0                 | 174              | 456              | 778               | 1,033            |
| G    COUNTY OTHER, MCLENNAN, G-    WTP UPGRADE FOR ARSENIC REMOVAL    GROUNDWATER WELLS AND OTHER    917<   | L         | WIMBERLEY WSC          | L                | GBRA - MBWSP - CONJUNCTIVE USE (OPTION 3A) - CARRIZO DEVELOPMENT | CONJUNCTIVE USE                         | 0                       | 0                 | 236              | 564              | 934               | 1,223            |
| G      COUNTY OTHER, MCLENNAN C.      WITP UPGRADE FOR ARSENIC REMOVAL      CROUNDWATER WELLS AND OTHER      917      <   | _         |                        |                  |  |   |                         |                   |                  |                  |                   |                  |
| K      COUNTY-OTHER, HAYS      L      GBRA-MBWSP-SURFACE WATER, WASR (OPTION 3C)      AQUIER STORAGE AND RECOVERY      0      0      0      1,149      4,685      4,388        CANYON LAKE WATER      U      TWA REGIONAL CARRIZO AQUIER DEVELOPMENT      GROUNDWATER WELLS AND OTHER      0 <td>G</td> <td>COUNTY-OTHER, MCLENNAN</td> <td>G-</td> <td>WTP UPGRADE FOR ARSENIC REMOVAL</td> <td>-GROUNDWATER WELLS AND OTHER</td> <td>917</td> <td>917</td> <td>917</td> <td>917</td> <td>917</td> <td>917</td>   | G         | COUNTY-OTHER, MCLENNAN | G-               | WTP UPGRADE FOR ARSENIC REMOVAL                                  | -GROUNDWATER WELLS AND OTHER            | 917                     | 917               | 917              | 917              | 917               | 917              |
| K      COUNTY-OTHER, HAYS      L      TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT      CROUNDWATER WELLS AND OTHER      0      0      0      0      1.169      4.885      4.385      4.385      4.385      4.385      4.385      4.385      4.385      4.385      4.385      4.385      4.385      5.814      7.468        L      GORDATH SUD      L      GBRA - MBWSP SURFACE WATER W/ASR (OPTION 3C)      -AQUIFER STORAGE AND RECOVERY      0   | K         | COUNTY-OTHER, HAYS     | <u> </u>         | GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)                  |   | 0                       | 0                 | 0                | 0                | 2,029             | 7,220            |
| L      SERVICE: COMPANY      L      TWA REGIONAL CARRIZO AQUIFER-DEVELOPMENT      GROUNDWATER-WELLS AND OTHER      0      671      2,373      4,095      5,814      7,468        L      GOFORTH-SUD      L      GBRA-MBWSP-SURFACE WATER W/ASR (OPTION 3C)      -AQUIFER STORAGE AND RECOVERY      1,120      1,120      1,424      1,947      2,402        L      LOCKHART      L      GBRA-MBWSP-SURFACE WATER W/ASR (OPTION 3C)      -AQUIFER STORAGE AND RECOVERY      1,120      1,424      1,947      2,402        L      LULING      L      GBRA-MBWSP-SURFACE WATER W/ASR (OPTION 3C)      -AQUIFER STORAGE AND RECOVERY      1,130      1,680      1,612   | K         | COUNTY-OTHER, HAYS     | Ł                | TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT                         | -GROUNDWATER WELLS AND OTHER            | θ                       | 9                 | 0                | <del>1,169</del> | 4 <del>,685</del> | 4,388            |
| L      Stew/Lecommanne      E      HWA REGIonal CARRZO AQUIRE DEVELOPMENT      CROUNDWATER WELS AND OTHER      0   |           |                        |                  |  |   | •                       | (7)               | 2 272            | 4 005            | 5.01.4            | 7.440            |
| L GORXIH SUD L GBRA - MBWSP - SURFACE WATER W/ ASK (OPTION 3C) - AQUIFER STORAGE AND RECOVERY 1,120 1,120 1,120 1,120 1,424 1,947 2,402 L LOCKHART L GBRA - MBWSP - SURFACE WATER W/ ASK (OPTION 3C) - AQUIFER STORAGE AND RECOVERY 1,660 | L         |                        | <u>+</u>         |  |   | <u>θ</u>                | 6/1               | 2,3/3            | 4,095            | 5,814             | <del>/,468</del> |
| L      L      GBRA_MBWSP_SURFACE WATER W/ ASR (OPTION 3C)      AQUIFER STORAGE AND RECOVERY      1,120   | <u>L</u>  |                        | <u> </u>         |  |   | U 120                   |                   |                  | ¥                | U 047             | <del>323</del>   |
| L    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    1,880    1,88   | L         |                        | <u> </u>         |  |   | +,+20                   | +,120             | +,+20            | 1,484            | 1,947             | <u>2,402</u>     |
| L    MANUFACTURING, COMAL    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    0    163    494    854      L    GUADALUPE    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    0    163    494    854      L    NIEDERWALD    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    62    81    105    134    166    203      L    SAN MARCOS    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    2,380    3,471    4,581    5,717      STEAM ELECTRIC POWER,-    -    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    2,380    3,471    4,581    5,717      STEAM ELECTRIC POWER,-    -    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -    AQUIFER STORAGE AND RECOVERY    0    0    0    0    0      L    VICTORIA    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -    AQUIFER STORAGE AND RECOVERY    0    0    7.4 <td< td=""><td><u>L</u></td><td></td><td></td><td>GBRA - MINA/CR - CLUREACE VALLER W/ ASR (OPTION 3C)</td><td></td><td>1,680</td><td>1,680</td><td></td><td><del>1,680</del></td><td>1,684</td><td><del>1,8/5</del></td></td<>   | <u>L</u>  |                        |                  | GBRA - MINA/CR - CLUREACE VALLER W/ ASR (OPTION 3C)              |   | 1,680                   | 1,680             |                  | <del>1,680</del> | 1,684             | <del>1,8/5</del> |
| LGUADALUPEL-GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY000163494854LNIEDERWALDLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY6281105134166203LSAN MARCOSLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY002,3803,4714,5815,717STEAM ELECTRIC POWER,LVICTORIALGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY000000LWIMBERLEYLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY0074356678933LWIMBERLEYLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY00100100100LWIMBERLEYLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY00146464933LWIMBERLEYLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY00100100100LWIMBERLEY WSCLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY00100100100LWIMBERLEY WSCLGBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)AQUIFER STORAGE AND RECOVERY00 <td>L</td> <td>MANUFACTURING, COMAL</td> <td>F</td> <td>GBKA - MBWSP - SUKFACE WATER W/ ASK (OPTION 3C)</td> <td></td> <td><del>4,1<i>3</i>0</del></td> <td><del>4,88  </del></td> <td><del>5,612</del></td> <td><del>6,239</del></td> <td><del>7,120</del></td> <td>8,074</td>  | L         | MANUFACTURING, COMAL   | F                | GBKA - MBWSP - SUKFACE WATER W/ ASK (OPTION 3C)                  |   | <del>4,1<i>3</i>0</del> | <del>4,88  </del> | <del>5,612</del> | <del>6,239</del> | <del>7,120</del>  | 8,074            |
| L    GOADACCY    L    GBAA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    - AQUIFER STORAGE AND RECOVERY    62    81    105    134    166    203      L    NIEDERWALD    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    - AQUIFER STORAGE AND RECOVERY    62    81    105    134    166    203      L    SAN MARCOS    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    - AQUIFER STORAGE AND RECOVERY    0    0    2,380    3,471    4,581    5,717      STEAM ELECTRIC POWER,-    -    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    - AQUIFER STORAGE AND RECOVERY    0    0    2,994    13,219    0 </td <td></td> <td></td> <td>1</td> <td></td> <td></td> <td>0</td> <td>0</td> <td>0</td> <td>142</td> <td>494</td> <td>054</td>  |           |                        | 1                |  |   | 0                       | 0                 | 0                | 142              | 494               | 054              |
| L    NIEDERWALD    L    OBBAL    OBBAL    OTHEWSF    SURFACE WATER W/ ASK (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    2,380    3,471    4,581    5,717      I    SAN MARCOS    L    GBRA    MBWSP    SURFACE WATER W/ ASK (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    2,380    3,471    4,581    5,717      STEAM    EL    GBRA    MBWSP    SURFACE WATER W/ ASK (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0 </td <td>L</td> <td></td> <td><u>+</u></td> <td>CRRA MRIAKR SUBFACE WATER W/ ASR (OFTION 3C)</td> <td></td> <td><del>4</del></td> <td>01<br/>A</td> <td></td> <td>103</td> <td>474</td> <td>202</td>  | L         |                        | <u>+</u>         | CRRA MRIAKR SUBFACE WATER W/ ASR (OFTION 3C)                     |   | <del>4</del>            | 01<br>A           |                  | 103              | 474               | 202              |
| L    SART-MERCOS    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    2,994    13,219    0    0    0    0      L    VICTORIA    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    0    0    74    356    678    933      L    WIMBERLEY    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    0    0    74    356    678    933      L    WIMBERLEY    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    0    0    100 <t< td=""><td>L</td><td></td><td></td><td></td><td></td><td><del>02</del></td><td><del>01</del></td><td>2 201</td><td>2 /71</td><td>4 591</td><td><u>203</u></td></t<>   | L         |                        |                  |  |   | <del>02</del>           | <del>01</del>     | 2 201            | 2 /71            | 4 591             | <u>203</u>       |
| L    VICTORIA    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    2,994    13,219    0    0    0      L    WIMBERLEY    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    AQUIFER STORAGE AND RECOVERY    0    0    74    356    678    933      L    WIMBERLEY    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -GROUNDWATER WELLS AND OTHER    0    0    100  | <u> </u>  | STEAM ELECTRIC POWER   | E                | GBRA-HIBWSF-SORFACE WATER W ASK (OF HON SC)                      | AQUIFER STORAGE AND RECOVERT            | <b>A</b>                | 4                 | 2,300            | 3,771            | 7,301             | 3,717            |
| L    WIMBERLEY    L    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    0    0    74    356    678    933      L    WIMBERLEY    L    TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT    -GROUNDWATER WELLS AND OTHER    0    0    100 <td></td> <td></td> <td>L</td> <td></td> <td></td> <td>٥</td> <td>2 994</td> <td>13219</td> <td>۵</td> <td>۵</td> <td>۵</td>   |           |                        | L                |  |   | ٥                       | 2 994             | 13219            | ۵                | ۵                 | ۵                |
| L    WIMBERLEY    L-    TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT    GROUNDWATER WELLS AND OTHER    0    0    100    100    100    100      L    WIMBERLEY WSC    L-    GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)    -AQUIFER STORAGE AND RECOVERY    0    0    136    464    834    1,123      L    WIMBERLEY WSC    L-    TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT    -GROUNDWATER WELLS AND OTHER    0    0    100  | -         | WIMBERI FY             | <u> </u>         | GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)                  |   | <u>۵</u>                | <u></u>           | <u>74</u>        | 356              | <u>478</u>        | <u>933</u>       |
| L  WIMBERLEY WSC  L  GBRA - MBWSP - SURFACE WATER W/ ASR (OPTION 3C)  AQUIFER STORAGE AND RECOVERY  0  0  136  464  834  1,123    L  WIMBERLEY WSC  L  TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT  GROUNDWATER WELLS AND OTHER  0  0  100   | -         | WIMBERI EY             |                  |  |   | <u>ې</u>                | <u>ب</u><br>۵     |                  | <u> </u>         | 100               |                  |
| L WIMBERLEY WSC L TWA REGIONAL CARRIZO AQUIFER DEVELOPMENT GROUNDWATER WELLS AND OTHER GA A LOG   | -         |                        |                  | GBRA - MBWSP - SUBFACE WATER W/ ASR (OPTION 3C)                  |   | <del>ن</del><br>۵       | <u>۔</u>          | 136              | 464              | <u>834</u>        | 1123             |
|   | -         |                        |                  |  |   | <u>۵</u>                | <u>ب</u><br>۵     | <u></u>          | <u></u>          | 100               |                  |

#### Strategy supply volume by planning decade (acre-feet per year)



#### 2017 State Water Plan: Amendment #2

The following changes were made to the 2017 State Water Plan as a result of minor amendments to the 2016 Regions G and K Regional Water Plans and a substitution of an alternative water management strategy in the 2016 Region L Regional Water Plan.

Previously recommended water management strategy projects designated as alternative through the amendment are reflected in strikethrough in the table below. This amendment was approved by the Texas Water Development Board on December 7, 2017.

#### ADDITIONS AND REVISIONS TO THE LIST OF RECOMMENDED WATER MANAGEMENT STRATEGY PROJECTS

| Project |  |                 |                                   |                         |   |
|---------|--|-----------------|-----------------------------------|-------------------------|---|
| sponsor |  | Online          |                                   |                         |   |
| region  | Project  | decade          | Project sponsors                  | Capital cost            | Project related water management strategy types |
| G       | MCLENNAN COUNTY REGIONAL ARSENIC MITIGATION - OTHER  | 2020            | COUNTY-OTHER (MCLENNAN)           | \$9,756,00              | 0 OTHER SURFACE WATER                           |
| G       | MCLENNAN COUNTY REGIONAL ARSENIC MITIGATION - RIESEL | 2020            | RIESEL                            | \$643,00                | 0 OTHER SURFACE WATER                           |
| G       | MCLENNAN COUNTY REGIONAL ARSENIC MITIGATION - WACO   | 2020            | WACO                              | \$20,287,00             | 0 OTHER SURFACE WATER                           |
| К       | URGENT WATER LOSS REDUCTION PROJECT - CMWSC          | 2020            | CREEDMOOR-MAHA WSC                | \$4,501,08              | 0 MUNICIPAL CONSERVATION                        |
| L       | GBRA - MBWSP - CONJUNCTIVE USE WITH ASR (OPTION 3A)  | 2020            | GUADALUPE BLANCO RIVER AUTHORITY  | \$700,897,00            | 0 CONJUNCTIVE USE                               |
| G       | UPGRADE WTP FOR ARSENIC-MCLENNAN COUNTY OTHER        | <del>2020</del> | -COUNTY-OTHER (MCLENNAN)          | <del>\$3,811,00</del>   | 0 - GROUNDWATER WELLS AND OTHER                 |
| L       | MID-BASIN WATER SUPPLY PROJECT                       | 2020            | -GUADALUPE BLANCO RIVER AUTHORITY | <del>\$736,381,00</del> | 0 AQUIFER STORAGE AND RECOVERY                  |
| L       | TWA REGIONAL CARRIZO                                 | 2020            | -TEXAS WATER ALLIANCE             | <del>\$279,632,00</del> | 0 - GROUNDWATER WELLS AND OTHER                 |