



## 5.36 Williamson County Water Supply Plan

Table 5.36-1 lists each water user group in Williamson County and their corresponding surplus or shortage in years 2040 and 2070. A brief summary of the water user groups and the plan for the selected water user are presented in the following subsections.

**Table 5.36-1. Williamson County Surplus/(Shortage)**

Water User Group	Surplus/(Shortage) <sup>1</sup>		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Bartlett	(344)	(472)	Projected shortage – see plan below
Bell-Milam Falls WSC			See Bell County
Blockhouse MUD	279	287	Projected surplus
Brushy Creek MUD	(920)	(1,848)	Projected shortage – see plan below
City of Cedar Park	(4,082)	(4,348)	Projected shortage – see 5.38
Chisholm Trail SUD <sup>2</sup>	(5,070)	(10,401)	Projected shortage – see plan below
Fern Bluff MUD	(253)	(259)	Projected shortage – see plan below
City of Florence	(65)	(92)	Projected shortage – see plan below
City of Georgetown	(6,695)	(24,121)	Projected shortage – see plan below
City of Granger	(133)	(190)	Projected shortage – see plan below
City of Hutto	(5,558)	(11,994)	Projected shortage – see plan below
Jarrell	0	0	Demand equals supply
Jarrell-Schwertner WSC	1,020	263	Projected surplus
Jonah Water SUD	(819)	(2,977)	Projected shortage – see plan below
City of Leander <sup>2</sup>	(12,090)	(33,576)	Projected shortage – see plan below
City of Liberty Hill	56	56	Projected surplus
Manville WSC <sup>3</sup>	2,335	814	Projected surplus
City of Pflugerville <sup>3</sup>	0	0	Demand equals supply
City of Round Rock <sup>2</sup>	(14,028)	(46,089)	Projected shortage – see 5.38
Southwest Milam WSC			See Milam County
City of Taylor	0	0	Demand equals supply
City of Thorndale			See Milam County
Thrall	0	0	Demand equals supply
Williamson-Travis County MUD #1	212	218	Projected surplus
Williamson-Travis County MUD #10	(352)	(688)	Projected shortage – see plan below
Williamson-Travis County MUD #11	(193)	(326)	Projected shortage – see plan below
WILLIAMSON COUNTY MUD #9	(263)	(448)	Projected shortage – see plan below
County-Other	(13,402)	(22,243)	Projected shortage – see plan below

**Table 5.36-1. Williamson County Surplus/(Shortage)**

Water User Group	Surplus/(Shortage) <sup>1</sup>		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Manufacturing	(11)	(11)	Projected shortage – see plan below
Steam-Electric	0	0	No projected demand
Mining	(6,949)	(10,771)	Projected shortage – see plan below
Irrigation	(71)	(72)	Projected shortage – see plan below
Livestock	0	0	Demand equals supply

1 – From Tables C-71 and C-72, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

2 – Balance is total between Brazos G and Region K for WUG.

3 – Balance is only for portion of WUG in Brazos G.

### 5.36.1 City of Bartlett

#### Description of Supply

The City of Bartlett obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City of Bartlett is projected to have shortages through the year 2070. This WUG is located in multiple counties (Williamson and Bell). The shortages shown in Table 5.36-1 represent the cumulative totals for the City of Bartlett.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Bartlett.

- a. Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Annual Cost: maximum of \$24,310 in 2020
  - Unit Cost: \$470/acft
- b. Advanced Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: 2050
  - Annual Cost: maximum of \$31,960 in 2070
  - Unit Cost: \$470/acft
- c. Brackish Trinity Development
  - Cost Source: Volume II, Chapter 12



- Date to be Implemented: before 2020
- Project Cost: \$10,428,000
- Unit Cost: Max of \$2,827 in 2020

**Table 5.36-2. Recommended Plan Costs by Decade for City of Bartlett**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(281)	(309)	(344)	(383)	(428)	(472)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	12	40	61	62	68	73
Annual Cost (\$/yr)	\$5,640	\$18,800	\$28,670	\$29,140	\$31,960	\$34,310
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	(269)	(269)	(283)	(321)	(360)	(399)
<b>Advanced Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	6	35	68
Annual Cost (\$/yr)	—	—	—	\$2,820	\$16,450	\$31,960
<i>Projected Surplus/(Shortage) after Advanced Conservation (acft/yr)</i>	(269)	(269)	(283)	(315)	(325)	(331)
<b>Brackish Trinity Development</b>						
Supply From Plan Element (acft/yr)	323	323	323	323	645	645
Annual Cost (\$/yr)	\$912,000	\$912,000	\$476,000	\$476,000	\$1,387,000	\$1,387,000
Unit Cost (\$/acft)	\$2,827	\$2,827	\$1,476	\$1,476	\$2,150	\$2,150

### 5.36.2 Blockhouse MUD

Blockhouse MUD obtains its water supply from the City of Cedar Park. No shortages are projected for Blockhouse MUD and no changes in water supply are recommended. Conservation and advanced conservation were considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd in 2070.

### 5.36.3 Brushy Creek MUD

#### Description of Supply

Brushy Creek MUD obtains its water supply from a contract with the Brazos River Authority for water from Stillhouse Hollow Reservoir and from local groundwater. Brushy Creek MUD has a projected shortage through 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Brushy Creek MUD.

- Conservation

- Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$762,810 in 2070
- b. Advanced Conservation
- Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$201,693 in 2070
- c. Groundwater Development – Edwards Aquifer (BFZ)
- Cost Source: Volume II, Chapter 12
  - Date to be Implemented: before 2050
  - Project Cost: \$182,000
  - Unit Cost: \$1,919/acft

**Table 5.36-3. Recommended Plan Costs by Decade for Brushy Creek MUD**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(58)	(98)	(920)	(1,428)	(1,764)	(1,848)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	197	589	947	1,282	1,600	1,623
Annual Cost (\$/yr)	\$92,590	\$276,830	\$445,090	\$602,540	\$752,000	\$762,810
<i>Projected Surplus/(Shortage) after Conservation</i>	139	491	27	(146)	(164)	(225)
<b>Advanced Conservation</b>						
Supply From Plan Element (acft/yr)	39	81	111	135	152	430
Annual Cost (\$/yr)	\$18,342	\$37,853	\$52,226	\$63,131	\$71,213	\$201,693
Projected Surplus/(Shortage) after Advanced Conservation	178	572	138	(11)	(12)	205
<b>Edwards Aquifer Development</b>						
Supply From Plan Element (acft/yr)	—	—	—	11	12	12
Annual Cost (\$/yr)	—	—	—	\$23,028	\$23,028	\$9,028
Unit Cost (\$/acft)	—	—	—	\$1,919	\$1,919	\$752

#### 5.36.4 City of Cedar Park

The recommended water supply plan for the City of Cedar Park is included in Section 5.38 with the wholesale water providers.

## 5.36.5 Chisholm Trail SUD

### Description of Supply

Chisholm Trail SUD has service area in Williamson and Burnet (Region K) County. The entity obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Brazos River Authority for water from Lake Stillhouse Hollow. Based on the available groundwater and surface water supply, Chisholm Trail SUD is projected to have a shortage starting in 2020. This WUG is located in multiple counties (Williamson and Bell). The City of Georgetown has recently taken over operations of the utility and is expected to be the primary supplier of future water needs for the utility. Balance and strategies represented in Table 5.36-4 represent the cumulative totals for Chisholm Trail SUD in both counties and regions.

### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region K, the following water management strategy is recommended for the Chisholm Trail SUD.

- a. Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$808,400 in 2070
- b. Advanced Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$808,400 in 2070
- c. Increase Water Treatment Plant
  - Cost Source: Volume II, Chapter 12
  - Date to be Implemented: 2020
  - Project Cost: \$31,675,000
  - Unit Cost: \$656
- d. Reallocation from City of Georgetown
  - Cost Source: Volume II, Chapter 12
  - Date to be Implemented: before 2020
  - Project Cost: Infrastructure assumed to be sufficient

- Unit Cost: Wholesale water rate of \$977/acft assumed

**Table 5.36-4. Recommended Plan Costs by Decade for Chisholm Trail SUD**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(2,392)	(3,577)	(5,070)	(6,685)	(8,512)	(10,401)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	213	758	1,069	1,263	1,494	1,736
Annual Cost (\$/yr)	\$100,145	\$356,046	\$502,374	\$593,766	\$701,952	\$816,153
<i>Projected Surplus/(Shortage) after Conservation</i>	(2,179)	(2,820)	(4,001)	(5,422)	(7,019)	(8,665)
<b>Additional Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	6	503	1,159	1,967
Annual Cost (\$/yr)	—	—	\$3,037	\$236,106	\$543,669	\$922,431
<i>Projected Surplus/(Shortage) after Advanced Conservation</i>	(2,179)	(2,820)	(4,001)	(4,919)	(5,860)	(6,698)
<b>Increase Water Treatment Plant</b>						
Supply From Plan Element (acft/yr)	3,527	3,334	3,639	4,604	5,931	7,489
Annual Cost (\$/yr)	\$2,314,000	\$2,187,000	\$1,099,000	\$1,390,000	\$1,791,000	\$2,262,000
Unit Cost (\$/yr)	\$656	\$656	\$302	\$302	\$302	\$302
<b>Reallocation from City of Georgetown</b>						
Supply From Plan Element (acft/yr)	—	—	400	400	—	—
Annual Cost (\$/yr)	—	—	\$391,000	\$391,000	—	—
Unit Cost (\$/yr)	—	—	\$977	\$977	—	—

### 5.36.6 Fern Bluff MUD

#### Description of Supply

Fern Bluff MUD obtains its water supply from the City of Round Rock, for which shortages are projected. Conservation is recommended to reduce the demand to eliminate anticipated shortages. The contract with Round Rock is sufficient to meet the remaining demands of Fern Bluff MUD.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Fern Bluff MUD.

##### a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$122,670 in 2050



- Unit Cost: \$470/acft

**Table 5.36-5. Recommended Plan Costs by Decade for Fern Bluff MUD**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(63)	(161)	(253)	(261)	(259)	(259)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	63	161	253	261	259	259
Annual Cost (\$/yr)	\$29,610	\$75,670	\$118,910	\$122,670	\$121,730	\$121,730
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

### 5.36.7 City of Florence

#### Description of Supply

The City of Florence obtains its water supply from groundwater from the Trinity Aquifer. Based on the City’s available groundwater supply, the City of Florence is projected to have a shortage through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Florence.

a. Edwards Aquifer Development

- Cost Source: Volume II, Chapter 12
- Date to be Implemented: 2020
- Annual Cost: \$26,226
- Unit Cost: \$1,093/acft

b. Trinity Aquifer Development

- Cost Source: Volume II, Chapter 12
- Date to be Implemented: 2020
- Annual Cost: Maximum of \$701,000 in 2020
- Unit Cost: Maximum of \$5,795/acft in 2020

Conservation and advanced conservation were considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-6. Recommended Plan Costs by Decade for the City of Florence**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(59)	(61)	(65)	(72)	(81)	(92)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(59)	(61)	(65)	(72)	(81)	(92)
<b>Groundwater Development - Edwards</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	13	24
Annual Cost (\$/yr)	—	—	—	—	\$26,226	\$26,226
Unit Cost (\$/yr)	—	—	—	—	\$1,093	\$1,093
<b>Groundwater Development –Trinity (Bell County)</b>						
Supply From Plan Element (acft/yr)	121	121	121	121	121	121
Annual Cost (\$/yr)	\$701,000	\$701,000	\$261,000	\$261,000	\$261,000	\$261,000
Unit Cost (\$/yr)	\$5,795	\$5,795	\$2,158	\$2,158	\$2,158	\$2,158

### 5.36.8 City of Georgetown

#### Description of Supply

The City of Georgetown obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Brazos River Authority for water from Lake Georgetown and Stillhouse Hollow Reservoir. Based on the available treatment capacity of the city’s water treatment plant, the City of Georgetown is projected to have a shortage from 2030 through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for The City of Georgetown. Associated costs are included for each strategy.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$224,000 in 2070
- Unit Cost: \$474/acft

b. Advanced Conservation

- Cost Source: Volume II, Chapter 2





- Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$201,693 in 2070
- c. Increase Treatment Plant Capacity
- Cost Source: Volume II, Chapter 12
  - Date to be Implemented: before 2020
  - Project Cost: \$44,534,000
  - Unit Cost: \$576/acft

The City of Georgetown has provided information regarding a potential strategy to pump flows from the South Fork of the San Gabriel River into Lake Georgetown through an existing 30-inch pipeline that could be repurposed for the diversion. Based upon an analysis of data from 1967 to 2007, an average annual diversion of about 4,000 acft/yr might be possible. The level of analysis available at this time precludes including this strategy in the 2016 Brazos G Regional Water Plan; however, this strategy warrants future consideration. Future evaluations of the project would need to include an analysis of the flows available for diversion constrained by downstream senior water rights and the resulting improvement to the firm yield of Lake Georgetown over the period of record in the Brazos WAM (1940-1997), costs for the river intake and associated infrastructure, and an evaluation of potential environmental impacts to the South Fork of the San Gabriel River.

**Table 5.36-7. Recommended Plan Costs by Decade for City of Georgetown**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	1,600	(2,194)	(6,695)	(11,781)	(17,840)	(24,121)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	734	2,507	5,068	8,141	9,756	11,442
Annual Cost (\$/yr)	\$344,980	\$1,178,290	\$2,381,960	\$3,826,270	\$4,585,320	\$5,377,740
<i>Projected Surplus/(Shortage) after Conservation</i>	2,334	313	(1,627)	(3,640)	(8,084)	(12,679)
<b>Advanced Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	1,612	4,404
Annual Cost (\$/yr)	—	—	—	—	\$757,640	\$2,069,880
<i>Projected Surplus/(Shortage) after Advanced Conservation</i>	2,334	313	(1,627)	(3,640)	(6,472)	(8,275)
<b>Increase Water Treatment Capacity (21 MGD expansion)</b>						
Supply From Plan Element (acft/yr)	—	11,626	11,626	11,626	11,626	11,304
Annual Cost (\$/yr)	—	\$6,917,000	\$6,917,000	\$3,186,000	\$3,186,000	\$3,186,000
Unit Cost (\$/yr)	—	\$576	\$576	\$266	\$266	\$266

### 5.36.9 City of Granger

#### Description of Supply

The City of Granger obtains its water supply from groundwater from the Trinity Aquifer. Based on the available groundwater supply, the City of Granger is projected to have a shortage through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Granger.

- a. BRA Supply (Lake Granger) through the East Williamson County Water Supply Project
  - Cost Source: Volume II, Chapter 8.2
  - Date to be Implemented: 2020
  - Project Cost \$42,127,000
  - Unit Cost: \$1,173/acft

Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.



**Table 5.36-8. Recommended Plan Costs by Decade for City of Granger**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(113)	(121)	(133)	(148)	(169)	(190)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(113)	(121)	(133)	(148)	(169)	(190)
<b>BRA Supply (Lake Granger) through the EWCWSP</b>						
Supply From Plan Element (acft/yr)	200	200	200	200	200	200
Annual Cost (\$/yr)	\$234,600	\$234,600	\$150,800	\$150,800	\$150,800	\$150,800
Unit Cost (\$/yr)	\$1,173	\$1,173	\$754	\$754	\$754	\$754

### 5.36.10 City of Hutto

#### Description of Supply

The City of Hutto obtains its water supply from Heart of Texas Water Suppliers LLC, Manville WSC and City of Taylor. The contractual supply from the Heart of Texas totals 5,600 acft/yr, but the current supply from is limited by the MAG in Williamson County. Based on the available supplies, the City of Hutto is projected to have shortages through 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for the City of Hutto. Associated costs are included for each strategy.

a. Increase Supply from Heart of Texas WSC

Heart of Texas Water Suppliers LLC does not currently have sufficient supply to meet the contractual requirements with Hutto. Limited groundwater is available under the MAG in Williamson County. It is anticipated that additional supplies will be developed by Heart of Texas WSC in Lee County to meet needs.

- Cost Source: Volume II, Chapter 12
- Date to be Implemented: before 2020
- Project Cost: (cost to be borne by Heart of Texas WSC)
- Unit Cost: \$977

b. Alternative: Little River Off-Channel Reservoir

- Cost Source: Volume II, Chapter 4.7
  - Strategy could be supplied by the BRA System Operation, dependent on permit approval by TCEQ
- Date to be Implemented: before 2030
- Project Cost: \$487,611,000
- Unit Cost: \$1,038/acft

During the Brazos G regional water planning process, water management strategies such as additional development of Carrizo-Wilcox Aquifer groundwater and the Lake Granger Augmentation Project were preferred options to include in the 2016 Brazos G Regional Water Plan. When confronted by the Modeled Available Groundwater (MAG) limitations of these two options, the BGRWPG has little alternative but to make the Little River Off-Channel Reservoir a recommended or alternative strategy.

Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-9. Recommended Plan Costs by Decade for City of Hutto**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(2,256)	(3,678)	(5,481)	(7,426)	(10,193)	(12,477)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(2,256)	(3,678)	(5,481)	(7,426)	(10,193)	(12,477)
<b>Increase Supplies from Heart of Texas WSC (Volume II, Chapter 12)</b>						
Supply From Plan Element (acft/yr)	5,593	5,593	5,593	7,503	9,710	11,994
Annual Cost (\$/yr)	\$5,464,000	\$5,464,000	\$5,464,000	\$ 7,330,000	\$9,487,000	\$11,718,000
Unit Cost (\$/yr)	\$977	\$977	\$977	\$977	\$977	\$977
<b>Alternative: Little River Off-Channel Reservoir (BRA)</b>						
Supply From Plan Element (acft/yr)	—	378	2,181	4,001	6,215	8,499
Annual Cost (\$/yr)	—	\$392,000	\$2,264,000	\$1,848,000	\$2,871,000	\$2,975,000
Unit Cost (\$/yr)	—	\$1,038	\$1,038	\$462	\$462	\$350

### 5.36.11 City of Jarrell

#### Description of Supply

The City of Jarrell obtains its supply from the Jarrell-Schwertner WSC through groundwater wells located within and near the City. The current groundwater supplies equal projected demand through 2070.



## Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for the City of Granger.

- a. BRA Supply (Lake Granger) through the East Williamson County Water Supply Project
  - Cost Source: Volume II, Chapter 8.2
  - Date to be Implemented: 2020
  - Project Cost \$42,127,000
  - Unit Cost: \$1,173/acft

Conservation and advanced conservation whereas considered; however, the entity's current per capita use rate is below the selected target rate of 140 120 gpcd in 2070.

**Table 5.36-10. Recommended Plan Costs by Decade for City of Jarrell**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	0	0	0	0	0	0
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0
<b>BRA Supply (Lake Granger) through the EWCWSP</b>						
Supply From Plan Element (acft/yr)	100	100	100	100	100	100
Annual Cost (\$/yr)	\$117,300	\$117,300	\$75,400	\$75,400	\$75,400	\$75,400
Unit Cost (\$/yr)	\$1,173	\$1,173	\$754	\$754	\$754	\$754

### 5.36.12 Jarrell-Schwertner WSC

Jarrell-Schwertner WSC obtains its water supply from the Edwards-BFZ (Northern Segment) Aquifer, and Central Texas WSC. The WSC also has a contract with BRA for supplies from Stillhouse Hollow Lake. Based on the available water supply, Jarrell-Schwertner WSC is projected to have a surplus throughout the planning period. This WUG is located in multiple counties (Williamson and Bell). The surplus/shortages shown in Table 5.36-1 represent the cumulative totals for Jarrell-Schwertner WSC.

### 5.36.13 Jonah Water SUD

#### Description of Supply

Jonah Water SUD obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and a contract with the BRA for treated supply through the East Williamson County WTP. Based on the available groundwater and surface water

supply, Jonah Water SUD is projected to have a shortage from 2030 through the year 2070.

### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Jonah Water SUD.

a. BRA Supply (Lake Granger) through the East Williamson County Water Supply Project

- Cost Source: Volume II, Chapter 12
- Date to be Implemented: 2020
- Project Cost \$42,127,000
- Unit Cost: Max of 1,173/acft

Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-11. Recommended Plan Costs by Decade for Jonah Water SUD**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	155	(266)	(819)	(1,525)	(2,229)	(2,977)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	155	(266)	(819)	(1,525)	(2,229)	(2,977)
<b>BRA Supply (Lake Granger) through the EWCWSP</b>						
Supply From Plan Element (acft/yr)	3,000	3,000	3,000	3,000	3,000	3,000
Annual Cost (\$/yr)	\$3,519,000	\$3,519,000	\$2,262,000	\$2,262,000	\$2,262,000	\$2,262,000
Unit Cost (\$/acft)	\$1,173	\$1,173	\$754	\$754	\$754	\$754

### 5.36.14 City of Leander

#### Description of Supply

The City of Leander is located in Williamson and Travis (Region K) County and obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and contracts with the Lower Colorado River Authority for water from the Highland Lakes (Lake Travis and Lake Buchanan). Based on the available groundwater and surface water supply, the City of Leander is projected to have a shortage from the year 2030 through the year 2070. Leander is a participant in the Brushy Creek RUA project with Cedar Park and Round Rock and will obtain future supplies from the Highland Lakes. Balance and strategies represented in Table 5.36-12 represent the cumulative totals for Leander in both counties and regions.



## Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the City of Leander.

- a. Brushy Creek RUA Water Supply Project
  - Cost Source: Volume II, Chapter 7.2
  - Date to be Implemented: 2020
  - Project Cost \$142,186,000 (city's portion of project shared with Liberty Hill)
  - Unit Cost: \$1,128
- b. Contract Amendment with LCRA
  - Cost Source: 2016 Region K Water Plan
  - Date to be Implemented: 2050
  - Project Cost: None. Existing infrastructure assumed sufficient
  - Unit Cost: \$ 151/acft

Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-12. Recommended Plan Costs by Decade for the City of Leander**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	361	(4,653)	(12,090)	(20,936)	(26,947)	(33,576)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	361	(4,653)	(12,090)	(20,936)	(26,947)	(33,576)
<b>Brushy Creek RUA Water Supply Project</b>						
Supply From Plan Element (acft/yr) <sup>1</sup>	17,600	17,600	17,600	17,600	17,600	17,600
Annual Cost (\$/yr)	\$27,072,000	\$27,072,000	\$15,480,000	\$15,480,000	\$15,480,000	\$15,480,000
Unit Cost (\$/acft)	\$1,128	\$1,128	\$645	\$645	\$645	\$645
<b>Contract Amendment with LCRA (Region K)</b>						
Supply From Plan Element (acft/yr)	—	—	—	3,336	9,347	15,976
Annual Cost (\$/yr)	—	—	—	\$504,000	\$1,411,000	\$2,412,000
Unit Cost (\$/acft)	—	—	—	\$151	\$151	\$151

1- The total supply from the strategy is 24,000 acft/y of which the City is currently using 6,400 acft/yr.

### 5.36.15 Liberty Hill

#### Description of Supply

The City of Liberty Hill obtains its water supply from groundwater from the Trinity Aquifer. They also have a BRA contract for 600 acft/yr out of the Highland Lakes (HB1437). Liberty Hill is a participant in the Brushy Creek RUA project with Leander, Cedar Park and Round Rock and will obtain future supplies from the Highland Lakes. The City of Liberty Hill is projected to have a surplus through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the City of Leander.

- a. Brushy Creek RUA Water Supply Project
  - Cost Source: Volume II, Chapter 7.2
  - Date to be Implemented: 2020
  - Project Cost \$142,186,000 (city's portion of project shared with Leander)
  - Unit Cost: \$1,128

Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-13. Recommended Plan Costs by Decade for the City of Liberty Hill**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	361	(4,653)	(12,090)	(20,936)	(26,947)	(33,576)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	361	(4,653)	(12,090)	(20,936)	(26,947)	(33,576)
<b>Brushy Creek RUA Water Supply Project</b>						
Supply From Plan Element (acft/yr)	600	600	600	600	600	600
Annual Cost (\$/yr)	\$677,000	\$677,000	\$387,000	\$387,000	\$387,000	\$387,000
Unit Cost (\$/acft)	\$1,128	\$1,128	\$645	\$645	\$645	\$645

### 5.36.16 Manville WSC

Manville WSC is mostly located in Travis County (Region C); however a portion of the service area is in Williamson County. The WSC obtains its water supply from groundwater from the Edwards and Trinity Aquifers as well as other minor aquifers. No shortages are projected for Manville WSC in Brazos G. The full water plan for Manville WSC is discussed in the 2016 Region K Water Plan.





Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

### 5.36.17 City of Pflugerville

#### Description of Supply

The City of Pflugerville obtains its supply from the Edwards (BFZ) Aquifer in Region K and from the Lower Colorado River Authority. No shortages are projected for the City of Pflugerville. The majority of the City is located in Region K and more details about supplies, needs and strategies are discussed in the 2016 Region K Water Plan.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB and in coordination with Region K, the following water management strategy is recommended for the City of Pflugerville.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$3,760 in 2070
- Unit Cost: \$470/acft

**Table 5.36-14. Recommended Plan Costs by Decade for the City of Pflugerville (Brazos G)**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	0	0	0	0	0	0
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	3	5	5	6	7	8
Annual Cost (\$/yr)	\$1,410	\$2,350	\$2,350	\$2,820	\$3,290	\$3,760
<i>Projected Surplus/(Shortage) after Conservation</i>	3	5	5	6	7	8

### 5.36.18 City of Round Rock

The recommended water supply plan for the City of Round Rock is included in Section 5.38 with the wholesale water providers.

### 5.36.19 City of Taylor

#### Description of Supply

The City of Taylor obtains its water supply from a contract with the Brazos River Authority for water from Lake Granger through the East Williamson County WTP. No shortages are projected for the City of Taylor.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for The City of Taylor.

##### a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$32,250 in 2070
- Unit Cost: \$470/acft

**Table 5.36-15. Recommended Plan Costs by Decade for the City of Taylor**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	0	0	0	0	0	0
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	75	73	17	—	—	—
Annual Cost (\$/yr)	\$35,250	\$34,310	\$7,990	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	75	73	17	0	0	0

### 5.36.20 City of Thrall

The City of Thrall obtains its water supply from groundwater from a minor aquifer and treated surface water from City of Taylor. Based on the available supplies, the City of Thrall is projected to have a adequate supplies through the year 2070. No change in water supply is recommended. Conservation and advanced conservation were considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd in 2070.

### 5.36.21 Williamson-Travis County MUD #1

Williamson-Travis County MUD #1 has demand in Williamson and Travis (Region K) counties and obtains its water supply from the City of Cedar Park. Balance information in Table 5.36-1 represents the cumulative totals for Williamson-Travis County MUD#1 in both counties and regions. Surpluses are projected through the year 2070 and no changes in water supply are recommended.



Conservation and advanced conservation were considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd in 2070.

### 5.36.22 Williamson County MUD #10

#### Description of Supply

Williamson County MUD #10 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD #10, conservation is recommended to reduce the demand.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Williamson County MUD #10.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$323,360 in 2070
- Unit Cost: \$470/acft

**Table 5.36-16. Recommended Plan Costs by Decade for Williamson County MUD #10**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(61)	(181)	(352)	(489)	(587)	(688)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	61	181	352	489	587	688
Annual Cost (\$/yr)	\$28,670	\$85,070	\$165,440	\$229,830	\$275,890	\$323,360
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

### 5.36.23 Williamson County MUD #11

#### Description of Supply

Williamson County MUD #11 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD #11, conservation is recommended to reduce the demand.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Williamson County MUD #11.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$155,320 in 2070
- Unit Cost: \$470/acft

**Table 5.36-17. Recommended Plan Costs by Decade for Williamson County MUD #11**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(35)	(103)	(193)	(233)	(278)	(326)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	35	103	193	233	278	326
Annual Cost (\$/yr)	\$16,450	\$48,410	\$90,710	\$109,510	\$130,660	\$153,220
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

### 5.36.24 Williamson County MUD #9

#### Description of Supply

Williamson County MUD #9 obtains its water supply from the City of Round Rock. While the contract will supply enough water to meet the needs of Williamson County MUD #9, conservation is recommended to reduce the demand.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Williamson County MUD #9.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$210,560 in 2070
- Unit Cost: \$470/acft



**Table 5.36-18. Recommended Plan Costs by Decade for Williamson County MUD #9**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(37)	(128)	(263)	(319)	(382)	(448)
Conservation						
Supply From Plan Element (acft/yr)	37	128	263	319	382	448
Annual Cost (\$/yr)	\$17,390	\$60,160	\$123,610	\$149,930	\$179,540	\$210,560
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

### 5.36.25 County-Other

#### Description of Supply

Entities in Williamson County-Other obtain water supply from groundwater from the Trinity and Edwards (BFZ) Aquifers as well as other minor aquifers. Williamson County-Other also obtains a portion of its water supply from the City of Round Rock, the City of Taylor, City of Austin, and run-of-river rights. A portion of County-Other demand is located in Region K portion of Williamson County. Based on the available groundwater and surface water supply, Williamson County-Other is projected to have a shortage from 2020 through year 2070. Balance and strategies represented in Table 5.36-19 represent the cumulative totals for Williamson County-Other in both regions.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, and in coordination with Region K, the following water management strategies are recommended for Williamson County - Other.

- a. Advanced Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Unit Cost: \$470/acft
  - Annual Cost: maximum of \$201,693 in 2070
- b. Purchase from the BRA (Lake Granger) through the East Williamson County Water Supply Project
  - Cost Source: Volume II, Chapter 12
  - Date to be Implemented: 2020
  - Annual Cost: Maximum of \$2,697,900 in 2020
  - Unit Cost: Maximum of \$1,173/acft in 2020

c. Little River OCR

- Cost Source: Volume II, Chapters 7.4 and 12
  - Strategy could be supplied by the BRA System Operation, dependent on permit approval by TCEQ
- Date to be Implemented: 2030
- Project Cost: \$487,611,000
- Unit Cost: \$1,038/acft

During the Brazos G regional water planning process, water management strategies such as additional development of Carrizo-Wilcox Aquifer groundwater and the Lake Granger Augmentation Project were preferred options to include in the 2016 Brazos G Regional Water Plan. When confronted by the Modeled Available Groundwater (MAG) limitations of these two options, the BGRWPG has little alternative but to make the Little River Off-Channel Reservoir a recommended strategy.

d. Purchase from SAWS Vista Ridge Project

- Cost Source: Volume II, Chapters 12 and Region L (Appendix K)
  - This project will contract to purchase 5,700 acft/yr from Vista Ridge Project sponsored by San Antonio Water Systems.
- Date to be Implemented: 2020
- Project Cost: none. Project costs to be borne by SAWS
- Unit Cost: \$2,177/acft

Conservation and advanced conservation were considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd in 2070.

**Table 5.36-19. Recommended Plan Costs by Decade for Williamson County – Other**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(7,973)	(10,262)	(13,402)	(13,242)	(17,890)	(22,243)
<b>Advanced Conservation (Volume II, Chapter 2)</b>						
Supply From Plan Element (acft/yr)	—	—	56	567	1,432	2,594
Annual Cost (\$/yr)	—	—	\$26,320	\$266,490	\$673,040	\$1,219,180
<i>Projected Surplus/(Shortage) after Advanced Conservation</i>	(7,973)	(10,262)	(13,346)	(12,675)	(16,458)	(19,649)
<b>Purchase from the BRA (Lake Granger) through the EWCWSP</b>						
Supply From Plan Element (acft/yr)	2,300	2,300	2,300	2,300	2,300	2,300
Annual Cost (\$/yr)	\$2,697,900	\$2,697,900	\$1,734,200	\$1,734,200	\$1,734,200	\$1,734,200
Unit Cost (\$/yr)	\$1,173	\$1,173	\$754	\$754	\$754	\$754
<b>Little River OCR</b>						
Supply From Plan Element (acft/yr)	—	2,267	5,352	5,346	8,466	11,658



**Table 5.36-19. Recommended Plan Costs by Decade for Williamson County – Other**

Plan Element	2020	2030	2040	2050	2060	2070
Annual Cost (\$/yr)	—	\$2,353,000	\$5,555,000	\$2,470,000	\$3,911,000	\$4,080,000
Unit Cost (\$/yr)	—	\$1,038	\$1,038	\$462	\$462	\$350
Purchase from SAWS Vista Ridge Project (Region L)						
Supply From Plan Element (acft/yr)	5,700	5,700	5,700	5,700	5,700	5,700
Annual Cost (\$/yr)	\$12,409,000	\$12,409,000	\$12,409,000	\$12,409,000	\$12,409,000	\$12,409,000
Unit Cost (\$/yr)	\$2,177	\$2,177	\$2,177	\$2,177	\$2,177	\$2,177

### 5.36.26 Manufacturing

#### Description of Supply

Williamson County Manufacturing obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer as well as other minor aquifers. Williamson County Manufacturing also obtains a portion of its water supply from run-of-river rights. Based on the available groundwater and surface water supply, Williamson County Manufacturing is projected to have a shortage through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended to meet water needs for Williamson County Manufacturing.

a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: before 2020
- Annual Cost: Not determined

**Table 5.36-20. Recommended Plan Costs by Decade for Williamson County – Manufacturing**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(11)	(10)	(11)	(11)	(11)	(11)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	71	135	212	234	254	276
Annual Cost (\$/yr)	ND	ND	ND	ND	ND	ND
<i>Projected Surplus/(Shortage) after Conservation</i>	60	125	201	223	243	265

ND – Not Determined. Costs to implement industrial conservation technologies will vary based on each location.

### 5.36.27 Steam-Electric

There is no Steam-Electric demand or supply in Williamson County.

### 5.36.28 Mining

#### Description of Supply

Williamson County Mining obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and run-of-river rights. Based on the available groundwater and surface water supply, Williamson County Mining is projected to have a shortage through the year 2070.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Williamson County-Mining. Associated costs are included for each strategy.

- a. Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Annual Cost: not determined
- b. Leave needs unmet
  - Cost Source: Cost of not meeting needs – see Appendix H
  - Date to be Implemented: 2020





**Table 5.36-21. Recommended Plan Costs by Decade for Williamson County – Mining**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(4,748)	(5,832)	(6,949)	(8,140)	(9,367)	(10,771)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	155	312	515	599	685	783
Annual Cost (\$/yr)	ND	ND	ND	ND	ND	ND
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	(4,593)	(5,520)	(6,433)	(7,541)	(8,682)	(9,988)
<b>Leave Needs Unmet</b>						
Supply From Plan Element (acft/yr)	4,593	5,520	6,433	7,541	8,682	9,988
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—

ND – Not determined. Costs to implement industrial conservation technologies will vary based on each location

### 5.36.29 Irrigation

#### Description of Supply

Williamson County Irrigation is supplied by groundwater from the Trinity and Edwards Aquifers and surface water from run of the river water rights. Irrigation is projected to have shortages beginning in 2020.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended to meet water needs for Williamson County-Irrigation.

- a. Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Annual Cost: \$230/acft
- b. Groundwater Development – Edwards Aquifer
  - Cost Source: Volume II, Chapter 12
  - Date to be Implemented: before 2020
  - Project Cost: \$1,220,000
  - Unit Cost: Max of \$1,679 acft/yr (2020)

**Table 5.36-22. Recommended Plan Costs by Decade for Williamson County – Irrigation**

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(71)	(71)	(71)	(72)	(72)	(72)
<b>Conservation</b>						
Supply From Plan Element (acft/yr)	5	8	11	11	11	11
Annual Cost (\$/yr)	\$1,150	\$1,840	\$2,530	\$2,530	\$2,530	\$2,530
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	(66)	(63)	(60)	(61)	(61)	(62)
<b>Groundwater Development – Edwards Aquifer</b>						
Supply From Plan Element (acft/yr)	66	63	60	61	61	62
Annual Cost (\$/yr)	\$110,800	\$110,800	\$8,800	\$8,800	\$8,800	\$8,800
Unit Cost (\$/acft)	\$1,679	\$1,679	\$133	\$133	\$133	\$133

### 5.36.30 Livestock

Livestock water supply is projected to meet demands through 2070 and no changes in water supply are recommended.