



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) ¹		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Bartlett	(251)	(382)	Projected shortage - see plan below.
Bell-Milam Falls WSC			See Bell County
Block House MUD	280	287	Projected surplus
Brushy Creek MUD	(191)	(231)	Projected shortage - see plan below.
City of Cedar Park	(4,759)	(4,768)	Projected shortage - see plan below.
Fern Bluff MUD	0	0	No projected surplus or shortage
City of Florence	(42)	(72)	Projected shortage - see plan below.
City of Georgetown	(28,300)	(66,632)	Projected shortage - see plan below.
City of Granger	2	(56)	Projected shortage - see plan below.
City of Hutto	(3,304)	(10,703)	Projected shortage - see plan below.
Jarrell-Schwertner	1,819	839	Projected surplus
Jonah Water SUD	290	290	Projected surplus
City of Leander	(8,258)	(19,041)	Projected shortage - see plan below.
City of Liberty Hill	(90)	(90)	Projected shortage - see plan below.
Manville WSC	439	0	Projected surplus - see Region K Plan
Paloma Lake MUD 1	0	0	No projected surplus or shortage
Paloma Lake MUD 2	0	0	No projected surplus or shortage
City of Pflugerville	6	10	Projected surplus - see Region K Plan
City of Round Rock	(8,830)	(16,566)	Projected shortage - see plan below.
Sonterra MUD	2,323	2,269	Projected surplus
Southwest Milam WSC			See Milam County
City of Taylor	0	0	No projected surplus or shortage
City of Thorndale			See Milam County
Walsh Ranch MUD	0	0	No projected surplus or shortage
Williamson County MUD 9	0	0	No projected surplus or shortage
Williamson County MUD 10	0	0	No projected surplus or shortage
Williamson County MUD 11	0	0	No projected surplus or shortage
Williamson County WSID 3	90	0	Projected surplus
Williamson-Travis Counties MUD 1	212	217	Projected surplus
County-Other	(3,631)	(37,814)	Projected shortage - see plan below.
Manufacturing	285	285	Projected surplus

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

Water User Group	Surplus/(Shortage) ¹		Comment
	2040 (acft/yr)	2070 (acft/yr)	
Steam-Electric	—	—	No projected demand
Mining	(6,923)	(10,745)	Projected shortage - see plan below.
Irrigation	(172)	(172)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

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
 - Date to be Implemented: before 2030
 - Annual Cost: maximum of \$39,200
 - Unit Cost: \$560/acft
- b. Purchase Supply from Jarrell-Schwertner WSC
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Annual Cost: \$672,375
 - Unit Cost: \$2,445/acft
- c. Alternative Strategy: Develop Trinity Aquifer Well
 - Cost Source: Volume II
 - Date to be Implemented: 2030
 - Project Cost: \$1,872,000
 - Unit Cost: maximum of \$669/acft



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>	(183)	(214)	(251)	(291)	(336)	(382)
Conservation						
Supply From Plan Element (acft/yr)	—	28	61	82	99	107
Annual Cost (\$/yr)	—	\$8,400	\$17,920	\$29,120	\$36,400	\$39,200
<i>Projected Surplus/(Shortage) after Conservation</i>	(102)	(86)	(69)	(65)	(69)	(82)
Purchase Supply from Jarrell-Schwertner WSC						
Supply From Plan Element (acft/yr)	275	275	275	275	275	275
Annual Cost (\$/yr)	\$672,375	\$672,375	\$672,375	\$672,375	\$672,375	\$672,375
Unit Cost (\$/acft)	\$2,445	\$2,445	\$2,445	\$2,445	\$2,445	\$2,445
Alternative Strategy: Develop Trinity Aquifer Well						
Supply From Plan Element (acft/yr)	275	275	275	275	275	275
Annual Cost (\$/yr)	\$184,000	\$184,000	\$52,000	\$52,000	\$52,000	\$52,000
Unit Cost (\$/acft)	\$669	\$669	\$189	\$189	\$189	\$189

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 was considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

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. Brushy Creek MUD has contracted for 4,000 acft/yr of surface water supplies from the Brazos River Authority, which can supply 3,325 acft/yr in 2020 and 3,215 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

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.

- a. Conservation
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Unit Cost: \$560/acft
 - Annual Cost: maximum of \$147,280 in 2040
- b. Purchase Supplies from Round Rock
 - Cost Source: Volume II
 - Date to be Implemented: before 2020
 - Annual Cost: \$228,000
 - Unit Cost: \$912/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>	(246)	(206)	(191)	(193)	(210)	(231)
Conservation						
Supply From Plan Element (acft/yr)	—	233	263	243	238	237
Annual Cost (\$/yr)	—	\$130,480	\$147,280	\$136,080	\$133,280	\$132,720
<i>Projected Surplus/(Shortage) after Conservation</i>	(246)	27	72	50	28	6
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	697	719	741	763	785
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—
Purchase Supplies from Round Rock						
Supply From Plan Element (acft/yr)	250	—	—	—	—	—
Annual Cost (\$/yr)	\$228,000	—	—	—	—	—
Unit Cost (\$/acft)	\$912	—	—	—	—	—

5.36.4 City of Cedar Park

Description of Supply

The City of Cedar Park is located in Williamson County and part of Travis County (Region K) and provides wholesale water to entities in Williamson and Travis Counties. The City has an 18,000 acft/yr contract from LCRA for Highland Lakes supply. Cedar Park is a



participant in the Brushy Creek Regional Utility Authority to develop additional supplies from the Highland Lakes in Region K. The project is under construction and remaining phases are under development. Based on the available surface water supply and contractual commitments to supply water to wholesale customers, the City of Cedar Park is projected to have a shortage through the year 2070. Table 5.36-4 includes additional information on existing contracts and water supplies for the City of Cedar Park. Table 5.36-5 presents the water supply plan for the portion of Cedar Park in Brazos G.

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 the projected water shortage for the City of Cedar Park.

- a. Conservation: Additional advanced conservation was considered and not applied since no shortage remains in later decades after applying conservation.
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Unit Cost: \$560/acft
- b. Brushy Creek RUA Water Supply Project
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Total Project Cost: \$73,104,200 (city's portion of cost)
 - Unit Cost: \$598/acft
- c. Reuse
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: \$7,184,000
 - Unit Cost: maximum of \$543/acft

Table 5.36-4. Recommended Plan Costs by Decade for the City of Cedar Park

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(2,887)	(4,603)	(4,759)	(4,792)	(4,775)	(4,768)
Conservation						
Supply From Plan Element (acft/yr)		1,887	3,638	5,212	6,515	6,833
Annual Cost (\$/yr)	—	\$1,056,720	\$2,037,280	\$2,918,720	\$3,648,960	\$3,826,480
<i>Projected Surplus/(Shortage) after Conservation</i>	(2,887)	(2,716)	(1,121)	420	1,740	2,115

Table 5.36-4. Recommended Plan Costs by Decade for the City of Cedar Park

Plan Element	2020	2030	2040	2050	2060	2070
Brushy Creek RUA Water Supply Project¹						
Supply From Plan Element (acft/yr)	1	1	1	1	1	1
Annual Cost (\$/yr)	\$13,763,000	\$13,763,000	\$9,280,000	\$9,280,000	\$9,280,000	\$9,280,000
Unit Cost (\$/acft)	\$598	\$598	\$403	\$403	\$403	\$403
Reuse						
Supply From Plan Element (acft/yr)	2,886	2,715	1,120	1,120	1,120	1,120
Annual Cost (\$/yr)	\$1,567,098	\$1,474,245	\$103,000	\$103,000	\$103,000	\$103,000
Unit Cost (\$/acft)	\$543	\$543	\$92	\$92	\$92	\$92

1 – The LCRA contract is shown as a current supply to Cedar Park. This strategy provides additional flexibility to take supplies during drought by a deep water intake in Lake Travis.

5.36.5 Fern Bluff MUD

Description of Supply

Fern Bluff MUD obtains its water supply from groundwater from the Edwards-Balcones Fault Zone, Highland Lakes, and Direct Reuse. The demand is equal to supply balances shown in Table 5.36-1 represent the cumulative totals for 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 the Fern Bluff MUD.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum in 2070 of \$214,100
- Unit Cost: \$560/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>	0	0	0	0	0	0
Conservation						
Supply From Plan Element (acft/yr)	—	101	197	285	367	382
Annual Cost (\$/yr)	—	\$56,839	\$110,401	\$159,586	\$205,481	\$214,100
<i>Projected Surplus/(Shortage) after Conservation</i>	—	101	197	285	367	382

5.36.6 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. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

- a. Purchase from Georgetown
 - Cost Source: Volume II
 - Date to be Implemented: 2020
 - Annual Cost: maximum of \$56,304
 - Unit Cost: \$782/acft

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>	(35)	(38)	(42)	(50)	(59)	(72)
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(35)	(38)	(42)	(50)	(59)	(72)
Purchase from Georgetown						
Supply From Plan Element (acft/yr)	35	38	42	50	59	72
Annual Cost (\$/yr)	\$27,370	\$29,716	\$32,844	\$39,100	\$46,138	\$56,304
Unit Cost (\$/acft)	\$782	\$782	\$782	\$782	\$782	\$782

5.36.7 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. The City of Georgetown has contracted for 45,707 acft/yr of surface water supplies from the Brazos River Authority,

which can supply 37,990 acft/yr in 2020 and 36,737 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 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. Needs remain unmet in 2020. These needs will only occur during a drought equivalent or worse than the drought of record. While not a strategy recommended by the Brazos G RWPG, the impacts of the unmet needs can be mitigated through demand management in the event of a serious drought prior to the recommended strategies coming online that will firm up supplies from the BRA.

- a. Conservation
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Annual Cost: maximum of \$16,162,702
 - Unit Cost: \$560/acft
- b. Firm up BRA Little River Supplies
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: Costs borne by BRA
 - Unit Cost: Costs borne by BRA
- c. Increase Treatment Plant Capacity
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: \$85,760,000
 - Unit Cost: \$584/acft
- d. Lake Georgetown ASR
 - Cost Source: Volume II
 - Date to be Implemented: before 2040
 - Project Cost: \$306,276,000
 - Unit Cost: maximum of \$3,910/acft



- e. Reuse – Dove Springs
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: \$6,270,000
 - Unit Cost: maximum of \$349/acft
- f. Alcoa Property Supply – Surface Water
 - Cost Source: Volume II
 - Date to be Implemented: before 2050
 - Project Cost: \$121,448,000
 - Unit Cost: maximum of \$1,244/acft
- g. Alternative: Lake Whitney Reallocation (Purchase from BRA)

These are project costs for intake, water treatment plant, pump station, and pipeline, but do not include BRA's costs for the reallocation water management strategy.

 - Cost Source: Volume II
 - Date to be Implemented: 2060
 - Project Cost: \$306,683,000
 - Unit Cost: maximum of \$1,617/acft
- h. Alternative: Williamson County Groundwater – South Option
 - Cost Source: Volume II
 - Date to be Implemented: before 2020
 - Project Cost: \$392,793,000
 - Unit Cost: maximum of \$3,434/acft

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>	(10,272)	(19,148)	(28,300)	(39,354)	(52,048)	(66,632)
Conservation						
Supply From Plan Element (acft/yr)	—	2,957	7,271	13,126	20,510	29,228
Annual Cost (\$/yr)	—	\$1,656,000	\$4,072,000	\$7,351,000	\$11,486,000	\$16,368,000
<i>Projected Surplus/(Shortage) after Conservation</i>	(10,272)	(16,191)	(21,029)	(26,228)	(31,538)	(37,404)

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

Plan Element	2020	2030	2040	2050	2060	2070
Additional Demands from Strategies Recommended for Others						
Supply to Florence (acft/yr)	35	38	42	50	59	72
<i>Total Needs Including Recommended Strategies (acft/yr)</i>	<i>(10,307)</i>	<i>(16,229)</i>	<i>(21,071)</i>	<i>(26,278)</i>	<i>(31,597)</i>	<i>(37,476)</i>
Firm Up Supplies from BRA Contract						
Supply From Plan Element (acft/yr)	—	7,968	8,218	8,469	8,720	8,970
Annual Cost	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—
Increase Water Treatment Capacity						
Supply From Plan Element (acft/yr)	—	17,000	17,000	17,000	17,000	17,000
Annual Cost	—	\$9,929,000	\$9,929,000	\$3,895,000	\$3,895,000	\$3,895,000
Unit Cost (\$/acft)	—	\$584	\$584	\$229	\$229	\$229
Lake Georgetown ASR						
Supply From Plan Element (acft/yr)	—	—	8,645	8,645	8,645	8,645
Annual Cost (\$/yr)	—	—	\$33,799,000	\$33,799,000	\$12,249,000	\$12,249,000
Unit Cost (\$/acft)	—	—	\$3,910	\$3,910	\$1,417	\$1,417
Reuse – Dove Springs						
Supply From Plan Element (acft/yr)	—	1,456	1,456	1,456	1,456	1,456
Annual Cost (\$/yr)	—	\$508,144	\$508,144	\$66,976	\$66,976	\$66,976
Unit Cost (\$/acft)	—	\$349	\$349	\$46	\$46	\$46
Alcoa Property Supply – Surface Water						
Supply From Plan Element (acft/yr)	—	—	—	—	4,772	10,669
Annual Cost (\$/yr)	—	—	—	—	\$5,936,368	\$4,150,241
Unit Cost (\$/acft)	—	—	—	—	\$1,244	\$389
Alternative: Purchase Additional BRA Supplies (Lake Whitney Reallocation)						
Alternative: Williamson County GW Supply – South Option						

5.36.8 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 beginning in 2050.

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. Conservation was also considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

- a. BRA Supply (Lake Granger) through the East Williamson County Water Supply Project
 - Cost Source: Volume II
 - Date to be Implemented: 2050
 - Project Cost \$30,264,420 (total cost of project)
 - Unit Cost: \$235/acft

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>	22	13	2	(14)	(33)	(56)
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	22	13	2	(14)	(33)	(56)
BRA Supply (Lake Granger) through the EWCWSP						
Supply From Plan Element (acft/yr)	—	—	—	56	56	56
Annual Cost (\$/yr)	—	—	—	\$13,160	\$13,160	\$13,160
Unit Cost (\$/acft)	—	—	—	\$235	\$235	\$235

5.36.9 City of Hutto

Description of Supply

The City of Hutto obtains its water supply from Manville WSC, City of Taylor, and a groundwater system recently purchased from Heart of Texas Water Suppliers LLC. The current supply from the groundwater system 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. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

a. Williamson County Groundwater Supply – Milam County Supply Option

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: \$392,793,000
- Unit Cost: maximum of \$3,434/acft

b. Alcoa Property Supply in 2050-2070

Cost Source: Volume II

- Date to be Implemented: before 2050
- Project Cost: \$85,760,000
- Unit Cost: maximum of \$1,244/acft

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>	(907)	(3,046)	(3,304)	(5,437)	(8,596)	(10,703)
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(907)	(3,046)	(3,304)	(5,437)	(8,596)	(10,703)
Williamson County Groundwater Supply – South Option						
Supply From Plan Element (acft/yr)		3,046	3,304	3,304	3,304	3,304
Annual Cost (\$/yr)		\$10,459,964	\$11,345,936	\$11,345,936	\$11,345,936	\$11,345,936
Unit Cost (\$/acft)		\$3,434	\$832	\$832	\$832	\$832
Alcoa Property Supply						
Supply From Plan Element (acft/yr)	—	—	—	2,133	5,292	7,399
Annual Cost (\$/yr)	—	—	—	\$2,653,452	\$2,653,452	\$2,878,211
Unit Cost (\$/acft)	—	—	—	\$1,244	\$1,244	\$389



5.36.10 Jarrell-Schwertner WSC

Description of Supply

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. Jarrell-Schwertner WSC has contracted for 1,000 acft/yr of surface water supplies from the Brazos River Authority, which can supply 831 acft/yr in 2020 and 804 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 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 represent the cumulative totals for Jarrell-Schwertner WSC.

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 Jarrell-Schwertner WSC. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

- a. Firm up BRA Little River Supplies
 - Cost Source: Volume II
 - Date to be Implemented: before 2070
 - Project Cost: Costs borne by BRA
 - Unit Cost: Costs borne by BRA

Table 5.36-10. Recommended Plan Costs by Decade for Jarrell-Schwertner WSC

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	2,241	2,054	1,819	1,560	1,261	839
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	1,520	1,384	1,221	1,046	845	562
Additional Demands from Strategies Recommended for Others						
Supply to Bartlett (acft/yr)	275	275	275	275	275	275
<i>Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)</i>	1,245	1,109	946	774	570	287
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	174	180	185	191	196
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—

5.36.11 Jonah Water SUD

Description of Supply

Jonah Water SUD obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer, the City of Georgetown 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 surplus throughout the planning period.

5.36.12 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 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 in Table 5.36-11 represent the portion of Leander in Brazos G.

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. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

- a. Brushy Creek RUA Water Supply Project
 - Cost Source: Volume II
 - Date to be Implemented: 2020
 - Project Cost \$142,218,800 (city's portion of project shared with Liberty Hill)
 - Unit Cost: \$1,321/acft
- b. Contract Amendment with LCRA or Redistribution of Supplies through BCRUA
 - Cost Source: Volume II
 - Date to be Implemented: 2070
 - Project Cost: None. Existing infrastructure assumed sufficient
 - Unit Cost: \$844/acft



Table 5.36-11. 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>	(1,364)	(5,130)	(8,258)	(10,881)	(14,576)	(19,041)
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(1,364)	(5,130)	(8,258)	(10,881)	(14,576)	(19,041)
Brushy Creek RUA Water Supply Project						
Supply From Plan Element (acft/yr) ¹	17,600	17,600	17,600	17,600	17,600	17,600
Annual Cost (\$/yr)	\$23,249,600	\$23,249,600	\$15,523,200	\$15,523,200	\$15,523,200	\$15,523,200
Unit Cost (\$/acft)	\$1,321	\$1,366	\$882	\$882	\$882	\$882
Contract Amendment with LCRA (Region K)						
Supply From Plan Element (acft/yr)	—	—	—	—	—	1,441
Annual Cost (\$/yr)	—	—	—	—	—	\$1,216,204
Unit Cost (\$/acft)	—	—	—	—	—	\$844

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

5.36.13 Liberty Hill

Description of Supply

The City of Liberty Hill obtains its water supply from groundwater from the Trinity Aquifer and a contract with the City of Georgetown. 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 shortage through the year 2070. 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.

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
 - Date to be Implemented: 2020
 - Project Cost \$4,848,400 (city’s portion of project shared with Leander)
 - Unit Cost: \$1,32/acft

Table 5.36-12. 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>	(90)	(90)	(90)	(90)	(90)	(90)
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation</i>	(90)	(90)	(90)	(90)	(90)	(90)
Brushy Creek RUA Water Supply Project						
Supply From Plan Element (acft/yr)	600	600	600	600	600	600
Annual Cost (\$/yr)	\$792,600	\$792,600	\$529,200	\$529,200	\$529,200	\$529,200
Unit Cost (\$/acft)	\$1,321	\$1,321	\$882	\$882	\$882	\$882

5.36.14 Manville WSC

Manville WSC is mostly located in Travis County (Region K); 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 2021 Region K Plan. Water Conservation is recommended.

Table 5.36-13. Recommended Plan Costs by Decade for Manville WSC

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	1,151	794	439	24	2	0
Conservation						
Supply From Plan Element (acft/yr)	—	172	293	335	396	474
Annual Cost (\$/yr)	—	\$96,320	\$164,080	\$187,600	\$221,760	\$265,440
<i>Projected Surplus/(Shortage) after Conservation</i>	1,151	966	732	359	398	474



5.36.15 Paloma Lake MUD 1

Paloma Lake MUD 1 receives its water supply from a “needs met” contract with the City of Round Rock. Based on the available supplies, Paloma Lake MUD 1 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

5.36.16 Paloma Lake MUD 2

Paloma Lake MUD 2 receives its water supply from a “needs met” contract with the City of Round Rock. Based on the available supplies, Paloma Lake MUD 2 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 120 gpcd.

5.36.17 City of Pflugerville

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 2021 Region K Plan. Conservation is recommended for Pflugerville in the 2021 Brazos G Plan. The City has informed Brazos G that a recently-completed planning effort has identified that the City should pursue purchasing water from the City of Round Rock on an interim (5-years) basis and construct an intake on Brushy Creek to divert wastewater effluent discharged from the Brushy Creek Wastewater Treatment Plant to Lake Pflugerville for subsequent treatment and use at the City’s existing water treatment plant. Use of this wastewater in the Colorado River Basin would provide “no net loss” credits associated with the HB 1437 legislation authorizing sale of Colorado River Basin supplies to entities in the Brazos River Basin (see Volume II, Section 9.3). Ultimately, the City would construct a parallel pipeline from the Colorado River and purchase additional supplies from the Lower Colorado River Authority, as well as expand its existing water treatment plant.

Table 5.36-14. Recommended Plan Costs by Decade for Pflugerville

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	5	5	6	6	7	10
Conservation						
Supply From Plan Element (acft/yr)	0	4	4	5	6	8
Annual Cost (\$/yr)	—	\$2,000	\$2,000	\$3,000	\$3,000	\$4,000
<i>Projected Surplus/(Shortage) after Conservation</i>	5	9	10	11	13	18

5.36.18 City of Round Rock

The City of Round Rock 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. The City of Round Rock has contracted for 24,854 acft/yr of surface water supplies from the Brazos River Authority, which can supply 20,658 acft/yr in 2020 and 19,976 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. In addition the city utilizes reuse supplies and receives out of region supply from LCRA. Based on the available groundwater and surface water supply and existing contractual demands, the City of Round Rock is projected to have a shortage from 2030 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 to meet water needs for the City of Round Rock.

- a. Conservation
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Annual Cost: maximum of \$2,814,560
 - Unit Cost: \$560 / acft
- b. Firm up BRA Little River Supplies
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: Costs borne by BRA
 - Unit Cost: Costs borne by BRA
- c. Brushy Creek RUA Water Supply Project
 - Cost Source: Volume II
 - Date to be Implemented: Before 2030
 - Project Cost: \$107,826,043 (city's portion)
 - Unit Cost: \$768 / acft
- d. Alternative: Alcoa Property Supplies
 - Cost Source: Volume II
 - Date to be Implemented: by 2030
 - Total Project Cost: \$133,150,000
 - Unit Cost: maximum of \$1,245/acft

e. Alternative: Williamson County Groundwater – South Option

Cost Source: Volume II

Date to be Implemented: by 2030

Total Project Cost: \$392,793,000

Unit Cost: maximum of \$3,434/acft

Table 5.36-15. Recommended Plan Costs by Decade for City of Round Rock

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	2,064	(2,762)	(8,830)	(16,038)	(16,280)	(16,566)
Conservation						
Supply From Plan Element (acft/yr)	—	1,935	4,192	5,026	4,972	4,951
Annual Cost (\$/yr)	—	\$1,083,040	\$2,347,520	\$2,814,560	\$2,784,320	\$2,772,560
<i>Projected Surplus/(Shortage) after Conservation</i>	2,064	(827)	(4,638)	(11,012)	(11,308)	(11,615)
Additional Demands from Strategies Recommended for Others						
Supply to County-Other (acft/yr)	780	—	—	—	—	—
<i>Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)</i>	1,284	(827)	(4,638)	(11,012)	(11,308)	(11,615)
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	4,333	4,469	4,605	4,741	4,878
Annual Cost	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—
Brushy Creek RUA Project						
Supply From Plan Element (acft/yr)	17,647	17,510	17,374	17,238	17,102	16,965
Annual Cost	\$13,552,896	\$13,447,680	\$9,312,464	\$9,239,568	\$9,166,672	\$9,093,240
Unit Cost (\$/acft)	\$768	\$768	\$536	\$536	\$536	\$536

5.36.19 Sonterra MUD

Sonterra MUD obtains its water supply from groundwater from Edwards BFZ Aquifer and surface water from the Brazos River Authority. Based on the available supplies, Sonterra MUD is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd. Note that Sonterra MUD has recently begun utilizing supply from the East Williamson County Regional Water System to improve water quality to its customers. Those supplies are not reflected in this plan.

5.36.20 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. The Brazos River Authority has set aside 13,000 acft/yr of surface water supplies for the City of Taylor and other entities supplied from the East Williamson County Water System, which can supply 10,805 acft/yr in 2020 and 10,499 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines.

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
- Date to be Implemented: before 2020
- Annual Cost: maximum of \$323,680 in 2070
- Unit Cost: \$560/acft

b. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Annual Cost: Costs borne by BRA
- Unit Cost: Costs borne by BRA

Table 5.36-16. 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
Conservation						
Supply From Plan Element (acft/yr)	—	215	466	490	530	578
Annual Cost (\$/yr)	—	\$120,400	\$260,960	\$274,400	\$296,800	\$323,680
<i>Projected Surplus/(Shortage) after Conservation</i>	0	215	466	490	530	578
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	2,226	2,337	2,409	2,480	2,551
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—

5.36.21 Walsh Ranch MUD

Description of Supply

Walsh Ranch MUD receives its water supply from a “needs met” contract with the City of Round Rock. Based on the available supplies, Walsh Ranch MUD is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Based on gpcd, conservation is recommended as a water management strategy.

Water Supply Plan

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

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of \$41,218 in 2070
- Unit Cost: \$560/acft

Table 5.36-17. Recommended Plan Costs by Decade for Walsh Ranch MUD

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	0	0	0	0	0	0
Conservation						
Supply From Plan Element (acft/yr)	—	16	32	48	61	74
Annual Cost (\$/yr)	—	\$8,976	\$18,052	\$26,768	\$34,090	\$41,218
<i>Projected Surplus/(Shortage) after Conservation</i>	0	16	32	48	61	74

5.36.22 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
 - Date to be Implemented: before 2030
 - Annual Cost: maximum of \$95,115 in 2070
 - Unit Cost: \$560/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>	0	0	0	0	0	0
Conservation						
Supply From Plan Element (acft/yr)	—	45	90	131	169	170
Annual Cost (\$/yr)	—	\$25,423	\$50,281	\$73,161	\$94,866	\$95,115
<i>Projected Surplus/(Shortage) after Conservation</i>	0	45	90	131	169	170

5.36.23 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
 - Date to be Implemented: before 2030
 - Annual Cost: maximum of \$145,999 in 2070
 - Unit Cost: \$560/acft



Table 5.36-19. 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>	0	0	0	0	0	0
Conservation						
Supply From Plan Element (acft/yr)	—	65	126	182	233	261
Annual Cost (\$/yr)	—	\$36,128	\$70,774	\$102,053	\$130,288	\$145,999
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

5.36.24 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
- Date to be Implemented: before 2030
- Annual Cost: maximum of \$148,771 in 2070
- Unit Cost: \$560/acft

Table 5.36-20. 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>	0	0	0	0	0	0
Conservation						
Supply From Plan Element (acft/yr)	—	73	142	206	264	266
Annual Cost (\$/yr)	—	\$40,648	\$79,533	\$115,348	\$147,872	\$148,771
<i>Projected Surplus/(Shortage) after Conservation</i>	0	0	0	0	0	0

5.36.25 Williamson County WSID 3

Williamson County WSID 3 obtains its water supply from Manville WSC. Based on the available supplies, Williamson County WSID 3 is projected to have adequate supplies through the year 2070. No change in water supply is recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.26 Williamson-Travis Counties MUD 1

Williamson-Travis Counties MUD 1 has demand in Williamson and Travis (Region K) counties and obtains its water supply from the City of Cedar Park. Surpluses are projected through the year 2070 and no changes in water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 120 gpcd.

5.36.27 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 the Region K portion of Williamson County. Entities in Williamson County Other have contracted for 310 acft/yr of surface water supplies from the Brazos River Authority, which can supply 258 acft/yr in 2020 and 249 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 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 5.36-21 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. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2020
- Unit Cost: \$560/acft
- Annual Cost: maximum of \$2,397,334 in 2070

- b. Firm Up BRA Little River Supplies
 - Cost Source: Volume II
 - Date to be Implemented: 2030
 - Annual Cost: Costs borne by BRA
 - Unit Cost: Costs borne by BRA
- c. Purchase Supply from Round Rock

Supplies would be purchased by entities located proximate to Round Rock's service area. As future supplies are developed, these connections can revert to emergency connections and not be used for regular water supply.

 - Cost Source: Volume II
 - Date to be Implemented: 2020
 - Annual Cost: maximum of \$2,443,248
 - Unit Cost: maximum of \$912/acft
- d. Purchase from SAWS Vista Ridge Project (Region L)
 - Cost Source: Volume II
 - This project will contract to purchase 5,700 acft/yr from the Vista Ridge Project sponsored by the San Antonio Water System.
 - Date to be Implemented: 2030
 - Annual Cost:
 - Unit Cost: \$2,416/acft
- e. Williamson County Groundwater Supply – South Option (purchase from BRA)
 - Cost Source: Volume II
 - Date to be Implemented: 2040
 - Project Cost: \$661,246,000
 - Unit Cost: maximum of \$1,703/acft
- f. Lake Whitney Reallocation (Purchase from BRA)

These are project costs for intake, water treatment plant, pump station, and pipeline, but do not include BRA's costs for the reallocation water management strategy.

 - Cost Source: Volume II
 - Date to be Implemented: 2060
 - Project Cost: \$306,683,000
 - Unit Cost: maximum of \$1,617/acft

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

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(780)	1,461	(3,627)	(8,231)	(23,882)	(37,798)
Conservation						
Supply From Plan Element (acft/yr)	—	288	948	1,390	2,923	4,281
Annual Cost (\$/yr)	—	\$161,462	\$530,658	\$778,376	\$1,636,995	\$2,397,334
<i>Projected Surplus/(Shortage) after Advanced Conservation</i>	(780)	1,749	(2,679)	(6,841)	(20,959)	(33,517)
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	54	56	57	59	61
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—
Purchase Supply from Round Rock						
Supply From Plan Element (acft/yr)	780	—	—	—	—	—
Annual Cost (\$/yr)	\$711,360	—	—	—	—	—
Unit Cost (\$/acft)	\$912	—	—	—	—	—
Purchase from SAWS Vista Ridge (Region L)						
Supply From Plan Element (acft/yr)	—	5,700	5,700	5,700	5,700	5,700
Annual Cost (\$/yr)	—	\$13,771,200	\$13,771,200	\$13,771,200	\$13,771,200	\$13,771,200
Unit Cost (\$/acft)	—	\$2,416	\$2,416	\$2,416	\$2,416	\$2,416
Williamson County Groundwater Supply – South Option (Purchase BRA Supply)						
Supply From Plan Element (acft/yr)	—	—	2,679	2,679	2,679	2,679
Annual Cost (\$/yr)	—	—	\$206,283	\$206,283	\$206,283	\$206,283
Unit Cost (\$/acft)	—	—	\$77	\$77	\$77	\$77
Lake Whitney Reallocation (Purchase BRA Supply)						
Supply From Plan Element (acft/yr)	—	—	—	—	12,000	26,000
Annual Cost (\$/yr)	—	—	—	—	\$19,404,000	\$42,042,000
Unit Cost (\$/acft)	—	—	—	—	\$1,617	\$1,617

5.36.28 Manufacturing

Williamson County Manufacturing entities obtain water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and the Trinity Aquifer, as well as from several municipal WUGs, including Cedar Park, Georgetown, Round Rock, and Taylor. Based on the available supplies, Williamson County Manufacturing is projected to have adequate supplies through the year 2070, and no change in water supply is recommended.

5.36.29 Steam-Electric

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

5.36.30 Mining

Description of Supply

Williamson County Mining obtains its water supply from groundwater from the Edwards-BFZ (Northern Segment) Aquifer and the Trinity Aquifer, and a small portion from the City of Round Rock. Based on the available supplies, 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
 - Date to be Implemented: before 2030
 - Annual Cost: not determined
- b. Leave Needs Unmet
 - Cost Source: Cost of not meeting needs – see Appendix G
 - Date to be Implemented: before 2030

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

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(4,722)	(5,804)	(6,921)	(8,112)	(9,339)	(10,743)
Conservation						
Supply From Plan Element (acft/yr)	155	313	516	599	685	783
Annual Cost (\$/yr)	ND	ND	ND	ND	ND	ND
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	(4,567)	(5,491)	(6,405)	(7,513)	(8,654)	(9,960)
Leave Needs Unmet (acft/yr)	(4,567)	(5,491)	(6,405)	(7,513)	(8,654)	(9,960)

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

5.36.31 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. Williamson County Irrigation has contracted for 15 acft/yr of surface water supplies from the Brazos River Authority, which can supply 12 acft/yr in 2020 and 12 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 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 2030
 - Annual Cost: maximum of \$32,730
 - Unit Cost: \$1,404/acft
- b. Firm Up BRA Little River Supplies
 - Cost Source: Volume II
 - Date to be Implemented: before 2030
 - Project Cost: Costs borne by BRA
 - Unit Cost: Costs borne by BRA
- c. Groundwater Development – Edwards Aquifer

Groundwater supplies from the Edwards Aquifer are available under the MAG in 2020-2040, but are not available after 2040.

- Cost Source: Volume II
 - Date to be Implemented: before 2020
 - Project Cost: \$675,000
 - Unit Cost: maximum of \$331 acft/yr
- d. Leave Needs Unmet
 - Cost Source: Cost of not meeting needs – see Appendix G
 - Date to be Implemented: 2050 - 2070

Table 5.36-23. Recommended Plan Costs by Decade for Williamson County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	(172)	(172)	(172)	(172)	(172)	(172)
Conservation						
Supply From Plan Element (acft/yr)	10	17	23	23	23	23
Annual Cost (\$/yr)	\$14,040	\$14,027	\$23,379	\$33,421	\$33,421	\$33,421
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	(162)	(155)	(149)	(149)	(149)	(149)
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	3	3	3	3	3
Annual Cost (\$/yr)	—	—	—	—	—	—
Unit Cost (\$/acft)	—	—	—	—	—	—
Groundwater Development – Edwards Aquifer						
Supply From Plan Element (acft/yr)	172	155	149	—	—	—
Annual Cost (\$/yr)	\$56,932	\$51,305	\$49,319	—	—	—
Unit Cost (\$/acft)	\$331	\$331	\$52	—	—	—
Leave Needs Unmet (acft/yr)				(149)	(149)	(149)

ND – Not determined.

5.36.32 Livestock

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

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