5 County and WWP Plans

5.1 Bell County Water Supply Plan

Table 5.1-1 lists each water user group in Bell 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 5.1-1. Bell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
439 WSC	(293)	(1,161)	Projected shortage - see plan below.
Armstrong WSC	448	369	Projected surplus
City of Bartlett			See Williamson County
Bell County WCID 2	44	(63)	Projected shortage - see plan below.
Bell County WCID 3	0	0	No projected surplus or shortage
Bell-Milam-Falls WSC	1,832	1,695	Projected surplus
City of Belton	2,448	(1,072)	Projected shortage - see plan below.
Central Texas College District			See Coryell County
Dog Ridge WSC	714	370	Projected surplus
East Bell WSC	675	466	Projected surplus
Elm Creek WSC	23	(196)	Projected shortage - see plan below.
Fort Hood	5,086	5,107	Projected surplus
City of Georgetown			See Williamson County
City of Harker Heights	122	(3,000)	Projected shortage - see plan below.
City of Holland	228	226	Projected surplus
Jarrell-Schwertner WSC			See Williamson County
Kempner WSC			See Lampasas County
City of Killeen	0	0	No projected surplus or shortage
Little Elm Valley WSC	265	124	Projected surplus
Moffat WSC	907	843	Projected surplus
Morgan's Point Resort	1,148	814	Projected surplus
Pendleton WSC	301	254	Projected surplus
City of Rogers	294	263	Projected surplus
Salado WSC	(29)	(586)	Projected shortage - see plan below.
City of Temple	(6,969)	(17,103)	Projected shortage - see plan below.
The Grove WSC	0	0	No projected surplus or shortage

Table 5.1-1. Bell County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Troy	836	776	Projected surplus
West Bell County WSC	876	880	Projected surplus
County-Other	955	(307)	Projected shortage - see plan below.
Manufacturing	(186)	(186)	Projected shortage - see plan below.
Steam-Electric	5,366	5,366	Projected surplus
Mining	(3,434)	(5,803)	Projected shortage - see plan below.
Irrigation	(690)	(719)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.1.1 439 WSC

Description of Supply

439 WSC has contracted for 1,409 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,171 acft/yr in 2020 and 1,132 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. 439 WSC also obtains water supply through purchases of treated water under contract with the Bell County WCID No. 1 and through purchases of raw water under contract with the Brazos River Authority which is sourced from Lake Belton. Additionally, 439 WSC contracts with Bell County WCID No. 1 to divert, treat, and deliver the raw water purchased under contract with the Brazos River Authority. 439 WSC's available treated water supply is limited based on proportioned capacity of the Bell County WCID No. 1 water treatment plant.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for 439 WSC. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies
   - Cost Source: BRA to firm up water supply
   - Date to be Implemented: before 2030
   - Project Cost: Costs borne by BRA
   a. Unit Cost: Costs borne by BRA

b. Purchase Additional Diversion, Treatment, and Delivery of Supply from Bell County WCID No. 1.
   - Cost Source: Volume II
   - Date to be Implemented: by 2030

- Annual Cost: $1,161,000
- Unit Cost: $1,000/acft

c. Purchase Raw Water Supply from Fort Hood

- Cost Source: Volume II
- Date to be Implemented: before 2050
- Annual Cost: maximum of $642,276
- Unit Cost: $100/acft

Table 5.1-2. Recommended Plan Costs by Decade for 439 WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*217*	*(32)*	*(293)*	*(567)*	*(859)*	*(1,161)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*217*	*(32)*	*(293)*	*(567)*	*(859)*	*(1,161)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	246	253	261	269	277
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1						
Supply From Plan Element (acft/yr)	—	1,161	1,161	1,161	1,161	1,161
Annual Cost ($/yr)	—	$1,161,000	$1,161,000	$1,161,000	$1,161,000	$1,161,000
Unit Cost ($/acft)	—	$1,000	$1,000	$1,000	$1,000	$1,000
Purchase Raw Water Supply from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	32	324	626
Annual Cost ($/yr)	—	—	—	$3,200	$32,400	$62,600
Unit Cost ($/acft)	—	—	—	$100	$100	$100
Reuse from Bell County WCID No. 1 – South						
Supply From Plan Element (acft/yr)	—	32	185	185	—	20
Annual Cost ($/yr)	—	$43,650	$252,340	$50,690	—	$5,480
Unit Cost ($/acft)	—	$1,364	$1,364	$274	—	$274

5.1.2 Armstrong WSC

Description of Supply

Armstrong WSC obtains its water supply from the Trinity Aquifer and surface water from Central Texas WSC. No shortages are projected and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Armstrong WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $20,720
- Unit Cost: $560/acft

Table 5.1-3. Recommended Plan Costs by Decade for Armstrong WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*491*	*469*	*448*	*425*	*397*	*369*
Conservation						
Supply From Plan Element (acft/yr)	0	35	37	33	35	36
Annual Cost ($/yr)	$0	$19,600	$20,720	$18,480	$19,600	$20,160
Projected Surplus/(Shortage) after Conservation (acft/yr)	*491*	*504*	*485*	*458*	*432*	*405*

5.1.3 Bell County WCID No. 2

Description of Supply

Bell County WCID No. 2 obtains its water supply from the Trinity Aquifer and treated surface water from the City of Temple. Shortages are projected for Bell County WCID No. 2 beginning in 2060.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Armstrong WSC. Conservation was also considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Groundwater Development – Trinity Aquifer

- Cost Source: Volume II

- Date to be Implemented: before 2060
- Project Cost: $979,000
- Unit Cost: maximum of $1,460/acft

Table 5.1-4. Recommended Plan Costs by Decade for Bell County WCID No. 2

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*106*	*76*	*44*	*9*	*(27)*	*(63)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*106*	*76*	*44*	*9*	*(27)*	*(63)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	63	63
Annual Cost ($/yr)	—	—	—	—	$92,000	$92,000
Unit Cost ($/acft)	—	—	—	—	$1,460	$1,460

5.1.4 Bell County WCID No. 3

Description of Supply

Bell County WCID No. 3 purchases its water supply from Bell County WCID No. 1. Supply is projected to meet demand and no change in water supply is recommended.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Bell County WCID No. 3. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $12,320
- Unit Cost: $560/acft

Table 5.1-5. Recommended Plan Costs by Decade for Bell County WCID No. 3

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	0	22	—	—	—	—
Annual Cost ($/yr)	—	$12,320	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*0*	*22*	*0*	*0*	*0*	*0*

5.1.5 Bell-Milam-Falls WSC

Description of Supply

Bell-Milam Falls WSC is located in multiple counties (Bell, Falls, Milam and Williamson) and obtains its water supply from the Trinity Aquifer through a contract for surface water from Lake Stillhouse Hollow from Central Texas WSC. Totals shown in Table 5.1-6 represent cumulative totals for Bell-Milam Falls WSC. No shortages are projected and no changes to water supply are recommended for Bell-Milam Falls WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $2,800
- Unit Cost: $560/acft

Table 5.1-6. Recommended Plan Costs by Decade for Bell-Milam-Falls WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*1,902*	*1,864*	*1,832*	*1,798*	*1,747*	*1,695*
Conservation						
Supply From Plan Element (acft/yr)	0	4	4	4	4	5
Annual Cost ($/yr)	$0	$2,240	$2,240	$2,240	$2,240	$2,800
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,902*	*1,868*	*1,836*	*1,802*	*1,751*	*1,700*

5.1.6 City of Belton

Description of Supply

The City of Belton has a contract to purchase water from the Brazos River Authority from Lake Belton. City of Belton has contracted for 2,500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 2,078 acft/yr in 2020 and 2,009 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Belton contracts with Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City. The City also has a contract with Central Texas WSC. A shortage is projected for the City of Belton in 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 Belton. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: maximum of $215,040 in 2070
   - Unit Cost: $560/acft

b. 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

c. Water Treatment Plant Expansion
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Project Cost: $11,925,000
   - Unit Cost: maximum of $1,361/acft

Table 5.1-7. Recommended Plan Costs by Decade for City of Belton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*3,608*	*3,046*	*2,448*	*1,831*	*1,201*	*(1,072)*
Conservation						
Supply From Plan Element (acft/yr)	—	323	323	325	352	384
Annual Cost ($/yr)	—	$180,880	$180,880	$182,000	$197,120	$215,040

Table 5.1-7. Recommended Plan Costs by Decade for City of Belton

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) after Conservation (acft/yr)	*3,608*	*3,046*	*2,448*	*1,831*	*1,201*	*(1,072)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)[A]	—	436	450	463	477	491
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Water Treatment Plant Expansion						
Supply From Plan Element (acft/yr)	—	—	—	—	—	676
Annual Cost ($/yr)	—	—	—	—	—	$740,900
Unit Cost ($/acft)	—	—	—	—	—	$1,096

1. Quantity represents increase in treatment capacity required to develop existing supplies currently constrained by treatment capacity.

5.1.7 Dog Ridge WSC

Description of Supply

Dog Ridge WSC has surface water contracts with BRA and Central Texas WSC. No shortages are projected for Dog Ridge WSC and no changes in water supply are recommended. Dog Ridge WSC has contracted for 1,500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,247 acft/yr in 2020 and 1,206 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 Dog Ridge WSC. Conservation was considered; however the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs from by BRA
- Unit Cost: Costs from by BRA

Table 5.1-8. Recommended Plan Costs by Decade for Dog Ridge WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*914*	*817*	*714*	*602*	*486*	*370*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*914*	*817*	*714*	*602*	*486*	*370*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	261	270	278	286	294
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.8 East Bell WSC

East Bell WSC is split between Bell and Falls counties, yet the majority of demand lies within Bell County. The WSC obtains its water supply from the Trinity Aquifer and treated surface water from Central Texas WSC. Supplies are projected to be adequate to meet future demands across the entire service area, and no change in water supply is recommended. Conservation was considered; however, the usage is below the selected goal of 140 gpcd.

5.1.9 Elm Creek WSC

Description of Supply

Elm Creek WSC service area includes portions of Bell, Coryell, and McLennan counties, yet the majority of demand lies within Bell County. Elm Creek WSC has a contract to purchase water from Bluebonnet WSC from Lake Belton. The surpluses and shortages shown in Table 5.1-9 represent the cumulative totals for Elm Creek WSC across all counties it serves.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Elm Creek WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Bluebonnet WSC to Firm Up Contracted Supply

   Bluebonnet WSC provides this supply under contract to entity. Bluebonnet WSC to develop any combinations of strategies as described in Section 5.38 to firm up this amount.

   - Cost Source: Volume II

- Date to be Implemented: before 2050
- Project Cost: associated project costs to be borne by Bluebonnet WSC
- Unit Cost: supply already under contract.

b. Reallocation of Supply from Moffat WSC

- Cost Source: Volume II
- Date to be Implemented: before 2050
- Annual Cost: maximum of $150,612
- Unit Cost: $978/acft (reimbursement of cost under Moffat's take-or-pay contract with Bluebonnet WSC)

Table 5.1-9. Recommended Plan Costs by Decade for Elm Creek WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*157*	*92*	*23*	*(47)*	*(121)*	*(196)*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*157*	*92*	*23*	*(47)*	*(121)*	*(196)*
Bluebonnet WSC to Firm Up Contracted Supply						
Supply From Plan Element (acft/yr)	—	—	—	33	37	42
Annual Cost ($/yr)	—	—	—	$2,550	$2,850	$3,240
Unit Cost ($/acft)	—	—	—	$77	$77	$77
Reallocation of Supply from Moffat WSC						
Supply From Plan Element (acft/yr)	—	—	—	14	84	154
Annual Cost ($/yr)	—	—	—	$13,692	$82,152	$150,612
Unit Cost ($/acft)	—	—	—	$978	$978	$978

5.1.10 Fort Hood

Description of Supply

The U.S. Department of the Army (Fort Hood) has a water right to store and divert 12,000 acft/yr in Lake Belton. The Fort Hood service area includes portions of Bell and Coryell Counties. Bell County WCID No. 1 and City of Gatesville divert, treat and deliver its Lake Belton supply to the Army base. No shortages are projected for Fort Hood and no changes in water supply are recommended. The surplus shown in Table 5.1-10 represents the cumulative totals for Fort Hood in the counties it serves.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Fort Hood. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Unit Cost: $560/acft
- Annual Cost: maximum of $1,109,448 in 2060

Table 5.1-10. Recommended Plan Costs by Decade for Fort Hood

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*4,915*	*5,007*	*5,086*	*5,097*	*5,106*	*5,107*
Conservation						
Supply From Plan Element (acft/yr)	0	531	1,053	1,602	1,981	1,980
Annual Cost ($/yr)	$0	$297,000	$590,000	$897,000	$1,109,000	$1,109,000
Projected Surplus/ (Shortage) after Conservation (acft/yr)	*4,915*	*5,007*	*5,086*	*5,097*	*5,106*	*5,107*
Additional Demands from Recommended Strategies from Others						
Provide raw supply to 439 WSC (acft/yr)	—	—	—	(32)	(324)	(626)
Provide raw supply to Harker Heights (acft/yr)	—	—	—	—	—	(487)
Provide raw supply to Copperas Cove (acft/yr)	—	—	—	—	(125)	(1,285)
Total Surplus/(Shortage) Including Recommended Strategies (acft/yr)	*4,915*	*5,007*	*5,086*	*5,065*	*4,657*	*2,709*

5.1.11 City of Harker Heights

Description of Supply

The City of Harker Heights has a contract to purchase water from the Brazos River Authority Little River System from Lake Stillhouse Hollow and Lake Belton. City of Harker Heights has contracted for 3,535 acft/yr of surface water supplies from the Brazos River Authority, which can supply 2,938 acft/yr in 2020 and 2,841 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. Harker Heights also contracts with Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City.

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 Harker Heights. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $1,018,640
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Purchase Raw Water Supply from Fort Hood
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum of $48,700
   - Unit Cost: $100/acft

d. Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1.
   - Cost Source: Volume II
   - Date to be Implemented: before 2060
   - Annual Cost: $1,232,000
   - Unit Cost: $1,000/acft

Table 5.1-11. Recommended Plan Costs by Decade for City of Harker Heights

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*2,104*	*1,141*	*122*	*(915)*	*(1,962)*	*(3,000)*
Conservation						
Supply From Plan Element (acft/yr)	—	559	1,274	1,498	1,656	1,819
Annual Cost ($/yr)	—	$313,040	$713,440	$838,880	$927,360	$1,018,640
Projected Surplus/(Shortage) after Conservation	*2,104*	*1,141*	*122*	*583*	*(306)*	*(1,181)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	616	636	655	674	694

Table 5.1-11. Recommended Plan Costs by Decade for City of Harker Heights

Plan Element	2020	2030	2040	2050	2060	2070
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Purchase Raw Water Supply from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	—	—	487
Annual Cost ($/yr)	—	—	—	—	—	$48,700
Unit Cost ($/acft)	—	—	—	—	—	$100
Purchase Additional Diversion, Treatment, and Delivery from Bell County WCID No. 1						
Supply From Plan Element (acft/yr)	—	—	—	—	185	185
Annual Cost ($/yr)	—	—	—	—	$252,340	$252,340
Unit Cost ($/acft)	—	—	—	—	$1,364	$1,364
Killeen Reduction to Harker Heights						
Supply From Plan Element (acft/yr)	—	—	—	—	—	302
Annual Cost ($/yr)	—	—	—	—	—	$541,000
Unit Cost ($/acft)	—	—	—	—	—	$1,791

5.1.12 City of Holland

The City of Holland has Trinity supplies and a contract to purchase water from the Central Texas WSC from Lake Stillhouse Hollow. No shortages are projected for the City of Holland and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.13 City of Killeen

The City of Killeen has a contract to purchase water from Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the City. Killeen provides supply for Bell County manufacturing entities.

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 Kileen. Associated costs are included for each strategy. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Bell County WCID No. 1 North Reuse

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,018,640
- Unit Cost: $835/acft

b. Bell County WCID No. 1 South Reuse

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,018,640
- Unit Cost: $1,364/acft

Table 5.1-12. Recommended Plan Costs by Decade for the City of Killeen

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/ (Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*
Reuse from Bell County WCID No. 1 – North						
Supply From Plan Element (acft/yr)	—	1,773	1,773	1,773	1,773	1,773
Annual Cost ($/yr)	—	$3,899,000	$3,899,000	$984,000	$984,000	$984,000
Unit Cost ($/acft)	—	$2,199	$2,199	$555	$555	$555
Reuse from Bell County WCID No. 1 – South						
Supply From Plan Element (acft/yr)	—	716	563	563	563	543
Annual Cost ($/yr)	—	$1,574,000	$1,238,000	$312,000	$312,000	$301,000
Unit Cost ($/acft)	—	$2,199	$2,199	$555	$555	$555
Projected Surplus/(Shortage) after Reuse	—	*2,489*	*2,336*	*2,336*	*2,336*	*2,316*

5.1.14 Little Elm Valley WSC

Description of Supply

Little Elm Valley WSC obtains its water supply from the Trinity Aquifer and a contract for treated supplies from Central Texas WSC. Little River Academy is projected to have sufficient supply 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 Little Elm Valley WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030

- Annual Cost: maximum of $26,320 in 2070
- Unit Cost: $560/acft

Table 5.1-13. Recommended Plan Costs by Decade for Little Elm Valley WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/ (Shortage) (acft/yr)	*353*	*310*	*265*	*219*	*171*	*124*
Conservation						
Supply From Plan Element (acft/yr)	0	25	37	39	43	47
Annual Cost ($/yr)	0	$14,000	$20,720	$21,840	$24,080	$26,320
Projected Surplus/(Shortage) after Conservation	*353*	*335*	*302*	*258*	*214*	*171*

5.1.15 Moffat WSC

Description of Supply

Moffat WSC has a contract to purchase water from the Brazos River Authority and Bluebonnet WSC from Lake Belton, as well as supplemental wells in the Trinity Aquifer. Moffat WSC has contracted for 500 acft/yr of surface water supplies from the Brazos River Authority, which can supply 416 acft/yr in 2020 and 402 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. No shortages are projected for Moffat WSC and no changes in water supply are recommended. Moffat WSC is slated to voluntarily redistribute 14, 84, and 154 acft/yr to Elm Creek WSC in 2050, 2060, and 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 Moffat WSC, Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs borne by BRA.
- Unit Cost: Costs borne by BRA

Table 5.1-14. Recommended Plan Costs by Decade for Moffat WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*936*	*922*	*907*	*890*	*867*	*843*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*936*	*922*	*907*	*890*	*867*	*843*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	87	90	93	95	98
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.16 Morgan's Point Resort

Morgan's Point Resort contracts with the City of Temple for all of its water supply. No shortages are projected for Morgan's Point Resort and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.17 Pendleton WSC

Pendleton WSC has wells in the Trinity Aquifer and a contract to purchase water from Bluebonnet WSC from Lake Belton. No shortages are projected for Pendleton WSC and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.18 City of Rogers

The City of Rogers has wells in the Trinity Aquifer and purchases treated surface water from Central Texas WSC. No shortages are projected for the City of Rogers and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.19 Salado WSC

Description of Supply

Salado WSC currently obtains water from the Edwards Aquifer and through purchases of treated supply from Kempner WSC. The entity also has a contract with the BRA. Salado WSC has contracted for 1,600 acft/yr of surface water supplies from the Brazos River Authority, which can supply 1,330 acft/yr in 2020 and 1,286 acft/yr in 2070, based on water

availability analyses prescribed under water planning guidelines. A shortage is projected beginning in 2040 for Salado WSC.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategy is recommended for Salado WSC. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum $601,440 in 2070
   - Unit Cost: $560/acft

b. Firm Up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Annual Cost: Costs borne by BRA.
   - Unit Cost: Costs borne by BRA

Table 5.1-15. Recommended Plan Costs by Decade for Salado WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*337*	*155*	*(29)*	*(213)*	*(400)*	*(586)*
Conservation						
Supply From Plan Element (acft/yr)	0	178	379	597	831	1,074
Annual Cost ($/yr)	$0	$99,680	$212,240	$334,320	$465,360	$601,440
Projected Surplus/ (Shortage) after Conservation	*337*	*333*	*350*	*384*	*431*	*488*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	279	288	296	305	314
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.20 City of Temple

Description of Supply

The City of Temple obtains its water supply from surface water from Lake Belton through the BRA and run-of-the river water rights. City of Temple has contracted for 30,453 acft/yr of surface water supplies from the Brazos River Authority, which can supply 25,311 acft/yr in 2020 and 24,476 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The City supplies several neighboring communities with treated water. The City is projected to have a shortage of supplies through the planning period.

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 Temple. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Annual Cost: maximum $6,982,640 in 2070
   - Unit Cost: $560/acft

b. Firm up BRA Little River Supplies
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: Costs borne by BRA
   - Unit Cost: Costs borne by BRA

c. Expand Water Treatment Plant Capacity. Strategy includes two identical expansions. First treatment plant expansion will increase available supply to cover shortage for 2030.
   - Cost Source: Volume II
   - Date to be implemented: first expansion before 2030; second expansion before 2040.
   - Project Cost: $35,666,000
   - Unit Cost: maximum of $957

Table 5.1-16. Recommended Plan Costs by Decade for the City of Temple

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(532)*	*(3,668)*	*(6,969)*	*(10,340)*	*(13,738)*	*(17,103)*
Conservation						
Supply From Plan Element (acft/yr)	0	1,868	4,232	7,057	10,263	12,469
Annual Cost ($/yr)	$0	$1,046,080	$2,369,920	$3,951,920	$5,747,280	$6,982,640
Projected Surplus/ (Shortage) after Conservation	*(532)*	*(1,800)*	*(2,737)*	*(3,283)*	*(3,475)*	*(4,634)*
Firm up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	5,309	5,476	5,643	5,810	5,977
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Water Treatment Plant Expansion[A]						
Supply From Plan Element (acft/yr)[B]	2,352	2,352	3,610	3,138	2,707	2,256
Annual Cost ($/yr)	$2,251,000	$2,251,000	$2,491,000	$2,166,000	$1,146,000	$955,000
Unit Cost ($/acft)	$957	$957	$690	$690	$423	$423

A – Two separate expansions at 2.1 MGD each with the first completed by 2030 and the second completed before 2040.
B - Quantity represents increase in treatment capacity required to develop additional supplies and does not include the supply itself.

5.1.21 The Grove WSC

Description of Supply

The Grove WSC services entities in Bell and Coryell counties, with the majority of demand lying within Bell County. The WSC purchases treated surface water from the City of Gatesville and raw surface water from the Brazos River authority Little River System. The Grove WSC has contracted for 400 acft/yr of surface water supplies from the Brazos River Authority, which can supply 332 acft/yr in 2020 and 321 acft/yr in 2070, based on water availability analyses prescribed under water planning guidelines. The Grove WSC is projected to have sufficient water supply through the planning period and no changes to water supply are recommended.

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 Grove WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Firm Up BRA Little River Supplies

- Cost Source: Volume II
- Date to be Implemented: before 2070
- Annual Cost: Costs borne by BRA.
- Unit Cost: Costs borne by BRA

Table 5.1-17. Recommended Plan Costs by Decade for The Grove WSC

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*0*	*0*	*0*	*0*	*0*	*0*
Conservation						
Supply From Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost ($/yr)	—	—	—	—	—	—
Projected Surplus/ (Shortage) after Conservation	*0*	*0*	*0*	*0*	*0*	*0*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	70	72	74	76	79
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—

5.1.22 City of Troy

The City of Troy obtains its water from a contract with the City of Temple and wells located in the Trinity Aquifer. No shortages are projected for the City of Troy and no changes in water supply are recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

5.1.23 West Bell County WSC

West Bell County WSC obtains its water through a contract with the Central Texas WSC. No shortages are projected for West Bell County WSC and no changes in water supply are recommended. Conservation was considered; however, the usage is below the selected goal of 140 gpcd.

5.1.24 Bell County-Other

Description of Supply

Bell County-Other entities obtain water supply from groundwater from the Trinity Aquifer and treated surface water from Bell County WCID No. 1, Central Texas WSC, and City of Temple. Shortages are projected for County Other by 2040.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for Bell County-Other. Conservation is recommended to reduce usage to a goal of 140 gpcd.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2030
   - Annual Cost: maximum $24,191 in 2070
   - Unit Cost: $560/acft

b. Purchase Additional Treated Surface Water Supply from Central Texas WSC
   - Cost Source: Volume II
   - Date to be Implemented: before 2070
   - Annual Cost: $387,024
   - Unit Cost: $1,460

Table 5.1-18. Recommended Plan Costs by Decade for Bell County – Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	1,025	995	955	911	287	(307)
Conservation						
Supply From Plan Element (acft/yr)	0	17	14	14	30	43
Annual Cost ($/yr)	$0	$9,520	$7,840	$7,840	$16,800	$24,080
Projected Surplus/(Shortage) after Conservation	*1,025*	*995*	*955*	*911*	*287*	*(264)*
Purchase Additional Treated Surface Water Supply from Central Texas WSC						
Supply From Plan Element (acft/yr)	—	—	—	—	—	264
Annual Cost ($/yr)	—	—	—	—	—	$387,024
Unit Cost ($/acft)	—	—	—	—	—	$1,466

5.1.25 Manufacturing

Description of Supply

Water supply for manufacturing in Bell County is obtained by purchase from the cities of Killeen, Temple, and Troy, and from wells within the Trinity Aquifer. Bell County Manufacturing 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 Bell County Manufacturing. Conservation is recommended.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: before 2020
   - Annual Cost: Not determined

b. Reuse Supplies from Bell County WCID No. 1 (North)
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Annual Cost: Costs to be borne by Bell County WCID No. 1
   - Unit Cost: $919/acft

Table 5.1-19. Recommended Plan Costs by Decade for Bell County – Manufacturing

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(142)*	*(186)*	*(186)*	*(186)*	*(186)*	*(186)*
Conservation						
Supply From Plan Element (acft/yr)	19	34	48	48	48	48
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/ (Shortage) after Conservation	*(123)*	*(152)*	*(138)*	*(138)*	*(138)*	*(138)*
Purchase Reuse Supplies from Bell County WCID No. 1 (North)						
Supply From Plan Element (acft/yr)	—	152	152	152	152	152
Annual Cost ($/yr)	—	$126,920	$126,920	$42,720	$42,720	$42,720
Unit Cost ($/acft)	—	$835	$835	$281	$281	$281

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

5.1.26 Steam-Electric

Steam-Electric operations in Bell County obtain reuse water supply from the City of Temple. Steam-Electric has a projected surplus throughout the planning period and no changes in water supply are recommended.

5.1.27 Mining

Description of Supply

Mining in Bell County obtains water supply from wells within the Trinity Aquifer. A shortage is projected for mining operations throughout the planning period.

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 Bell County-Mining. Conservation is recommended.

a. Conservation
    - Cost Source: Volume II
    - Date to be Implemented: by 2030
    - Annual Cost: Not determined

b. Groundwater Development – Trinity Aquifer
    - Cost Source: Volume II
    - Date to be Implemented: before 2030
    - Project Cost: $8,771,000
    - Unit Cost: $447/acft

c. Groundwater Development – Edwards BFZ Aquifer
    - Cost Source: Volume II
    - Date to be Implemented: before 2070
    - Project Cost: $1,423,000
    - Unit Cost: $324/acft

Table 5.1-20. Recommended Plan Costs by Decade for Bell County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(2,077)*	*(2,815)*	*(3,434)*	*(4,184)*	*(4,940)*	*(5,803)*
Conservation						
Supply From Plan Element (acft/yr)	97	199	322	374	427	488
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	(1,980)	(2,616)	(3,112)	(3,810)	(4,513)	(5,315)
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	4,700	4,700	4,700	4,700	4,700	4,700
Annual Cost ($/yr)	$2,101,000	$2,101,000	$1,484,000	$1,484,000	$1,484,000	$1,484,000
Unit Cost ($/acft)	$447	$447	$316	$316	$316	$316
Groundwater Development – Edwards BFZ Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	—	615
Annual Cost ($/yr)	—	—	—	—	—	$199,000
Unit Cost ($/acft)	—	—	—	—	—	$324

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

5.1.28 Irrigation

Description of Supply

Bell County Irrigation is supplied by groundwater from the Trinity and the Edwards (BFZ) Aquifers, and surface water from the Brazos River Authority Little River System. Bell County Irrigation has contracted for 308 acft/yr of surface water supplies from the Brazos River Authority, which can supply 256 acft/yr in 2020 and 248 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 Bell County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $263,326

- Unit Cost: $1,323/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 BFZ Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: before 2030
   - Project Cost: $922,000
   - Unit Cost: $185/acft

Table 5.1-21. Recommended Plan Costs by Decade for Bell County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(670)*	*(680)*	*(690)*	*(700)*	*(710)*	*(719)*
Conservation						
Supply From Plan Element (acft/yr)	85	142	199	199	199	199
Annual Cost ($/yr)	$112,455	$187,870	$263,280	$263,280	$263,280	$263,280
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(585)*	*(538)*	*(491)*	*(501)*	*(511)*	*(520)*
Firm Up BRA Little River Supplies						
Supply From Plan Element (acft/yr)	—	54	55	57	59	60
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/acft)	—	—	—	—	—	—
Groundwater Development – Edwards BFZ Aquifer						
Supply From Plan Element (acft/yr)	585	585	585	585	585	585
Annual Cost ($/yr)	$88,000	$88,000	$23,000	$23,000	$23,000	$23,000
Unit Cost ($/acft)	$150	$150	$39	$39	$39	$39

5.1.29 Livestock

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

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