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)[1]		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	Demand equals supply
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	2,233	0	Projected surplus
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.

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

Water User Group	Surplus/(Shortage)[1]		Comment
	2040 (acft/yr)	2070 (acft/yr)	
The Grove WSC	0	0	Demand equals supply
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	Demand equals supply

1 – From Tables C-1 and C-2, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

5.1.1 439 WSC

Description of Supply

439 WSC has a contract to purchase water from the Brazos River Authority from Lake Belton. 439 WSC contracts with Bell County WCID No. 1 to divert, treat, and deliver water from Lake Belton to the WSC, as well as purchase some allotment from Bell County WCID No. 1. Shortages are projected for 439 WSC beginning in 2030.

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 current per capita use rate is below the selected target rate of 140 gpcd.

a. Purchase Reuse Water from Bell County WCID No. 1

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: Costs to be borne by Bell County WCID No. 1
- Unit Cost: $1,364/acft

b. Firm up Water Supply from BRA – Little River System

BRA provides this supply under contract to entity. BRA to develop any combinations of strategies as described in Section 5.38.2 to firm up this amount.

- Cost Source: BRA to firm up water supply

- Date to be Implemented: 2040
- Project Cost: cost borne by BRA
- Unit Cost: already contracted supplies

c. Voluntary Redistribution from Fort Hood

- Cost Source: Volume II
- Date to be Implemented: 2050
- Project Cost: cost of purchase only
- Unit Cost: $1,026/acft (based on 439 WSC's lowest tier water rate)

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 ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*217*	*(32)*	*(293)*	*(567)*	*(859)*	*(1,161)*
Reuse Supply from Bell County WCID No. 1 – South Reuse						
Supply From Plan Element (acft/yr)	0	32	185	185	0	20
Annual Cost ($/yr)	—	$43,648	$50,690	$50,690	—	$5,480
Unit Cost ($/acft)	—	$1,364	$274	$274	—	$274
Projected Surplus/(Shortage) after Reuse (acft/yr)	*217*	*0*	*(108)*	*(382)*	*(859)*	*(1,141)*
Firm up Water Supply from BRA (Raw Surface Water)						
Supply From Plan Element (acft/yr)	—	246	253	261	269	277
Annual Cost ($/yr)	—	$0	$0	$0	$0	$0
Unit Cost ($/acft)	—	$0	$0	$0	$0	$0
Increase WTP Capacity (Utilizing Prorated and Firmed BRA Raw Surface Water)						
Supply From Plan Element (acft/yr)	—	—	535	535	535	535
Annual Cost ($/yr)	—	—				
Unit Cost ($/acft)	—	—				
Voluntary Redistribution from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	121	590	864
Annual Cost ($/yr)	—	—	—	$124,198	$605,594	$886,836
Unit Cost ($/acft)	—	—	—	$1,026	$1,026	$1,026

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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $20,989 in 2040
- 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	$19,738	$20,989	$18,589	$19,339	$20,178
Projected Surplus/(Shortage) after Conservation (acft/yr)	*491*	*469*	*448*	*425*	*397*	*369*

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 current per capita use rate is below the selected target rate of 140 gpcd.

a. Groundwater Development – Trinity Aquifer

- Cost Source: Volume II
- Date to be Implemented: 2060

- Annual Cost: Not yet determined
- Unit Cost: Not yet determined

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 ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*106*	*76*	*44*	*9*	*(27)*	*(63)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	27	63
Annual Cost ($/yr)	—	—	—	—		
Unit Cost ($/acft)	—	—	—	—		

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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $12,044
- 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)	—	$12,044				

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) after Conservation (acft/yr)	*0*	*0*	*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 and has 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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $2,661 in 2070
- 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	$2,326	$2,150	$1,978	$2,508	$2,661
Projected Surplus/(Shortage) after Conservation (acft/yr)	*1,902*	*1,864*	*1,832*	*1,798*	*1,747*	*1,695*

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. 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.

a. Conservation
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Annual Cost: maximum of $215,317 in 2070
   - Unit Cost: $560/acft

b. Increase Contract Amount from Bell County WCID No. 1 Reuse
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: Cost of purchase only
   - Unit Cost: not yet determined

c. Alternative: Increase WTP capacity by 1.5 MGD
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: XX
   - Unit Cost: XX

d. Alternative: Purchase additional supply from BRA after BRA firms up Little River System Supplies
   - Cost Source: Volume II
   - Date to be Implemented: 2020
   - Project Cost: XX
   - Unit Cost: XX

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)	0	323	323	325	352	384

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

Plan Element	2020	2030	2040	2050	2060	2070
Annual Cost ($/yr)	$0	$180,728	$180,662	$182,018	$197,153	$215,317
Projected Surplus/(Shortage) after Conservation (acft/yr)	*3,608*	*3,046*	*2,448*	*1,831*	*1,201*	*(688)*
Increase Contract Amount from Bell County WCID No. 1 Reuse						
Supply From Plan Element (acft/yr)	—	—	—	—	—	688
Annual Cost ($/yr)	—	—	—	—	—	
Unit Cost ($/acft)	—	—	—	—	—	
Alternative: Increase WTP capacity by 1.5 MGD						
Increase Purchase additional supply from BRA if BRA firms up Little River System supplies						

5.1.7 Dog Ridge WSC

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

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 entity's current per capita use rate is below the selected target rate 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 5.1-8 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 current per capita use rate is below the selected target rate of 140 gpcd.

a. Firm up Water Supply from Bluebonnet WSC

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

- Cost Source: BRA to firm up water supply
- Date to be Implemented: 2050
- Project Cost: cost borne by BRA
- Unit Cost: already contracted supplies

b. Voluntary Redistribution from Moffat WSC

- Cost Source: Cost of purchase
- Date to be Implemented: 2050
- Project Cost: Cost of purchase only
- Unit Cost: $1,140/acft (based on Elm Creek WSC's lowest tier water rate)

Table 5.1-8. 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 ($/yr)	—	—	—	—	—	—
Projected Surplus/(Shortage) after Conservation (acft/yr)	*157*	*92*	*23*	*(47)*	*(121)*	*(196)*
Firm Up Supply from Bluebonnet WSC						
Supply From Plan Element (acft/yr)	—	—	—	33	37	42
Annual Cost ($/yr)	—	—	—	$0	$0	$0
Unit Cost ($/acft)	—	—	—	$0	$0	$0
Voluntary Redistribution from Moffat WSC						
Supply From Plan Element (acft/yr)	—	—	—	14	84	154
Annual Cost ($/yr)	—	—	—	$15,967	$95,800	$175,634
Unit Cost ($/acft)	—	—	—	$1,140	$1,140	$1,140

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 5.1-9 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.

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 5.1-9. 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	$297,465	$589,952	$897,331	$1,109,448	$1,108,888
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 supply to 439 WSC (ac-ft/yr)	—	—	—	121	590	864
Provide supply to Harker Heights (ac-ft/yr)	—	—	—	—	—	579
Provide supply to Bell County-Other (ac-ft/yr)	—	—	—	—	—	264
Balance Including Recommended Strategies (acft/yr)	*4,915*	*5,007*	*5,086*	*4,976*	*4,516*	*3,400*

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. 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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: maximum of $1,018,527 in 2070
- Unit Cost: $560/acft

b. Purchase reuse water from Bell County WCID No. 1. The reuse supply will reduce demands for landscape irrigation at existing or future parks, schools, ball fields, and other green spaces. Reuse water may also potentially supply existing or future industrial customers.

- Cost Source: Volume II
- Date to be Implemented: 2060
- Annual Cost: $50,690
- Unit Cost: $274/acft

c. Firm up Supplies through BRA Little River System

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

- Cost Source: BRA to firm up water supply
- Date to be Implemented: by 2030
- Project Cost: cost borne by BRA
- Unit Cost: already contracted supplies

d. Voluntary Redistribution from Fort Hood

- Cost Source: Volume II
- Date to be Implemented: 2070
- Project Cost: Cost of purchase only
- Unit Cost: $1,043/acft (based on Harker Height's water rate of $3.20 per 1,000 gallons)

Table 5.1-10. 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)	0	559	1,274	1,498	1,656	1,819
Annual Cost ($/yr)	$0	$313,002	$713,241	$839,130	$927,292	$1,018,527
Projected Surplus/(Shortage) after Conservation	*2,104*	*1,141*	*122*	*583*	*(306)*	*(1,181)*
Bell County WCID No. 1 Reuse						

Supply From Plan Element (acft/yr)	0	0	0	0	185	185
Annual Cost ($/yr)	—	—	—	—	$50,690	$50,690
Unit Cost ($/yr)	$1,364	$1,364	$274	$274	$274	$274
Projected Surplus/(Shortage) after Reuse (acft/yr)	*0*	*0*	*0*	*0*	*(121)*	*(996)*
Firm up Supplies through BRA Little River System (up to current WTP constraint)						
Supply From Plan Element (acft/yr)	—	—	—	—	398	418
Annual Cost ($/yr)	—	—	—	—	$0	$0
Unit Cost ($/yr)	—	—	—	—	$0	$0
Voluntary Redistribution from Fort Hood						
Supply From Plan Element (acft/yr)	—	—	—	—	—	579
Annual Cost ($/yr)	—	—	—	—	—	$602,854
Unit Cost ($/yr)	—	—	—	—	—	$1,043

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 current per capita use rate is below the selected target rate 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. Demand is projected to be sufficient for the City of Killeen throughout the planning period.

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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum of $26,172in 2070

- Unit Cost: $560/acft

Table 5.1-11. Recommended Plan Costs by Decade for Little River Academy

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	$14,139	$20,980	$21,799	$24,002	$26,172
Projected Surplus/(Shortage) after Conservation	*353*	*310*	*265*	*219*	*171*	*124*

5.1.15 Moffat WSC

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. No shortages are projected for Moffat WSC 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 140 gpcd. Moffat WSC is slated to voluntarily redistribute 14, 84, and 154 acft/yr to Elm Creek WSC in 2050, 2060, and 2070.

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 current per capita use rate is below the selected target rate 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 current per capita use rate is below the selected target rate 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 current per capita use rate is below the selected target rate of 140 gpcd.

5.1.19 Salado WSC

Description of Supply

Salado WSC currently obtains water from the Edwards Aquifer, and purchases treated supply from Kempner WSC. The entity also has a contract with the BRA that has yet to be utilized. 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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: maximum $601,676 in 2070
- Unit Cost: $560/acft

Table 5.1-12. 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	$99,912	$212,065	$334,183	$465,532	$601,676
Projected Surplus/ (Shortage) after Conservation	*337*	*155*	*350*	*384*	*431*	*488*

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. 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 Salado WSC.

a. Conservation

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

- Annual Cost: maximum $6,982,884 in 2070
- Unit Cost: $560/acft

b. Firm up Supplies through BRA Little River Strategies

BRA provides this supply under contract to entity. BRA to develop any combinations of strategies as described in Section 5.38 to firm up this amount. This contract is for raw water, however, and WTP capacity expansion is required for potable use of this supply.

- Cost Source: BRA to firm up water supply
- Date to be Implemented: by 2030
- Project Cost: cost borne by BRA
- Unit Cost: already contracted supplies

c. Increase WTP Capacity – Utilizing Firmed BRA Supplies

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: not yet determined
- Unit Cost: not yet determined

Table 5.1-13. 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	$1,045,905	$2,369,770	$3,951,925	$5,747,423	$6,982,884
Projected Surplus/ (Shortage) after Conservation	*(532)*	*(1,800)*	*(2,737)*	*(3,283)*	*(3,475)*	*(4,634)*
Firm up Supplies through BRA Little River System (Raw Water)						
Supply From Plan Element (acft/yr)	*5,142*	*5,309*	*5,476*	*5,643*	*5,810*	*5,977*
Annual Cost ($/yr)	—	—	—	—	—	—
Unit Cost ($/yr)	—	—	—	—	—	—
Increase WTP Capacity (uses firmed BRA supply)						
Supply From Plan Element (acft/yr)	7,157	7,157	7,157	7,157	7,157	7,157
Annual Cost ($/yr)						
Unit Cost ($/yr)						

5.1.21 The Grove WSC

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 is projected to have sufficient water supply through the planning period and no changes to water supply are recommended. Conservation was considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

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 current per capita use rate is below the selected target rate 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 entity's current per capita use rate is below the selected target rate 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.

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

b. Groundwater Development – Trinity Aquifer
   - Cost Source: Volume II
   - Date to be Implemented: 2070
   - Project Cost: not yet determined
   - Unit Cost: not yet determined

Table 5.1-14. 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	$9,569	$7,643	$7,957	$16,658	$24,191
Projected Surplus/(Shortage) after Conservation	*1,025*	*995*	*955*	*911*	*287*	*(264)*
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	—	—	—	—	—	264
Annual Cost ($/yr)	—	—	—	—	—	
Unit Cost ($/acft)	—	—	—	—	—	

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.

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
   - Project Cost: Costs to be borne by Bell County WCID No. 1
   - Unit Cost: $835/acft

Table 5.1-15. 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 ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/ (Shortage) after Conservation	*(123)*	*(152)*	*(138)*	*(138)*	*(138)*	*(138)*
Purchase Reuse Supplies from Bell County WCID No. 1 (North)						
Supply From Plan Element (acft/yr)	152	152	152	152	152	152
Annual Cost ($/yr)	$126,920	$126,920	$42,712	$42,712	$42,712	$42,712
Unit Cost ($/acft)	$835	$835	$281	$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.

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

b. Groundwater Development – Edwards BFZ
   - Cost Source: Volume II
   - Date to be Implemented: by 2030
   - Project Cost: Not yet determined

- Unit Cost: Not yet determined

c. Groundwater Development – Trinity

- Cost Source: Volume II
- Date to be Implemented: by 2030
- Project Cost: Not yet determined
- Unit Cost: Not yet determined

Table 5.1-16. 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 ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	(1,980)	(2,616)	(3,112)	(3,810)	(4,513)	(5,315)
Groundwater Development – Trinity Aquifer						
Supply From Plan Element (acft/yr)	4,435	4,435	4,435	4,435	4,435	4,435
Annual Cost ($/yr)						
Unit Cost ($/acft)						
Groundwater Development – Edwards BFZ						
Supply From Plan Element (acft/yr)	—	—	—	—	880	880
Annual Cost ($/yr)	—	—	—	—		
Unit Cost ($/acft)	—	—	—	—		

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. 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.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Annual Cost: $153/acft

b. Groundwater Development – Edwards BFZ Aquifer

- Cost Source: Volume II
- Date to be Implemented: before 2030
- Project Cost: Not yet determined
- Unit Cost: Not yet determined

Table 5.1-17. 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)	$13,053	$21,755	$30,457	$30,457	$30,457	$30,457
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(585)*	*(538)*	*(491)*	*(501)*	*(511)*	*(520)*
Groundwater Development – Edwards BFZ Aquifer						
Supply From Plan Element (acft/yr)	585	585	585	585	585	585
Annual Cost ($/yr)						
Unit Cost ($/acft)						

5.1.29 Livestock

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