5.18 Jones County Water Supply Plan

Table 5.18-1 lists each water user group in Jones County and their corresponding surplus or shortage in years 2040 and 2070. For each water user group with a projected shortage, a water supply plan has been developed and is presented in the following subsections.

Table 5.18-1. Jones County Surplus/(Shortage)

Water User Group	Surplus/(Shortage)		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Abilene			See Taylor County
City of Anson	0	0	No projected surplus or shortage
Hamby WSC	148	143	Projected surplus
City of Hamlin	77	17	Projected surplus - see plan below.
Hawley WSC	113	94	Projected surplus
City of Stamford	309	242	Projected surplus - see plan below.
County-Other	(92)	(121)	Projected shortage - see plan below.
Manufacturing	0	0	No projected demand
Steam-Electric	0	0	No projected demand
Mining	(139)	(90)	Projected shortage - see plan below.
Irrigation	(191)	(191)	Projected shortage - see plan below.
Livestock	0	0	No projected surplus or shortage

5.18.1 City of Anson

Description of Supply

The City of Anson receives surface water supplies the West Central Texas MWD at 365 to 402 acft/yr. No shortages are projected for the City of Anson. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes to Anson's water supplies are recommended.

5.18.2 Hamby WSC

Description of Supply

The Hamby WSC receives surface water supplies from the City of Anson, ranging from 495 to 532 acft/yr. A surplus is projected for the Hamby WSC. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes in the water supply plan are recommended.

5.18.3 City of Hamlin

Description of Supply

The City of Hamlin receives surface water supplies from the City of Anson, which ranges in 495 to 532 acft/yr. A surplus is projected for the City of Hamlin.

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 Hamlin. Conservation is recommended to reduce the City's gallons per capita per day (gpcd) 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 $32,500 in 2070

Table 5.18-2. Recommended Plan Costs by Decade for City of Hamlin

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*109*	*89*	*77*	*53*	*35*	*17*
Conservation						
Supply From Plan Element (acft/yr)	0	30	55	57	57	58
Annual Cost ($/yr)	$0	$16,824	$31,024	$31,750	$31,730	$32,500
Projected Surplus/(Shortage) after Conservation	*109*	*119*	*132*	*110*	*92*	*75*

5.18.4 Hawley WSC

Hawley WSC is located in multiple counties (Taylor, and Jones). The balance shown in the table below represents the cumulative totals for Hawley WSC. Hawley WSC is supplied with water from the City of Abilene at 307 acft/yr and City of Anson at 221 acft/yr. Hawley WSC provides supply to meet the current and projected demands for the City of Hawley. No shortages are projected for Hawley WSC through 2070 and no change in water supply is recommended. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd. No changes in the water supply plan are recommended.

5.18.5 City of Stamford

The City of Stamford is located in Jones and Haskell Counties. The balance shown below represents the cumulative totals for City of Stamford. The City has a contract with BRA to compensate BRA for the reduction in yield of its system as the result of the City's upstream diversion. The City of Stamford's supply is sufficient to meet the current and projected

demands for the City. No shortages are projected through 2070 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 strategies are recommended for the City of Stamford. 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 $193,513 in 2070

Table 5.18-3. Recommended Plan Costs by Decade for City of Stamford

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*360*	*329*	*309*	*284*	*261*	*242*
Conservation						
Supply From Plan Element (acft/yr)	*0*	*68*	*136*	*212*	*285*	*342*
Annual Cost ($/yr)	$0	$38,000	$76,000	$119,000	$160,000	$192,000
Projected Surplus/(Shortage) after Conservation	*360*	*397*	*445*	*496*	*546*	*584*

5.18.6 County-Other

Entities in County-Other receive supplies through the City of Stamford at 89 acft/yr and the Seymour Aquifer at 201 acft/yr. County-Other entities are projected to have a shortage of water 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 for the County Other Jones. Conservation was considered; however, the entity's usage is below the selected goal of 140 gpcd.

a. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-4. Recommended Plan Costs by Decade for Jones County-Other

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(68)*	*(82)*	*(92)*	*(102)*	*(112)*	*(121)*
Conservation						
Supply From Plan Element (acft/yr)	–	–	–	–	–	–
Annual Cost ($/yr)	–	–	–	–	–	–
Projected Surplus/(Shortage) after Conservation	*(68)*	*(82)*	*(92)*	*(102)*	*(112)*	*(121)*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	68	82	92	102	112	121
Annual Cost ($/yr)	$159,596	$192,454	$215,924	$239,394	$262,864	$283,987
Unit Cost ($/acft)	$2,347	$2,347	$2,347	$2,347	$2,347	$2,347

5.18.7 Manufacturing

There is no projected demand for Manufacturing in Jones County and no changes in water supply are recommended.

5.18.8 Steam-Electric

There is no projected demand for Steam-Electric in Jones County and no changes in water supply are recommended.

5.18.9 Mining

Description of Supply

Jones County Mining obtains its water supply from run-of-the river water rights which are not reliable in the drought of record and the Seymour Aquifer at 79 acft/yr. Jones County Mining is projected to have a shortage between 2020 and 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 Jones County-Mining. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: not determined

b. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-5. Recommended Plan Costs by Decade for Jones County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	(160)	(155)	(139)	(120)	(104)	(90)
Conservation						
Supply From Plan Element (acft/yr)	7	12	15	14	13	12
Annual Cost ($/yr)	ND	ND	ND	ND	ND	ND
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(153)*	*(143)*	*(124)*	*(106)*	*(91)*	*(78)*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	153	143	124	106	91	78
Annual Cost ($/yr)	$359,091	$335,621	$291,028	$248,782	$213,577	$183,066
Unit Cost ($/acft)	$2,347	$2,347	$2,347	$2,347	$2,347	$2,347

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

5.18.10 Irrigation

Description of Supply

Jones County Irrigation is supplied by the Seymour Aquifer at 2,638 acft/yr. Irrigation is projected to have a shortage of water beginning in 2020 through 2070, but conservation will limit shortages to occur only in 2020 and 2030.

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 Jones County-Irrigation. Conservation is recommended.

a. Conservation

- Cost Source: Volume II
- Date to be Implemented: 2030
- Annual Cost: $28,462 maximum in 2070
- Unit Cost: $1,409/acft

b. Purchase Additional Supplies from City of Abilene

- Cost Source: Abilene Water Rates 2019
- Date to be Implemented: 2020
- Project Cost: none
- Unit Cost: $2,347/acft ($7.20/1,000 gal)

Table 5.18-6. Recommended Plan Costs by Decade for Jones County – Irrigation

Plan Element	2020	2030	2040	2050	2060	2070
Projected Surplus/(Shortage) (acft/yr)	*(191)*	*(191)*	*(191)*	*(191)*	*(191)*	*(191)*
Conservation						
Supply From Plan Element (acft/yr)	85	141	198	198	198	198
Annual Cost ($/yr)	$119,575	$199,292	$279,009	$279,009	$279,009	$279,009
Unit Cost ($/acft)	$1,409	$1,409	$1,409	$1,409	$1,409	$1,409
Projected Surplus/(Shortage) after Conservation (acft/yr)	*(106)*	*(50)*	*7*	*7*	*7*	*7*
Purchase Additional Supplies from City of Abilene						
Supply From Plan Element (acft/yr)	106	50	–	–	–	–
Annual Cost ($/yr)	$248,782	$117,350	–	–	–	–
Unit Cost ($/acft)	$2,347	$2,347	–	–	–	–

5.18.11 Livestock

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