



5.9 Erath County Water Supply Plan

Table 5.9-1 lists each water user group in Erath County and their corresponding surplus or shortage in years 2040 and 2070.

Table 5.9-1. Erath County Surplus/(Shortage)

Water User Group	Surplus/(Shortage) ¹		Comment
	2040 (acft/yr)	2070 (acft/yr)	
City of Dublin	97	15	Projected surplus
City of Stephenville	3,086	2,286	Projected surplus
County-Other	291	(315)	Projected shortage
Manufacturing	0	1	Projected surplus
Steam-Electric	0	0	No projected demand
Mining	135	334	Projected shortage in 2030
Irrigation	825	1,088	Projected surplus
Livestock	0	0	Demand equals supply

1 – From Tables C-17 and C-18, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

5.9.1 City of Dublin

The City of Dublin obtains its water supply from the Upper Leon Municipal Water District (Upper Leon MWD). The Upper Leon MWD has contracted for surface water from Lake Proctor and treats and delivers it to the City of Dublin. The City of Dublin and Upper Leon MWD have contracted for adequate quantities of water to provide a firm supply and meet Dublin’s needs through the year 2070. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 140 gpcd. The City provides supply for Manufacturing and for County-Other.

5.9.2 City of Stephenville

The City of Stephenville obtains its water supply from groundwater from the Trinity Aquifer. The City also has a contract with Upper Leon MWD for 1,862 acft/yr of supplies from Lake Proctor. The City has recently purchase property and begun development of a well field for emergency supply. The City has adequate water supplies to meet their needs through the year 2070. Conservation was considered; however, the entity’s current per capita use rate is below the selected target rate of 140 gpcd.

5.9.3 County-Other

Description of Supply

The water supply entities comprising County-Other mostly rely on groundwater systems for water supply and show projected shortages beginning by 2060. Some surface water

supplies are provided through the City of Dublin and City of Gordon. Available Trinity aquifer in Erath County will also be used to meet the projected demands.

Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for the Erath County-Other. Associated costs are included for each strategy. Conservation was also considered; however, the entity's current per capita use rate is below the selected target rate of 140 gpcd.

a. Groundwater Well Development:

- Cost Source: Volume II, Chapter 12.1
- Date to be Implemented: before 2060
- Project Cost: \$1,463,000
- Annual Cost: maximum of \$247,000 in 2070

Table 5.9-2. Recommended Plan Costs by Decade for Erath County – Other

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	692	477	291	93	(116)	(315)
Conservation						
Supply from Plan Element (acft/yr)	—	—	—	—	—	—
Annual Cost (\$/yr)	—	—	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	692	477	291	93	(116)	(315)
Groundwater Well Development						
Supply from Plan Element (acft/yr)	—	—	—	—	121	363
Annual Cost (\$/yr)	—	—	—	—	\$82,000	\$247,000
Unit Cost (\$/acft)	—	—	—	—	\$678	\$681

5.9.4 Manufacturing

Manufacturing is projected to have a surplus of water and no changes in water supply are recommended.

5.9.5 Steam-Electric

No Steam-Electric demand exists or is projected for the county.

5.9.6 Mining

Mining is projected to have a shortage in 2030 but a surplus of water in other decades from available groundwater supplies. Conservation will be applied as a recommended strategy to reduce the Mining demand in 2030.



Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water supply plan is recommended for Mining in Erath County:

- a. Conservation:
 - Cost Source: Volume II, Chapter 2
 - Date to be Implemented: before 2030
 - Annual Cost: not determined

Table 5.9-3. Recommended Plan Costs by Decade for the Erath County – Mining

Plan Element	2020	2030	2040	2050	2060	2070
<i>Projected Surplus/(Shortage) (acft/yr)</i>	6	(25)	135	207	279	334
Conservation						
Supply from Plan Element (acft/yr)	—	27	—	—	—	—
Annual Cost (\$/yr)	—	ND	—	—	—	—
<i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>	6	1	135	207	279	334

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

5.9.7 Irrigation

Irrigation is projected to have a surplus of water from available groundwater and surface water supplies and no changes in water supply are recommended.

5.9.8 Livestock

No shortages are projected for Livestock use and no changes in water supply are recommended.

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