

## 5.14 Haskell County Water Supply Plan

Table 5.14-1 lists each water user group in Haskell 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 5.14-1. Haskell County Surplus/(Shortage)**

| Water User Group | Surplus/(Shortage) <sup>1</sup> |                | Comment                             |
|------------------|---------------------------------|----------------|-------------------------------------|
|                  | 2040 (acft/yr)                  | 2070 (acft/yr) |                                     |
| City of Haskell  | (193)                           | (442)          | Projected shortage – see plan below |
| City of Rule     | 55                              | 38             | Projected surplus                   |
| City of Stamford |                                 |                | See Jones County                    |
| County-Other     | 198                             | 67             | Projected surplus                   |
| Manufacturing    | 0                               | 0              | Demand equals supply                |
| Steam-Electric   | 1,738                           | 1,480          | Projected surplus                   |
| Mining           | (83)                            | (59)           | Projected shortage – see plan below |
| Irrigation       | (3,197)                         | 1,880          | Projected shortage – see plan below |
| Livestock        | 0                               | 0              | Demand equals supply                |

1 – From Tables C-27 and C-28, Appendix C – Comparison of Water Demands with Water Supplies to Determine Needs.

### 5.14.1 City of Haskell

#### Description of Supply

Surface water supplies are obtained from a contract with North Central Texas Municipal Water Authority (NCTMWA). While the contract exceeds the City’s projected demands, the current supplies from the NCTMWA are not sufficient to meet demands 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 to meet the projected water shortage for the City of Haskell.

- a. Millers Creek Reservoir Augmentation strategy by NCTMWA. This will provide supply at least up to the current amount contracted from NCTMWA.
  - Cost Source: Volume II, Chapter 7.5
    - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit

- Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)
- b. Alternative: Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.
- Cost Source: Volume II, Chapter 4.10
    - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit
  - Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)

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

**Table 5.14-2. Recommended Plan Costs by Decade for City of Haskell**

| Plan Element   | 2020 | 2030  | 2040  | 2050  | 2060  | 2070  |
|--|------|-------|-------|-------|-------|-------|
| <i>Projected Surplus/(Shortage) (acft/yr)</i>                    | (58) | (126) | (193) | (269) | (353) | (442) |
| <b>Conservation</b>  |      |       |       |       |       |       |
| Supply From Plan Element (acft/yr)                               | —    | —     | —     | —     | —     | —     |
| Annual Cost (\$/yr)  | —    | —     | —     | —     | —     | —     |
| <i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i> | (58) | (126) | (193) | (269) | (353) | (442) |
| <b>Millers Creek Reservoir Augmentation</b>                      |      |       |       |       |       |       |
| Supply From Plan Element (acft/yr)                               | 176  | 254   | 332   | 410   | 488   | 566   |
| Annual Cost (\$/yr)  | —    | —     | —     | —     | —     | —     |
| Unit Cost (\$/acft)  | —    | —     | —     | —     | —     | —     |
| <b>Alternative: Lake Creek Reservoir</b>                         |      |       |       |       |       |       |
| Supply From Plan Element (acft/yr)                               | 176  | 254   | 332   | 410   | 488   | 566   |
| Annual Cost (\$/yr)  | —    | —     | —     | —     | —     | —     |
| Unit Cost (\$/acft)  | —    | —     | —     | —     | —     | —     |

## 5.14.2 City of Rule

### Description of Supply

The City of Rule obtains supply from the Seymour Aquifer and from a 45 acft/yr contract with NCTMWA. Although supplies from NCTMWA have been reduced due to projected availability of supplies, the City's supplies are projected to be adequate to meet demands 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 Rule. Conservation was also considered; however, the entity’s current per capita use rate is below the selected target rate of 140 gpcd.

- a. Millers Creek Reservoir Augmentation strategy by NCTMWA. This will provide supply at least up to the current amount contracted from NCTMWA.
  - Cost Source: Volume II, Chapter 7.5
    - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit
  - Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)
- b. Alternative: Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.
  - Cost Source: Volume II, Chapter 4.10
    - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit
  - Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)

**Table 5.14-3. Recommended Plan Costs by Decade for City of Rule**

| Plan Element   | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|------|------|------|------|------|------|
| <i>Projected Surplus/(Shortage) (acft/yr)</i>                    | 71   | 64   | 55   | 49   | 45   | 38   |
| <b>Conservation</b>  |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr)                               | —    | —    | —    | —    | —    | —    |
| Annual Cost (\$/yr)  | —    | —    | —    | —    | —    | —    |
| <i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i> | 71   | 64   | 55   | 49   | 45   | 38   |
| <b>Millers Creek Reservoir Augmentation</b>                      |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr)                               | 12   | 18   | 23   | 29   | 34   | 40   |
| Annual Cost (\$/yr)  | —    | —    | —    | —    | —    | —    |
| Unit Cost (\$/acft)  | —    | —    | —    | —    | —    | —    |

**Table 5.14-3. Recommended Plan Costs by Decade for City of Rule**

| Plan Element                       | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|------------------------------------|------|------|------|------|------|------|
| Alternative: Lake Creek Reservoir  |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr) | 12   | 18   | 23   | 29   | 34   | 40   |
| Annual Cost (\$/yr)                | —    | —    | —    | —    | —    | —    |
| Unit Cost (\$/acft)                | —    | —    | —    | —    | —    | —    |

### 5.14.3 County-Other

#### Description of Supply

Supplies for Haskell County other are obtained from the Seymour Aquifer and contract purchases from the City of Stamford and NCTMWA. Although supplies from NCTMWA have been reduced due to projected availability of supplies, County-Other supplies are projected to be adequate to meet demands through 2070. Conservation was also considered; however, the entity’s current per capita use rate is below the selected target rate of 140 gpcd.

#### Water Supply Plan

Working within the planning criteria established by the Brazos G RWPG and TWDB, the following water management strategies are recommended for entities included in County-Other.

- a. Millers Creek Reservoir Augmentation strategy by NCTMWA. This will provide supply at least up to the current amount contracted from NCTMWA.
  - Cost Source: Volume II, Chapter 7.5
    - Project requires a subordination agreement with the BRA, which is dependent on the BRA obtaining the System Operations permit
  - Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)
- b. Alternative: Lake Creek Reservoir. This strategy would be developed by NCTMWA to augment existing supplies.
  - Cost Source: Volume II, Chapter 4.10
  - Date to be Implemented: 2020
  - Project Cost: none (cost would be borne by NCTMWA)
  - Unit Cost: none (supply already purchased from NCTMWA)



**Table 5.14-4. Recommended Plan Costs by Decade for Haskell County – Other**

| Plan Element   | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
|--|------|------|------|------|------|------|
| <i>Projected Surplus/(Shortage) (acft/yr)</i>                    | 280  | 242  | 198  | 155  | 114  | 67   |
| <b>Conservation</b>  |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr)                               | —    | —    | —    | —    | —    | —    |
| Annual Cost (\$/yr)  | —    | —    | —    | —    | —    | —    |
| <i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i> | 280  | 242  | 198  | 155  | 114  | 67   |
| <b>Millers Creek Reservoir Augmentation</b>                      |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr)                               | 53   | 76   | 100  | 123  | 146  | 170  |
| Annual Cost (\$/yr)  | —    | —    | —    | —    | —    | —    |
| Unit Cost (\$/acft)  | —    | —    | —    | —    | —    | —    |
| <b>Alternative: Lake Creek Reservoir</b>                         |      |      |      |      |      |      |
| Supply From Plan Element (acft/yr)                               | 53   | 76   | 100  | 123  | 146  | 170  |
| Annual Cost (\$/yr)  | —    | —    | —    | —    | —    | —    |
| Unit Cost (\$/acft)  | —    | —    | —    | —    | —    | —    |

#### 5.14.4 Manufacturing

No Manufacturing demand exists or is projected for the county.

#### 5.14.5 Steam-Electric

Haskell County Steam-Electric has a contract with City of Stamford for water supply. Steam-Electric shows a projected surplus through 2070 and no changes in water supply are recommended.

#### 5.14.6 Mining

##### Description of Supply

Mining operations in Haskell County are projected to have a need beginning in 2020.

##### Recommended Strategy

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 Haskell County-Mining.

##### a. Conservation

- Cost Source: Volume II, Chapter 2
- Date to be Implemented: 2020
- Annual Cost: not determined

- b. Reallocation from Haskell County – Steam Electric (Stamford Supply):
  - Cost Source: Capital cost unknown, as mining demands vary geographically.
  - Date to be Implemented: 2020
  - Unit Costs: \$250/acft assumed

**Table 5.14-5. Recommended Plan Costs by Decade for Haskell County – Mining**

| Plan Element   | 2020     | 2030     | 2040     | 2050     | 2060     | 2070     |
|--|----------|----------|----------|----------|----------|----------|
| <i>Projected Surplus/(Shortage) (acft/yr)</i>                              | (93)     | (92)     | (83)     | (74)     | (66)     | (59)     |
| <b>Conservation</b>  |          |          |          |          |          |          |
| Supply From Plan Element (acft/yr)   | 3        | 5        | 6        | 5        | 5        | 4        |
| Annual Cost (\$/yr)  | ND       | ND       | ND       | ND       | ND       | ND       |
| <i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>           | (90)     | (87)     | (77)     | (69)     | (61)     | (55)     |
| <b>Reallocation from Haskell County – Steam Electric (Stamford Supply)</b> |          |          |          |          |          |          |
| Supply From Plan Element (acft/yr)   | 90       | 87       | 77       | 69       | 61       | 55       |
| Annual Cost (\$/yr)  | \$22,500 | \$21,750 | \$19,250 | \$17,250 | \$15,250 | \$13,750 |
| Unit Cost (\$/acft)  | \$250    | \$250    | \$250    | \$250    | \$250    | \$250    |

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

### 5.14.7 Irrigation

#### Description of Supply

Haskell County Irrigation is supplied by Seymour Groundwater. Irrigation is projected to have shortages beginning in 2020.

#### Recommended Strategy

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 Haskell County-Irrigation.

- a. Conservation
  - Cost Source: Volume II, Chapter 2
  - Date to be Implemented: before 2020
  - Annual Cost: \$230/acft
- b. Reallocation from Haskell County – Steam Electric (Stamford Supply):
  - Cost Source: Capital cost unknown, as Irrigation demands vary geographically.
  - Date to be Implemented: 2020
  - Unit Cost: assumed \$250/acft



**Table 5.14-6. Recommended Plan Costs by Decade for Haskell County – Irrigation**

| Plan Element   | 2020      | 2030      | 2040      | 2050      | 2060      | 2070      |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| <i>Projected Surplus/(Shortage) (acft/yr)</i>                              | (2,225)   | (2,388)   | (3,197)   | (1,065)   | 682       | 1,880     |
| <b>Conservation</b>  |           |           |           |           |           |           |
| Supply From Plan Element (acft/yr)   | 1,435     | 2,321     | 3,153     | 3,015     | 2,968     | 2,884     |
| Annual Cost (\$/yr)  | \$330,124 | \$533,853 | \$725,144 | \$693,459 | \$682,721 | \$663,433 |
| <i>Projected Surplus/(Shortage) after Conservation (acft/yr)</i>           | (790)     | (67)      | (44)      | 1,951     | 682       | 1,880     |
| <b>Reallocation from Haskell County – Steam Electric (Stamford Supply)</b> |           |           |           |           |           |           |
| Supply From Plan Element (acft/yr)   | 790       | 67        | 44        | —         | —         | —         |
| Annual Cost (\$/yr)  | \$197,500 | \$16,750  | \$11,000  | —         | —         | —         |
| Unit Cost (\$/acft)  | \$250     | \$250     | \$250     | —         | —         | —         |

### 5.14.8 Livestock

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

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