



**APPENDIX B
WASTEWATER CIP PROJECTS**

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TRINITY RIVER AUTHORITY PROJECTS

Project Title: Denton Creek Wastewater Treatment Plant Expansion

Description: Construction of a 6.5 mgd expansion of TRAs Denton Creek Wastewater Treatment Plant.

Purpose: Provide treatment capacity to address potential growth needs by expanding the existing treatment plant.

Allocation: This project is allocated 30% in the study period.

Project Title: CB-1 30-Inch Parallel Relief Interceptor

Description: Land purchase and construction of a 30-inch relief interceptor conveying water to the Denton Creek WWTP.

Purpose: Provide flow capacity to address potential growth needs by paralleling the existing interceptor.

Allocation: This project is allocated 12% in the study period.

Project Title: 25 HC-1 Relief Interceptor

Description: Land purchase and construction of 12,500 feet of a relief interceptor conveying water to the Denton Creek WWTP.

Purpose: Provide flow capacity to address potential growth needs.

Allocation: This project is allocated 50% in the study period.

Project Title: 25 HC-3 Relief Interceptor

Description: Land purchase and construction of 13,100 feet of a relief interceptor conveying water to the Denton Creek WWTP.

Purpose: Provide flow capacity to address potential growth needs.

Allocation: This project is allocated 100% in the study period.

Project Title: 25 HC-5 Relief Interceptor and MS 12.0 HC

Description: Land purchase and construction of a relief interceptor conveying water to the Denton Creek WWTP.

Purpose: Provide flow capacity to address potential growth needs.

Allocation: This project is allocated 100% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

Project Title: Two Alternate Discharge 14 MGD Pumps

Description Design and construction of two alternate discharge pumps at the Denton Creek WWTP.

Purpose: Provide additional discharge capacity at the Denton Creek WWTP to address potential growth needs.

Allocation: This project is allocated 50% in the study period.

Project Title: Peak Flow Storage

Description Design and construction of a peak flow storage structure at the Denton Creek WWTP.

Purpose: Provide additional peak flow storage capacity at the Denton Creek WWTP to address potential growth needs.

Allocation: This project is allocated 50% in the study period.

Project Title: 25 HC-2 Relief Interceptor

Description Land purchase and construction of 4,400 feet of a relief interceptor conveying water to the Denton Creek WWTP.

Purpose: Provide flow capacity to address potential growth needs.

Allocation: This project is allocated 19% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

WASTEWATER TREATMENT

Project Title: Mary's Creek WRF Site Selection and Land Purchase

Description: Land purchase for Mary's Creek WRF to address growth related needs in the Clear Fork sewer basin.

Purpose: Provide treatment needs to address growth needs by constructing a new treatment facility to serve portions of the Clear Fork Basin.

Allocation: This project is allocated 40% in the study period.

Project Title: Deep Bed Media Filters 1-20 Modifications

Description: Modification of the deep bed media filters 1-20.

Purpose: Provides added treatment capacity at the Village Creek Reclamation Facility.

Allocation: This project is allocated 40% in the study period.

Project Title: VCWRF Peak Flow Diversion Structure

Description: Design and construction of a wastewater diversion and peak flow storage basin adjacent to the Village Creek Reclamation Facility (VCWRF).

Purpose: Detention facility will equalize the peak influent flows to the VCWWTP. This project will divert and store the peak flows for later treatment under normal conditions.

Allocation: This project is allocated 85% in the study period.

Project Title: VCWRF Replace Primary Clarifiers 1 - 12 & Grit System (Phase 2B of 191 mgd expansion)

Description: Design and construction for the replacement of primary clarifiers 1 – 12 and addition of a new grit removal system sized to meet the 191 MGD expansion requirements.

Purpose: The addition of new primary clarifiers to replace the existing primary clarifiers 1-12 would greatly increase the functional capacity of the primary clarifiers and increase hydraulic capacity of the internal 96 inch pipeline. Primary clarifiers 1 - 12 at VCWRF are a hydraulic bottleneck which needs to be addressed to realize the planned expansion to 191 MGD. In addition to being a hydraulic bottleneck, the reliability of the clarifiers are impacted by large amounts of grit (particularly at higher flows). These clarifiers need to be replaced before the 191 MGD capacity can be realized and a new grit removal system needs to be added to increase reliability in capacity and treatment.

Appendix B

WASTEWATER CIP PROJECTS

Allocation: This project is allocated 88% in the study period.

Project Title: **Mary's Creek WRF Phase 1**

Description: Permitting, design and construction of Mary's Creek WRF to address growth related needs in the Clear Fork Basin.

Purpose: Provide treatment needs to address growth needs by constructing a new treatment plant to serve portions of the Clear Fork Basin.

Allocation: This project is allocated 40% in the study period.

Project Title: **VCWRF South Influent Lift Station**

Description: Design and construction of an influent lift station at the VCWRF.

Purpose: The influent lift station is needed to address growth by providing added influent capacity at the VCWRF.

Allocation: This project is allocated 88% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

REGIONAL LIFT STATIONS AND INTERCEPTORS

Project Title: Casino Beach Lift Station and Lake Worth Gravity Sewer Extension

- Description:** Design and construction of a 0.3 mgd firm capacity lift station to serve future growth.
- Purpose:** This project is the extension of new sewer service to the west side of Lake Worth. The new service extension is a proposed 8-inch sewer line to serve customers on the west side of Lake Worth along Watercress Dr. The gravity line will convey flow to the Casino Beach Lift Station along Jacksboro Highway on the west side of the lake. The lift station will pump the flow across the lake to the existing Meadow Lakes Lift Station. The new gravity line, along with the proposed lift station and 3-inch force main will provide service to customers currently using an OSSF.
- Allocation:** This project is allocated 85% in the study period.

Project Title: Dosier Creek 20-inch Force Main

- Description:** Design and construction of 20-inch force main in the Marine Creek and Big Fossil Basins.
- Purpose:** The purpose of this force main is to provide future wastewater service to the Marine Creek Basin. Due to tight corridors and easements in the downtown area the future flow will be pumped from the Marine Creek Basin to the Big Fossil Basin through the Dosier Creek Lift Station. The transfer of flow will reduce the amount of flow through the downtown corridor and delay the need for paralleling larger interceptors in that area.
- Allocation:** This project is allocated 50% in the study period.

Project Title: Tarleton Regional Lift Station LS-5 (Upsize)

- Description:** Design and construction of a 12 mgd lift station in the Sycamore Creek Basin.
- Purpose:** The purpose of this lift station is to provide future wastewater service to the Sycamore Creek Basin. The lift station will serve potential growth in the southwestern corner of the Sycamore Creek Basin and convey it into the existing collection system.
- Allocation:** This project is allocated 45% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

Project Title: Walsh Ranch Lift Station and Force Main IVB

Description: Design and construction of a 1 mgd lift station in the Clear Fork Basin.

Purpose: The purpose of this lift station is to provide future wastewater service to the Clear Fork Basin. The lift station will serve potential growth in the western corner of the Clear Fork Basin and convey it into the existing collection system.

Allocation: This project is allocated 80% in the study period.

Project Title: Bonds Ranch Lift Station “A” and Force Main

Description: Design and construction of 2 mgd firm capacity lift station to serve future growth.

Purpose: The purpose of this lift station is to provide future wastewater service to the northwest portions of the City.

Allocation: This project is allocated 72% in the study period.

Project Title: Bonds Ranch Lift Station “B” and Force Main

Description: Design and construction of 2 mgd firm capacity lift station to serve future growth.

Purpose: The purpose of this lift station is to provide future wastewater service to the northwest portions of the City.

Allocation: This project is allocated 72% in the study period.

Project Title: 108-Inch Third Barrel Interceptor Parallel to M-280 and M-338

Description: Design and construction of a 108-inch wastewater interceptor west of the VCWRF.

Purpose: The purpose of this interceptor is to provide capacity to accommodate projected growth.

Allocation: This project is allocated 64% in the study period.

Project Title: Live Oak Creek Regional Lift Station and Force Main Expansion

Description: Design and construction of a 1.12 mgd firm capacity expansion lift station of the Live Oak Creek Lift Station to serve future growth.

Purpose: The purpose of this lift station expansion is to provide future wastewater service to the western portion of the West Fork Basin.

Allocation: This project is allocated 100% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

Project Title: Lake Arlington- VC Drainage Basin Lift Station and Force Main

Description: Design and construction of a 25 mgd firm capacity lift station to serve future growth.

Purpose: The proposed 25 MGD Village Creek Lift Station and 30-inch force main will discharge into a proposed 54-inch gravity interceptor. The force main will follow the proposed alignment of the new Lakeshore Drive along the west side of Lake Arlington. The purpose of this lift station is to provide growth future wastewater service to the Village Creek Basin.

Allocation: This project is allocated 60% in the study period.

Project Title: Bonds Ranch Lift Station “C” and Force Main

Description: Design and construction of 3 mgd firm capacity lift station to serve future growth.

Purpose: The purpose of this lift station is to provide future wastewater service to the northwest portions of the City.

Allocation: This project is allocated 24% in the study period.

Project Title: 5.5 MGD Richardson Slough Lift Station Expansion and 20-inch Force Main in the Clear Fork Basin

Description: This project is a 5.5 MGD expansion of the Richardson Slough Lift Station just east of Benbrook Lake in the Clear Fork Basin.

Purpose: The purpose of this expansion is to provide future wastewater service to growth related service areas.

Allocation: This project is allocated 10% in the study period.

Project Title: 1.1 MGD Lake Country #4 Lift Station Expansion in the Marine Creek Basin

Description: This project is the expansion of the existing Lake Country #4 Lift Station, which will be upgraded from a firm capacity of 0.95 MGD to 2.0 MGD.

Purpose: The purpose of this expansion/ rehabilitation is to provide future wastewater service to growth related service areas.

Allocation: This project is allocated 6% in the study period.

Appendix B

WASTEWATER CIP PROJECTS

WASTEWATER ENGINEERING STUDIES

Project Title: **2009 Wastewater System Master Plan**

Description: Engineering Study

Purpose: The 2009 master plan was an update of the 1999 study and includes the planning period 2010 through 2020.

Allocation: This project is allocated 30% to the study period.

Project Title: **2012 Wastewater Impact Fee Study**

Description: Impact Fee Study

Purpose: The 2016 Impact Fee Study provides impact fees for the study period 2017 through 2027.

Allocation: This project is allocated 100% to the study period.