

**INFRASTRUCTURE
ASSESSMENT**

Section Seven

Comprehensive Plan 2009

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INTRODUCTION

Comprehensive land use planning is influenced by several components of municipal services that are provided via capital-intensive infrastructure. Water and wastewater services are critical to the overall health, safety and welfare of municipalities and their populations. The Bee Cave area has made significant progress towards regional water and wastewater systems with most new residential and commercial development receiving service. Water and wastewater service for the majority of the Bee Cave area is provided by the Lower Colorado River Authority (LCRA). A small portion of the western area of Bee Cave has service provided by Travis County Water Control and Improvement District Number 17 (WCID No. 17).

HISTORY

For many years, potable water service was limited to those areas of Bee Cave included within either the corporate boundary or in the Certificate of Convenience and Necessity (CCN) service area of Travis County Water Control and Improvement District Number 14 (WCID No.14), which was established in 1958. That situation changed when LCRA purchased the Uplands Water Supply Corporation from the Resolution Trust Corporation and water service became available for properties in Bee Cave and outside of WCID No. 14. Initial Bee Cave area customers of this water system included the Uplands subdivision and West Travis County Municipal Utility Districts Numbers 3 and 5 (the Lake Pointe Community).

Concurrent with the establishment of the Bee Cave water utility, the City applied for a CCN to provide potable water service to the corporate limits of the City and its extra-territorial jurisdiction (ETJ), as well as to other properties that had requested to be included in the service area. WCID No.14 opposed the City of Bee Cave's application, but Bee Cave prevailed in 1997. Subsequently, WCID No.14 was absorbed by the City of Austin water utility in 1998. Bee Cave and Austin entered into an agreement in 2000 by which Bee Cave acquired the portion of the former WCID No.14 water system within the City Bee Cave and its ETJ. The City of Bee Cave entered into a contract to sell its water system to the LCRA after Bee Cave closed the purchase of the Austin water system. LCRA then became the retail provider of water service to all Bee Cave area water customers. This action removed the City of Bee Cave from direct control of the provision of water service; however, the City and LCRA agreed to coordinate and cooperate on providing appropriate levels of water service for the various zoning districts and land uses included in the Comprehensive Plan. Fire protection is also designed into all system expansions. LCRA now manages a regional water system that can be reasonably and logically expanded as demand and economic feasibility dictate.

Until the development of Lake Pointe, collective wastewater treatment and disposal service had never been available in the Bee Cave area. All development and structures, whether residential or non-

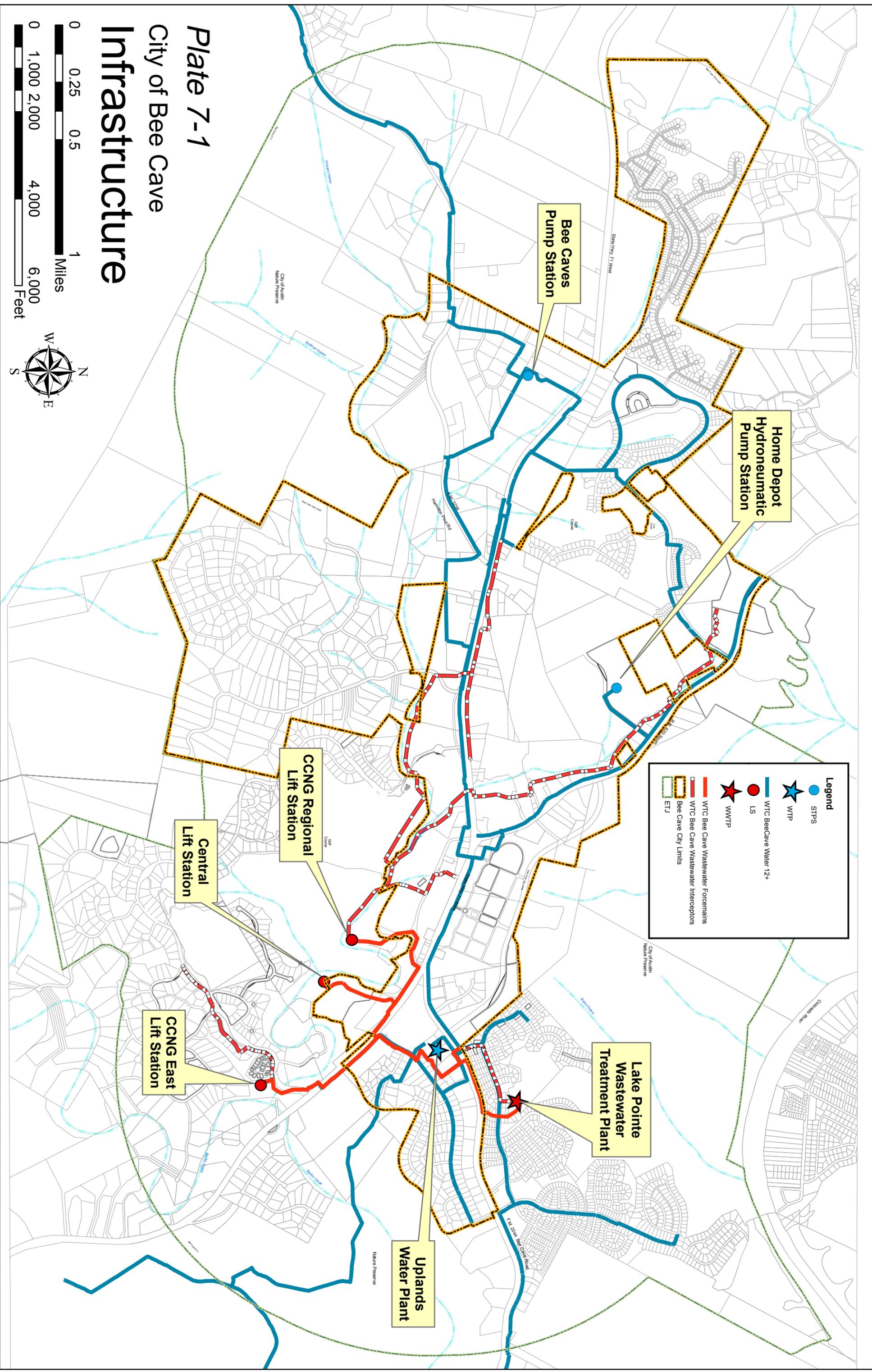
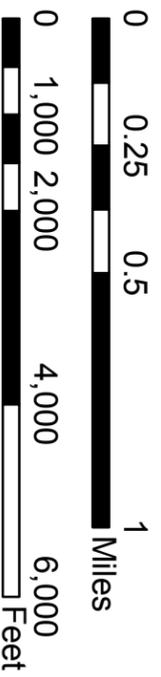
residential in nature, utilized on-site wastewater treatment and disposal systems. These systems ranged from cesspools, to septic tanks, to treatment and irrigation systems. The Lake Pointe wastewater system was designed with excess capacity to provide service to other areas of Bee Cave. The City of Bee Cave initiated discussions concerning the potential acquisition of this access in 1996; however, financing of the acquisition proved to be insurmountable for Bee Cave at that time. LCRA purchased the Lake Pointe wastewater system in 2001 and became the regional wastewater service provider in the same manner as the water system.

Plate 7-1 shows graphically the infrastructure elements for the City of Bee Cave and more detailed infrastructure components are available in the LCRA West Travis County Water Service and Wastewater Service master plans completed in 2006¹ and 2008², respectively, by LCRA.

¹ *Water Master Plan – 2006 Update, West Travis County Regional Water System, Travis County, Texas*, prepared for the Lower Colorado River Authority, prepared by PBS&J, October 2006.

² *West Travis County, Wastewater Master Plan*, prepared for the Lower Colorado River Authority, prepared by K. Friese & Associates, Inc., January 2008.

Plate 7-1 City of Bee Cave Infrastructure



Legend

- STPS
- ★ WTP
- WTC BeeCave Water 12+
- LS
- ★ WWTP
- WTC Bee Cave Wastewater Force mains
- - - WTC Bee Cave Wastewater Interceptors
- - - Bee Cave City Limits
- - - ETU

Bee Caves Pump Station

Home Depot Hydronematic Pump Station

CCNG Regional Lift Station

Central Lift Station

CCNG East Lift Station

Lake Pointe Wastewater Treatment Plant

Uplands Water Plant

LCRA-WEST TRAVIS COUNTY WATER SYSTEM

The LCRA-West Travis County Regional Water system includes a raw water intake structure on Lake Austin (located in the Lake Pointe community), raw water transmission main, Uplands water treatment plant, and potable water transmission and storage system. While each of these components is a critical element of the overall system, it is the potable water transmission and storage system that is most directly related to development and land use in Bee Cave and the ETJ. The existing transmission system runs from the Uplands water treatment plant to Bee Caves West, Lake Pointe, Uplands, Spanish Oaks, Falconhead at Spillman Ranch, Homestead/Meadow Fox, and Spring Creek Estates subdivisions. In addition, commercial development in and around the Town Center including the Shops at the Galleria, Hill Country Galleria, and Home Depot are retail customers of the LCRA water system. WCID No. 17 provides retail water service to Falconhead West and has planned service to Cielo Homes.

The LCRA-West Travis County Regional Water system has been designed to connect to and serve virtually all areas of Bee Cave, and areas west of the City along State Highway 71 and Hamilton Pool Road (FM 3238). Expansion of the LCRA-West Travis County Regional Water system is anticipated to be driven by development projects in the City of Bee Cave and its ETJ as well as major service corridors down State Highway 71, Hamilton Pool Road, and US Highway 290. The LCRA-West Travis County Water Service master plan completed in 2006³ identifies the existing and planned infrastructure for the Bee Cave area. The water master plan is available by contacting LCRA.

³ *Water Master Plan – 2006 Update, West Travis County Regional Water System, Travis County, Texas*, prepared for the Lower Colorado River Authority, prepared by PBS&J, October 2006.

LCRA-WEST TRAVIS COUNTY WASTEWATER SYSTEM

Wastewater service for the Bee Cave area is provided by the LCRA-West Travis County Wastewater System. The 0.525 MGD capacity wastewater treatment plant is located near the center of the Lake Pointe community. The effluent is disposed of via land application at Falconhead at Spillman Ranch and Spanish Oaks. Retail customers of the LCRA-West Travis County Wastewater System includes Lake Pointe, Spanish Oaks, Falconhead at Spillman Ranch, Shops of the Galleria, Hill Country Galleria, and Home Depot. Falconhead West and the planned Cielo Homes are retail customers of WCID No. 17, which is a wholesale customer of LCRA for wastewater services only.

The primary Bee Cave wastewater collection system is a gravity system with collection pipelines that run parallel to State Highway 71 and R.M. 620. These lines are sized to serve virtually all of the property that is available and able to be developed, as well as all of the existing developed properties within reasonable economic constraints. The gravity lines flow to an existing regional lift station that pumps wastewater to the Lake Pointe treatment plant.

Expansion of the LCRA-West Travis County Regional Wastewater system is anticipated to be driven by development projects in Bee Cave. Planned expansions included existing infrastructure improvements to lift stations and the Lake Pointe WWTP. New infrastructure planned includes expansion of the existing plant and construction of a second wastewater treatment plant on a site owned by LCRA just north of the Hill Country Galleria. LCRA is currently permitted to provide one million gallons per day of wastewater service in the West Travis County Wastewater system⁴. The LCRA-West Travis County Wastewater Service master plan completed in 2008⁵ identifies the existing and planned infrastructure for the Bee Cave area. The wastewater master plan is available by contacting LCRA.

Based upon information contained within the Future Land Use Plan and other elements of the Comprehensive Plan, it is recommended that LCRA review the City's Comprehensive Plan and evaluate the need for updating LCRA's Water & Wastewater Master Plans after the Comprehensive Plan is adopted by the City of Bee Cave.

⁴ Texas Commission on Environmental Quality, Permit to Discharge Wastes, Permit No. WQ0013594001, Issued December 11, 2006.

⁵ *West Travis County, Wastewater Master Plan*, prepared for the Lower Colorado River Authority, prepared by K. Friese & Associates, Inc., January 2008.