



EXECUTIVE SUMMARY GROUNDWATER REDUCTION PLAN

(Updated with current information)

The West Harris County Regional Water Authority (WHCRWA) was created by House Bill No. 1842 (the “Act”) in the 77th Legislature and signed into law on May 28, 2001. The WHCRWA was created to accomplish the purposes of provision of surface water and groundwater for various uses, the reduction of groundwater withdrawals, the conservation, preservation, protection, recharge, and prevention of waste of groundwater, and of groundwater reservoirs, the control of subsidence caused by withdrawal of water from those groundwater reservoirs, and other public purposes stated in the Act.

The boundaries of the WHCRWA are generally U.S. 290 on the north/northeast, Houston city limits on the east, Harris/Fort Bend county line on the south and Harris/Waller county line on the west. There are 118 municipal water providers (utility districts plus the City of Katy) within the boundaries of the WHCRWA and seven municipal utility districts located outside the boundaries of the WHCRWA included in the Groundwater Reduction Plan (GRP). These municipal water providers and independent well owners currently operate 214 groundwater wells that are subject to GRP requirements. The total water demand of these users in 2009 was approximately 21 billion gallons.

Population projections were developed for individual census tracts within the WHCRWA utilizing Center for Public Policy (CPP) data. Projected water demands were determined for these census tracts as well as for individual MUDs within the WHCRWA based on data from the U.S. Census Bureau, the CPP at the University of Houston, the Harris-Galveston Coastal Subsidence District (HGCSA), and responses to questionnaires submitted by MUDs and the Texas Commission on Environmental Quality (TCEQ). Projected population through year 2050 for the WHCRWA is shown in the following table:

Year	Population
2010	311,283
2020	455,013
2030	505,478
2050	565,386

The HGCSA requires that in 2010, 30% of the total water demand is to be provided using surface water. In 2020 and 2030, the conversion requirement increases to 70% and 80%, respectively.

Based on the population projections, the projected demands and conversion requirements are summarized in the following table:

Year	Demand Within WHCRWA In Harris County	Demand Including Contract MUDs	Required Conversion For HGCSO Goals
2010	51.4	56.4	16.9
2020	64.6	70.0	49.0
2030	80.5	85.9	68.7
2050	99.0	104.4	83.5

The WHCRWA’s source of alternative water will be the City of Houston (COH) pursuant to a water supply contract entered into in 2003 and supplemented in 2009.

For 2010 and through 2019, the proposed supply point for COH surface water to the WHCRWA will be the COH’s Jersey Village Pump Station located on Fairview Street north of FM 529, west of COH city limits. The water will be supplied from the COH’s East Water Purification Plant (EWPP) and conveyed through existing transmission mains. For 2020 and 2030, the source of COH water to the WHCRWA will be from the COH’s North East Water Purification Plant (NEWPP) located on Lake Houston. Future expansions at the NEWPP will be required to meet the needs of the WHCRWA, other authorities, and the COH for 2020 and 2030.

The WHCRWA transmission system was designed to provide adequate water to meet the requirements for conversion to surface water as set forth by the HGCSO, which are 30 percent conversion by 2010, 70 percent conversion by 2020, and 80 percent conversion by 2030. The first delivery point is in the vicinity of the existing City of Houston Jersey Village Water Pumping Station. During the construction to meet the 2010 requirements, the WHCRWA built a booster pump station and ground storage tanks in the immediate vicinity to accept the water and boost the system pressure. Transmission lines within the system were designed to provide the average day, peak day, and peak hour flow. Residential Fire Demands were also considered.

Prior to 2010, the WHCRWA purchased from the COH a total capacity of approximately 28.25 million gallons per day. By 2010, construction of the entire first phase has been completed and the WHCRWA is meeting the HGCSO conversion requirements of 30% for the 2010 phase. The 2010 service area is generally the area bounded by Highway 290 on the north, Brittmoore on the east, Clay Road on the south and Barker-Cypress on the west. The WHCRWA began delivering surface water in 2005.

The WHCRWA provided for early conversion of several utility districts, where subsidence and water quality/quantity issues were experienced. This early conversion resulted in the accumulation of groundwater credits before 2010. The WHCRWA has purchased Water Conservation Program Credits through the HGCSO and purchased additional existing credits from other entities. The WHCRWA has banked these credits for future use.

House Bill No. 1842 empowers the WHCRWA to fund its projects and operations by a variety of methods. These include (1) charges, rates, fees, user fees, (2) special assessments, (3) notes, (4) bonds, and (5) capital contributions received from municipalities or utility districts within the boundaries of the WHCRWA, and (6) other available funds. The WHCRWA financed its purchase of City of Houston treatment plant capacity and transmission main capacity and design and construction of WHCRWA facilities by issuing WHCRWA bonds and by capital contributions from utility districts. The bonds issued are payable from fees and charges imposed by the WHCRWA for pumpage of groundwater and sale of surface water. The WHCRWA’s fees and charges also pay for operation and maintenance of its facilities, administration of the authority, and debt service, as necessary to fulfill its obligations and purposes.