

WATER AND WASTEWATER FUND NARRATIVE FISCAL YEAR 2007-2008 BUDGET

Water and Wastewater Past Improvements

During the past 10 years the City of Sweetwater has been diligently working to improve the entire water system. A new Wastewater Treatment Plant was completed in 2003 and a new state of the art Water Treatment Plant was brought online in 2004. The City also rehabilitated and constructed 34 municipal water wells. Certificates of Obligation totaling approximately \$25,000,000 were issued to fund all of these necessary improvements.

The first phase of improvements was building the Wastewater Treatment Plant which replaced the 1957 built plant. The existing site and facilities are being used to provide new systems for secondary level treatment for the City of Sweetwater wastewater. The new plant is a 2.2 million gallons per day (MGD) dry weather flow capacity with a new influent pumping station, grit removal, sequencing batch reactor type wastewater treatment system, ultraviolet disinfection system, sludge storage and handling facilities, and laboratory/operation building. The project included the required ancillary work such as site work, electrical instrumentation, etc. for a complete project.

The influent pump station consists of five submersible-type pumps with capacities from 695 to 3,425 gallons per minute (GPM). The grit system is the centrifugal separation-type sized for the plant flows. The secondary system is the sequencing batch reactor-type with aeration, settling, and decanting carried out in a single basin. There are fewer basins with a central aeration air supply system for all basins. Disinfection is accomplished with a dual channel ultraviolet disinfection system.

The funding for the project was the State Revolving Fund through the Texas Water Development Board. The loan assistance was provided through the sale of Combination Tax and Water and Wastewater Revenue Certificates of Obligation Series 1997 and Series 1998 totaling \$7,985,000.

Due to new regulations included in the Safe Drinking Water Act (SWDA) Amendments and other subsequent mandates, it became increasingly apparent that our Water Treatment Plant, a plant that was placed in service in 1925, could not continue to meet all state and federal requirements in the future. As a result the city constructed a state of the art 8.0 MGD Water Treatment Plant to increase water treatment capacity, to address secondary contaminant levels for sulfates, and to improve the disinfection process.

Funding for the Water Treatment Plant was derived from two separate issues of debt. The City issued Texas Combination Tax and Revenue Certificates of Obligation Series 1999A in the amount of \$7,315,000. These certificates were issued through the Texas Water Development Board with funding from the Drinking Water State Revolving Fund. The City also issued Texas Combination Tax and Revenue Certificates of Obligation

Series 1999B in the amount of \$3,485,000 in February, 1999. The total cost of the Water Treatment Plant was approximately \$10,800,000 which is being paid with revenues from the sale of water.

Due to the drought that started in about 1996, the surface water of area lakes, our water supply, had drastically diminished. It became necessary to find another source of water. The last major water improvement was rehabilitating and constructing 34 municipal water wells, a well collection piping system, ground storage tank, transfer pump station, and controls in the Nena Lucia Wellfield. Certificates of Obligation in the amount of \$6,760,000 were issued in May, 2000 for the purpose of developing the water wellfield. The wellfield ended up being the City's sole source of water for the last five to six years.

Certificates of Obligation for Series 1999B and Series 2000 were redeemed and General Obligation Bonds Series 2005 was issued to refund the Series 1999B and Series 2000 Certificate of Obligations. The refunding lowered annual debt service payments approximately \$400,000. However, the restructure extended the final obligation from the year 2020 till the year 2025.

Water and Wastewater Future Improvements

In 2007 the City replaced the Robert Lee Standpipe which was originally built in 1915 providing 91 years of service. The Standpipe was funded through a Texas Community Development Program wherein the grant funded \$250,000 and the City added \$165,000. This year the City plans to build a new High Service Pump Station, recoat the Alabama Pump Station and the Airport Standpipe, and replace the existing water line around the airport and TSTC.

These improvements will be funded with Certificates of Obligation Series 2007 in the amount of \$3,000,000 in September, 2007. These projects should be completed within two years, with the majority of the work accomplished in 2008.

The new High Service Pump Station will replace the old system that was initially built in the 1920's and has had various modifications since then. The infrastructure at the current Pump Station is aging and the existing pumps and components are outdated making repairs both expensive and time consuming. This was seen during September, 2007 when a main water line broke causing the City to be without water for one day and require residents to boil drinking water for 36 hours. The concrete clearwell located at the old Water Treatment Plant has also deteriorated over the many years of service. A new 560,000 gallon ground storage tank will be constructed beside the new High Service Pump Station to replace the concrete clearwell.

The Airport Standpipe was built in 1981 and the Alabama Storage Tank was built in 1985. The exterior and interior coating is wearing thin in several places on both of these tanks. Typically a water storage tank's coating lasts for 12 to 15 years, whereas these coatings have lasted 26 and 22 years respectively.

The existing water line around the airport and TSTC is old cast iron pipe from the early 1940's. Lots of tuberculation and build up in the pipe has caused pressure problems and excessive leaks in the area.

The water system improvements this year have been long overdue and will continue our plan for updating the water system as a whole. Below are some long-term improvements that will ensure that quality water is delivered to the citizens of Sweetwater:

<u>Improvement Description</u>	<u>Timeline</u>	<u>Cost</u>
Recoat Loop 549 Storage Tank Interior and exterior	6 yrs	\$ 124,000
Recoat Welded Steel Clearwell at New Water Treat Plant	9 yrs	\$ 150,000
Construct new 500,000 gallon elevated storage tank and Create new pressure plane	10 yrs	\$1,726,000
Remove existing elevated storage tank	11 yrs	\$ 80,000