

## WASTEWATER TREATMENT FACILITIES

The Wastewater Treatment System (System) collects, conveys and processes wastewater from an estimated 2.0 million people, generated in a service area, which includes the City of Houston, several municipalities and unincorporated communities in the Houston metropolitan area. The system consists of approximately 6,200 miles of sanitary sewer lines, over 425,000 services connections, approximately 400 lift stations, 41 (5 major and 36 satellite) wastewater treatment plants, and three major sludge treatment facilities. The average daily wastewater flow through the system for the FY2006 is estimated at 267 million gallons per day (MGD). As reflected by state permits, the effective treatment capacity of the system is 564 MGD. The permitted capacity of plants is a part of the wastewater system treatment capacity that ranges from 0.20 MGD for the smallest plant to over 200 MGD for the 69<sup>th</sup> Street Wastewater plant.

Prior to granting a building permit for construction, the City evaluates the wastewater system's ability to transport and treat the estimated volumes of additional wastewater. Impact fees are collected, at least in part, to recover the cost of facilities previously constructed. These fees can be applied to the construction of new facilities providing additional capacity.

The Wastewater Utility Treatment Facilities Improvements Program provides for the continued upgrading of the wastewater collection and treatment system. Additional funds are provided to comply with the regulations issued by the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA).

The six-year program totals approximate \$900 million and is financed through two funding sources with the largest single source being revenue bonds.

## **WASTEWATER TREATMENT FACILITIES**

### **Highlights of the FY2008-2013 CIP include:**

- Compliance with anticipated TCEQ Citywide Agreed Order
- Continued rehabilitation of neighborhood sewers to improve service, remove excessive infiltration, prevent sanitary sewer overflows, and eliminate sewage backups (\$28.8 million in FY2007)
- Rehabilitation or replacement of various wastewater treatment plants
- Rehabilitation or replacements of various wastewater lift stations
- Improvements to the Almeda Sims Wastewater Treatment Plant
- Continued plant consolidation to reduce operation and maintenance cost
- Increased participation in sewer line construction cost with Developers to promote inner city development

## WasteWater

2008-2013 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project Name	Estimated 2007	Fiscal Year Planned Appropriations					2008-2013	
			2008	2009	2010	2011	2012		2013
R-000019	Miscellaneous Construction Acquisition, Engineering & Legal	354	2,000	2,000	2,000	2,000	4,000	4,000	16,000
R-000265	Wastewater Treatment and Sludge Plant Renewal/Replacement	32,790	18,000	17,700	16,300	14,000	10,000	13,000	89,000
R-000266	Neighborhood Sewer Rehabilitation var. Service Areas	31,307	28,800	28,800	28,800	28,000	28,000	28,000	170,400
R-000267	Pump and Lift Station Renewal/Replacement	5,869	7,600	8,900	7,000	7,000	7,000	7,000	44,500
R-000268	Rehabilitation/Replacement of Various Wastewater Facilities	3,369	3,000	2,700	1,500	1,700	2,000	1,600	12,500
R-000290	Horsepen Gully Regional Wastewater Treatment Plant					2,000			2,000
R-000294	Sims Bayou TCEQ Compliance	11,030	11,000	12,000	12,000	12,000	12,000	12,400	71,400
R-000295	TCEQ Compliance - Citywide	11,656	12,500	12,500	13,000	13,000	13,000	14,000	78,000
R-000298	Almeda Sims Wastewater Treatment & Sludge Process Facility		9,450		6,200				15,650
R-000302	Wastewater Facilities Safety Improvements	550	600	600	600				1,800
R-000500	Utility Improvement under Street & Bridge and other CIP Projects	3,135	9,700	6,800	6,000	6,000	6,000	6,000	40,500
R-000509	69th Street Wastewater Treatment Plant Improvements	3,072	9,400	2,000	9,600	2,000	10,000	2,000	35,000
R-000512	Supervisory Cont. & Data Acquisition (SCADA) Sys. & Process Improv.	4,975	500	1,500	500	1,500	500	2,000	6,500
R-000521	Government Agencies - Sewer Line Replacement	1,566	3,600	2,100	1,000	1,000	2,500	1,000	11,200
R-000534	Cullen Maintenance Facility	8,267							
R-000535	Northwest Maintenance Facility for Wastewater Operations					500	3,500		4,000
R-000536	Plant Consolidation	6,264	12,900	18,100	16,400	15,000	12,600	12,000	87,000
R-000537	Downtown Projects	46							

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2008-2013 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project Name	Estimated 2007	Fiscal Year Planned Appropriations					2008-2013	
			2008	2009	2010	2011	2012		2013
R-000800	Collection Sys. - Sponsor Participation Categorical (Resident.)	5,541	3,000	3,000	3,000	3,000	4,000	4,000	20,000
R-000801	Providing Sewer Service To Areas Inside The City Not Served		950	3,000	4,900	600	3,900	4,500	17,850
R-000802	Collection Sys. - Sponsor Participation Categorical (Commerc.)	5,985	3,000	3,000	3,000	3,000	3,500	3,500	19,000
R-001000	Evaluation Of Wastewater Treatment Plant Service Area			1,500	1,500		2,000	2,000	7,000
R-002003	Northside Sewer Relief Tunnel Rehabilitation	109	300	6,000	7,000	5,000	5,700	5,000	29,000
R-002011	Neighborhood Sewer Systems Improvements	13,589	14,800	13,500	9,300	13,000	13,000	15,600	79,200
R-002013	Large Diameter Sewer (LDS) Rehabilitation Program	7,065	7,000	7,000	7,000	7,000	7,000	7,000	42,000
	<b>Total:</b>	<b>156,539</b>	<b>158,100</b>	<b>152,700</b>	<b>156,600</b>	<b>137,300</b>	<b>150,200</b>	<b>144,600</b>	<b>899,500</b>