

WASTEWATER TREATMENT FACILITIES



Wastewater Treatment Facilities

The Wastewater Treatment System (System) collects, conveys, and processes wastewater from an estimated 3 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 6,950 miles of sanitary sewer lines, over 425,000 services connections, over 380 sanitary lift stations, 40 wastewater treatment plants (5 major and 35 satellite), and three major sludge treatment facilities. The average daily wastewater flow through the system is estimated at 185 million gallons per day (MGD) (278 MGD 12-month maximum). 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 0.15 MGD for the smallest plant to 200 MGD for the 69th Street Wastewater Plant.

The program of improvements provides for the continued upgrade of the System. The City of Houston rehabilitates approximately 115 miles of pipe each year, or about 2% of the 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 five-year program includes \$957 million under the Wastewater category and \$59 million under Street and Traffic and Storm Drainage categories for a total of approximately \$1.02 billion. It is financed by a combination of pay-as-you-go and revenue bonds.

Wastewater Treatment Facilities

Highlights of the FY2014-2018 CIP include:

- Compliance with anticipated TCEQ citywide Agreed Order will continue through FY2016 construction projects
- Rehabilitate neighborhood sewers to improve service, remove excessive infiltration, prevent sanitary sewer overflows, and eliminate sewage backups (\$70 million in FY2014).
- Assess, repair, and replace the city wide force main system.
- Upgrade, rehabilitate, or renew various wastewater treatment plants.
- Lift station renewal/replacement.
- Improve the 69th Street Wastewater Treatment Plant.
- Evaluate and rehabilitate large diameter sewers.

Project Allocation	Fiscal Year Planned Appropriations					2014-2018	Total
	2014	2015	2016	2017	2018		
Planning							
Acquisition-Land							4,936
Design	14,515	25,959	14,830	8,450	10,867	74,621	181,695
Construction	177,878	176,235	146,210	159,134	220,632	880,089	1,925,168
Equipment Acquisition	1,850				310	2,160	10,174
Salary Recovery							100
Other							
Total Allocation	194,243	202,194	161,040	167,584	231,809	956,870	2,122,072
Source of Funds							
8500 - PWE-W&S Syst Consolidating Constr Fd	133,771	132,750	100,261	105,262	172,919	644,963	1,810,165
TX Water Dev Board	60,472	69,444	60,779	62,322	58,890	311,907	311,907
Total Funds	194,243	202,194	161,040	167,584	231,809	956,870	2,122,072

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2014-2018 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project	Fiscal Year Planned Appropriations					2014-2018
		2014	2015	2016	2017	2018	
R-000019	Emergency Needs for Wastewater Utility						
	8500 - PWE-W&S Syst Consolidating Constr Fd	2,000	2,000	2,000	2,000	2,000	10,000
	Project Total	2,000	2,000	2,000	2,000	2,000	10,000
R-000020	Miscellaneous Needs for Public Utility						
	8500 - PWE-W&S Syst Consolidating Constr Fd	2,070	1,026	1,020	26	330	4,472
	Project Total	2,070	1,026	1,020	26	330	4,472
R-000035	Wastewater Force Main Renewal						
	8500 - PWE-W&S Syst Consolidating Constr Fd	1,904	3,128	10,415	9,610	9,668	34,725
	Project Total	1,904	3,128	10,415	9,610	9,668	34,725
R-000265	Wastewater Treatment Plant Improvements						
	8500 - PWE-W&S Syst Consolidating Constr Fd	49,826	39,966	35,517	20,650	52,152	198,111
	Project Total	49,826	39,966	35,517	20,650	52,152	198,111
R-000266	Neighborhood Sewer Rehabilitation Progra						
	TX Water Dev Board	38,000	55,000	53,537	54,467	52,680	253,684
	Project Total	38,000	55,000	53,537	54,467	52,680	253,684
R-000267	Lift Station Renewal & Replacement						
	8500 - PWE-W&S Syst Consolidating Constr Fd	48,239	16,268	26,729	24,211	41,041	156,488
	Project Total	48,239	16,268	26,729	24,211	41,041	156,488
R-000295	Citywide TCEQ Compliance Program						
	TX Water Dev Board	13,170					13,170
	Project Total	13,170					13,170
R-000298	Alameda Sims Wastewater Treatment Plant						
	8500 - PWE-W&S Syst Consolidating Constr Fd	7,170	1,772	604			9,546
	Project Total	7,170	1,772	604			9,546

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2014-2018 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2014-2018	
		2014	2015	2016	2017	2018		
R-000509	69Th Street Wastewater Treatment Plant							
	8500 - PWE-W&S Syst Consolidating Constr Fd	1,448	48,698	960	1,990	9,315	62,411	
	Project Total	1,448	48,698	960	1,990	9,315	62,411	
R-000521	Sewerline Line Replacement by Other Govt							
	8500 - PWE-W&S Syst Consolidating Constr Fd	2,229					2,229	
	Project Total	2,229					2,229	
R-000536	Wastewater Treatment Plant Consolidation							
	8500 - PWE-W&S Syst Consolidating Constr Fd	3,163	6,775	14,472	21,257	41,821	87,488	
	Project Total	3,163	6,775	14,472	21,257	41,821	87,488	
R-000800	Collection System-SponsorParticipation							
	8500 - PWE-W&S Syst Consolidating Constr Fd	500	500	500	500	500	2,500	
	Project Total	500	500	500	500	500	2,500	
R-000801	Sewer Service to Unserved Areas							
	8500 - PWE-W&S Syst Consolidating Constr Fd	4,387	2,376	398	5,830		12,991	
	Project Total	4,387	2,376	398	5,830		12,991	
R-001000	Wastewater Treatment Plant Service Areas							
	8500 - PWE-W&S Syst Consolidating Constr Fd	1,500					1,500	
	Project Total	1,500					1,500	
R-002003	Northside Sewer Relief Tunnel Rehab							
	8500 - PWE-W&S Syst Consolidating Constr Fd	7,515		1,602			9,117	
	Project Total	7,515		1,602			9,117	
R-002011	Neighborhood Sewer Systems Improvements							
	8500 - PWE-W&S Syst Consolidating Constr Fd	115	5,908	2,021	15,850	12,729	36,623	
	Project Total	115	5,908	2,021	15,850	12,729	36,623	

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2014-2018 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2014-2018	
		2014	2015	2016	2017	2018		
R-002013	Large Diameter Sewer (LDS) Rehab							
	8500 - PWE-W&S Syst Consolidating Constr Fd		1,850	1,500	1,500	1,500	6,350	
	TX Water Dev Board	9,302	14,444	7,242	7,855	6,210	45,053	
	Project Total	9,302	16,294	8,742	9,355	7,710	51,403	
R-002015	Wastewater Substitute Service Program							
	8500 - PWE-W&S Syst Consolidating Constr Fd	1,705	2,483	2,523	1,838	1,863	10,412	
	Project Total	1,705	2,483	2,523	1,838	1,863	10,412	
	Total Appropriations:	194,243	202,194	161,040	167,584	231,809	956,870	