

The seal of the City of Houston, Texas, is a circular emblem. It features a central five-pointed star above a steam locomotive. Below the locomotive is a plow. The words "CITY OF HOUSTON" are inscribed in an arc at the top, and "TEXAS" is inscribed at the bottom. The entire seal is rendered in a light gray, semi-transparent style.

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 consists of \$992 million. It is financed by a combination of pay-as-you-go and revenue bonds.

Highlights of the FY2015-2019 CIP include:

- Evaluate and rehabilitate large diameter sewers.
- Improve the 69th Street Wastewater Treatment Plant.

Wastewater Treatment Facilities

Highlights of the FY2015-2019 CIP ctd.:

- 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 (\$54.8 million in FY2015).
- Assess, repair, and replace the city wide force main system.
- Upgrade, rehabilitate, or renew various wastewater treatment plants.
- Lift station renewal/replacement.

Project Allocation	Fiscal Year Planned Appropriations					2015-2019
	2015	2016	2017	2018	2019	
Planning						
Acquisition-Land						
Design	10,554	11,376	8,969	10,876	5,089	46,864
Construction	155,521	167,673	136,093	169,135	210,595	839,017
Equipment Acquisition	7,100			310		7,410
Salary Recovery						
Other	8,712	6,738	22,720	8,114	52,543	98,827
Total Allocation	181,887	185,787	167,782	188,435	268,227	992,118
Source of Funds						
8500 - PWE-W&S Syst Consolidated Constr Fd	124,887	128,545	115,785	137,225	216,227	722,669
Proposed TWDB-8500	57,000	57,242	51,997	51,210	52,000	269,449
Total Funds	181,887	185,787	167,782	188,435	268,227	992,118

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project	Fiscal Year Planned Appropriations					2015-2019
		2015	2016	2017	2018	2019	
R-000019	Emergency Needs for Wastewater Utility						
	8500 - PWE-W&S Syst Consolidated Constr Fd	500	500	2,000	2,000	2,000	7,000
	Project Total	500	500	2,000	2,000	2,000	7,000
R-000020	Miscellaneous Needs for Public Utility						
	8500 - PWE-W&S Syst Consolidated Constr Fd	6,690	1,940	1,034	1,978	1,688	13,330
	Project Total	6,690	1,940	1,034	1,978	1,688	13,330
R-000035	Wastewater Force Main Renewal						
	8500 - PWE-W&S Syst Consolidated Constr Fd	681	1,486	1,899	14,938	5,126	24,130
	Project Total	681	1,486	1,899	14,938	5,126	24,130
R-0000NA	Wastewater Contingencies						
	8500 - PWE-W&S Syst Consolidated Constr Fd	509	-395	101	500	-100	615
	Project Total	509	-395	101	500	-100	615
R-000265	Wastewater Treatment Plant Improvements						
	8500 - PWE-W&S Syst Consolidated Constr Fd	55,193	45,195	35,103	35,784	72,441	243,716
	Project Total	55,193	45,195	35,103	35,784	72,441	243,716
R-000266	Neighborhood Sewer Rehab Program						
	Proposed TWDB-8500	50,000	50,000	45,000	45,000	45,000	235,000
	Project Total	50,000	50,000	45,000	45,000	45,000	235,000
R-000267	Lift Station Renewal & Replacement						
	8500 - PWE-W&S Syst Consolidated Constr Fd	11,463	12,182	18,846	17,940	3,242	63,673
	Project Total	11,463	12,182	18,846	17,940	3,242	63,673
R-000298	Alameda Sims Wastewater Treatment Plant						
	8500 - PWE-W&S Syst Consolidated Constr Fd	1,170	1,331	7,759		4,369	14,629
	Project Total	1,170	1,331	7,759		4,369	14,629

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2015-2019	
		2015	2016	2017	2018	2019		
R-000500	WW Improvements under M/N							
	8500 - PWE-W&S Syst Consolidated Constr Fd	7,503	5,933	20,419	5,414	50,443	89,712	
	Project Total	7,503	5,933	20,419	5,414	50,443	89,712	
R-000509	69th Street Wastewater Treatment Plant							
	8500 - PWE-W&S Syst Consolidated Constr Fd	25,856	946	1,565	9,211	37,446	75,024	
	Project Total	25,856	946	1,565	9,211	37,446	75,024	
R-000521	Sewer Line Replacement by Other Govt							
	8500 - PWE-W&S Syst Consolidated Constr Fd	600	500	1,000	1,000	1,000	4,100	
	Project Total	600	500	1,000	1,000	1,000	4,100	
R-000536	Wastewater Treatment Plant Consolidation							
	8500 - PWE-W&S Syst Consolidated Constr Fd	863	18,287	11,193	25,780	19,222	75,345	
	Project Total	863	18,287	11,193	25,780	19,222	75,345	
R-000800	Collection System-Sponsor Participation							
	8500 - PWE-W&S Syst Consolidated Constr Fd	500	500	1,000	1,000	1,000	4,000	
	Project Total	500	500	1,000	1,000	1,000	4,000	
R-000801	Sewer Service to Unserved Areas							
	8500 - PWE-W&S Syst Consolidated Constr Fd	2,691	3,844	6,042			12,577	
	Project Total	2,691	3,844	6,042			12,577	
R-002003	Northside Sewer Relief Tunnel Rehab							
	8500 - PWE-W&S Syst Consolidated Constr Fd		12,485				12,485	
	Project Total		12,485				12,485	
R-002011	Neighborhood Sewer Systems Improvements							
	8500 - PWE-W&S Syst Consolidated Constr Fd	4,861	17,448	1,248	15,882	12,482	51,921	
	Project Total	4,861	17,448	1,248	15,882	12,482	51,921	

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2015-2019 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2015-2019	
		2015	2016	2017	2018	2019		
R-002013	Large Diameter Sewer (LDS) Rehab							
	8500 - PWE-W&S Syst Consolidated Constr Fd	2,075	1,500	2,346	1,500	1,500	8,921	
	Proposed TWDB-8500	7,000	7,242	6,997	6,210	7,000	34,449	
	Project Total	9,075	8,742	9,343	7,710	8,500	43,370	
R-002015	Wastewater Substitute Service Program							
	8500 - PWE-W&S Syst Consolidated Constr Fd	3,732	4,863	4,230	4,298	4,368	21,491	
	Project Total	3,732	4,863	4,230	4,298	4,368	21,491	
	Total Appropriations:	181,887	185,787	167,782	188,435	268,227	992,118	