

Wastewater Treatment System

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 6,200 miles of sanitary sewer lines, including over 300 miles of wastewater pressure force mains, over 380 sanitary lift stations and 39 wastewater treatment plants. The average daily wastewater flow through the system is estimated at 250 million gallons per day (MGD). As reflected by state permits, the effective treatment capacity of the system is 564 MGD.

The program of improvements provides for the continued upgrade of the System and compliance with the regulations issued by the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA). A number of the projects included in this chapter implement commitments under the Consent Decree between the City of Houston, EPA, and TCEQ, as approved by the United States District Court on March 31, 2021.

The Capital Improvement Plan (CIP) provides an estimate of delivery by fiscal year for the next five years. The FY2025-2029 CIP includes approximately \$3.9 billion of Wastewater Treatment System improvements financed by a combination of pay-as-you-go and revenue bonds.

Highlights of the Fiscal Year 2025-2029 CIP:

- A robust asset management program to maintain and extend service life of facilities and satisfy Consent Decree commitments including:
 - Rehabilitate neighborhood sewers to improve service, remove excessive infiltration, prevent sanitary sewer overflows and eliminate sewage backups
 - Renew and rehabilitate the citywide force main system and various lift stations
 - Upgrade, rehabilitate or renew various wastewater treatment plants
 - Evaluate and rehabilitate large diameter sewers
 - Advance the consolidation of lift stations and/or wastewater treatment plants.



Project Allocation			0005 0000				
		2025	2025 2026 20		2027 2028		2025-2029
Planning							
Acquisition-Land							
Design		289,342	73,910	38,650	54,650	53,650	510,202
Construction		502,434	439,266	697,797	959,788	738,350	3,337,635
Equipment Acquisition							
Salary Recovery							
Other		4,263	3,400	3,400	3,400	3,400	17,863
	Total Allocation	796,039	516,576	739,847	1,017,838	795,400	3,865,700
Source of Funds							
8500 - HPW-W&S Syst Consolidated Constr Fd		796,039	516,576	739,847	1,017,838	795,400	3,865,700
	Total Funds	796,039	516,576	739,847	1,017,838	795,400	3,865,700

Some projects in this sections are related to the impact of Hurricane Harvey DR4332 and it is the City's intent to seek reimbursement from the Federal Emergency Management Agency (FEMA) and any other eligible sources for such expenditures, with the FEMA share being 90% of eligible costs.

Adopted CIP 3 Form D

WASTEWATER TREATMENT FACILITIES - Summary of Funds 2025-2029 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project	1	Fiscal Year Planned Appropriations					
		2025	2026	2027	2028	2029	2025-2029	
R-000019	Emergency Needs for Wastewater Utility				·			
	8500 - HPW-W&S Syst Consolidated Constr Fd	1,000	1,000	1,000	1,000	1,000	5,000	
	Project Total	1,000	1,000	1,000	1,000	1,000	5,000	
R-000020	Miscellaneous Needs for Public Utility							
	8500 - HPW-W&S Syst Consolidated Constr Fd	12,200	10,200	6,200	6,200	6,200	41,000	
	Project Total	12,200	10,200	6,200	6,200	6,200	41,000	
R-000035	Wastewater Force Main Renewal							
	8500 - HPW-W&S Syst Consolidated Constr Fd	13,621	25,000	16,000	16,000	16,000	86,621	
	Project Total	13,621	25,000	16,000	16,000	16,000	86,621	
R-000265	Wastewater Treatment Plant Improvements							
	8500 - HPW-W&S Syst Consolidated Constr Fd	353,943	132,260	271,585	401,500	172,300	1,331,588	
	Project Total	353,943	132,260	271,585	401,500	172,300	1,331,588	
R-000266	Neighborhood Sewer Rehab Program							
	8500 - HPW-W&S Syst Consolidated Constr Fd	96,000	96,000	96,000	96,000	96,000	480,000	
	Project Total	96,000	96,000	96,000	96,000	96,000	480,000	
R-000267	Lift Station Renewal & Replacement							
	8500 - HPW-W&S Syst Consolidated Constr Fd	17,200	90,000	114,369	51,000	51,000	323,569	
	Project Total	17,200	90,000	114,369	51,000	51,000	323,569	
R-000500	WW Improvements under M/N							
	8500 - HPW-W&S Syst Consolidated Constr Fd	12,569	23,484	6,143	4,238		46,434	
	Project Total	12,569	23,484	6,143	4,238		46,434	
R-000509	69th Street Wastewater Treatment Plant							
	8500 - HPW-W&S Syst Consolidated Constr Fd	19,701					19,701	
	Project Total	19,701					19,701	

WASTEWATER TREATMENT FACILITIES - Summary of Funds 2025-2029 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

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CIP No.	Project						2025-2029	
		2025	2026	2027	2028	2029		
R-000521	Sewer Line Replacement by Other Govt							
	8500 - HPW-W&S Syst Consolidated Constr Fd	2,169	1,400	1,400	1,400	1,400	7,769	
	Project Total	2,169	1,400	1,400	1,400	1,400	7,769	
R-000536	Wastewater Treatment Plant Consolidation							
	8500 - HPW-W&S Syst Consolidated Constr Fd	166,807	2,500	2,500	2,500	2,500	176,807	
	Project Total	166,807	2,500	2,500	2,500	2,500	176,807	
R-000800	Collection System-Sponsor Participation							
	8500 - HPW-W&S Syst Consolidated 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-001000	Wastewater Treatment Plant Service Areas							
	8500 - HPW-W&S Syst Consolidated Constr Fd	55,000	53,000	159,650	373,000	384,000	1,024,650	
	Project Total	55,000	53,000	159,650	373,000	384,000	1,024,650	
R-002011	Neighborhood Sewer Systems Improvements							
	8500 - HPW-W&S Syst Consolidated Constr Fd	26,829	62,732	46,000	46,000	46,000	227,561	
	Project Total	26,829	62,732	46,000	46,000	46,000	227,561	
R-002013	Large Diameter Sewer (LDS) Rehab							
	8500 - HPW-W&S Syst Consolidated Constr Fd	10,000	10,000	10,000	10,000	10,000	50,000	
	Project Total	10,000	10,000	10,000	10,000	10,000	50,000	
R-002015	Wastewater Substitute Service Program							
	8500 - HPW-W&S Syst Consolidated Constr Fd	6,000	6,000	6,000	6,000	6,000	30,000	
	Project Total	6,000	6,000	6,000	6,000	6,000	30,000	
R-900001	Upgrades to CUS-Owned Support Facilities							
	8500 - HPW-W&S Syst Consolidated Constr Fd	1,000	1,000	1,000	1,000	1,000	5,000	
	Project Total	1,000	1,000	1,000	1,000	1,000	5,000	
	Total Appropriations:	796,039	516,576	739,847	1,017,838	795,400	3,865,700	