WASTEWATER TREATMENT FACILITIES

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 FY2027-2031 CIP includes approximately $3.54 billion of Wastewater Treatment System improvements financed by a combination of pay-as-you-go and revenue bonds.

Highlights of the Fiscal Year 2027-2031 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

2027-2031 CAPITAL IMPROVEMENT PLAN ($ Thousands) CITY OF HOUSTON - WASTEWATER TREATMENT FACILITIES

Project Allocation	Fiscal Year Planned Appropriations					2027-2031
	2027	2028	2029	2030	2031	
Planning						
Acquisition-Land						
Design	**84,984**	45,650	46,060	39,650	45,650	261,994
Construction	**729,181**	575,121	1,037,767	482,605	439,745	3,264,417
Equipment Acquisition						
Salary Recovery						
Other	**3,400**	3,400	3,400	3,400	3,400	17,000
Total Allocation	**817,564**	**624,171**	**1,087,227**	**525,655**	**488,795**	**3,543,411**
Source of Funds						
8500 - HPW-W&S Syst Consolidated Constr Fd	**817,564**	624,171	1,087,227	525,655	488,795	3,543,411
Total Funds	**817,564**	**624,171**	**1,087,227**	**525,655**	**488,795**	**3,543,411**

WASTEWATER TREATMENT FACILITIES - Summary of Funds
2027-2031 CAPITAL IMPROVEMENT PLAN ($ Thousands)

CIP No.	Project		Fiscal Year Planned Appropriations					2027-2031	
			2027	2028	2029	2030	2031		
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		16,702	6,200	6,200	6,200	6,200	41,502	
		Project Total	16,702	6,200	6,200	6,200	6,200	41,502	
R-000035	**Wastewater Force Main Renewal**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		35,104	29,000	19,000	16,000	16,000	115,104	
		Project Total	35,104	29,000	19,000	16,000	16,000	115,104	
R-000265	**Wastewater Treatment Plant Improvements**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		210,981	151,375	144,900	139,830	166,755	813,842	
		Project Total	210,981	151,375	144,900	139,830	166,755	813,842	
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		147,157	55,797	14,410	167,523	111,940	496,827	
		Project Total	147,157	55,797	14,410	167,523	111,940	496,827	
R-000298	**Almeda Sims Wastewater Treatment Plant**								
	8500 - HPW-W&S Syst Consolidated Constr Fd			7,610				7,610	
		Project Total		7,610				7,610	
R-000500	**WW Improvements under M/N**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		26,312	7,157	23,217	8,202		64,887	
		Project Total	26,312	7,157	23,217	8,202		64,887	

WASTEWATER TREATMENT FACILITIES - Summary of Funds
2027-2031 CAPITAL IMPROVEMENT PLAN ($ Thousands)

CIP No.	Project		2027	2028	2029	2030	2031	2027-2031	
R-000509	**69th Street Wastewater Treatment Plant**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		55,000	19,701				74,701	
		Project Total	55,000	19,701				74,701	
R-000521	**Sewer Line Replacement by Other Govt**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,400	1,400	1,400	1,400	1,400	7,000	
		Project Total	1,400	1,400	1,400	1,400	1,400	7,000	
R-000536	**Wastewater Treatment Plant Consolidation**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		2,500	2,500	2,500	2,500	2,500	12,500	
		Project Total	2,500	2,500	2,500	2,500	2,500	12,500	
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		141,783	177,030	713,600	22,000	22,000	1,076,413	
		Project Total	141,783	177,030	713,600	22,000	22,000	1,076,413	
R-002011	**Neighborhood Sewer Systems Improvements**								
	8500 - HPW-W&S Syst Consolidated Constr Fd		64,625	50,400	46,000	46,000	46,000	253,025	
		Project Total	64,625	50,400	46,000	46,000	46,000	253,025	
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	

WASTEWATER TREATMENT FACILITIES - Summary of Funds
2027-2031 CAPITAL IMPROVEMENT PLAN ($ Thousands)

CIP No.	Project		2027	2028	2029	2030	2031	2027-2031	
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:		817,564	624,171	1,087,227	525,655	488,795	3,543,411	