

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 the upper arc, and "TEXAS" is in the lower arc. The seal is rendered in a light gray, semi-transparent style.

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 FY2024-2028 CIP includes approximately \$3.1 billion of Wastewater Treatment System improvements financed by a combination of pay-as-you-go and revenue bonds.

Highlights of the Fiscal Year 2024-2028 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	Fiscal Year Planned Appropriations					2024-2028
	2024	2025	2026	2027	2028	
Planning						
Acquisition-Land						
Design	173,179	58,650	58,650	54,650	54,650	399,779
Construction	569,196	447,151	472,839	846,050	326,050	2,661,286
Equipment Acquisition	50,000					50,000
Salary Recovery						
Other	4,263	3,400	3,400	3,400	3,400	17,863
Total Allocation	796,639	509,201	534,889	904,100	384,100	3,128,928
Source of Funds						
8500 - HPW-W&S Syst Consolidated Constr Fd	796,639	509,201	534,889	904,100	384,100	3,128,928
Total Funds	796,639	509,201	534,889	904,100	384,100	3,128,928

Some projects in this section 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.

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2024-2028 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project	Fiscal Year Planned Appropriations					2024-2028
		2024	2025	2026	2027	2028	
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	30,700	12,200	10,200	6,200	6,200	65,500
	Project Total	30,700	12,200	10,200	6,200	6,200	65,500
R-000035	Wastewater Force Main Renewal						
	8500 - HPW-W&S Syst Consolidated Constr Fd	29,500	16,000	25,000	16,000	16,000	102,500
	Project Total	29,500	16,000	25,000	16,000	16,000	102,500
R-000265	Wastewater Treatment Plant Improvements						
	8500 - HPW-W&S Syst Consolidated Constr Fd	206,396	90,625	117,000	117,000	72,000	603,022
	Project Total	206,396	90,625	117,000	117,000	72,000	603,022
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	51,689	49,000	103,000	51,000	51,000	305,689
	Project Total	51,689	49,000	103,000	51,000	51,000	305,689
R-000298	Almeda Sims Wastewater Treatment Plant						
	8500 - HPW-W&S Syst Consolidated Constr Fd	3,000					3,000
	Project Total	3,000					3,000
R-000500	WW Improvements under M/N						
	8500 - HPW-W&S Syst Consolidated Constr Fd	31,186	21,005	11,789			63,980
	Project Total	31,186	21,005	11,789			63,980

**WASTEWATER TREATMENT FACILITIES - Summary of Funds
2024-2028 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project						2024-2028	
		2024	2025	2026	2027	2028		
R-000509	69th Street Wastewater Treatment Plant							
	8500 - HPW-W&S Syst Consolidated Constr Fd	70,000	19,701				89,701	
	Project Total	70,000	19,701				89,701	
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	162,349	44,978	2,500	2,500	2,500	214,827	
	Project Total	162,349	44,978	2,500	2,500	2,500	214,827	
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	74,000	53,000	102,000	548,000	73,000	850,000	
	Project Total	74,000	53,000	102,000	548,000	73,000	850,000	
R-002011	Neighborhood Sewer Systems Improvements							
	8500 - HPW-W&S Syst Consolidated Constr Fd	15,149	85,291	46,000	46,000	46,000	238,440	
	Project Total	15,149	85,291	46,000	46,000	46,000	238,440	
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
2024-2028 CAPITAL IMPROVEMENT PLAN (\$ Thousands)

CIP No.	Project						2024-2028	
		2024	2025	2026	2027	2028		
R-900001	Upgrades to CUS-Owned Support Facilities							
	8500 - HPW-W&S Syst Consolidated Constr Fd	5,500	1,000	1,000	1,000	1,000	9,500	
	Project Total	5,500	1,000	1,000	1,000	1,000	9,500	
	Total Appropriations:	796,639	509,201	534,889	904,100	384,100	3,128,928	