

The seal of the City of Houston, Texas, is a circular emblem. It features a central illustration of a steam locomotive with smoke rising from its chimneys, positioned above a plow. A five-pointed star is located above the locomotive. The words "CITY OF HOUSTON" are inscribed in a circular path around the top half of the seal, and "TEXAS" is inscribed around the bottom half. The entire seal is rendered in a light gray, semi-transparent style.

# **WASTEWATER TREATMENT FACILITIES**

# Wastewater Treatment System

The Wastewater Treatment 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 over 6,200 miles of sanitary sewer lines, 325 miles of wastewater pressure force mains, over 383 sanitary lift stations and 40 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).

The Capital Improvement Plan (CIP) provides an estimate of delivery by fiscal year for the next five years. The FY2021-2025 CIP includes approximately \$1.2 billion of Wastewater Treatment System improvements financed by a combination of pay-as-you-go and revenue bonds.

## Highlights of the FY2021-2025 CIP:

- A robust asset management program to maintain and extend service life of facilities 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
- Long Range Planning to evaluate consolidation of lift stations and/or wastewater treatment plants.



Project Allocation	Fiscal Year Planned Appropriations					2021-2025
	2021	2022	2023	2024	2025	
Planning						
Acquisition-Land						
Design	17,113	4,466	2,294	6,650	7,150	37,674
Construction	246,005	203,526	312,736	184,426	192,034	1,138,727
Equipment Acquisition						
Salary Recovery						
Other	4,154	3,564	3,608	3,400	3,400	18,126
<b>Total Allocation</b>	<b>267,273</b>	<b>211,556</b>	<b>318,638</b>	<b>194,476</b>	<b>202,584</b>	<b>1,194,527</b>
<b>Source of Funds</b>						
8500 - HPW-W&S Syst Consolidated Constr Fd	267,273	211,556	318,638	194,476	202,584	1,194,527
<b>Total Funds</b>	<b>267,273</b>	<b>211,556</b>	<b>318,638</b>	<b>194,476</b>	<b>202,584</b>	<b>1,194,527</b>

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 up to 90% of eligible costs.

**WASTEWATER TREATMENT FACILITIES - Summary of Funds**  
**2021-2025 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project		Fiscal Year Planned Appropriations					2021-2025	
			2021	2022	2023	2024	2025		
<b>R-000019</b>	<b>Emergency Needs for Wastewater Utility</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,061	1,082	1,104	1,000	1,000	5,247	
	<b>Project Total</b>		1,061	1,082	1,104	1,000	1,000	5,247	
<b>R-000020</b>	<b>Miscellaneous Needs for Public Utility</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		244	141	144	300	300	1,128	
	<b>Project Total</b>		244	141	144	300	300	1,128	
<b>R-000035</b>	<b>Wastewater Force Main Renewal</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		7,022	14,239	6,478	11,000	11,000	49,739	
	<b>Project Total</b>		7,022	14,239	6,478	11,000	11,000	49,739	
<b>R-000265</b>	<b>Wastewater Treatment Plant Improvements</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		40,382	42,328	46,306	11,000	26,200	166,216	
	<b>Project Total</b>		40,382	42,328	46,306	11,000	26,200	166,216	
<b>R-000266</b>	<b>Neighborhood Sewer Rehab Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		31,830	48,690	49,680	50,000	50,000	230,200	
	<b>Project Total</b>		31,830	48,690	49,680	50,000	50,000	230,200	
<b>R-000267</b>	<b>Lift Station Renewal &amp; Replacement</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		72,344	35,886	26,386	45,000	45,000	224,615	
	<b>Project Total</b>		72,344	35,886	26,386	45,000	45,000	224,615	
<b>R-000298</b>	<b>Almeda Sims Wastewater Treatment Plant</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd				1,325			1,325	
	<b>Project Total</b>				1,325			1,325	
<b>R-000500</b>	<b>WW Improvements under M/N</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		12,182	8,878	25,604	19,776	12,184	78,624	
	<b>Project Total</b>		12,182	8,878	25,604	19,776	12,184	78,624	

**WASTEWATER TREATMENT FACILITIES - Summary of Funds**  
**2021-2025 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project							2021-2025	
			2021	2022	2023	2024	2025		
<b>R-000509</b>	<b>69th Street Wastewater Treatment Plant</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd			11,700	11,040			22,740	
	<b>Project Total</b>			11,700	11,040			22,740	
<b>R-000521</b>	<b>Sewer Line Replacement by Other Govt</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		2,032	1,400	1,400	1,400	1,400	7,632	
	<b>Project Total</b>		2,032	1,400	1,400	1,400	1,400	7,632	
<b>R-000536</b>	<b>Wastewater Treatment Plant Consolidation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		44,562	2,000	140,964	27,000	27,500	242,026	
	<b>Project Total</b>		44,562	2,000	140,964	27,000	27,500	242,026	
<b>R-000800</b>	<b>Collection System-Sponsor Participation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		2,122	2,164	2,208	2,000	2,000	10,494	
	<b>Project Total</b>		2,122	2,164	2,208	2,000	2,000	10,494	
<b>R-002011</b>	<b>Neighborhood Sewer Systems Improvements</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		39,352	29,268		11,500	11,500	91,620	
	<b>Project Total</b>		39,352	29,268		11,500	11,500	91,620	
<b>R-002013</b>	<b>Large Diameter Sewer (LDS) Rehab</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		7,427	7,574		7,500	7,500	30,001	
	<b>Project Total</b>		7,427	7,574		7,500	7,500	30,001	
<b>R-002015</b>	<b>Wastewater Substitute Service Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		3,714	4,707	5,000	6,000	6,000	25,420	
	<b>Project Total</b>		3,714	4,707	5,000	6,000	6,000	25,420	
<b>R-900001</b>	<b>Upgrades to CUS-Owned Support Facilities</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		3,000	1,500	1,000	1,000	1,000	7,500	
	<b>Project Total</b>		3,000	1,500	1,000	1,000	1,000	7,500	
<b>Total Appropriations:</b>			267,273	211,556	318,638	194,476	202,584	1,194,527	