

The seal of the City of Houston, Texas, is a circular emblem. It features a central illustration of a steam locomotive with a star above it. The words "CITY OF HOUSTON" are arched across the top, and "TEXAS" is arched across the bottom. The 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 FY2020-2024 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 FY2020-2024 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					2020-2024
	2020	2021	2022	2023	2024	
Planning						
Acquisition-Land						
Design	9,856	16,584	4,466	2,294	6,650	39,851
Construction	300,240	252,779	185,572	205,470	166,656	1,110,717
Equipment Acquisition						
Salary Recovery						
Other	8,879	4,154	3,564	3,608	3,400	23,605
<b>Total Allocation</b>	<b>318,975</b>	<b>273,517</b>	<b>193,603</b>	<b>211,372</b>	<b>176,706</b>	<b>1,174,173</b>
<b>Source of Funds</b>						
8500 - HPW-W&S Syst Consolidated Constr Fd	318,975	273,517	193,603	211,372	176,706	1,174,173
<b>Total Funds</b>	<b>318,975</b>	<b>273,517</b>	<b>193,603</b>	<b>211,372</b>	<b>176,706</b>	<b>1,174,173</b>

**WASTEWATER TREATMENT FACILITIES - Summary of Funds**  
**2020-2024 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project		Fiscal Year Planned Appropriations					2020-2024	
			2020	2021	2022	2023	2024		
<b>R-000019</b>	<b>Emergency Needs for Wastewater Utility</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,040	1,061	1,082	1,104	1,000	5,287	
	<b>Project Total</b>		1,040	1,061	1,082	1,104	1,000	5,287	
<b>R-000020</b>	<b>Miscellaneous Needs for Public Utility</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		5,335	244	141	144	300	6,163	
	<b>Project Total</b>		5,335	244	141	144	300	6,163	
<b>R-000035</b>	<b>Wastewater Force Main Renewal</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		32,199	7,022	7,139	6,478	11,000	63,838	
	<b>Project Total</b>		32,199	7,022	7,139	6,478	11,000	63,838	
<b>R-000265</b>	<b>Wastewater Treatment Plant Improvements</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		31,315	54,493	4,328	19,872	11,000	121,008	
	<b>Project Total</b>		31,315	54,493	4,328	19,872	11,000	121,008	
<b>R-000266</b>	<b>Neighborhood Sewer Rehab Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		26,000	31,830	48,690	49,680	50,000	206,200	
	<b>Project Total</b>		26,000	31,830	48,690	49,680	50,000	206,200	
<b>R-000267</b>	<b>Lift Station Renewal &amp; Replacement</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		34,576	59,436	47,170	26,386	45,000	212,567	
	<b>Project Total</b>		34,576	59,436	47,170	26,386	45,000	212,567	
<b>R-000298</b>	<b>Almeda Sims Wastewater Treatment Plant</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		12,126			1,325		13,451	
	<b>Project Total</b>		12,126			1,325		13,451	
<b>R-000500</b>	<b>WW Improvements under M/N</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		26,246	25,287	18,694	15,498	2,006	87,731	
	<b>Project Total</b>		26,246	25,287	18,694	15,498	2,006	87,731	

**WASTEWATER TREATMENT FACILITIES - Summary of Funds**  
**2020-2024 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project							2020-2024	
			2020	2021	2022	2023	2024		
<b>R-000509</b>	<b>69th Street Wastewater Treatment Plant</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		22,376		4,328	11,040		37,744	
	<b>Project Total</b>		22,376		4,328	11,040		37,744	
<b>R-000521</b>	<b>Sewer Line Replacement by Other Govt</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		7,839	2,032	1,400	1,400	1,400	14,071	
	<b>Project Total</b>		7,839	2,032	1,400	1,400	1,400	14,071	
<b>R-000536</b>	<b>Wastewater Treatment Plant Consolidation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		79,901	44,562	20,991	70,238	27,000	242,692	
	<b>Project Total</b>		79,901	44,562	20,991	70,238	27,000	242,692	
<b>R-000800</b>	<b>Collection System-Sponsor Participation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,040	2,122	2,164	2,208	2,000	9,534	
	<b>Project Total</b>		1,040	2,122	2,164	2,208	2,000	9,534	
<b>R-002011</b>	<b>Neighborhood Sewer Systems Improvements</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		25,677	31,288	23,696		11,500	92,161	
	<b>Project Total</b>		25,677	31,288	23,696		11,500	92,161	
<b>R-002013</b>	<b>Large Diameter Sewer (LDS) Rehab</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		7,280	7,427	7,574		7,500	29,781	
	<b>Project Total</b>		7,280	7,427	7,574		7,500	29,781	
<b>R-002015</b>	<b>Wastewater Substitute Service Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		4,524	3,714	4,707	5,000	6,000	23,944	
	<b>Project Total</b>		4,524	3,714	4,707	5,000	6,000	23,944	
<b>R-900001</b>	<b>Upgrades to CUS-Owned Support Facilities</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,500	3,000	1,500	1,000	1,000	8,000	
	<b>Project Total</b>		1,500	3,000	1,500	1,000	1,000	8,000	
<b>Total Appropriations:</b>			318,975	273,517	193,603	211,372	176,706	1,174,173	



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