

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. Below the locomotive is a plow. The words "CITY OF HOUSTON" are arched across the top, and "TEXAS" is arched across the bottom. The entire seal is rendered in a light gray, semi-transparent style.

# **WATER UTILITY SYSTEM FACILITIES**

# Water Utility System

The Water Utility System delivers treated surface and ground water to customers through a series of storage tanks, pump stations, transmission and distribution mains. This potable water is sold to domestic, commercial, industrial, governmental and other customers in the Houston metropolitan area. In addition, untreated surface water is delivered for sale to governmental, industrial and agricultural customers. The System provides water to the residents of Houston as well as municipalities, municipal utility districts, and water authorities outside the City limits. The service population is approximately 4 million.

The System relies on 86% Surface Water and 14% Groundwater sources. Surface water is sourced from Lake Conroe and Lake Houston in the San Jacinto River System and Lake Livingston in the Trinity River System. In aggregate, these supplies are sufficient to meet the City's expected water demands beyond the year 2060. However, additional water supply strategies have been developed to meet the long-term needs. In addition, the System continues to shift its supply source from groundwater to surface water in accordance with state mandates.

The Capital Improvement Plan (CIP) provides an estimate of delivery by fiscal year for the next five years. The FY 2022-2026 CIP includes approximately \$1.65 billion of Water Utility System improvements financed by a combination of pay-as-you-go, revenue bonds and proposed contributed capital.

## **Highlights of the FY 2022-2026 CIP:**

- Continue funding the Design-Build contract for the 320 MGD expansion of the Northeast Water Purification Plant with regional water authority funding partners
- Continue to construct surface water transmission lines to access and deliver expanded treated surface water supplies for Houston and surrounding water authorities

- Continue funding for replacement of neighborhood water mains to improve fire protection, water quality, system reliability and assure compliance with Texas Commission on Environmental Quality (TCEQ) regulations
- Install chloramination chemical systems at 30 groundwater pump stations
- Rehabilitate wells, ground storage tanks and pump stations as part of long range asset management

Project Allocation	Fiscal Year Planned Appropriations					2022-2026
	2022	2023	2024	2025	2026	
Planning						
Acquisition-Land	28,553	552	550	550	550	30,755
Design	19,763	17,903	10,950	9,700	10,100	68,416
Construction	563,606	230,383	328,744	213,421	150,354	1,486,509
Equipment Acquisition	5,388	5,498	5,500	5,500	21,555	43,441
Salary Recovery						
Other	5,625	5,200	3,950	4,750	3,950	23,475
<b>Total Allocation</b>	<b>622,936</b>	<b>259,536</b>	<b>349,694</b>	<b>233,921</b>	<b>186,508</b>	<b>1,652,596</b>
<b>Source of Funds</b>						
4042 - DDSRF CAPITAL FUND-DRAINAGE CHARGE						
5430 - Federal State Local - HPW Pass thru DDSR						
8500 - HPW-W&S Syst Consolidated Constr Fd	282,818	259,536	289,765	210,012	186,508	1,228,640
8505 - Water Authorities Capital Contrib-NEWPP	319,770					319,770
8509 - HPW-SETL Capital Contribution	20,348		50,756	20,992		92,097
8510 - HPW-SETL Construction Fund			9,172	2,917		12,089
<b>Total Funds</b>	<b>622,936</b>	<b>259,536</b>	<b>349,694</b>	<b>233,921</b>	<b>186,508</b>	<b>1,652,596</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 90% of eligible costs.

**WATER UTILITY SYSTEM FACILITIES - Summary of Funds**  
**2022-2026 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project		Fiscal Year Planned Appropriations					2022-2026	
			2022	2023	2024	2025	2026		
<b>S-000019</b>	<b>Emergency Needs for Water Utility</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		541	552	550	550	550	2,743	
	<b>Project Total</b>		541	552	550	550	550	2,743	
<b>S-000020</b>	<b>Miscellaneous Water Needs</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		97	308	238	337	238	1,219	
	<b>Project Total</b>		97	308	238	337	238	1,219	
<b>S-000035</b>	<b>Neighborhood Water Main Replacement</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		9,277	38,332	34,500	38,500	29,500	150,109	
	<b>Project Total</b>		9,277	38,332	34,500	38,500	29,500	150,109	
<b>S-000056</b>	<b>East Water Purification Plant</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		29,008		100,000	100,000	100,000	329,008	
	<b>Project Total</b>		29,008		100,000	100,000	100,000	329,008	
<b>S-000065</b>	<b>NE Water Purification Plant Expansion</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		81,366					81,366	
	8505 - Water Authorities Capital Contrib-NEWPP		319,770					319,770	
	<b>Project Total</b>		401,136					401,136	
<b>S-000100</b>	<b>New / Replacement Ground Water Wells</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,200	7,750	9,000	7,750	1,250	26,950	
	<b>Project Total</b>		1,200	7,750	9,000	7,750	1,250	26,950	
<b>S-00019A</b>	<b>Real Estate Annual Appropriation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		541	552	550	550	550	2,743	
	<b>Project Total</b>		541	552	550	550	550	2,743	
<b>S-000200</b>	<b>Water Well Renewal Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		5,031	3,864	5,000	5,000	5,000	23,895	
	<b>Project Total</b>		5,031	3,864	5,000	5,000	5,000	23,895	

**WATER UTILITY SYSTEM FACILITIES - Summary of Funds**  
**2022-2026 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project							2022-2026	
			2022	2023	2024	2025	2026		
<b>S-000500</b>	<b>Water Improvements under M/N</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		15,232	20,466	14,117	14,246	2,666	66,727	
	<b>Project Total</b>		15,232	20,466	14,117	14,246	2,666	66,727	
<b>S-000521</b>	<b>Water Main Replacement by Other Govt</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		2,920	2,440	1,400	1,400	1,400	9,560	
	<b>Project Total</b>		2,920	2,440	1,400	1,400	1,400	9,560	
<b>S-000600</b>	<b>Water Storage Tank Rehabilitation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		5,305	10,930	8,000	8,000	8,000	40,235	
	<b>Project Total</b>		5,305	10,930	8,000	8,000	8,000	40,235	
<b>S-000700</b>	<b>Water Main Grid Extensions Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		1,000	3,312		3,200		7,512	
	<b>Project Total</b>		1,000	3,312		3,200		7,512	
<b>S-000701</b>	<b>Lg Diameter Water Line Rehab</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd			2,119	14,540	7,000	7,000	30,659	
	<b>Project Total</b>			2,119	14,540	7,000	7,000	30,659	
<b>S-000702</b>	<b>Valve Replacement &amp; Installation Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd			4,416		4,500		8,916	
	<b>Project Total</b>			4,416		4,500		8,916	
<b>S-000800</b>	<b>Sponsor Participation-Water Mains Prog.</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		2,164	2,208	2,000	2,000	2,000	10,372	
	<b>Project Total</b>		2,164	2,208	2,000	2,000	2,000	10,372	
<b>S-000890</b>	<b>Lake Houston Dam Projects</b>								
	4042 - DDSRF CAPITAL FUND-DRAINAGE CHAR			10,699				10,699	
	5430 - Federal State Local - HPW Pass thru DDSR			32,097				32,097	
	<b>Project Total</b>			42,796				42,796	

**WATER UTILITY SYSTEM FACILITIES - Summary of Funds**  
**2022-2026 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project							2022-2026	
			2022	2023	2024	2025	2026		
<b>S-000894</b>	<b>San Jacinto River Authority</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		824	841	800	800		3,266	
	<b>Project Total</b>		824	841	800	800		3,266	
<b>S-000900</b>	<b>Surface Water Transmission Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		102,189	123,529	61,156			286,874	
	8509 - HPW-SETL Capital Contribution		20,348		50,756	20,992		92,097	
	8510 - HPW-SETL Construction Fund				9,172	2,917		12,089	
	<b>Project Total</b>		122,537	123,529	121,085	23,909		391,060	
<b>S-000901</b>	<b>Condition Assessment and Rehabilitation</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		3,547	5,910	5,500	5,500	5,500	25,957	
	<b>Project Total</b>		3,547	5,910	5,500	5,500	5,500	25,957	
<b>S-000956</b>	<b>Automatic Meter Reading Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd						16,055	16,055	
	<b>Project Total</b>						16,055	16,055	
<b>S-000958</b>	<b>Meter Replacement &amp; Upgrade Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		5,388	5,498	5,500	5,500	5,500	27,386	
	<b>Project Total</b>		5,388	5,498	5,500	5,500	5,500	27,386	
<b>S-001000</b>	<b>Pump Station Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		12,416	25,232	25,615	3,879		67,142	
	<b>Project Total</b>		12,416	25,232	25,615	3,879		67,142	
<b>S-002015</b>	<b>Water Substitute Service Program</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		271	276	300	300	300	1,447	
	<b>Project Total</b>		271	276	300	300	300	1,447	

**WATER UTILITY SYSTEM FACILITIES - Summary of Funds**  
**2022-2026 CAPITAL IMPROVEMENT PLAN (\$ Thousands)**

CIP No.	Project							2022-2026	
			2022	2023	2024	2025	2026		
<b>S-900001</b>	<b>Upgrades to CUS-Owned Support Facilities</b>								
	8500 - HPW-W&S Syst Consolidated Constr Fd		4,500	1,000	1,000	1,000	1,000	8,500	
	<b>Project Total</b>		4,500	1,000	1,000	1,000	1,000	8,500	
<b>S-NA0000</b>	<b>Funding Offset</b>								
	4042 - DDSRF CAPITAL FUND-DRAINAGE CHAR			-10,699				-10,699	
	5430 - Federal State Local - HPW Pass thru DDSR			-32,097				-32,097	
	<b>Project Total</b>			-42,796				-42,796	
<b>Total Appropriations:</b>			622,936	259,536	349,694	233,921	186,508	1,652,596	



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