

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 FY2024-2028 CIP includes approximately \$1.7 billion of Water Utility System improvements financed by a combination of payas-you-go, revenue bonds and Adopted contributed capital.

Highlights of the Fiscal Year 2024-2028 CIP:

- Continue work to replace East Water Purification Plants 1 and 2.
- 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			0004 0000				
		2024	2025	2026	2027	2028	2024-2028
Planning							
Acquisition-Land		24,346	550	550			25,446
Design		67,924	10,200	10,100	17,600	13,100	118,924
Construction		253,109	506,089	333,336	223,447	185,787	1,501,769
Equipment Acquisition		11,500	5,500	21,555	5,500	5,500	49,555
Salary Recovery							
Other		6,270	4,750	3,950	3,950	3,950	22,870
	Total Allocation	363,148	527,089	369,491	250,497	208,337	1,718,563
Source of Funds		·					
4042 - DDSRF CAPITAL FUND-DRAINAGE CHARGE							
5430 - Federal State Local - HPW Pass thru DDSR							
8500 - HPW-W&S Syst Consolidated Constr Fd		344,149	432,580	369,491	250,497	208,337	1,605,054
8509 - HPW-SETL Capital Contribution		18,999	78,802				97,801
8510 - HPW-SETL Construction Fund			15,707				15,707
	Total Funds	363,148	527,089	369,491	250,497	208,337	1,718,563

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 75% or 90% of eligible costs.

CIP No.	Project	1	Fiscal Year Planned Appropriations					
		2024	2025	2026	2027	2028	2024-2028	
S-000012	Southeast Water Purification Plant				<u> </u>		-	
	8500 - HPW-W&S Syst Consolidated Constr Fd		18,828	13,101			31,929	
	Project Total		18,828	13,101			31,929	
S-000019	Emergency Needs for Water Utility							
	8500 - HPW-W&S Syst Consolidated Constr Fd	550	550	550	550	550	2,750	
	Project Total	550	550	550	550	550	2,750	
S-000020	Miscellaneous Water Needs							
	8500 - HPW-W&S Syst Consolidated Constr Fd	381	337	337	337	337	1,731	
	Project Total	381	337	337	337	337	1,731	
S-000035	Neighborhood Water Main Replacement							
	8500 - HPW-W&S Syst Consolidated Constr Fd	34,500	29,500	29,500	29,500	29,500	152,500	
	Project Total	34,500	29,500	29,500	29,500	29,500	152,500	
S-000056	East Water Purification Plant							
	8500 - HPW-W&S Syst Consolidated Constr Fd	54,400	132,000	100,000	100,000	100,000	486,400	
	Project Total	54,400	132,000	100,000	100,000	100,000	486,400	
S-000100	New / Replacement Ground Water Wells							
	8500 - HPW-W&S Syst Consolidated Constr Fd	1,250	7,750	1,250	1,250	1,250	12,750	
	Project Total	1,250	7,750	1,250	1,250	1,250	12,750	
S-00019A	Real Estate Annual Appropriation							
	8500 - HPW-W&S Syst Consolidated Constr Fd	550	550	550			1,650	
	Project Total	550	550	550			1,650	
S-000200	Water Well Renewal Program							
	8500 - HPW-W&S Syst Consolidated Constr Fd	5,000	8,915	5,000	5,000	5,000	28,915	
	Project Total	5,000	8,915	5,000	5,000	5,000	28,915	

CIP No.	Project		<u> </u>	<u> </u>	<u> </u>		2024-2028
		2024	2025	2026	2027	2028	202 : 2020
S-000500	Water Improvements Under M/N						
	8500 - HPW-W&S Syst Consolidated Constr Fd	33,678	27,008	14,350			75,037
	Project Total	33,678	27,008	14,350			75,037
S-000521	Water Main Replacement by Other Govt						
	8500 - HPW-W&S Syst Consolidated Constr Fd	2,920	1,400	1,400	1,400	1,400	8,520
	Project Total	2,920	1,400	1,400	1,400	1,400	8,520
S-000600	Water Storage Tank Rehabilitation						
	8500 - HPW-W&S Syst Consolidated Constr Fd	13,520	8,000	8,000	8,000	8,000	45,520
	Project Total	13,520	8,000	8,000	8,000	8,000	45,520
S-000700	Water Main Grid Extensions Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd	27,500	24,500	23,000	39,500	41,000	155,500
	Project Total	27,500	24,500	23,000	39,500	41,000	155,500
S-000701	Lg Diameter Water Line Rehab						
	8500 - HPW-W&S Syst Consolidated Constr Fd	9,000	73,043	19,000	7,000	7,000	115,043
	Project Total	9,000	73,043	19,000	7,000	7,000	115,043
S-000800	Sponsor Participation-Water Mains Prog.						
	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
S-000890	Lake Houston Dam Projects						
	4042 - DDSRF CAPITAL FUND-DRAINAGE CHAR		10,699				10,699
	5430 - Federal State Local - HPW Pass thru DDSR		32,097				32,097
	Project Total		42,796				42,796
S-000894	San Jacinto River Authority						
	8500 - HPW-W&S Syst Consolidated Constr Fd	800	800				1,600
	Project Total	800	800				1,600

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CID No	Project						2024 2022
CIP No.		2024	2025	2026	2027	2028	2024-2028
S-000900	Surface Water Transmission Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd	67,974	67,907	123,098	43,660		302,639
	8509 - HPW-SETL Capital Contribution	18,999	78,802				97,801
	8510 - HPW-SETL Construction Fund		15,707				15,707
	Project Total	86,974	162,416	123,098	43,660		416,147
S-000901	Condition Assessment and Rehabilitation						
	8500 - HPW-W&S Syst Consolidated Constr Fd	11,050	5,500	5,500	5,500	5,500	33,050
	Project Total	11,050	5,500	5,500	5,500	5,500	33,050
S-000956	Automatic Meter Reading Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd			16,055			16,055
	Project Total			16,055			16,055
S-000958	Meter Replacement & Upgrade Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd	11,500	5,500	5,500	5,500	5,500	33,500
	Project Total	11,500	5,500	5,500	5,500	5,500	33,500
S-001000	Pump Station Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd	61,775	17,192				78,967
	Project Total	61,775	17,192				78,967
S-002015	Water Substitute Service Program						
	8500 - HPW-W&S Syst Consolidated Constr Fd	300	300	300	300	300	1,500
	Project Total	300	300	300	300	300	1,500
S-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

CIP No.	Project				0004 0000			
		2024	2025	2026	2027	2028	2024-2028	
S-NA0000	Funding Offset							
	4042 - DDSRF CAPITAL FUND-DRAINAGE CHAR		-10,699				-10,699	
	5430 - Federal State Local - HPW Pass thru DDSR		-32,097				-32,097	
	Project Total		-42,796				-42,796	
	Total Appropriations:	363,148	527,089	369,491	250,497	208,337	1,718,563	