

# 2024-2028

# Capital Improvement

# Plan

Adopted December 4, 2023



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#### SECTION I – INTRODUCTION

The North Harris County Regional Water Authority (the "Authority") is responsible for securing a long-term supply of quality surface water and to facilitate the transition to surface water in compliance with Harris-Galveston Subsidence District (the "HGSD") requirements. The mandate requires a 30% reduction of groundwater usage by 2010, 60% reduction of groundwater usage by 2025, and an 80% reduction of groundwater usage by 2035. The Authority is the single entity to negotiate for a supply of surface water for the municipal utility districts, small municipalities and other permitted well owners within its boundaries. The most critical task is developing and constructing the infrastructure to bring surface water to the participants within the boundaries of the Authority. The Authority does not have taxing ability; but rather funds the conversion to surface water from pumpage fees charged to well owners and the sale of surface water.

The Authority continues to construct projects to achieve compliance with the HGSD Regulatory Plan. If the Authority does not meet the requirements of the HGSD Regulatory Plan, the Authority will be subject to the disincentive fee which is currently \$10.78/1,000 gallons. The Authority has met all applicable deadlines to date.

The Authority's CIP will be based on a five year horizon to provide additional planning and coordination with external agencies and stakeholders. The 2024-2028 Capital Improvement Plan (the "2024-2028 CIP") provides for enhancements to the Authority's system to facilitate a continuous satisfactory level of conversion to surface water. It also focuses on the planning and development of the infrastructure needed to achieve the HGSD 2025 and 2035 conversion mandates.

#### SECTION II – THE 2024-2028 CAPITAL IMPROVEMENT PLAN

#### **Overview**

The 2024-2028 CIP continues the systematic planning and development process and is based on the conversion schedule and prioritized based on cost effectiveness. The primary focus of the 2024-2028 CIP is to continue to complete the infrastructure required to enable the Authority to meet the HGSD's 2025 conversion requirement and initiate projects to meet the 2035 conversion requirement.

#### **Considerations**

To prepare the CIP, it was necessary to determine the most cost-effective sequencing of capital projects to meet the requirements of the HGSD Regulatory Plan to reduce the use of groundwater within the boundary of the Authority. The sequencing analysis includes consideration of the amount of additional surface water delivered to districts and the capital costs to construct the waterlines to deliver the surface water. Project costs were considered in developing the schedule of improvements with the goal of delaying costs as long as possible while still achieving HGSD requirements.

#### **Financial**

The Authority has applied for, and was granted, financing through the Texas Water Development Board ("TWDB") via the State Water Implementation Fund for Texas ("SWIFT") program. During SWIFT program years 2015-2023 the TWDB has committed \$2.805 billion of financial support to the Authority.

As seen in the following table, approximately \$5.2 million of Revenue Bonds will be used to implement the 2024-2028 CIP. Additionally, approximately \$715.7 million of SWIFT funds are committed to implement the 2024-2028 CIP. Approximately \$13.6 million of Participation funding will be provided by other entities via cost sharing agreements. The remaining approximately \$50.5 million of the near \$1 billion needed to implement the 2024-2028 CIP will be funded through other sources to be determined, i.e., bonds, capital contributions, etc.

### **SUMMARY OF 2024-2028 CAPITAL IMPROVEMENT PLAN**

		Fiscal Y	ear Planned Autho	rizations		
Category			(Thousands \$)			Total
	2024	2025	2026	2027	2028	
Acquisition	24,332	16,803	11,787	9,414	2,783	65,119
Design	41,187	2,934	9,545	11,302	2,934	67,902
Construction	217,473	252,241	340,869	0	50,359	860,941
Equipment	0	0	0	0	0	0
Other	7,452	6,200	6,300	6,200	6,200	32,352
Total Authorizations	290,444	278,178	368,501	26,916	62,276	1,026,314
Source of Funds					•	•
Revenue Bonds	0	0	0	1,827	3,374	5,201
SWIFT Funds	64,451	257,335	348,571	17,782	27,626	715,764
Participation Funds	2,571	345	10,696	0	0	13,612
Remaining Funds	218,423	15,499	4,234	2,307	760	241,222
Subtotal	285,444	273,178	363,501	21,916	31,760	975,799
SWIFT Fund Candidate	0	0	0	0	25,515	25,515
Other	5,000	5,000	5,000	5,000	5,000	25,000
Subtotal	5,000	5,000	5,000	5,000	30,515	50,515
Total Funds	290,444	278,178	368,501	26,916	62,276	1,026,314

<sup>1</sup> Authorizations do not typically represent actual expenditures.

# APPENDIX A GLOSSARY OF TERMS

### **GLOSSARY OF TERMS**

Acquisition Includes the cost to purchase land and easements and the acquisition

services (i.e. ROW Services, appraisals, legal, etc.) required to

accomplish the purchase

Authorization Amount designated for or authorized for the performance of work,

service, equipment or participation agreements - the values typically do

not represent actual expenditure of funds

Design Includes the cost for program management, project planning, design

related services, design management and other engineering and

planning activities

Construction Includes the cost of the construction contract, contingencies,

construction administration, construction observation and materials

testing

Equipment Includes the cost of any equipment that may be purchased separately

from a construction contract

FWSD Fresh Water Supply District

ID Improvement District

MUD Municipal Utility District

N/A Not Applicable or Contingency C.I.P. Number

Other A general category that may include other sources to be determined, i.e.,

bonds, capital contributions, etc.

PUD Public Utility District

SWIFT State Water Implementation Fund for Texas

TWDB Texas Water Development Board

UD Utility District

VAR Various districts or key map locations as applicable

WCID Water Control & Improvement District

# APPENDIX B PROJECT DETAIL FORMS

Project: JIMMIE SCHINDEWOLF REGIONAL PUMP STATION			District:				C.I.P. Number	2
(FORMERLY KNOWN AS SPEARS ROAD REGIONAL PUMP STATION)			VAR				C.I.F. Nulliber	-
<b>Description:</b> Planned Authorizations include replacement of Variable Frequency Dribe complete in Fiscal Year 2026.	ve (VFD) on Booster Pum	No. 2, roof and HVAC sy	stem. Replacement of	the VFD and roof are so	hedule to be complete in	n Fiscal Year 2024. Re	eplacement of the HVAC s	system is scheduled to
Category	Previous Authorizations (Thousands)			Fiscal Year Pla	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	6,033							
Design	4,149							
Construction	47,678							
Equipment								
Other	650	352		100				452
Total Authorizations	58,510	352		100				452
Source of Funds								
Revenue Bonds	54,726							
SWIFT Funds								
Participation Funds								
Remaining Funds	3,784	352		100				452
Subtotal	58,510	352		100				452
SWIFT Fund Candidate								
Other								
Subtotal								
Total Funds	58,510	352		100				452

Description: Costs provide for the design and construction of improvements at Louetta Regional Water Plant that are necessary for the operation of Project 32. The improvements include additional booster pump capacity, additional ground storage tanks, electrical, chemical and yard piping. The improvements necessary for the operation of Project 37 are scheduled to be substantially complete in Fiscal Year 2027. The improvements necessary for Project 32 are scheduled to be substantially complete in Fiscal Year 2030.

Category	Previous Authorizations (Thousands)	Fiscal Year Planned Authorizations (Thousands)								
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total		
Acquisition	955									
Design	1,655	2,125			961			3,086		
Construction	18,474		18,190				6,942	25,132		
Equipment										
Other										
Total Authorizations	21,084	2,125	18,190		961		6,942	28,218		
Source of Funds										
Revenue Bonds	21,084									
SWIFT Funds		907	18,190		961			20,058		
Participation Funds										
Remaining Funds		1,218						1,218		
Subtotal	21,084	2,125	18,190		961			21,276		
SWIFT Fund Candidate							6,942	6,942		
Other										
Subtotal							6,942	6,942		
Total Funds	21,084	2,125	18,190		961		6,942	28,218		

Project: HARDY ROAD TRANSMISSION SYSTEM

Project: Project 6B-4 (HC MUD 18)			District:				C.I.P. Number	6
Fidect. Fidect 65-4 (RC MOD 16)			VAR				C.I.F. Nulliber	0
Description: Costs provide for the real estate acquisition and construction to extend be substantially complete in Fiscal Year 2025. *HC MUD 18 will pay for half the costs		is County Regional Wat	er Authority's system to	connect to HCMUD 18.	The projects consist of	2,700 LF of 12" water	line respectively. Project	6B-4 is scheduled to
Category	Previous Authorizations (Thousands)			Fiscal Year Pl	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	4,862	229						229
Design	6,123	290						290
Construction	49,496	2,994						2,994
Equipment								
Other	53							
Total Authorizations	60,534	3,513						3,513
Source of Funds								
Revenue Bonds	44,974							
SWIFT Funds	10,078							
Participation Funds*		1,757						1,757
Remaining Funds	5,483	1,757						1,757
Subtotal	60,534	3,513						3,513
SWIFT Fund Candidate								
Other		-						
Subtotal								
Total Funds	60,534	3,513						3,513

Description: Costs provide for the real estate acquisition, desgin and construction for the transmission line and the regional pump station. The project includes a meter station site, 34,900 LF of 16°, 24" and 66" water line and a pump station site. Project 23 is scheduled to be substantially complete in Fiscal Year 2028. This project will be cost shared by the City of Houston.

\*To be funded by the City of Houston.

District:

Category	Previous Authorizations (Thousands)			Fiscal Year Pl	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	8,997	5,396	3,597					8,993
Design	6,236	13,106						13,106
Construction				141,825				141,825
Equipment								
Other								
Total Authorizations	15,233	18,502	3,597	141,825				163,924
Source of Funds								
Revenue Bonds								
SWIFT Funds	14,236	6,590	3,252	131,129				140,971
Participation Funds*	997	814	345	10,696				11,855
Remaining Funds		11,098						11,098
Subtotal	15,233	18,502	3,597	141,825				163,924
SWIFT Fund Candidate								
Other								
Subtotal								
Total Funds	15,233	18,502	3,597	141,825				163,924

C.I.P. Number

23

Project: 2025 DISTRIBUTION SYSTEM (Project 28 Series)			District:				C.I.P. Number	28
Project. 2023 DISTRIBUTION STSTEM (Project 26 Series)			VAR				C.I.F. Nulliber	20
Description: Provides funding for the construction of the remainder of Project 28 se NWHCMUD 9 and Lake Forest UD. The Project 28 series is scheduled to be substar			e and provides for the d	delivery of 1.29 MGD of	surface water to Cypres	ss Creek UD, HCMUD 2	30, Emerald Forest UD,	Wills Road MUD,
Category	Previous Authorizations (Thousands)			Fiscal Year Pl	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	6,091							
Design	12,855							
Construction	103,379	9,858						9,858
Equipment								
Other	87							
Total Authorizations	122,412	9,858						9,858
Source of Funds								
Revenue Bonds	15,290							
SWIFT Funds	85,607							
Participation Funds								
Remaining Funds	21,515	9,858						9,858
Subtotal	122,412	9,858						9,858
SWIFT Fund Candidate			,		· ·			
Other								
Subtotal								
Total Funds	122,412	9,858						9,858

			District:					
Project: 2025 DISTRIBUTION SYSTEM (Project 31 Series)			VAR				C.I.P. Number	31
Description: Provides funding for the construction of the Project 31 series. This pro Road MUD 2, White Oak Bend MUD, WHCMUD 21, HCMUD 170, HCFWSD 61, Timb						ace water to Grant Road	d PUD, Heron Lakes, Rei	d Road MUD 1, Rei
Category	Previous Authorizations (Thousands)			Fiscal Year P	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	16,163	459						459
Design	13,849							
Construction	123,455	128,941						128,941
Equipment								
Other								
Total Authorizations	153,467	129,399						129,399
Source of Funds								
Revenue Bonds								
SWIFT Funds	153,467	15,348						15,348
Participation Funds								
Remaining Funds		114,051						114,051
Subtotal	153,467	129,399						129,399
SWIFT Fund Candidate								
Other	•							
Subtotal								
Total Funds	153,467	129,399						129,399

			District:					
Project: 2025 DISTRIBUTION SYSTEM (Project 32)			VAR				C.I.P. Number	32
<b>Description:</b> Costs provide for the design and real estate acquisition of Project 32. substantially complete in Fiscal Year 2030.	This project includes app	roximately 67,230 LF of 2		nd provides for the deliv	ery of 2.02 MGD of surfa	ace water to the City of	Tomball. Project 32 is so	cheduled to be
Category	Previous Authorizations (Thousands)			Fiscal Year P	lanned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition					7,301	2,783		10,085
Design					7,407			7,407
Construction							57,607	57,607
Equipment								
Other								
Total Authorizations					14,708	2,783	57,607	75,099
Source of Funds								
Revenue Bonds								
SWIFT Funds					14,708	2,783		17,492
Participation Funds								
Remaining Funds								
Subtotal					14,708	2,783		17,492
SWIFT Fund Candidate							57,607	57,607
Other								•
Subtotal							57,607	57,607
Total Funds					14,708	2,783	57,607	75,099

Project: 2025 DISTRIBUTION SYSTEM (Project 35 Series)	District:		C.I.P. Number	35
Project. 2023 DISTRIBUTION STSTEM (Floject 33 Selies)	VAR		C.I.P. Number	33
Description: Provides funding for construction of the Project 35 series. This project	ne and provides for the	delivery of 3.76 MGD of surface water to WHCMUD 11, WHCMUD 10,	WHCMUD 9, HCMUD 1	68, NWHCMUD 29 and

HCMUD 222. The Project 35 series is scheduled to be substantially complete in Fiscal Year 2025.

Category	Previous Authorizations (Thousands)			Fiscal Year PI	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	16,082	2,301						2,301
Design	7,627	80						80
Construction	52,880	71,527						71,527
Equipment								
Other								
Total Authorizations	76,589	73,908						73,908
Source of Funds								
Revenue Bonds								
SWIFT Funds	76,589	10,468						10,468
Participation Funds								
Remaining Funds		63,440						63440
Subtotal	76,589	73,908						73,908
SWIFT Fund Candidate								
Other			·					
Subtotal								
Total Funds	76,589	73,908						73,908

Category	Previous Authorizations (Thousands)		Fiscal Year Planned Authorizations (Thousands)		
Description: Provides funding for the design, real estate acquisition and constructic HCWCID 113, HCMUD 360, HCMUD 364, HCMUD 365, NWHCMUD 10, HCMUD 38 The Project 37 series is scheduled to be substantially complete in Fiscal Year 2027.	9, NWHCMÚD 5, Aqua Te				
Project: 2025 DISTRIBUTION SYSTEM (Formullay Project 37 & 38 Series)		VAR		C.I.P. Number	37
		District:			

Category	Previous Authorizations (Thousands)			Fiscal Year Pla	anned Authorizations	(Thousands)		
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	17,492	6,896	5,874					12,770
Design	38,219	423						423
Construction			234,051					234,051
Equipment								
Other								
Total Authorizations	55,710	7,318	239,925					247,243
Source of Funds								
Revenue Bonds								
SWIFT Funds	55,710		228,560					228,560
Participation Funds								
Remaining Funds		7,318	11,365					18,683
Subtotal	55,710	7,318	239,925					247,243
SWIFT Fund Candidate								
Other								
Subtotal								
Total Funds	55,710	7,318	239,925					247,243

Project: 2025 DISTRIBUTION SYSTEM (Project 39 Series)	District:	C.I.P. Number	20
Floject. 2023 DISTRIBUTION STSTEIN (Floject 39 Series)	VAR	C.I.F. Nulliber	39

Description: Provides funding for the design, real estate acquisition and construction of the Project 39 series. This project includes 151,205 LF of 12", 16", 20", 24", 30", 36" and 42" water line and provides for the delivery of 6.13 MGD of surface water to Bridgestone MUD, Meadowhill Regional MUD, Shasla PUD, CNP UD, HCID 18, HCWCID 110, HCWCID 99, North Park PUD, Inverness Forest ID, Memorial Hills UD, Timber Lane UD, HCWCID 92, HCWCID 136, Post Wood MUD and HCMUD 43. The Project 39 series is scheduled to be substantially complete in Fiscal Year 2028.

Category	Previous Authorizations (Thousands)	Fiscal Year Planned Authorizations (Thousands)						
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition		9,052	7,332	6,246				22,630
Design		22,086						22,086
Construction				199,044				199,044
Equipment								
Other								
Total Authorizations		31,138	7,332	205,290				243,759
Source of Funds								
Revenue Bonds								
SWIFT Funds		31,138	7,332	205,290				243,759
Participation Funds								
Remaining Funds								
Subtotal		31,138	7,332	205,290				243,759
SWIFT Fund Candidate								
Other	•							•
Subtotal								
Total Funds		31,138	7,332	205,290				243,759

Project: 2025 DISTRIBUTION SYSTEM (Project 40 Series)			District:				C.I.P. Number	40		
FIGER. 2023 DISTRIBUTION STSTEM (FIGER 40 Series)			VAR				C.I.F. Nulliber	40		
Description: Provides funding for the design, real estate acquisition and constructic Road MUD and HCMUD 26. The Project 40 series is scheduled to be substantially co			025 LF of 12", 16", 20"	and 24" water line and p	provides for the delivery	of 3.03 MGD surface	water to HCMUD 82, Hunt	ers Glen MUD, Tattor		
Category	Previous Authorizations (Thousands)		Fiscal Year Planned Authorizations (Thousands)							
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total		
Acquisition				5,541	2,112			7,654		
Design				6,611				6,611		
Construction						50,359		50,359		
Equipment										
Other										
Total Authorizations				12,152	2,112	50,359		64,623		
Source of Funds										
Revenue Bonds										
SWIFT Funds				12,152	2,112	24,843		39,108		
Remaining Funds										
Participation Funds										
Subtotal				12,152	2,112	24,843		39,108		
SWIFT Fund Candidate						25,515		25,515		
Other										
Subtotal						25,515		25,515		
Total Funds				12,152	2,112	50,359		64,623		

			District:					
Project: SYSTEM IMPROVEMENTS			VAR				C.I.P. Number	100
Description: Costs provide funding for required improvements and rehabilitation to the	ne distribution system and	/or transmission system	77.4.					
Category	Previous Authorizations (Thousands)	Fiscal Year Planned Authorizations (Thousands)						
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition								
Design	810							
Construction	8,694							
Equipment								
Other	2,325	2,100	1,100	1,100	1,100	1,100		6,500
Total Authorizations	11,829	2,100	1,100	1,100	1,100	1,100		6,500
Source of Funds								
Revenue Bonds	11,829					500		500
SWIFT Funds								
Participation Funds								
Remaining Funds		2,100	1,100	1,100	1,100	600		6,000
Subtotal	11,829	2,100	1,100	1,100	1,100	1,100		6,500
SWIFT Fund Candidate	•							
Other	•							
Subtotal	•							
Total Funds	11,829	2,100	1,100	1,100	1,100	1,100		6,500

Project: CENTRAL CONTROL SYSTEM			District:				C.I.P. Number	101
Project. CENTRAL CONTROL STOTEM			VAR				C.I.F. Nulliber	101
Description: Costs provide the design and construction of the Supervisory Control a	nd Data Acquisition (SCAL	DA) System, implementation	on of an Advanced Meter	ring Infastructure (AMI) \$	System and implementa	tion of the Total Water \	visibility study.	
Category	Previous Authorizations (Thousands)	Fiscal Year Planned Authorizations (Thousands)						
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition								
Design	2,563	144						144
Construction	5,167	4,153						4,153
Equipment								
Other			100	100	100	100		400
Total Authorizations	7,730	4,297	100	100	100	100		4,697
Source of Funds								
Revenue Bonds	7,542							
SWIFT Funds								
Participation Funds								
Remaining Funds	188	4,297	100	100	100	100		4,697
Subtotal	7,730	4,297	100	100	100	100		4,697
SWIFT Fund Candidate								
Other								
Subtotal								
Total Funds	7,730	4,297	100	100	100	100		4,697

Project: TECHNICAL SUPPORT			District:				C.I.P. Number	200
Project. TECHNICAE SOFT ON			VAR		C.I.F. Number	200		
Description: Provides various support and specialty professional services such as p	orogram management, cor	rosion protections analysi	is, surge analysis, GIS a	and Technical Advisor se	ervices.			
Category	Previous Authorizations (Thousands)  Tiscal Year Planned Authorizations (Thousands)							
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition	891							
Design	42,368	2,934	2,934	2,934	2,934	2,934		14,670
Construction								
Equipment								
Other	1,107							
Total Authorizations	44,366	2,934	2,934	2,934	2,934	2,934		14,670
Source of Funds								
Revenue Bonds	44,186				1,829	2,874		4,703
SWIFT Funds	180							
Participation Funds								
Remaining Funds		2,934	2,934	2,934	1,105	60		9,967
Subtotal	44,366	2,934	2,934	2,934	2,934	2,934		14,670
SWIFT Fund Candidate								
Other								•
Subtotal								
Total Funds	44,366	2,934	2,934	2,934	2,934	2,934		14,670

Project: CONTINGENCY			District:				C.I.P. Number	N/A
•			VAR					
Description: Provides funding for costs in excess of original program estimates and	unexpected necessary ex	penses such as those to	facilitate escalation of p	rogram components, to	facilitate system operat	ions and to enable payr	nent of exceptional real e	state judgements.
Category	Previous Authorizations (Thousands)	Fiscal Year Planned Authorizations (Thousands)						
	1/1/03-12/31/23	2024	2025	2026	2027	2028	Future Authorizations	CIP Total
Acquisition								
Design								
Construction								
Equipment								
Other		5,000	5,000	5,000	5,000	5,000	5,000	30,000
Total Authorizations		5,000	5,000	5,000	5,000	5,000	5,000	30,000
Source of Funds								
Revenue Bonds								
SWIFT Funds								
Participation Funds								
Remaining Funds								
Subtotal								
SWIFT Fund Candidate								•
Other		5,000	5,000	5,000	5,000	5,000	5,000	30,000
Subtotal		5,000	5,000	5,000	5,000	5,000	5,000	30,000
Total Funds		5,000	5,000	5,000	5,000	5,000	5,000	30,000