

- ☐ Innovation
- ☐ Water MP Right Sizing
- ☒ Reliability/Redundancy
- ☐ NEWTP Repurposing

**Project Status** Active

An example interceptor



**CIP Type** Program

**Project New To CIP** ☐

**Project Engineer/Manager** Mini Panicker

**Manager** Biren Saparia

**Managing Dept** SCC

**Date Original Business Case Prepared** 10/11/2016

**Year Project Added to CIP** 2013

**Budget** Wastewater

**Class Lvl 1** Wastewater

**Class Lvl 2** Programs

**Class Lvl 3** Programs

**Location** Multiple Counties

**Fund and Cost Center** Wastewater - 5421-882301

**Project Significance** Rehabilitation and replacement program of the existing sewers and interceptors based upon structural deficiencies identified from the evaluation results. This replacement, rehabilitation and cleaning program is essential to optimize the transportation capacity of the GLWA collection system and to increase its life expectancy.

**Scope of Work** Provide CCTV and/or sonar inspection of the GLWA Collection System Interceptors and Trunk Sewers to reveal the existing conditions as per the National Association of Sewer Service Companies' (NASSCO) Pipeline Assessment Certification Program (PACP) standards, evaluate the existing conditions, and provide the necessary cleaning/rehabilitation/replace to optimize the design capacity of the collection system and to minimize the inflow and infiltration into the collection system.

**Challenges** Large sewers and interceptors may have flow control challenges for both inspection and rehabilitation.

**Project History** The installation of some of these interceptors and sewers are dated back to 1912 under various contracts. Detroit River Interceptor inspection was recently completed in 5 different phases and there were portions deteriorated with visible surface aggregates, attached encrustation and infiltration. Some trunk sewer inspection revealed sludge deposition with reduced transportation capacity. Inspections of sewers to reveal the existing conditions are necessary and shall be done every 5 to 7 years. Recommendations from these inspections may reveal further need for cleaning, rehabilitation or replacement.

**Related Project** GLWA - CON-68, CON-149, CS-168, DWSD - DWS-889, DWSD-DWS-876, DWSD-DWS-901

**Lookup Driver** 1 - Condition

**Other Important Info** n/a

**Explanation** Some sewers have sediment deposits that results in transportation capacity limitation. Some have deterioration.

**PM Weighted  
Score**

**87.6**

Criteria	Score	Comment
Condition	4	
Efficiency and Innovation	3	
Financial	4	
O&M	3	
Performance (Service Level/Reliability)	5	
Public Benefit	5	
Public Health & Safety	5	
Regulatory (Environmental/Legal)	5	

**RC Weighted  
Score**

**0**

Criteria	Score	Comment
Condition		
Efficiency and Innovation		
Financial		
O&M		
Performance (Service Level/Reliability)		
Public Benefit		
Public Health & Safety		
Regulatory (Environmental/Legal)		





GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

**Phase** Design & Construction Assistance

**Contract** CS-168

**Status** Active

**Title** CS-168, FK Engineering, Sewer and Interceptor Evaluation and Rehabilitation Program

FK Engineering Associates

**Phase Budget** Wastewater

**Cost Allocation** CTA

**Phase Status** Active

**Funding Source** Bond Proceeds

**Start Date** 9/1/2017

**Fund** Construction Bond Fund

**End Date** 9/1/2020

**Useful Life >20Yrs?** Yes

**Cost Estimation Information**

**Tot. Federal Loan Amount**

1 **Cost Est. Class**

**Cost Est. Date**

Bid **Cost Est. Source**

Mini Panicker **Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager** Biren Saparia

**CIP Number** 260202

**Description** Study, design and construction administration service to perform the as needed rehabilitation of GLWA Conveyance System Sewers. The primary objective of this project is to conduct a focused geotechnical and structural investigation and develop an array of feasible alternatives.

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY19	\$1,079			
Engineering Services	FY20	\$913			

Task	Start Date	End Date	Duration
Project Execution	9/1/2017	6/1/2020	1004
Project Closeout	6/1/2020	8/31/2020	91

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	1,079	913	0	0	0	0	0	1,992

**Phase Total Expenses By FY (All figures are in \$1,000's)**



GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

Phase Construction

Contract CS-068

Status Pending Close-out

Title CS-068, Sewer and Interceptor Evaluation and Rehabilitation Program

Sewer Inspection. Eastside Emergency Sewer Inspection  
VR02 Upgrades  
Conner CSO Backwater Upgrades (Nine)  
Installation of the Weir on Conner Discharge Channel  
Installation of Sluice Gate and control on the Discharge Channel

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Bond Proceeds

Start Date 10/25/2016

Fund Construction Bond Fund

End Date 4/25/2018

Useful Life >20Yrs? Yes

Cost Estimation Information

Tot. Federal Loan Amount

1

Cost Est. Class

Cost Est. Date

Bid

Cost Est. Source

Mini Panicker

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Biren Sapia

CIP Number 260203

Description Inspect Interceptors and Trunk Sewers for Possible Sludge Deposits and Structural Integrity.

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution	10/25/2016	3/25/2018	516
Project Closeout	10/25/2018	4/24/2018	-184

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

Phase Total Expenses By FY (All figures are in \$1,000's)



GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

**Phase** Study and Design and Construction Assistance

**Contract** PO-005030

**Status** Pending Close-out

**Title** PO-005030, Sewer and Interceptor Evaluation and Rehabilitation Program

This includes Construction assistance to CON-183 (DRI Emergency under RenCen Center)

**Phase Budget** Wastewater

**Cost Allocation** CTA

**Phase Status** Pending Close-out

**Funding Source** Bond Proceeds

**Start Date** 8/25/2016

**Fund** Construction Bond Fund

**End Date** 6/30/2018

**Useful Life >20Yrs?** Yes

**Cost Estimation Information**

**Tot. Federal Loan Amount**

1

**Cost Est. Class**

**Cost Est. Date**

**Bid**

**Cost Est. Source**

Mini Panicker

**Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager** Biren Saparia

**CIP Number** 260201

**Description** Evaluate the results of the DRI inspection, propose repair/rehabilitation alternatives and to prepare construction document for bidding purposes.

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution	8/25/2016	6/30/2018	674
Project Closeout	6/30/2018	8/29/2018	60

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	0	0	0	0	0	0

Phase Total Expenses By FY (All figures are in \$1,000's)





GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Closed Out

Funding Source

Start Date

Fund

End Date

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

Program/Allowance Task Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Construction	FY18-	\$7,822			FY18-CON-149
Construction	FY18-	\$1,324			FY18-CS-068
Engineering Services	FY18-	\$983			FY18-CON-149
Unknown	FY18-	\$3,397			FY17
GLWA Salaries CIP2020	FY18-	\$21	8		FY18

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
13,555								13,555

Phase Total Expenses By FY (All figures are in \$1,000's)



GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

Phase Construction

Contract NA

Status Future Planned Start

Title UNALLOCATED, Sewer and Interceptor Evaluation and Rehabilitation Program

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Future Planned Start

Funding Source Bond Proceeds

Start Date

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? Yes

Cost Estimation Information

Tot. Federal Loan Amount

2

Cost Est. Class

8/31/2017

Cost Est. Date

Contractor

Cost Est. Source

Biren Saparia

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Construction	FY19	\$0			
Construction	FY20	\$6,557			
Construction	FY21	\$7,600			
Construction	FY22	\$15,000			
Construction	FY23	\$15,000			
Construction	FY24	\$15,000			
Construction	FY25+	\$95,000			2020CIP

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	6,557	7,600	15,000	15,000	15,000	95,000	154,157

Phase Total Expenses By FY (All figures are in \$1,000's)





GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

Phase Construction

Contract CON-149

Status Active

Title CON-149, Emergency Sewer Repair

Conner PLC upgrades

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Active

Funding Source Bond Proceeds

Start Date 7/17/2017

Fund Construction Bond Fund

End Date 7/17/2019

Useful Life >20Yrs? Yes

Cost Estimation Information

Tot. Federal Loan Amount

1 Cost Est. Class

Program/Allowance Task Information

8/31/2017 Cost Est. Date

Project Manager Beena Chackunkal

Contractor Cost Est. Source

CIP Number

Biren Saparia Cost Est. Prepared By

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Construction	FY19	\$7,400			
Construction	FY20	\$7,400			
Construction	FY21	\$7,400			2020CIP

Task	Start Date	End Date	Duration
Project Execution	7/14/2017	5/14/2019	669
Project Closeout	5/14/2019	7/13/2019	60

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	7,400	7,400	7,400	0	0	0	0	22,200

Phase Total Expenses By FY (All figures are in \$1,000's)



GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

**Phase** Study and Design and Construction Assistance

**Contract** TBD

**Status** Future Planned Start

**Title** Sewer and Interceptor Evaluation and Rehabilitation Program

**Phase Budget** Wastewater

**Cost Allocation** CTA

**Phase Status** Future Planned Start

**Funding Source** Bond Proceeds

**Start Date**

**Fund** Construction Bond Fund

**End Date**

**Useful Life >20Yrs?** Yes

**Cost Estimation Information**

**Tot. Federal Loan Amount**

\$0

5

**Cost Est. Class**

**Cost Est. Date**

**Cost Est. Source**

**Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager**

**CIP Number**

**Description**

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
		0	0					0

Phase Total Expenses By FY (All figures are in \$1,000's)



GLWA FY 2020-2024 CIP  
Sewer and Interceptor Rehabilitation Program

260200 CIP#

Phase GLWA Employees Project management

Contract NA

Status Active

Title GLWA Salaries

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Active

Funding Source Bond Proceeds

Start Date

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? No

Cost Estimation Information

Tot. Federal Loan Amount

\$0

5

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
GLWA Salaries CIP2020	FY19	\$90	36	4	CS-168, CON-149
GLWA Salaries CIP2020	FY20	\$90	36	4	CS-168, CON-149

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	130	130	0	0	0	0	0	260

Phase Total Expenses By FY (All figures are in \$1,000's)

Project Total Expenses By FY Compared to Prior CIPs (All figures are in \$1,000's)

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2018		2,612	8,000	8,000	20,000	20,000	20,000		0	0	78,612
2019	0	3,397	7,751	10,601	10,400	11,400	11,400	11,400	11,400	0	77,749
2020	0	0	13,555	8,609	15,000	15,000	15,000	15,000	15,000	95,000	192,164