



Appendix C: Centralized Services Business Case Evaluations

Please consider the environment before printing this document.

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

Project Status Future Planned

Roof in need of repair



CIP Type Project

Project Engineer/Manager Paula Anderson

Budget Water

Manager Paula Anderson

Class Lvl 1 Centralized Services

Managing Dept Fleet and Facilities

Class Lvl 2 Facilities

Date Original Business Case Prepared 6/26/2014

Class Lvl 3 General Purpose

Year Project Added to CIP 2014

Location Multiple Counties

Fund and Cost Center

Project Significance	This CIP provides funds to replace roofing systems that are past their useful service life and thus too costly to repair. Sound roofing systems are important to protect the process infrastructure inside GLWA's buildings.
Scope of Work	This project encompasses the evaluation of all Water Treatment Plant and Booster Pump Station roofs to determine their current condition and to prioritize their repair or replacement. The project will evaluate the type of roof, built-up roofing material, flashing, roof drains/conductors and sealing materials that comprise the building envelope. The findings of the roof survey and evaluation will be used to prioritize roof repair and replacement projects for design and construction.
Challenges	Weather dependent and seasonal work. May require management of several construction projects simultaneously to complete the work. The project should include but, not be limited to the following, material testing for hazardous materials, thermal scans and condition analysis.
Project History	Majority of GLWA Water Plant facilities have Built-Up-Roof (BUR) membranes systems commonly referred as "tar and gravel" roofs. Majority of the more than 70 roofs, are over 15 years old and few are even older up to 30 years old. In many instances, inadequate roof system maintenance has been provided.
Related Project	none
Lookup Driver	1 - Condition
Other Important Info	*Innovation note: use cool roofs
Explanation	Not provided.

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	5	
Efficiency and Innovation	2	
Financial	4	
O&M	5	
Performance (Service Level/Reliability)	3	
Public Benefit	2	
Public Health & Safety	3	
Regulatory (Environmental/Legal)	4	

Project Manager Score

71.4

Review Committee Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	5	
Efficiency and Innovation	1	
Financial	1	
O&M	5	
Performance (Service Level/Reliability)	5	
Public Benefit	1	
Public Health & Safety	2	
Regulatory (Environmental/Legal)	3	

Review Committee Score

61



GLWA FY 2020-2024 CIP
Roofing Systems Replacement at Water Plants and Booster Pump Stations

331001 CIP#

Phase GLWA Employees Project management

Contract NA

Status Future Planned Start

Title GLWA Salaries

Phase Budget Water

Cost Allocation CTA

Phase Status Future Planned Start

Funding Source Bond Proceeds

Start Date

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount \$0

Cost Estimation Information

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	FY21	\$16	6	1	2020CIP
GLWA Salaries CIP2020	FY22	\$32	13	2	2020CIP
GLWA Salaries CIP2020	FY23	\$124	49	6	2020CIP
GLWA Salaries CIP2020	FY24	\$124	49	6	2020CIP

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	23	47	179	179	0	428



Roofing Systems Replacement at Water Plants and Booster Pump Stations

Phase Construction

Contract NA

Status Future Planned Start

Title Roofing Systems Replacement at Water Plants and Booster Pump Stations

Phase Budget Water

Cost Allocation CTA

Phase Status Future Planned Start

Funding Source Bond Proceeds

Start Date

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? Yes

Tot. Federal Loan Amount

Cost Estimation Information

	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
Construction	FY21	\$202			
Construction	FY22	\$328			
Construction	FY23	\$1,446			
Construction	FY24	\$1,646			
Construction	FY25+	\$1,375			2020CIP

Task	Start Date	End Date	Duration
Scope Development	6/1/2019	9/1/2019	92
Procurement	9/2/2019	3/1/2020	181
Project Execution	3/2/2020	5/23/2027	2638
Project Closeout	5/23/2027	8/21/2027	90

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	0	202	328	1,446	1,646	1,375	4,997



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		3,000	3,000	3,000	2,500				0	0	11,500	
2019	0				128	169	809	1,243	4,844	0	7,193	
2020	0	0		0	0	225	375	1,625	1,825	1,375	5,425	

Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

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

Project Status Future Planned

CIP Type Project

Photo of Complex – I
Dewatering Roof at the
WRRF.



Project Engineer/Manager Ali Khraizat

Manager Ali Khraizat

Managing Dept WW Design Eng

Date Original Business Case Prepared 8/8/2016

Year Project Added to CIP 2017

Budget Wastewater

Class Lvl 1 Centralized Services

Class Lvl 2 Facilities

Class Lvl 3 General Purpose

Location Multiple Counties

Fund and Cost Center

Project Significance Some of the roofs at GLWA WRRF facilities are near its end of useful life. The roofs help to protect the expensive equipment by preventing rain water entering through roofs into the facilities.

Scope of Work Inspect the roofing system conditions and assess drainage conditions on all the GLWA wastewater related facility buildings. Document the roofing systems inspections by taking and submitting high-quality photographs, scaled drawings, sketches, and inspection notes to adequately describe the conditions and deficiencies of the roofing systems and their drainage facilities. Recommend the extent of the roofing repairs and replacements required. Document the roof for each building inspected on the project. Classify the roofs into three (3) main categories, such as, 1) Roofs that require complete replacement, 2) Roofs that only require repair, and 3) Roofs that require no action within the next 10 years. Develop a recommended implementation/planning schedule with budgetary costs tied to the schedule for roofing system repairs and replacements that GLWA should plan for over the next 10 years. Provide preventative care suggestions for the GLWA's roofing systems evaluated under this contract. Provide any OSHA compliance suggestions that may be applicable for the GLWA's roofing systems evaluated under this contract.

Challenges Roof material testing for asbestos before demolition and flashing will be challenge to manage as low levels of asbestos are very common in the GLWA's old roof type systems.

Project History Majority of GLWA WRRF facilities have Built-Up-Roof (BUR) membranes systems commonly referred as "tar and gravel" roofs. The old Administration buildings and the Newer Administration buildings have tar and gravel type of roof systems. The CSO RTB's and SDF's have metal and shingle type of roof systems. Majority of the roofs are over 15 years old and few are even older up to 30 years. These roof systems has been maintained through regular maintenance and repair or patch work performed to fix the leaking roof spots.

Related Project CON 143:Complex-II Incineration Building Roof Replacement.



Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Lookup Driver	1 - Condition
Other Important Info	*Innovation note: Use cool roofs. Complex – II Incinerator (\$1.8M) and Complex – II Dewatering (\$1.0 M) replacement are under consideration to be part of fire remediation project
Explanation	GLWA wastewater roof systems are old and some are near end of its useful life.

Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	4	Asset has <25% of its design service life remain
Efficiency and Innovation	1	low impact on energy use & conservation
Financial	2	Project will likely result in avoidance of fines
O&M	2	Low impact on O&M
Performance (Service Level/Reliability)	4	Significant positive impact on system reliability
Public Benefit	1	Low impact on Public
Public Health & Safety	2	Moderate positive impact
Regulatory (Environmental/Legal)	4	Risk of non compliance in near term

Project Manager Score

54.6

Review Committee Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	4	
Efficiency and Innovation	1	
Financial	3	
O&M	1	
Performance (Service Level/Reliability)	4	
Public Benefit	1	
Public Health & Safety	1	
Regulatory (Environmental/Legal)	2	

Review Committee Score

43.8



Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Phase Construction**Contract** NA**Status** Future Planned Start**Title** Roofing Systems Replacement at GLWA Wastewater Treatment Plant CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)**Phase Budget** Wastewater**Cost Allocation** CTA**Phase Status** Future Planned Start**Funding Source** Bond Proceeds**Start Date** 7/3/2020**Fund** Construction Bond Fund**End Date** 6/23/2022**Useful Life >20Yrs?** Yes**Tot. Federal Loan Amount****Cost Estimation Information**

4	Cost Est. Class
10/2/2017	Cost Est. Date
	Cost Est. Source
Ali Khraizat	Cost Est. Prepared By

Program/Allowance Task Information**Project Manager****CIP Number****Description**

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Construction	FY20	\$1,000			2020CIP
Construction	FY21	\$4,000			
Construction	FY22	\$4,000			
Construction	FY23	\$41			2020CIP
Construction	FY24	\$42			2020CIP

Task	Start Date	End Date	Duration
Procurement	10/4/2020	4/2/2021	180
Project Execution	4/3/2021	4/30/2024	1123
Project Closeout	5/1/2024	6/30/2024	60

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	1,000	4,000	4,000	41	42	0	9,083



Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

Phase Study and Design and Construction Assistance**Contract** NA**Status** Active**Title** Roofing Systems Replacement at GLWA Wastewater Treatment Plant CSO Retention Treatment Basins (RTB) and Screening Disinfection Facilities (SDF)**Phase Budget** Wastewater**Cost Allocation** CTA**Phase Status** Active**Funding Source** Bond Proceeds**Start Date** 11/8/2018**Fund** Construction Bond Fund**End Date** 6/23/2022**Useful Life >20Yrs?** Yes**Tot. Federal Loan Amount****Cost Estimation Information**

3

Cost Est. Class

10/1/2017

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
Engineering Services	FY19	\$250			
Engineering Services	FY20	\$50			
Engineering Services	FY21	\$100			
Engineering Services	FY22	\$100			

Task	Start Date	End Date	Duration
Scope Development	7/1/2018	10/30/2018	121
Procurement	11/1/2018	6/9/2019	220
Project Execution	6/10/2019	4/30/2024	1786
Project Closeout	5/1/2024	6/30/2024	60

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	250	50	100	100	0	0	0	500



Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

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

Tot. Federal Loan Amount \$0

Cost Estimation Information

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	\$20	8		Eng Phase
GLWA Salaries CIP2020	FY20	\$10	4	0	Eng Phase
GLWA Salaries CIP2020	FY20	\$20	8		C Phase
GLWA Salaries CIP2020	FY21	\$10	4	0	Eng Phase
GLWA Salaries CIP2020	FY21	\$20	8		C Phase
GLWA Salaries CIP2020	FY22	\$10	4	0	Eng Phase

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	28	42	42	14	0	0	0	126

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			2,200	2,060	1,060	1,050	540	2,140	0	0	9,050
2019	0			286	709	5,575	5,114			0	11,684



Roofing Systems Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total		
2020	0	0		278	1,092	4,142	4,114	41	42	0	9,709		

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

Project Status Active

Example LED light fixture



CIP Type Project

Project Engineer/Manager TBD

Budget Water

Manager Grant Gartrell

Class Lvl 1 Centralized Services

Managing Dept Energy Management

Class Lvl 2 Energy Management

Date Original Business Case Prepared 8/4/2016

Class Lvl 3 General Purpose

Year Project Added to CIP 2017

Location Multiple Counties

Fund and Cost Center

Project Significance Energy savings, demand reduction improved visibility, safety, operational efficiency and worker productivity

Scope of Work Remove identified old fixtures and replace with new LED lamps and advanced control systems.

Challenges Some outfalls are below the river elevation; installation may be challenging.

Project History An audit was completed in 2010/2011 but little action was taken. Advancement in lighting technology since this audit has rendered it obsolete as to recent innovations, technology and cost. Across the system, equipment is in poor condition and exceeds its end of life. Some existing fixtures are antiques and compared to today's lighting, cannot meet minimum lighting standards.

A well detailed audit is to be carried out to determine the best suitable replacement lamps based on a set performance criteria, lighting controls to be incorporated and in cases where delamping might be an option, equivalent/appropriate lighting output and level is to be maintained per task/space requirements

Related Project Re lamp of Conner Creek and part of Northeast for safety issues.

Lookup Driver 8 - Efficiency

Other Important Info n/a

Explanation Technology of LED lamps and associated fixtures will reduce electrical operating expenses and improve worker safety.

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	5	
Efficiency and Innovation	5	
Financial	5	
O&M	1	
Performance (Service Level/Reliability)	5	
Public Benefit	3	
Public Health & Safety	4	
Regulatory (Environmental/Legal)	3	

Project Manager Score

77.4

Review Committee Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	3	
Efficiency and Innovation	4	
Financial	3	
O&M	4	
Performance (Service Level/Reliability)	3	
Public Benefit	1	
Public Health & Safety	3	
Regulatory (Environmental/Legal)	3	

Review Committee Score

60.8



GLWA FY 2020-2024 CIP Water Facility Lighting Renovations

351001 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses

Phase Budget	Water
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Cost Allocation	CTA
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Phase Status Closed Out

Funding Source	Amount
State of Michigan	\$1,000,000
Federal Government	\$500,000
Private Foundations	\$250,000
Local Businesses	\$100,000
Individual Donations	\$50,000
Grants	\$20,000
Other	\$10,000
Total	\$1,930,000

Start Date	
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Fund	
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End Date	
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Useful Life >20Yrs?

Tot. Federal Loan Amount	\$0
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Cost Estimation Information

	1	Cost Est. Class
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Cost Est. Date

	Cost Est. Source
1. Direct materials	
2. Direct labor	
3. Manufacturing overhead	
4. Selling and administrative expenses	
5. Interest expense	
6. Income taxes	
7. Other	
8. Total	

Cost Est. Prepared By _____

Program/Allowance Task Information

Project Manager

CIP Number	
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Description

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



GLWA FY 2020-2024 CIP

Water Facility Lighting Renovations

351001 CIP#

Phase Design and Build

Contract TBD

Status Active

Title Water Facility Lighting Renovations

Possible Michael Graham has been assigned to manage?

Phase Budget Water

Cost Allocation CTA

Phase Status Active

Funding Source Bond Proceeds

Start Date 5/24/2016

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? Yes

Tot. Federal Loan Amount

Cost Estimation Information

2 **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
Design-Build	FY19	\$250			
Design-Build	FY20	\$250			

Task	Start Date	End Date	Duration
Scope Development	5/21/2017	6/30/2017	40
Procurement	8/8/2017	1/5/2018	150
Project Execution	1/5/2018		
Project Closeout			

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	250	250	0	0	0	0	0	500

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			933	933	933				0	0	2,799



GLWA FY 2020-2024 CIP

Water Facility Lighting Renovations

351001 CIP#

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total		
2019	0		2	1,172	1,600					0	2,774		
2020	0	0		250	250	0	0	0	0	0	500		

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

Project Status Pending Closeout

A system control room



CIP Type Project

Project Engineer/Manager Biren Saparia

Budget Split

Manager Biren Saparia

Class Lvl 1 Centralized Services

Managing Dept SCC

Class Lvl 2 Engineering

Date Original Business Case Prepared

Class Lvl 3 General Purpose

Year Project Added to CIP 2006

Location City of Detroit

Fund and Cost Center

Project Significance Provide reliability, redundancy and improved functionality to department-wide Process Control System.

Scope of Work This project involves integrating the control and monitoring network throughout all of the facilities with the new SCADA system installed under PC-713. The work includes control system hardware, software, and firmware upgrade or replacement, troubleshooting, installation, start-up, testing, and repair services.

Challenges N/A - Pending Closeout

Project History

Related Project

Lookup Driver N/A - Pending Closeout

Other Important Info

Explanation N/A - Pending Closeout



GLWA FY 2020-2024 CIP
Consolidated Process Control System Upgrades

361001 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1

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
Construction	FY18-	\$143			FY18
Unknown	FY18-	\$165			FY16
Unknown	FY18-	\$8			FY17

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
316								316



GLWA FY 2020-2024 CIP
Consolidated Process Control System Upgrades

361001 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-Wtr

Phase BudgetWater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1

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
Construction	FY18-	\$166			FY18
Unknown	FY18-	\$36			FY16
Unknown	FY18-	\$110			FY17

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
312								312



GLWA FY 2020-2024 CIP
Consolidated Process Control System Upgrades

361001 CIP#

Phase GLWA Employees Project management

Contract NA

Status Pending Close-out

Title GLWA Salaries

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Bond Proceeds

Start Date

Fund Construction Bond Fund

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount \$0

Cost Estimation Information

5 Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

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

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

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	3928	640							0	0	4,568
2019	0	321								0	321
2020	0	0	628	0	0	0	0	0	0	0	628



GLWA FY 2020-2024 CIP
Data Center Reliability/Availability Improvements

361002 CIP#

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

Project Statu Pending Closeout

CIP Type Project

Project Engineer/Manager Biren Saparia

Manager Biren Saparia

Managing Dept SCC

Date Original Business Case Prepared

Year Project Added to CIP 2009

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Engineering

Class Lvl 3 General Purpose

Location City of Detroit

Fund and Cost Center

Project Significance N/A - Pending Closeout

Scope of Work N/A - Pending Closeout

Challenges N/A - Pending Closeout

Project History

Related Project

Lookup Driver N/A - Pending Closeout

Other Important Info

Explanation N/A - Pending Closeout



GLWA FY 2020-2024 CIP
Data Center Reliability/Availability Improvements

361002 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-WW

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

1	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
Unknown	FY18-	\$17			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
17								17



GLWA FY 2020-2024 CIP
Data Center Reliability/Availability Improvements

361002 CIP#

Phase Design and Build

Contract DWS-881

Status Pending Close-out

Title DWS-881 Data Center Reliability/Availability Improvements: Water

Phase Budget Water

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Revenue Financed Capital

Start Date 1/29/2013

Fund Improvement & Extension Fun

End Date 2/27/2016

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

1 **Cost Est. Class**

9/15/2017 **Cost Est. Date**

Contractor **Cost Est. Source**

Biren Saparia **Cost Est. Prepared By**

Program/Allowance Task Information

Project Manager

CIP Number

Description

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout			

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



GLWA FY 2020-2024 CIP
Data Center Reliability/Availability Improvements

361002 CIP#

Phase Design and Build

Contract DWS-881

Status Pending Close-out

Title DWS-881 Data Center Reliability/Availability Improvements: WW

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Revenue Financed Capital

Start Date 1/29/2013

Fund Improvement & Extension Fun

End Date 2/27/2016

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

1	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Program/Allowance Task Information

Project Manager	
CIP Number	
Description	

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout			

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



GLWA FY 2020-2024 CIP
Data Center Reliability/Availability Improvements

361002 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-Wtr

Phase Budget Water

Cost Allocation CTA

Phase Status Closed Out

Funding Source

Start Date

Fund

End Date

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1 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
Unknown	FY18-	\$16			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
16								16

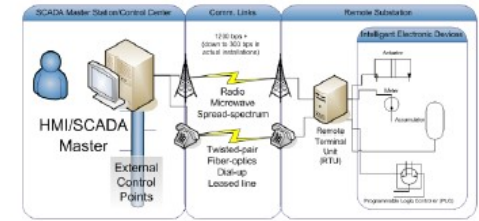
Project Total Expenses By FY Compared to Prior CIPs (All figures are in \$1,000's)

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2018	6004	10							0	0	6,014
2019	0	33								0	33
2020	0	0	33	0	0	0	0	0	0	0	33

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

Project Status Pending Closeout

CIP Type Project



Project Engineer/Manager Biren Saparia

Manager Biren Saparia

Managing Dept SCC

Date Original Business Case Prepared

Year Project Added to CIP 2009

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Engineering

Class Lvl 3 General Purpose

Location Multiple Counties

Fund and Cost Center

Project Significance N/A - Pending Closeout

Scope of Work N/A - Pending Closeout

Challenges N/A - Pending Closeout

Project History

Related Project

Lookup Driver N/A - Pending Closeout

Other Important Info

Explanation N/A - Pending Closeout



GLWA FY 2020-2024 CIP
SCADA Radio Network Upgrade

361003 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1

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
Unknown	FY18-	\$236			FY17
Unknown	FY18-	\$255			FY16
Unknown	FY18-	\$362			Pre-Bifurcation

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
853								853



GLWA FY 2020-2024 CIP
SCADA Radio Network Upgrade

361003 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-Wtr

Phase BudgetWater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Unknown	FY18-	\$251			FY16
Unknown	FY18-	\$216			FY17

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
467								467



GLWA FY 2020-2024 CIP
SCADA Radio Network Upgrade

361003 CIP#

Phase Design and Build Contract DWS-882 Status Pending Close-out

Title DWS-882 SCADA Radio Network Upgrade: Water

Phase Budget

Water

Phase Status

Pending Close-out

Start Date

3/26/2013

End Date

9/30/2016

Cost Allocation

CTA

Funding Source

Bond Proceeds

Fund

Construction Bond Fund

Useful Life >20Yrs?

Yes

Cost Estimation Information

1

Cost Est. Class

9/15/2017

Cost Est. Date

Contractor

Cost Est. Source

Biren Saparia

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution	1/1/2017	1/2/2017	1
Project Closeout	1/3/2017	4/3/2017	90

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

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



GLWA FY 2020-2024 CIP
SCADA Radio Network Upgrade

361003 CIP#

Phase Design and Build **Contract** DWS-882 **Status** Pending Close-out

Title DWS-882 SCADA Radio Network Upgrade: Wastewater

Phase Budget	<input type="text" value="Wastewater"/>	Cost Allocation	<input type="text" value="CTA"/>
Phase Status	<input type="text" value="Pending Close-out"/>	Funding Source	<input type="text" value="Bond Proceeds"/>
Start Date	<input type="text" value="3/26/2013"/>	Fund	<input type="text" value="Construction Bond Fund"/>
End Date	<input type="text" value="9/30/2016"/>	Useful Life >20Yrs?	<input type="text" value="Yes"/>

Cost Estimation Information	
<input type="text" value="1"/>	Cost Est. Class
<input type="text"/>	Cost Est. Date
<input type="text"/>	Cost Est. Source
<input type="text"/>	Cost Est. Prepared By

Tot. Federal Loan Amount	<input type="text"/>
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Program/Allowance Task Information	
Project Manager	<input type="text"/>
CIP Number	<input type="text"/>
Description	<input type="text"/>

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout			

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



GLWA FY 2020-2024 CIP
SCADA Radio Network Upgrade

361003 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

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	6221	218							0	0	6,439
2019	0	1,319	60							0	1,379
2020	0	0	1,320	0	0	0	0	0	0	0	1,320

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

Project Status Active

Make a Plan



CIP Type Allowance

Project Engineer/Manager Gaylor Johnson / Dan Edwards

Manager Ali Khraizat

Managing Dept WW Design Eng

Date Original Business Case Prepared

Year Project Added to CIP 2002

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center Wastewater - 5421-892111

Project Significance The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of work, basis of process design, performance criteria, minimum standards of quality, and preliminary design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services.

Scope of Work This project provides for multi-discipline Engineering services on an "as-needed basis" to support GLWA's Water & Sewer Systems. The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling services; claims/changes analysis and resolution; technical training; value engineering (VE) services on selected design projects; develop engineering study reports; identify minimum requirements, scope of work, basis of process design, performance criteria, minimum standards of quality, and preliminary design and oversight services for design/build contracts; proposal analysis assistance; engineering forensic analysis, and additional program support services.

Challenges N/A - Active

Project History



GLWA FY 2020-2024 CIP
As-needed CIP Implementation Assistance and Related Services

380400 CIP#

Related Project CS-1433, CS-166, CS-189

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active



GLWA FY 2020-2024 CIP
As-needed CIP Implementation Assistance and Related Services

380400 CIP#

Phase Study and Design and Construction Assistance

Contract CS-166

Status Active

Title CS-166 WW - Capital Improvement Program (CIP) Implementation Assistance and Related Services

Services on proposed GLWA Contract No. CS 166 will be provided on a task order basis, over a three (3) year period. A task order contract is a contract for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract. The services provided under this contract support GLWA in consistently honoring the commitments it makes to regulatory agencies, customers, and others. The services provided by the consultant will supplement existing GLWA staff or consultant activities, which are focused on procuring and administering contracts for individual capital projects. The consultant secured for this contract will act as an Agent for GLWA. For that reason, the consultant is precluded from bidding/proposing as a prime or sub-contractor on any GLWA projects that the consultant participates in the scope development for the duration of this contract. GLWA Contract No. CS-166 will replace CS-1433, As-Needed Capital Improvement Program (CIP) Implementation Assistance and Related Services, which expired on July 24, 2017. Contract No. CS-189, Job Order Contracting – Project Delivery Assistance, scheduled to expire July 24, 2018, was executed as a short term solution to assure tasks under CS-1433 were completed seamlessly, allowing time to competitively bid the request for services. GLWA required these consulting services contract, to provide specialized expertise in rapid and flexible project delivery methods such as design/build, program management, and job order contracting.

Phase Budget Wastewater

Phase Status Active

Start Date

End Date

Cost Allocation CTA

Funding Source Revenue Financed Capital

Fund Improvement & Extension Fun

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Ali Khraizat

CIP Number 380402

Description

The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling



GLWA FY 2020-2024 CIP
As-needed CIP Implementation Assistance and Related Services

380400 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-Wtr

Phase BudgetWater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?No

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY18-	\$105			FY18 CS-166

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
105								105



GLWA FY 2020-2024 CIP
As-needed CIP Implementation Assistance and Related Services

380400 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?No

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY18-	\$105			FY18 CS-166

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
105								105



GLWA FY 2020-2024 CIP
As-needed CIP Implementation Assistance and Related Services

380400 CIP#

Phase Study and Design and Construction Management Contract CS-1433 Status Closed Out
Title CS-1433 As-needed CIP Implementation Assistance and Related Services

Phase Budget	Wastewater	Cost Allocation	CTA
Phase Status	Closed Out	Funding Source	Revenue Financed Capital
Start Date	3/24/2006	Fund	Improvement & Extension Fun
End Date	7/24/2017	Useful Life >20Yrs?	No

Cost Estimation Information	
	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Tot. Federal Loan Amount	
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Program/Allowance Task Information	
Project Manager	
CIP Number	380401
Description	

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout			

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



As-needed CIP Implementation Assistance and Related Services

Phase Study and Design and Construction Assistance**Contract** CS-166**Status** Under Procurement**Title** CS-166 Wtr - Capital Improvement Program (CIP) Implementation Assistance and Related Services

Services on proposed GLWA Contract No. CS 166 will be provided on a task order basis, over a three (3) year period. A task order contract is a contract for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract. The services provided under this contract support GLWA in consistently honoring the commitments it makes to regulatory agencies, customers, and others. The services provided by the consultant will supplement existing GLWA staff or consultant activities, which are focused on procuring and administering contracts for individual capital projects. The consultant secured for this contract will act as an Agent for GLWA. For that reason, the consultant is precluded from bidding/proposing as a prime or sub-contractor on any GLWA projects that the consultant participates in the scope development for the duration of this contract. GLWA Contract No. CS-166 will replace CS-1433, As-Needed Capital Improvement Program (CIP) Implementation Assistance and Related Services, which expired on July 24, 2017. Contract No. CS-189, Job Order Contracting – Project Delivery Assistance, scheduled to expire July 24, 2018, was executed as a short term solution to assure tasks under CS-1433 were completed seamlessly, allowing time to competitively bid the request for services. GLWA required these consulting services contract, to provide specialized expertise in rapid and flexible project delivery methods such as design/build, program management, and job order contracting.

Phase Budget Water**Phase Status** Under Procurement**Start Date****End Date****Cost Allocation** CTA**Funding Source** Revenue Financed Capital**Fund** Improvement & Extension Fun**Useful Life >20Yrs?** No**Tot. Federal Loan Amount****Cost Estimation Information**

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information**Project Manager** Grant Gartrell**CIP Number** 380402**Description**

The purpose of this proposed contract is to provide implementation assistance and related services on a task order basis to support the GLWA. The services provided under this contract include assistance in capital projects definition and planning, design and construction phase procurement assistance and monitoring; third party contract administration/oversight assistance/scheduling

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

Project Status Pending Closeout

CIP Type Allowance

Example of pipe being
laid



Project Engineer/Manager Beena Chackunkal

Manager Ali Khraizat

Managing Dept WW Design Eng

Date Original Business Case Prepared

Year Project Added to CIP 2004

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance Various engineering as needed services for design and replacement of aging water and sewer lines.

Scope of Work This project involves designing water main and lateral sewer replacement projects for aging and dysfunctional water mains and sewers throughout the system and several projects at the WRRF under different tasks on an as-needed basis. The work also includes civil, structural, architectural, hydraulics, mechanical, electrical, surveying, instrumentation and piping design services.

Challenges

Project History

Related Project

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active



GLWA FY 2020-2024 CIP
Wastewater General Engineering Services on an As-needed Basis

380500 CIP#

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	1	
Efficiency and Innovation	1	
Financial	1	
O&M	1	
Performance (Service Level/Reliability)	1	
Public Benefit	1	
Public Health & Safety	1	
Regulatory (Environmental/Legal)	1	

Project Manager Score

20

Review Committee Project Risk Matrix Scoring

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

Review Committee Score

0



GLWA FY 2020-2024 CIP
Wastewater General Engineering Services on an As-needed Basis

380500 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-Wtr

Phase Budget

Water

Phase Status

Closed Out

Start Date

End Date

Cost Allocation

CTA

Funding Source

Fund

Useful Life >20Yrs?

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY18-	\$132			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
132								132



GLWA FY 2020-2024 CIP
Wastewater General Engineering Services on an As-needed Basis

380500 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY18-	\$148			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
148								148



GLWA FY 2020-2024 CIP
Wastewater General Engineering Services on an As-needed Basis

380500 CIP#

Phase Study and Design and Construction Assistance

Contract CS-1499

Status Active

Title CS-1499 Wastewater General Engineering Services on an As-needed Basis (CS-1499 METCO)

Currently most of the tasks are for Wastewater projects.

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Active

Funding Source Revenue Financed Capital

Start Date 5/12/2010

Fund Improvement & Extension Fun

End Date 6/2/2018

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

2 **Cost Est. Class**

Cost Est. Date

Contract **Cost Est. Source**

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Ali Khraizat

CIP Number 380501

Description

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout	1/9/2020	3/9/2020	60

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

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



GLWA FY 2020-2024 CIP
Wastewater General Engineering Services on an As-needed Basis

380500 CIP#

Phase Design

Contract NA

Status Active

Title Department-wide General Engineering Services on an As-needed Basis

Phase Budget Water

Cost Allocation CTA

Phase Status Active

Funding Source Revenue Financed Capital

Start Date 5/12/2010

Fund Improvement & Extension Fun

End Date 6/2/2018

Useful Life >20Yrs? No

Tot. Federal Loan Amount \$0

Cost Estimation Information

	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Program/Allowance Task Information

Project Manager	
CIP Number	
Description	

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	10064	228	228						0	0	10,520
2019	0	282	114	114	91					0	601
2020	0	0	280	0	0	0	0	0	0	0	280

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

Project Status Active

CIP Type Allowance



Project Engineer/Manager Grant Gartrell

Manager Grant Gartrell

Managing Dept Water Eng

Date Original Business Case Prepared

Year Project Added to CIP 2004

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance Allowance for the study and design of critical projects throughout the system prior to bidding and construction.

Scope of Work As-needed engineering services for water and wastewater engineering.

Challenges N/A - Active

Project History

Related Project

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	3	
Efficiency and Innovation	1	
Financial	1	
O&M	2	
Performance (Service Level/Reliability)	3	
Public Benefit	1	
Public Health & Safety	3	
Regulatory (Environmental/Legal)	1	

Project Manager Score

39.8

Review Committee Project Risk Matrix Scoring

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

Review Committee Score

0



GLWA FY 2020-2024 CIP
As-Needed General Engineering Services

380600 CIP#

Phase not applicable Contract NA Status Closed Out

Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1

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
Unknown	FY18-	\$158			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
158								158



GLWA FY 2020-2024 CIP
As-Needed General Engineering Services

380600 CIP#

Phase Design Contract CS-1432A Status Active
Title CS-1432A Water As-Needed Engineering Services

Phase Budget	Water	Cost Allocation	CTA
Phase Status	Active	Funding Source	Revenue Financed Capital
Start Date	1/23/2008	Fund	Improvement & Extension Fun
End Date	12/12/2018	Useful Life >20Yrs?	No

Cost Estimation Information	
5	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Tot. Federal Loan Amount	
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Program/Allowance Task Information	
Project Manager	Beena Chackunkal
CIP Number	380601
Description	Alfred Benesh

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY19	\$94			

Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	94	0	0	0	0	0	0	94



GLWA FY 2020-2024 CIP
As-Needed General Engineering Services

380600 CIP#

Phase Design Contract CS-1432A Status Active
Title CS-1432A Wastewater As-Needed Engineering Services

Phase Budget Wastewater

Phase Status Active

Start Date 1/23/2008

End Date 12/12/2018

Cost Allocation CTA

Funding Source Revenue Financed Capital

Fund Improvement & Extension Fun

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

5	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Beena Chackunkal

CIP Number 380601

Description Alfred Benesh

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

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



GLWA FY 2020-2024 CIP
As-Needed General Engineering Services

380600 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-Wtr

Phase Budget Water

Cost Allocation CTA

Phase Status Closed Out

Funding Source

Start Date

Fund

End Date

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1 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
Unknown	FY18-	\$158			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
158								158

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	14012	446	436	386					0	0	15,280
2019	0	316	406	327	50					0	1,099
2020	0	0	316	94	0	0	0	0	0	0	410

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

Project Status Active

CIP Type Allowance

Example of testing
being performed



Project Engineer/Manager Peter Fromm

Manager Grant Gartrell

Managing Dept Water Eng

Date Original Business Case Prepared

Year Project Added to CIP 2006

Budget Water

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance Design of Telegraph Rd, Wick Rd, Park-Merriman, & Schoolcraft water main projects.

Scope of Work Project utilized as the design mechanism for the Telegraph Road, Wick Road, Park-Merriman, and Schoolcraft water main projects. Also, contract has provisions for the as-needed services associated with pipeline construction projects such as testing, staking, and inspection.

Challenges N/A - Active

Project History

Related Project

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active



GLWA FY 2020-2024 CIP
As-Needed Geotechnical and Related Engineering Services

380700 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-Wtr

Phase Budget Water

Phase Status Closed Out

Start Date

End Date

Cost Allocation CTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1	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
Unknown	FY18-	\$115			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
115								115



GLWA FY 2020-2024 CIP
As-Needed Geotechnical and Related Engineering Services

380700 CIP#

Phase Construction

Contract CS-1488

Status Active

Title CS-1488 Engineering Services, Concrete Testing and Soil Borings

Phase Budget Water

Cost Allocation CTA

Phase Status Active

Funding Source Revenue Financed Capital

Start Date 4/8/2009

Fund Improvement & Extension Fun

End Date 4/8/2021

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

Cost Est. Class
Cost Est. Date
Cost Est. Source
Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Grant Gartrell
CIP Number 380701
Description Engineering Services, Concrete Testing and Soil Borings (CS-1488)

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY19	\$620			

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution	6/1/2016	4/30/2020	1429
Project Closeout	5/1/2020	7/30/2020	90

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	620	0	0	0	0	0	0	620



GLWA FY 2020-2024 CIP
As-Needed Geotechnical and Related Engineering Services

380700 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-WW

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

1 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
Unknown	FY18-	\$115			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
115								115

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		650	907	333	333	333			0	0	2,556
2019	0	230	238	477	477	477	238			0	2,137
2020	0	0	230	620	0	0	0	0	0	0	850

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

Project Status Pending Closeout

CIP Type Allowance

Example of a pipe
being laid



Project Engineer/Manager Grant Gartrell

Manager Grant Gartrell

Managing Dept Water Eng

Date Original Business Case Prepared

Year Project Added to CIP 2007

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance As Needed geotechnical consulting services.

Scope of Work The work includes consultant services for geotechnical work on as-needed basis. The work also provides for additional engineering/ technical services as requested.

Challenges N/A - Pending Closeout

Project History

Related Project

Lookup Driver N/A - Pending Closeout

Other Important Info

Explanation N/A - Pending Closeout



GLWA FY 2020-2024 CIP
Geotechnical and Related Services on an As-Needed Basis

380800 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-Wtr

Phase Budget Water

Cost Allocation CTA

Phase Status Closed Out

Funding Source

Start Date

Fund

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

1 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
Unknown	FY18-	\$82			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
82								82



GLWA FY 2020-2024 CIP
Geotechnical and Related Services on an As-Needed Basis

380800 CIP#

Phase Design

Contract CS-1490

Status Pending Close-out

Title CS-1490: NTH Consultants: As-Needed Geotechnical Services:Wtr

Phase Budget Water

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Revenue Financed Capital

Start Date 1/14/2010

Fund Improvement & Extension Fun

End Date 7/14/2016

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

5 Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Grant Gartrell

CIP Number 380801

Description As-Needed Geotechnical Services

Task	Start Date	End Date	Duration
Scope Development			
Procurement			
Project Execution			
Project Closeout			

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

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



GLWA FY 2020-2024 CIP
Geotechnical and Related Services on an As-Needed Basis

380800 CIP#

Phase Design

Contract CS-1490

Status Pending Close-out

Title CS-1490: NTH Consultants: As-Needed Geotechnical Services:WW

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Revenue Financed Capital

Start Date 1/14/2010

Fund Improvement & Extension Fun

End Date 7/14/2016

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

5 Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager Grant Gartrell

CIP Number 380801

Description As-Needed Geotechnical Services

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

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



GLWA FY 2020-2024 CIP
Geotechnical and Related Services on an As-Needed Basis

380800 CIP#

Phase GLWA Employees Project management

Contract NA

Status Pending Close-out

Title GLWA Salaries

Phase Budget Water

Cost Allocation CTA

Phase Status Pending Close-out

Funding Source Revenue Financed Capital

Start Date

Fund Improvement & Extension Fun

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount \$0

Cost Estimation Information

5 Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

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



GLWA FY 2020-2024 CIP
Geotechnical and Related Services on an As-Needed Basis

380800 CIP#

Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-WW

Phase Budget Wastewater

Cost Allocation CTA

Phase Status Closed Out

Funding Source

Start Date

Fund

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount

Cost Estimation Information

1 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
Unknown	FY18-	\$82			FY16

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
82								82

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	2441	132							0	0	2,573
2019	0	164								0	164
2020	0	0	164	0							164

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

Project Status Pending Closeout

Analytical Lab

CIP Type Allowance



Project Engineer/Manager Beena Chackunkal

Manager Ali Khraizat

Managing Dept WW Design Eng

Date Original Business Case Prepared

Year Project Added to CIP 2007

Budget Wastewater

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance As needed multi-discipline engineering services for various small scale projects at WTP and WRRF.

Scope of Work This project provides for rapid design turn-around for a variety of projects on an as-needed basis providing multi-disciplinary professional services including meter pit improvement services.

Challenges N/A - Active

Project History

Related Project

Lookup Driver N/A - Active

Other Important Info

Explanation N/A - Active

Project Manager Project Risk Matrix Scoring

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

Project Manager Score

100

Review Committee Project Risk Matrix Scoring

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

Review Committee Score

0



Phase not applicable

Contract NA

Status Closed Out

Title Prior Year Actual Expenses-Wtr

Phase Budget

Water

Phase Status

Closed Out

Start Date

End Date

Cost Allocation

CTA

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

1

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
Unknown	FY18-	\$75			FY16
GLWA Salaries CIP2020	FY18-	\$4	2	0	FY18

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

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
81								81



GLWA FY 2020-2024 CIP
General Engineering Services

380900 CIP#

Phase Study and Design and Construction Assistance

Contract NA

Status Active

Title General Engineering Services

Phase Budget	Water
Phase Status	Active
Start Date	3/27/2008
End Date	3/27/2018

Cost Allocation	CTA
Funding Source	Revenue Financed Capital
Fund	Improvement & Extension Fun
Useful Life >20Yrs?	No
Tot. Federal Loan Amount	\$0

Cost Estimation Information

	Cost Est. Class
	Cost Est. Date
	Cost Est. Source
	Cost Est. Prepared By

Program/Allowance Task Information

Project Manager	
CIP Number	
Description	

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



GLWA FY 2020-2024 CIP
General Engineering Services

380900 CIP#

Phase Study and Design and Construction Assistance **Contract** CS-1481 **Status** Active
Title CS-1481 Sigma General Engineering Services

Currently most of the projects are for Wastewater Services.

Phase Budget	<input type="text" value="Wastewater"/>	Cost Allocation	<input type="text" value="CTA"/>
Phase Status	<input type="text" value="Active"/>	Funding Source	<input type="text" value="Revenue Financed Capital"/>
Start Date	<input type="text" value="3/27/2008"/>	Fund	<input type="text" value="Improvement & Extension Fun"/>
End Date	<input type="text" value="3/27/2018"/>	Useful Life >20Yrs?	<input type="text" value="No"/>
		Tot. Federal Loan Amount	<input type="text"/>

Cost Estimation Information

<input type="text" value="2"/>	Cost Est. Class
<input type="text"/>	Cost Est. Date
<input type="text" value="Contract"/>	Cost Est. Source
<input type="text"/>	Cost Est. Prepared By

Program/Allowance Task Information

Project Manager	<input type="text" value="Beena Chackunkal"/>
CIP Number	<input type="text" value="380901"/>
Description	<input type="text"/>

Task	Start Date	End Date	Duration
Project Closeout	3/28/2021	5/27/2021	60

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

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



GLWA FY 2020-2024 CIP
General Engineering Services

380900 CIP#

Phase not applicable Contract NA Status Closed Out
Title Prior Year Actual Expenses-WW

Phase BudgetWastewater

Phase StatusClosed Out

Start Date

End Date

Cost AllocationCTA

Funding Source

Fund

Useful Life >20Yrs?

Cost Estimation Information

1

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Tot. Federal Loan Amount

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Unknown	FY18-	\$63			FY16

Phase Total Expenses By FY (All figures are in \$1,000's)								
Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
63								63



GLWA FY 2020-2024 CIP
General Engineering Services

380900 CIP#

Phase GLWA Employees Project management

Contract NA

Status Active

Title GLWA Salaries

Phase Budget Water

Cost Allocation CTA

Phase Status Active

Funding Source Revenue Financed Capital

Start Date

Fund Improvement & Extension Fun

End Date

Useful Life >20Yrs? No

Tot. Federal Loan Amount \$0

Cost Estimation Information

5 Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

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

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

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	28	1,250	1,154						0	0	2,432
2019	0	138	572	916	425					0	2,051
2020	0	0	144	0	0	0	0	0	0	0	144

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

Project Status Future Planned

CIP Type Program

Example of an electric meter



Project Engineer/Manager Shaker Manns

Manager Grant Gartrell

Managing Dept Energy Management

Date Original Business Case Prepared 8/18/2016

Year Project Added to CIP 2016

Budget Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

Location Multiple Counties

Fund and Cost Center

Project Significance Advanced meters for measuring power usage in real-time to reduce the electrical demands and further optimize load management practices

Scope of Work This program will increase the number of electric meters at pumping stations and treatment facilities to allow for active demand management to reduce electricity rates. The meters can be tied to the existing data management system for data archiving and use.

Challenges

Project History Project is in the works targeting high demand (kW) sites - all the water treatment plants (Phase 1)

Related Project Completed Adams Road booster station install as a pilot piece

Lookup Driver

Other Important Info

Explanation



GLWA FY 2020-2024 CIP
Energy Management: Electric Metering Improvement Program

381000 CIP#

Project Manager Project Risk Matrix Scoring

Criteria	Score	Comment
Condition	4	
Efficiency and Innovation	5	
Financial	3	
O&M	2	
Performance (Service Level/Reliability)	5	
Public Benefit	4	
Public Health & Safety	1	
Regulatory (Environmental/Legal)	3	

Project Manager Score

64.6

Review Committee Project Risk Matrix Scoring

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

Review Committee Score

0

