



331001 CIP#

## Roofing Systems Replacement at Water Plants and Booster Pump Stations

| ✓ Innovation         | Project Status Cancelled  | Roof in need of repo  | air  |
|----------------------|---|---|--|
| ☐ Conceptual WW I    | CIP Type Project  |   | N N  |
| ☐ Water MP Right Siz |   |   |  |
| ☐ Reliability/Redund | dancy Project New To CIP  |   |  |
| ☐ NEWTP Repurposin   | ng  |   |  |
| Project Engineer/May | nagor Paula Andorson  | Budget  |  |
|                      | nager Paula Anderson<br>rector Paula Anderson   |   | Centralized Services   |
|                      |   | Class Lvl 2   |  |
|                      | Dept Fleet and Facilities   |   | General Purpose  |
|                      | ss Case Prepared 6/26/2014  |   | Multiple Counties  |
| rear Proje           | ect Added to CIP 2014   | Fund and Cost Center  |  |
| Problem Statement    | This CIP provides funds to replace roofing systems repair. Sound roofing systems are important to pro   | •   | •  |
|                      | This project encompasses the evaluation of all Wadetermine their current condition and to prioritize of roof, built-up roofing material, flashing, roof droenvelope. The findings of the roof survey and evaluation of the roof survey and evaluation of the roof survey and evaluation.                        | e their repair or replacem<br>ains/conductors and sea   | ent. The project will evaluate the type ling materials that comprise the building                      |
| Other Important Info | *Innovation note: use cool roofs.   |   |  |
|                      | Project History: Majority of GLWA Water Plant facing referred as "tar and gravel" roofs. Majority of the older up to 30 years old. In many instances, inade Challenges: Weather dependent and seasonal water simultaneously to complete the work. The project testing for hazardous materials, thermal scans an | more than 70 roofs, are dequate roof system mains work. May require manages to should include but, not be | over 15 years old and few are even tenance has been provided.  gement of several construction projects |
| Related Project      | none  |   |  |
| Primary Driver       | 1 - Condition   |   |  |
| Driver Explanation   | Not provided.   |   |  |



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## Roofing Systems Replacement at Water Plants and Booster Pump Stations

PM Weighted Score

71.4

| Criteria                                | Score | Comment |
|---|-------|---------|
| Regulatory (Environmental/Legal)        | 4     |         |
| Public Benefit                          | 2     |         |
| Efficiency and Innovation               | 2     |         |
| Financial                               | 4     |         |
| Operations and Maintenance              | 5     |         |
| Performance (Service Level/Reliability) | 3     |         |
| Condition                               | 5     |         |
| Public Health and Safety                | 3     |         |
|   |       |         |

RC Weighted Score

61

| Criteria                                | Score | Comment |
|---|-------|---------|
| Condition                               | 5     |         |
| Public Benefit                          | 1     |         |
| Public Health and Safety                | 2     |         |
| Operations and Maintenance              | 5     |         |
| Regulatory (Environmental/Legal)        | 3     |         |
| Financial                               | 1     |         |
| Performance (Service Level/Reliability) | 5     |         |
| Efficiency and Innovation               | 1     |         |
|   |       |         |



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## Roofing Systems Replacement at Water Plants and Booster Pump Stations

| ise Budget  | Water          |                       |                 | <b>Cost Allocation</b> | CTA       |                 |
|-------------|----------------|-----------------------|-----------------|------------------------|-----------|-----------------|
| hase Status | Cancelled      |                       |                 | <b>Funding Source</b>  | Bond Pro  | oceeds          |
| Start Date  |                |                       |                 | Fund                   | Constru   | ction Bond Fund |
| End Date    |                |                       | Us              | eful Life >20Yrs?      | No        |                 |
| Co          | ost Estimation | Information           | Tot. Feder      | al Loan Amount         |           | \$0             |
|             | 5              | Cost Est. Class       | Prog            | ram/Allowance          | Task Info | ormation        |
|             |                | Cost Est. Date        | Project Manager |                        |           |                 |
|             |                | Cost Est. Source      | CIP Number      |                        |           |                 |
|             |                | Cost Est. Prepared By | Description     |                        |           |                 |



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## Roofing Systems Replacement at Water Plants and Booster Pump Stations

| <b>Phase Budget</b> | Water       |             |              |            | Cost Allocation |               |              | СТА          |             |
|---------------------|-------------|-------------|--------------|------------|-----------------|---------------|--------------|--------------|-------------|
| Phase Status        |             |             |              |            |                 |               |              | Bond Procee  | eds         |
| Start Date          |             |             |              |            |                 |               | Fund         | Construction | n Bond Fund |
| End Date            |             |             |              |            |                 | Useful Li     | fe >20Yrs?   | Yes          |             |
| Co                  | ost Estimat | ion Informo | ation        |            | To              | . Federal Loa | n Amount     |              |             |
|                     | 5           | Cost        | Est. Class   |            |                 | Program/A     | Allowance    | Task Informa | ition       |
|                     |             | Cost        | Est. Date    |            | Project Man     | ager          |              |              |             |
|                     |             | Cost        | Est. Source  | ,          | CIP Number      |               |              |              |             |
|                     |             | Cost        | Est. Prepare | ed By      | Description     |               |              |              |             |
|                     |             |             |              |            |                 |               |              |              |             |
|                     |             |             | Phase Total  | al Expense | s By FY (All    | figures are   | in \$1,000's | )            |             |
| ior Yr Actua        | FY20        | FY21        | FY22         | FY23       | FY24            | FY25          | FY26+        | Total        | 5-Yr Total  |
| 0                   | 0           | 0           | 0            | 0          | 0               | 0             | 0            | 0            | 0           |

### Roofing Systems Replacement at Water Plants and Booster Pump Stations

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

| CIP Alias | FY16 | FY17  | FY18  | FY19  | FY20  | FY21 | FY22 | FY23  | FY24  | FY25  | FY26 | Total  | 5-Yr Total |
|-----------|------|-------|-------|-------|-------|------|------|-------|-------|-------|------|--------|------------|
| 2021      | 0    | 0     | 0     | 0     | 0     | 0    | 0    | 0     | 0     | 0     | 0    | 0      | 0          |
| 2020      | 0    | 0     |       | 0     | 0     | 225  | 375  | 1,625 | 1,825 | 1,375 | 0    | 5,425  | 4,050      |
| 2019      | 0    |       |       |       | 128   | 169  | 809  | 1,243 | 4,844 | 0     | 0    | 7,193  | 2,349      |
| 2018      |      | 3,000 | 3,000 | 3,000 | 2,500 |      |      |       | 0     | 0     | 0    | 11,500 | 8,500      |

Description of CIP Project status changed to cancelled due to other projects within Water Eng group.

Changes

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

✓ Innovation

☐ Conceptual WW MP

☐ Water MP Right Sizing

✓ Reliability/Redundancy

NEWTP Repurposing

**Project Status** Active

**CIP Type** Program

**Project New To CIP** 

Photo of Complex - I Dewatering Roof at the WRRF.



**Budget** Wastewater

Class Lvl 1 Centralized Services

Class Lvl 2 Facilities

Class Lvl 3 General Purpose

**Location** Multiple Counties

**Fund and Cost Center** 

Project Engineer/Manager Beena Chackunkal

**Director** Dan Alford

Managing Dept WW Design Eng

Date Original Business Case Prepared 8/8/2016

Year Project Added to CIP 2017

Problem Statement 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 **Project Alternatives** 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.

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.

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.



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

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.

**Primary Driver** 1 - Condition

**Driver 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

#### PM Weighted Score

54.6

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

### RC Weighted Score

43.8

| Criteria                                | Score | Comment |
|---|-------|---------|
| Condition                               | 4     |         |
| Performance (Service Level/Reliability) | 4     |         |
| Regulatory (Environmental/Legal)        | 2     |         |
| Operations and Maintenance              | 1     |         |
| Public Health and Safety                | 1     |         |
| Public Benefit                          | 1     |         |
| Financial                               | 3     |         |
| Efficiency and Innovation               | 1     |         |
|   |       |         |

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## 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 7/3/2020 |                      |                 | Bond Proceeds          |                  |  |
| Start Date   |                               |                      |                 | Construction Bond Fund |                  |  |
| End Date     |                               | 6/23/2022            | Us              | eful Life >20Yrs?      | Yes              |  |
| Co           | ost Estimation                | Information          | Tot. Feder      | al Loan Amount         |                  |  |
|              | 4                             | Cost Est. Class      | Prog            | ram/Allowance          | Task Information |  |
| 1            | 0/2/2017                      | Cost Est. Date       | Project Manager |                        |                  |  |
|              |                               | Cost Est. Source     | CIP Number      |                        |                  |  |
| Ali Khraizat |                               | Cost Est Prepared By | Description     |                        |                  |  |

| Cost Type    | Fiscal Year | Expense | Fringe Benefit | NonPersonne | Comment  |
|--------------|-------------|---------|----------------|-------------|----------|
| Construction | FY19-       | \$795   |                |             | 2021 CIP |
| Construction | FY20        | \$321   |                |             | 2021 CIP |

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

| Prior Y | 'r Actua | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|---------|----------|------|------|------|------|------|------|-------|-------|------------|
|         | 795      | 321  | 0    | 0    | 0    | 0    | 0    | 0     | 1,116 | 0          |

| Phase Task Name   | Start Date | End Date  | Duration |
|-------------------|------------|-----------|----------|
| Procurement       | 1/1/2019   | 3/31/2019 | 89       |
| Project Execution | 4/1/2019   | 7/2/2019  | 92       |
| Project Closeout  | 7/3/2019   | 9/30/2019 | 89       |

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# GLWA FY 2021-2025 CIP 331002 CIP Replacement at GLWA WRRF, CSO Retention Treatment Basins (RTB) and

2021 CIP

2021 CIP

|       | Great Lakes Water | Authority <b>KC</b>        | olling system   | iis kepiac   | eme     | ill di GLWA    | WKKF, C3C     | ) kelelilloli   | nealment bas       | ilis (KIB) d |
|-------|-------------------|----------------------------|-----------------|--------------|---------|----------------|---------------|-----------------|--------------------|--------------|
| Phase | Study and         | d Design ar                | nd Constructior | n Assistance |         | Contract       | NA            | Status          | Active             |              |
|       |                   | stems Repl<br>n Facilities |                 | .WA Wastew   | ater Ti | reatment Plant | CSO Retention | on Treatment B  | asins (RTB) and Sc | reening      |
| Pha   | se Budget         | Wastewate                  | er              |              |         |                | Cost Allo     | cation CTA      |                    |              |
| Ph    | ase Status        | Active                     |                 |              |         |                | Funding S     | Source Bond Pr  | oceeds             |              |
|       | Start Date        |                            | 11/8            | /2018        |         |                |               | Fund Constru    | ction Bond Fund    |              |
|       | End Date          |                            | 6/23            | /2022        |         |                | Useful Life > | 20Yrs? Yes      |                    |              |
|       | Co                | ost Estimatio              | on Information  |              |         | Tot. Fe        | ederal Loan A | mount           |                    |              |
|       |                   | 3                          | Cost Est. C     | Class        |         | F              | Program/Allov | wance Task Info | ormation           |              |
|       | 1                 | 0/1/2017                   | Cost Est. D     | ate          | F       | Project Manage | er            |                 |                    |              |
|       |                   |                            | Cost Est. S     | ource        | (       | CIP Number     |               |                 |                    |              |
|       |                   |                            | Cost Est. P     | repared By   |         | Description    |               |                 |                    |              |
|       | Cost Ty           | pe                         | Fiscal Year     | Expens       | e       | Fringe Benefit | NonPersonne   | Cor             | nment              |              |
| Engin | eering Serv       |                            | FY19-           | ,            | \$2     | U              |               | 2021 CIP        |                    |              |
| Engin | eering Serv       | vices                      | FY21            |              | \$91    |                |               | 2021 CIP        |                    |              |
| Engin | eering Serv       | vices .                    | FY22            |              | \$121   |                |               | 2021 CIP        |                    |              |
| Engin | eering Serv       | vices .                    | FY23            |              | \$100   |                |               | 2021 CIP        |                    |              |
| Engin | eering Serv       | vices                      | FY24            |              | \$79    |                |               | 2021 CIP        |                    |              |

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

\$78

\$32

| Prior Yr Actua | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|----------------|------|------|------|------|------|------|-------|-------|------------|
| 2              | 0    | 91   | 121  | 100  | 79   | 78   | 32    | 503   | 469        |

#### **Phase Task Dates**

**Engineering Services Engineering Services**  FY25

FY26+

| Phase To | ask Name | Start Date | End Date | Duration |
|----------|----------|------------|----------|----------|
|          |          |            |          |          |



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

| Phase Task Name   | Start Date | End Date  | Duration |
|-------------------|------------|-----------|----------|
| Procurement       | 10/31/2018 | 3/31/2019 | 151      |
| Project Execution | 7/1/2020   | 7/29/2026 | 2219     |

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

| Phase Construc  | tion              |                |            |                     | Contract        | TBD            | Statu         | S               | Future Planned S | tart |  |
|-----------------|-------------------|----------------|------------|---------------------|-----------------|----------------|---------------|-----------------|------------------|------|--|
| Title new const | ruction ph        | ase            |            |                     |                 |                |               |                 |                  |      |  |
| Phase Budget    | Wastewat          | er             |            | Cost Allocation CTA |                 |                |               |                 |                  |      |  |
| Phase Status    | Future Plai       | nned Start     |            |                     |                 | Funding S      | ource Bond I  | <sup>o</sup> ro | ceeds            |      |  |
| Start Date      |                   |                |            |                     |                 |                | Fund Constr   | UC              | tion Bond Fund   |      |  |
| End Date        |                   |                |            |                     |                 | Useful Life >2 | 20Yrs? No     |                 |                  |      |  |
| Co              | ost Estimati      | on Information |            |                     | Tot. Fe         | deral Loan Ar  | mount         |                 |                  | \$0  |  |
|                 | Cost Est. Class   |                |            |                     | P               | rogram/Allow   | vance Task In | ıfor            | mation           |      |  |
|                 |                   | Cost Est. D    | ate        | F                   | Project Manage  | er             |               |                 |                  |      |  |
|                 |                   | Cost Est. So   | ource      | (                   | CIP Number      |                |               |                 |                  |      |  |
|                 |                   | Cost Est. Pi   | repared By | [                   | Description     |                |               |                 |                  |      |  |
| Cost Ty         | ne                | Fiscal Year    | Expense    | <del>)</del>        | Fringe Benefil  | VonPersonne    | Co            | om              | ment             |      |  |
| Construction    | <b>P O</b>        | FY22           | -          | ,624                | 111190 20110111 |                | 2021 CIP      |                 |                  |      |  |
| Construction    |                   | FY23           | •          | ,624                |                 |                | 2021 CIP      |                 |                  |      |  |
| Construction    |                   | FY24           | \$1,       | ,629                |                 | 2              | 2021 CIP      |                 |                  |      |  |
| Construction    | Construction FY25 |                | \$1,       | ,624                |                 | 1              | 2021 CIP      |                 |                  |      |  |
| Construction    |                   | FY26+          | \$1,       | ,620                |                 |                | 2021 CIP      |                 |                  |      |  |

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

| F | Prior Yr Actua | FY20 | FY21 | FY22  | FY23  | FY24  | FY25  | FY26+ | Total | 5-Yr Total |
|---|----------------|------|------|-------|-------|-------|-------|-------|-------|------------|
|   | 0              | 0    | 0    | 1,624 | 1,624 | 1,629 | 1,624 | 1,620 | 8,121 | 6,501      |

| Phase Task Name   | Start Date | End Date  | Duration |
|-------------------|------------|-----------|----------|
| Project Execution | 7/1/2021   | 6/29/2026 | 1824     |
| Project Closeout  | 6/30/2026  | 7/29/2026 | 29       |



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

| <b>Phase</b> GLWA En   | nployees Pr   | ent       | Contract NA |           |                     |              | Status Ad | ctive    |             |             |             |     |
|------------------------|---------------|-----------|-------------|-----------|---------------------|--------------|-----------|----------|-------------|-------------|-------------|-----|
| <b>Title</b> GLWA Sale | aries         |           |             |           |                     |              |           |          |             |             |             |     |
| Phase Budget           | Wastewate     | er        |             |           | Cost Allocation CTA |              |           |          |             |             |             |     |
| Phase Status           | Active        |           |             |           |                     |              |           | Fundir   | ng Source   | Bond Proce  | eds         |     |
| Start Date             |               |           |             |           |                     |              |           |          | Fund        | Constructic | n Bond Fund |     |
| End Date               |               |           |             |           |                     |              | Us        | eful Lif | e >20Yrs?   | No          |             |     |
| С                      | ost Estimatio | on Inform | ation       |           |                     | To           | t. Feder  | al Loa   | n Amount    |             |             | \$0 |
|                        | 5             | Cos       | t Est. Clo  | ass       |                     |              | Prog      | ram/A    | llowance 1  | Task Inform | ation       |     |
|                        |               | Cos       | t Est. Da   | te        | Project Manager     |              |           |          |             |             |             |     |
|                        |               | Cos       | t Est. Sou  | urce      | CIP Number          |              |           |          |             |             |             |     |
|                        |               | Cos       | t Est. Pre  | pared B   | d By Description    |              |           |          |             |             |             |     |
| Cost Ty                | 'pe           | Fiscal    | Year        | Ехре      | ense                | Fringe Ben   | efitNon   | Persor   | nne         | Comme       |             |     |
| GLWA Salaries (        | CIP2021       | FY19-     |             |           | \$5 2021C           |              |           |          | 2021 CIF    | )           |             |     |
|                        |               |           | Phase       | e Total E | xpense              | s By FY (All | figure    | s are i  | n \$1,000's | )           |             |     |
| Prior Yr Actua         | FY20          | FY21      | FY2         | 2         | FY23                | FY24         | FY2       | 25       | FY26+       | Total       | 5-Yr Total  |     |
| 5                      | 0             | С         | 1           | 0         | 0                   | 0            |           | 0        | 0           | 5           | 0           |     |
| Phase Task Da          | tes           |           |             |           |                     |              |           |          |             |             |             |     |



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

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

| CIP Alias | FY16 | FY17 | FY18  | FY19  | FY20  | FY21  | FY22  | FY23  | FY24  | FY25  | FY26  | Total  | 5-Yr Total |
|-----------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------------|
| 2021      | 0    | 0    | 0     | 802   | 321   | 91    | 1,745 | 1,724 | 1,708 | 1,702 | 1,652 | 9,745  | 6,970      |
| 2020      | 0    | 0    |       | 278   | 1,092 | 4,142 | 4,114 | 41    | 42    | 0     | 0     | 9,709  | 9,431      |
| 2019      | 0    |      |       | 286   | 709   | 5,575 | 5,114 |       |       | 0     | 0     | 11,684 | 11,684     |
| 2018      |      |      | 2,200 | 2,060 | 1,060 | 1,050 | 540   | 2,140 | 0     | 0     | 0     | 9,050  | 6,910      |



#### Security Infrastructure Improvements on Water Facilities

□ Innovation

☐ Conceptual WW MP

☐ Water MP Right Sizing

☐ Reliability/Redundancy

☐ NEWTP Repurposing

**Project Status** Active

**CIP Type** Project

✓ Project New To CIP

Project Engineer/Manager Michael Lewis

**Director** W. Barnett Jones

Managing Dept Security and Integrity

Date Original Business Case Prepared 8/28/2019

Year Project Added to CIP 2019

**Budget** Water

Class Lvl 1 Centralized Services

Class Lvl 2 Security

Class Lvl 3 General Purpose

**Location** Multiple Counties

Fund and Cost Center Water - 5519-882111

Problem Statement GLWA facilities have been designated as "Critical Infrastructure" by the United States Department of Homeland Security (OHS). Critical Infrastructure is under constant threat by malicious people intent on disruption and destruction. GLWA staff is engaged in a continual process of threat and vulnerability assessment to our facilities, operations, and staff. Using several assessment tools including, OHS Site Assessments, incorporating AWWA security recommendations, and utilizing GLWA's historical assessment data, we have the basis for initiating a strategic plan for security infrastructure improvements. The resulting data from these assessments formulate recommendations for mitigating vulnerabilities. The implementation of these recommendations requires an efficient and effective design, procurement, and construction process.

Scope of Work / Water Works Park: Additional coverage where boats dock and by the screening house. Video assessment **Project Alternatives** wherever there are alarm points. Primary Building needs to be secured. Need video coverage. Switchgear room needs to be secured. Exterior video coverage of oxygen tanks and entrance to chlorine room. Secure transformer enclosures -Raw water Booster Station. Interior intrusion detection devices need to be installed at high lift building-glass break, motion sensors, etc. Install Card readers to interior of the new plant where critical assets are located. Enhanced perimeter fencing and gates. Enhanced perimeter detection system Replacement of analog cameras

> Northeast Water Plant: Chemical building needs access control intrusion devices. Video assessment wherever there are alarm points. Flocculate building needs intrusion devices. Interior intrusion devices for uncovered areas. Enhanced perimeter fencing and gates Replacement of analog cameras. Enhanced perimeter detection system.



#### Security Infrastructure Improvements on Water Facilities

Springwells Water Plant: Enhanced access control system Chemical Building, basins and tunnel not secured. Video assessment wherever there are alarm points Enhanced perimeter detection system. Enhanced perimeter fencing and gates Replacement of analog cameras

Lake Huron Water Treatment Plant: Cameras at the Clear Well, Main Transformer Station and the Emergency Generators. Enhanced perimeter fencing and gates. Replacement of analog cameras. Enhanced perimeter detection system.

Southwest Water Plant: Video assessment wherever there are alarm points. Replace door closures to chlorine room so the doors swing shut and lock automatically. Install card readers to chlorine room and chlorine evaporation room. Enhanced perimeter fencing and gates. Replacement of analog cameras. Enhanced perimeter detection system.

Southwest Water Treatment Intake: Provide security for the intake platform. Enhanced perimeter fencing and gates. Replacement of analog cameras

Belle Isle Intake: Enhanced Access Control. Perimeter fencing and gates. Intrusion detection. Video assessment and surveillance.

Chlorine Storage Areas at all Plants: Enhanced Access Control. Intrusion detection. Video assessment and surveillance.

Other Important Info GLWA has a responsibility in the layered approach to critical infrastructure security; partnering with Federal, State, and Local law enforcement entities to minimize and respond to threats. This partnership required GLWA to maintain a minimum security posture equating to the Critical Infrastructure designation. Implementation of the security protocols were none existent, and improving the GLWA security foot print can reduce our vulnerabilities and enhance our response to known threats.

**Primary Driver** 5 - Public Health & Safety



## Security Infrastructure Improvements on Water Facilities

### PM Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) |       |         |
| Public Health and Safety                |       |         |
| Public Benefit                          |       |         |
| Condition                               |       |         |
| Efficiency and Innovation               |       |         |
| Financial                               |       |         |
| Operations and Maintenance              |       |         |
| Regulatory (Environmental/Legal)        |       |         |

### RC Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) |       |         |
| Operations and Maintenance              |       |         |
| Regulatory (Environmental/Legal)        |       |         |
| Efficiency and Innovation               |       |         |
| Condition                               |       |         |
| Public Health and Safety                |       |         |
| Public Benefit                          |       |         |
| Financial                               |       |         |



## Security Infrastructure Improvements on Water Facilities

| hase GLWA E    |                 | Project mai | nageme    | nt        |                                       | Contro                       | ict N  | A         |           | Status Ac | ctive         |     |
|----------------|-----------------|-------------|-----------|-----------|---------------------------------------|------------------------------|--------|-----------|-----------|-----------|---------------|-----|
| Phase Budge    | <b>t</b> Water  |             |           |           |                                       |                              |        | Cost A    | llocation | СТА       |               |     |
| Phase Statu    | s Active        |             |           |           | Funding Source Revenue Financed Capit |                              |        |           |           |           | nanced Capito | lc  |
| Start Date     | è               |             |           |           | Fund Improvement & Extension Fu       |                              |        |           |           |           | Fun           |     |
| End Date       | è               |             |           |           | Useful Life >20Yrs? Yes               |                              |        |           |           |           |               |     |
| (              | Cost Estimat    | ion Inform  | ation     |           |                                       | Tot. Federal Loan Amount \$0 |        |           |           |           |               | \$0 |
|                | Cost Est. Class |             |           |           | Program/Allowance Task Information    |                              |        |           |           |           |               |     |
| Cost Est. Da   |                 |             | Est. Date | Э         | Р                                     | roject Man                   | ager   |           |           |           |               |     |
|                |                 | Cost        | Est. Sou  | rce       | C                                     | CIP Number                   |        |           |           |           |               |     |
|                |                 | Cost        | Est. Prep | oared By  | D                                     | escription                   |        |           |           |           |               |     |
| Cost T         | уре             | Fiscal Y    | /ear      | Expens    | e                                     | Fringe Ben                   | efitNo | nPerson   | ne        | Comme     | ent           |     |
| GLWA Salaries  | CIP2021         | FY20        |           |           | \$111                                 |                              |        |           | 2021CI    | Р         |               |     |
| GLWA Salaries  | CIP2021         | FY21        |           |           | \$110                                 |                              |        |           | 2021CI    | Р         |               |     |
| GLWA Salaries  | CIP2021         | FY22        |           |           | \$98                                  |                              |        |           | 2021CI    | Р         |               |     |
|                |                 |             | Phase     | Total Exp | enses                                 | By FY (All                   | figure | es are ir | \$1,000's | s)        |               |     |
| Prior Yr Actua | FY20            | FY21        | FY22      | FY2       | 23                                    | FY24                         | FΥ     | /25       | FY26+     | Total     | 5-Yr Total    |     |
| 0              | 111             | 110         |           | 98        | 0                                     | 0                            |        | 0         | C         | 319       | 208           |     |



## Security Infrastructure Improvements on Water Facilities

| <b>Phase</b> Design and     | d Build           |                     |         |        |                |                     | Contro      | act S    | OQ-135     | A           | Status /    | ctive           |       |
|-----------------------------|-------------------|---------------------|---------|--------|----------------|---------------------|-------------|----------|------------|-------------|-------------|-----------------|-------|
| itle DB-Wtr                 |                   |                     |         |        |                |                     |             |          |            |             |             |                 |       |
| Phase Budget V              | Vater             |                     |         |        |                | Cost Allocation CTA |             |          |            |             |             |                 |       |
| Phase Status A              | ctive             |                     |         |        |                |                     |             |          | Fundiı     | ng Source   | Revenue F   | inanced Capit   | al    |
| Start Date                  | te                |                     |         |        |                |                     |             |          |            | Fund        | Improvem    | ent & Extension | ı Fun |
| End Date                    | End Date          |                     |         |        |                |                     |             | Į        | Jseful Lif | ie >20Yrs?  | Yes         |                 |       |
| Cost Estimation Information |                   |                     |         |        |                | То                  | t. Fed      | eral Loa | n Amount   |             |             | \$0             |       |
|                             | 1 Cost Est. Class |                     |         |        |                |                     |             | Pro      | gram/A     | llowance    | Task Inforn | nation          |       |
|                             | Cost Est. Date    |                     |         | ate    |                | P                   | roject Mar  |          |            |             |             |                 |       |
|                             | Cost Est. Source  |                     |         | ource  |                | CIP Number          |             |          |            |             |             |                 |       |
| Cost Est. Prepa             |                   |                     |         |        | By Description |                     |             |          |            |             |             |                 |       |
| Cosi Esi. Frepuie           |                   |                     | cu by   |        | ·              |                     |             |          |            |             |             |                 |       |
| Cost Typ                    | е                 | Fisc                | al Year | E      | Expense        | !                   | Fringe Ber  | efitNo   | nPersor    | nne         | Comm        | ent             |       |
| Design-Build                |                   | FY20                |         |        | \$3,918        |                     |             |          |            | 2021 CI     | Р           |                 |       |
| Design-Build                |                   | FY21                |         |        | \$3,           | 908                 |             |          |            | 2021CI      | Р           |                 |       |
| Design-Build                |                   | FY22                |         |        | \$2,           | 505                 |             |          |            | 2021CI      | Р           |                 |       |
|                             |                   |                     | Pha     | se Tot | al Expe        | ense                | s By FY (Al | l figur  | es are i   | n \$1,000's | 3)          |                 |       |
| Prior Yr Actua              | FY20              | FY21                | FY      | ′22    | FY23           | 3                   | FY24        | F`       | <b>/25</b> | FY26+       | Total       | 5-Yr Total      |       |
| 0                           | 3,918             | 3,9                 | 809     | 2,505  |                | 0                   | 0           |          | 0          | (           | 10,33       | 1 6,413         |       |
| Phase Task Date             | es                |                     |         |        |                |                     |             |          |            |             |             |                 |       |
| Phase Task Name             | e Start D         | Date                | End Da  | te     | Duration       | n                   |             |          |            |             |             |                 |       |
| Pre-Procurement             | 6/1               | /2017               | 8/29/2  | 2017   |                | 89                  |             |          |            |             |             |                 |       |
| Procurement                 | 8/30              | 8/30/2017 2/21/2018 |         | 2018   | 1              | 175                 |             |          |            |             |             |                 |       |
| Project Execution           | 2/26              | /2018               | 2/19/2  | 2022   | 14             | 154                 |             |          |            |             |             |                 |       |
| Project Closeout            |                   |                     | 2022    |        | 89             |                     |             |          |            |             |             |                 |       |
|                             |                   |                     |         |        |                |                     |             |          |            |             |             |                 |       |

## Security Infrastructure Improvements on Water Facilities

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

| CIP Alias | FY16 | FY17 | FY18 | FY19 | FY20  | FY21  | FY22  | FY23 | FY24 | FY25 | FY26 | Total  | 5-Yr Total |
|-----------|------|------|------|------|-------|-------|-------|------|------|------|------|--------|------------|
| 2021      | 0    | 0    | 0    | 0    | 4,029 | 4,018 | 2,603 | 0    | 0    | 0    | 0    | 10,650 | 6,621      |



### Security Infrastructure Improvements for Wastewater Facilities

□ Innovation

☐ Conceptual WW MP

☐ Water MP Right Sizing

☐ Reliability/Redundancy

☐ NEWTP Repurposing

**Project Status** Active

**CIP Type** Project

✓ Project New To CIP

Project Engineer/Manager Michael Lewis

**Director** W. Barnett Jones

Managing Dept Security and Integrity

Date Original Business Case Prepared 8/28/2019

Year Project Added to CIP 2019

**Budget** Wastewater

Class Lvl 1 Centralized Services

Class Lvl 2 Security

Class Lvl 3 General Purpose

**Location** Multiple Counties

Fund and Cost Center Wastewater - 5421-892211

Problem Statement GLWA facilities have been designated as "Critical Infrastructure" by the United States Department of Homeland Security (OHS). Critical Infrastructure is under constant threat by malicious people intent on disruption and destruction. GLWA staff is engaged in a continual process of threat and vulnerability assessment to our facilities, operations, and staff. Using several assessment tools including, OHS Site Assessments, incorporating AWWA security recommendations, and utilizing GLWA's historical assessment data, we have the basis for initiating a strategic plan for security infrastructure improvements. The resulting data from these assessments formulate recommendations for mitigating vulnerabilities. The implementation of these recommendations requires an efficient and effective design, procurement, and construction process.

Scope of Work / Water Works Park: Additional coverage where boats dock and by the screening house. Video assessment **Project Alternatives** wherever there are alarm points. Primary Building needs to be secured. Need video coverage. Switchgear room needs to be secured. Exterior video coverage of oxygen tanks and entrance to chlorine room. Secure transformer enclosures -Raw water Booster Station. Interior intrusion detection devices need to be installed at high lift building-glass break, motion sensors, etc. Install Card readers to interior of the new plant where critical assets are located. Enhanced perimeter fencing and gates. Enhanced perimeter detection system Replacement of analog cameras

> Northeast Water Plant: Chemical building needs access control intrusion devices. Video assessment wherever there are alarm points. Flocculate building needs intrusion devices. Interior intrusion devices for uncovered areas. Enhanced perimeter fencing and gates Replacement of analog cameras. Enhanced perimeter detection system.



#### Security Infrastructure Improvements for Wastewater Facilities

Springwells Water Plant: Enhanced access control system Chemical Building, basins and tunnel not secured. Video assessment wherever there are alarm points Enhanced perimeter detection system. Enhanced perimeter fencing and gates Replacement of analog cameras

Lake Huron Water Treatment Plant: Cameras at the Clear Well, Main Transformer Station and the Emergency Generators. Enhanced perimeter fencing and gates. Replacement of analog cameras. Enhanced perimeter detection system.

Southwest Water Plant: Video assessment wherever there are alarm points. Replace door closures to chlorine room so the doors swing shut and lock automatically. Install card readers to chlorine room and chlorine evaporation room. Enhanced perimeter fencing and gates. Replacement of analog cameras. Enhanced perimeter detection system.

Southwest Water Treatment Intake: Provide security for the intake platform. Enhanced perimeter fencing and gates. Replacement of analog cameras

Belle Isle Intake: Enhanced Access Control. Perimeter fencing and gates. Intrusion detection. Video assessment and surveillance.

Chlorine Storage Areas at all Plants: Enhanced Access Control. Intrusion detection. Video assessment and surveillance.

Other Important Info GLWA has a responsibility in the layered approach to critical infrastructure security; partnering with Federal, State, and Local law enforcement entities to minimize and respond to threats. This partnership required GLWA to maintain a minimum security posture equating to the Critical Infrastructure designation. Implementation of the security protocols were none existent, and improving the GLWA security foot print can reduce our vulnerabilities and enhance our response to known threats.

**Primary Driver** 5 - Public Health & Safety



## Security Infrastructure Improvements for Wastewater Facilities

| <b>Phase</b> GLWA Er<br><b>Title</b> Salaries-W |             | Project mar | nagement     |                                       | Contro                           | act NA         |              | <b>Status</b> Ac | tive       |     |  |
|---|-------------|-------------|--------------|---------------------------------------|----------------------------------|----------------|--------------|------------------|------------|-----|--|
| Phase Budget                                    | Wastewa     | ter         |              |                                       |                                  | Cost           | Allocation   | СТА              |            |     |  |
| Phase Status                                    | Active      |             |              | Funding Source Revenue Financed Capit |                                  |                |              |                  |            | al  |  |
| Start Date                                      | •           |             |              |                                       | Fund Improvement & Extension Fun |                |              |                  |            |     |  |
| End Date  |             |             |              |                                       | Useful Life >20Yrs? Yes          |                |              |                  |            |     |  |
| С   | ost Estimat | ion Informo | ıtion        |                                       | To                               | t. Federal Loa | n Amount     |                  |            | \$0 |  |
|   |             | Cost        | Est. Class   |                                       |                                  | Program/A      | Allowance    | Task Informa     | ıtion      |     |  |
|   |             | Cost        | Est. Date    |                                       | Project Man                      | ager           |              |                  |            |     |  |
|   |             | Cost        | Est. Source  |                                       | CIP Number                       | ,              |              |                  |            |     |  |
|   |             | Cost        | Est. Prepare | ed By                                 | Description                      |                |              |                  |            |     |  |
| Cost Ty   | /pe         | Fiscal Y    | ear E        | xpense                                | Fringe Ben                       | efitNonPersoi  | nne          | Comme            | nt         |     |  |
| GLWA Salaries (                                 | CIP2021     | FY20        |              | \$169                                 |                                  |                | 2021 CII     | Р                |            |     |  |
| GLWA Salaries (                                 | CIP2021     | FY21        |              | \$150                                 |                                  |                | 2021 CII     | Р                |            |     |  |
|   |             |             | Phase Tot    | al Expense                            | s By FY (All                     | figures are    | in \$1,000's | )                |            |     |  |
| Prior Yr Actua                                  | FY20        | FY21        | FY22         | FY23                                  | FY24                             | FY25           | FY26+        | Total            | 5-Yr Total |     |  |
| 0   | 169         | 150         | 0            | 0                                     | 0                                | 0              | 0            | 319              | 150        |     |  |



## Security Infrastructure Improvements for Wastewater Facilities

| Build                       | uild                            |  |  |  | Contro                                | act S                  | OQ-135                                    | iΑ                     | Status   | Act  | ive  |  |   |
|-----------------------------|---------------------------------|--|--|--|---------------------------------------|------------------------|---|------------------------|--|--|--|--|---|
|                             |                                 |  |  |  |                                       |                        |   |                        |  |  |  |  | I   |
| astewate                    | er                              |  |  |  |                                       |                        |   | Cost                   | Allocation   | СТА  |  |  |   |
| ctive                       |                                 |  |  |  | Funding Source Revenue Financed Capit |                        |   |                        |  |  | al   |  |   |
|                             |                                 |  |  |  |                                       |                        |   |                        | Fund   | Improve  | men  | t & Extension  | Fun   |
| End Date                    |                                 |  |  |  |                                       | ı                      | Useful Li                                 | fe >20Yrs?             | Yes  |  |  |  |   |
| Cost Estimation Information |                                 |  |  |  | То                                    | t. Fed                 | eral Loa                                  | ın Amount              |  |  |  | \$0  |   |
| 1 Cost Est. Class           |                                 |  | lass   |  |                                       |                        | Pro                                       | gram/ <i>k</i>         | Allowance  | Task Info  | rmat   | ion  |   |
| Cost Est. Date              |                                 |  | ate  |  | P                                     | roject Man             | ager                                      |                        |  |  |  |  |   |
| Cost Est. Source            |                                 | ource  |  | CIP Number   |                                       |                        |   |                        |  |  |  |  |   |
| Cost Est. Prepar            |                                 | epare  | d By   | d By Description   |                                       |                        |   |                        |  |  |  |  |   |
|                             |                                 |  |  |  |                                       |                        |   |                        |  |  |  |  |   |
|                             | Fisca                           | l Year   | Ex   | xpense   |                                       | Fringe Ben             | efitNo                                    | onPerso                | nne  | Con  | nmer   | n†   |   |
|                             | FY20                            |  |  | \$1,4  |                                       |                        |   | IP                     |  |  |  |  |   |
|                             | FY21                            |  |  | \$9  | 901                                   |                        |   |                        | 2021CI   | IP   |  |  |   |
|                             |                                 | Phas   | e Toto   | al Expe  | nse                                   | By FY (All             | l figur                                   | es are                 | in \$1,000's   | s)   |  |  |   |
| Y20                         | FY21                            | FY:  | 22   | FY23   |                                       | FY24                   | F'  | Y25                    | FY26+  | Tota   | ıl   | 5-Yr Total   |   |
| 1,410                       | 90                              | )1   | 0  |  | 0                                     | 0                      |   | 0                      | (  | 2,   | 311  | 901  |   |
|                             |                                 |  |  |  |                                       |                        |   |                        |  |  |  |  |   |
| Start D                     | ate                             | End Dat  | е С  | Duration   | ١                                     |                        |   |                        |  |  |  |  |   |
| 6/1                         | /2017                           | 8/29/20  | 017  |  | 89                                    |                        |   |                        |  |  |  |  |   |
| 8/30                        | /2017                           | 2/21/20  | 018  | 18 17  |                                       |                        |   |                        |  |  |  |  |   |
| 2/26                        | /2018                           | 2/19/20  | 021  | 10   | 89                                    |                        |   |                        |  |  |  |  |   |
| 2/20                        | /2021                           | 5/20/20  | 021  |  | 89                                    |                        |   |                        |  |  |  |  |   |
|                             | 20 1,410 Start D 6/1,8/30, 2/26 | Estimation Information Control | Estimation Information   1   Cost Est. C   Cost Est. Do   Cost Est. Pr | Estimation Information   1   Cost Est. Class   Cost Est. Date   Cost Est. Source   Cost Est. Prepare   Fiscal Year   Fy20   Fy21   Fy21   Fy21   Fy22   1,410   901   0   0      Start Date   End Date   End Date   6/1/2017   8/29/2017   8/30/2017   2/21/2018   2/26/2018   2/19/2021 | Estimation Information                | Estimation Information | Estimation Information    Cost Est. Class | Estimation Information | Cost   Estimation   Information   Tot. Federal Local | Cost Allocation   Funding Source   Fund   Useful Life > 20Yrs? | Cost Allocation   CTA   Funding Source   Revenue   Fund   Improve   Useful Life > 20Yrs?   Yes | Cost Allocation   CTA   Funding Source   Revenue Find   Improvement   Useful Life > 20Yrs?   Yes | Cost Allocation   CTA   Funding Source   Revenue Financed Capito   Fund   Improvement & Extension   Useful Life >20Yrs?   Yes |

### Security Infrastructure Improvements for Wastewater Facilities

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

| CIP Alias | FY16 | FY17 | FY18 | FY19 | FY20  | FY21  | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|-----------|------|------|------|------|-------|-------|------|------|------|------|------|-------|------------|
| 2021      | 0    | 0    | 0    | 0    | 1,579 | 1,051 | 0    | 0    | 0    | 0    | 0    | 2,630 | 1,051      |



safety.

#### GLWA FY 2021-2025 CIP

### **LED Lighting and Lighting Control Improvements**

| ✓ Innovation  ☐ Conceptual WW  ☐ Water MP Right Si  ☐ Reliability/Redund | zing dancy  CIP Type Program  Project New To CIP  | Example LED light fixture  |  |
|--|---|--|--|
| ☐ NEWTP Repurposi  | ng  | Dudad Colit  |  |
| Project Engineer/Ma  | nager Fric Griffin  | <b>Budget</b> Split<br><b>Class Lvl 1</b> Cent   | ralized Services   |
|  | rector John Norton  | Class Lvl 2 Energ  |  |
|  | Dept Energy Management  | Class Lvl 3 Gene   | -  |
|  | ss Case Prepared 8/4/2016   | Location Multi   |  |
| Year Proj  | ect Added to CIP 2017   | Fund and Cost Center   | p.o 00000  |
|  | Energy savings, demand reduction improved visik<br>Budget was cut to \$500,000.00 we plan on reduci<br>Remove identified old fixtures and replace with n  | ng scope to 4 Booster stations   | only under this CIP.MFG 7/25/2019  |
| Other Important Info   | Challenges: Some outfalls are below the river electroper History: An audit was completed in 2010/2 technology since this audit has rendered it obsoles system, equipment is in poor condition and exceed compared to today's lighting, cannot meet mining. A well detailed audit is to be carried out to determine the performance criteria, lighting controls to be incorrequivalent/appropriate lighting output and level | 011 but little action was takenete as to recent innovations, teeds its end of life. Some existing num lighting standards.  mine the best suitable replace porated and in cases where contains and the second in cases where contains and cases w | a. Advancement in lighting echnology and cost. Across the g fixtures are antiques and ement lamps based on a set delamping might be an option, |
| Related Project  | Re lamp of Conner Creek and part of Northeast f   | or safety issues.  |  |
| Primary Driver   | 8 - Efficiency  |  |  |
| Driver Explanation   | Technology of LED lamps and associated fixtures   | will reduce electrical operatin  | g expenses and improve worker  |



# GLWA FY 2021-2025 CIP LED Lighting and Lighting Control Improvements

# PM Weighted Score

58

| Criteria                                | Score | Comment |
|---|-------|---------|
| Condition                               | 4     |         |
| Performance (Service Level/Reliability) | 3     |         |
| Regulatory (Environmental/Legal)        | 3     |         |
| Operations and Maintenance              | 1     |         |
| Public Health and Safety                | 3     |         |
| Public Benefit                          | 3     |         |
| Financial                               | 3     |         |
| Efficiency and Innovation               | 3     |         |
|   |       |         |

### RC Weighted Score

8.08

| Criteria                                | Score | Comment |
|---|-------|---------|
| Condition                               | 3     |         |
| Performance (Service Level/Reliability) | 3     |         |
| Regulatory (Environmental/Legal)        | 3     |         |
| Operations and Maintenance              | 4     |         |
| Public Health and Safety                | 3     |         |
| Public Benefit                          | 1     |         |
| Financial                               | 3     |         |
| Efficiency and Innovation               | 4     |         |
|   |       |         |



## **LED Lighting and Lighting Control Improvements**

| <b>Phase</b> GLWA En<br><b>Title</b> GLWA Sal |             | roject mar  | agement      |            | Contrac                      | t NA                  | S          | <b>Status</b> Ac | tive       |     |  |
|---|-------------|-------------|--------------|------------|------------------------------|-----------------------|------------|------------------|------------|-----|--|
| Phase Budge                                   |             |             |              |            |                              | Cost Allo             | ocation C1 | ГА               |            |     |  |
| Phase Status                                  | Active      |             |              |            | Funding Source Bond Proceeds |                       |            |                  |            |     |  |
| Start Date                                    | •           |             |              |            | Fund Construction Bond Fund  |                       |            |                  |            |     |  |
| End Date                                      | À           |             |              |            |                              | Useful Life >         | >20Yrs? No | )                |            |     |  |
| C   | ost Estimat | ion Informo | ıtion        |            | Tot.                         | Federal Loan <i>A</i> | Amount     |                  |            | \$0 |  |
|   | 5           | Cost        | Est. Class   |            |                              | Program/Allo          | wance Ta   | sk Informo       | ition      |     |  |
|   |             | Cost        | Est. Date    |            | Project Mana                 | ger                   |            |                  |            |     |  |
|   |             | Cost        | Est. Source  |            | CIP Number                   |                       |            |                  |            |     |  |
|   |             | Cost        | Est. Prepare | ed By      | Description                  |                       |            |                  |            |     |  |
| Cost Ty                                       | /pe         | Fiscal Y    | ear E        | xpense     | Fringe Bene                  | fitNonPersonne        | e          | Comme            | nt         |     |  |
| GLWA Salaries                                 | CIP2021     | FY19-       |              | \$6        |                              |                       | 2021 CIP   |                  |            |     |  |
|   |             |             | Phase Tot    | al Expense | es By FY (All f              | gures are in S        | \$1,000's) |                  |            |     |  |
| Prior Yr Actua                                | FY20        | FY21        | FY22         | FY23       | FY24                         | FY25                  | FY26+      | Total            | 5-Yr Total |     |  |
| 6   | 0           | 0           | 0            | 0          | 0                            | 0                     | 0          | 6                | 0          |     |  |



## **LED Lighting and Lighting Control Improvements**

| <b>ase</b> not applic | able          |                       | Contract NA              | Status    | Closed Out      |
|-----------------------|---------------|-----------------------|--------------------------|-----------|-----------------|
| e Prior Year A        | ctual Expens  | es                    |                          |           |                 |
| Phase Budget V        | Water         |                       | Cost Allocation          | СТА       |                 |
| Phase Status (        | Closed Out    |                       | Funding Source           | oceeds    |                 |
| Start Date            |               |                       | Fund                     | Constru   | ction Bond Fund |
| End Date              |               |                       | Useful Life >20Yrs?      | No        |                 |
| Cos                   | st Estimation | Information           | Tot. Federal Loan Amount |           | \$0             |
|                       | 1             | Cost Est. Class       | Program/Allowance        | Task Info | ormation        |
|                       |               | Cost Est. Date        | Project Manager          |           |                 |
|                       |               | Cost Est. Source      | CIP Number               |           |                 |
|                       |               | Cost Est. Prepared By | Description              |           |                 |



## **LED Lighting and Lighting Control Improvements**

| <b>ase</b> Design an | nd Build       |                       | Contract TBD             | <b>Status</b> Future Planned Start |
|----------------------|----------------|-----------------------|--------------------------|------------------------------------|
| e DB-WW Lig          | hting Improv   | vements               |                          |                                    |
| Phase Budget         | Wastewater     |                       | Cost Allocation          | CTA                                |
| Phase Status         | Future Plann   | ned Start             | Funding Source           | Revenue Financed Capital           |
| Start Date           |                |                       | Fund                     | Improvement & Extension Fun        |
| End Date             |                |                       | Useful Life >20Yrs?      | No                                 |
| Со                   | ost Estimation | n Information         | Tot. Federal Loan Amount | \$0                                |
|                      | 5              | Cost Est. Class       | Program/Allowance        | Task Information                   |
|                      |                | Cost Est. Date        | Project Manager          |                                    |
|                      |                | Cost Est. Source      | CIP Number               |                                    |
|                      |                | Cost Est. Prepared By | Description              |                                    |

**GLWA FY 2021-2025 CIP** 

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



Project Execution

Project Closeout

12/29/2021

10/7/2022

10/6/2022

1/4/2023

281

89

#### GLWA FY 2021-2025 CIP

## **LED Lighting and Lighting Control Improvements**

| Phase Design and Build      |                                   |         |          |             |                                    |   | Contro                           | act TB   | D        |           | Status  | Act        | ive   |     |
|-----------------------------|-----------------------------------|---------|----------|-------------|------------------------------------|---|----------------------------------|----------|----------|-----------|---------|------------|-------|-----|
| <b>Title</b> Water Fac      | ility Lighti                      | ing Ren | ovation: | ;           |                                    |   |                                  |          |          |           |         |            |       |     |
| Phase Budget Water          |                                   |         |          |             | Cost Allocation CTA                |   |                                  |          |          |           |         |            |       |     |
| Phase Status Active         |                                   |         |          |             |                                    | Funding Source Revenue Financed Capital |                                  |          |          |           |         |            | lc lc |     |
| Start Date                  | 5/24/2016                         |         |          |             |                                    |   | Fund Improvement & Extension Fun |          |          |           |         |            |       | Fun |
| End Date                    |                                   |         |          |             |                                    |   | Useful Life >20Yrs? No           |          |          |           |         |            |       |     |
| Cost Estimation Information |                                   |         |          |             | Tot. Federal Loan Amount           |   |                                  |          |          |           |         |            |       |     |
| 2 Cost Est. Class           |                                   |         |          |             | Program/Allowance Task Information |   |                                  |          |          |           |         |            |       |     |
| Cost Est. Date              |                                   |         |          |             | Project Manager                    |   |                                  |          |          |           |         |            |       |     |
| Cost Est. Source            |                                   |         | :e       | CIP Number  |                                    |   |                                  |          |          |           |         |            |       |     |
| Cost Est. Prepared By       |                                   |         |          |             | ared By                            | [                                       | Description                      |          |          |           |         |            |       |     |
| Cost Type Fiscal Year Expe  |                                   |         |          | Expens      | е                                  | e Fringe BenefitNonPersonne C           |                                  |          |          |           | Comment |            |       |     |
| Design-Build FY22           |                                   |         |          | \$248 2021C |                                    |   |                                  | 2021 CIF | P        |           |         |            |       |     |
| Design-Build                | esign-Build FY23                  |         |          |             | \$252                              | 2021CIP                                 |                                  |          |          |           |         |            |       |     |
|                             |                                   |         | Ph       | ase T       | otal Exp                           | ense                                    | s By FY (Al                      | l figure | s are in | \$1,000's | )       |            |       |     |
| Prior Yr Actua              | Prior Yr Actual FY20 FY21 FY22 FY |         |          | FY2         | 23                                 | FY24                                    | FY:                              | 25       | FY26+    | Total     |         | 5-Yr Total |       |     |
| 0                           | 0                                 |         | 0        | 24          | 18                                 | 252                                     | 0                                |          | 0        | 0         | 5       | 500        | 500   |     |
| Phase Task Dat              | es                                |         |          |             |                                    |   |                                  |          |          |           |         |            |       |     |
| Phase Task Nan              | ne Start                          | t Date  | End D    | ate         | Duratio                            | on                                      |                                  |          |          |           |         |            |       |     |
| Pre-Procuremen              | it 3/3                            | 31/2021 | 6/30     | /2021       |                                    | 91                                      |                                  |          |          |           |         |            |       |     |
| Procurement                 | Procurement 7/1/2021 12/28/2021   |         |          | 180         |                                    |   |                                  |          |          |           |         |            |       |     |



## **LED Lighting and Lighting Control Improvements**

| Cost Allocation CTA  Funding Source Revenue Financed Capital  Fund Improvement & Extension Fun |
|--|
| Funding Source Revenue Financed Capital  Fund Improvement & Extension Fun                      |
| Fund Improvement & Extension Fun   |
| ·  |
|  |
| Useful Life >20Yrs? No   |
| Tot. Federal Loan Amount \$0   |
| Program/Allowance Task Information   |
| Manager  |
| nber   |
| ion  |
|  |

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



## **LED Lighting and Lighting Control Improvements**

| <b>Phase</b> Study          |   |        |             |  |   | Contro                             | act TB | D  |       | Status Ac | tive       |     |  |  |
|-----------------------------|---|--------|-------------|--|---|------------------------------------|--------|----|-------|-----------|------------|-----|--|--|
| Title Study-Wtr             |   |        |             |  |   |                                    |        |    |       |           |            |     |  |  |
| Phase Budget Water          |   |        |             |  | Cost Allocation CTA                     |                                    |        |    |       |           |            |     |  |  |
| Phase Status Active         |   |        |             |  | Funding Source Revenue Financed Capital |                                    |        |    |       |           |            |     |  |  |
| Start Date                  |   |        |             |  | Fund Improvement & Extension Fund       |                                    |        |    |       |           |            |     |  |  |
| End Date                    | End Date  |        |             |  | Useful Life >20Yrs? No                  |                                    |        |    |       |           |            |     |  |  |
| Cost Estimation Information |   |        |             |  | 1                                       | Tot. Federal Loan Amount \$        |        |    |       |           |            | \$0 |  |  |
|                             | 5 Cost Est. Class   |        |             |  |   | Program/Allowance Task Information |        |    |       |           |            |     |  |  |
|                             | Cost Est. Date  |        |             | le   | Project Manager                         |                                    |        |    |       |           |            |     |  |  |
| Cost Est. Source            |   |        | ırce        | CIP Number                                 |   |                                    |        |    |       |           |            |     |  |  |
| Cost Est. Prepare           |   |        |             | pared By                                   | ed By Description                       |                                    |        |    |       |           |            |     |  |  |
| Cost Type Fiscal Year E     |   |        | Exper       | Expense Fringe Benefit NonPersonne Comment |   |                                    |        |    |       |           |            |     |  |  |
| Engineering Services FY21   |   |        | \$50 2021CI |  |   |                                    |        | Р  |       |           |            |     |  |  |
|                             | Phase Total Expenses By FY (All figures are in \$1,000's) |        |             |  |   |                                    |        |    |       |           |            |     |  |  |
| Prior Yr Actua F            | Y20   | FY21   | FY22        | 2 F  | Y23                                     | FY24                               | FY     | 25 | FY26+ | Total     | 5-Yr Total |     |  |  |
| 0                           | 0   |        | 50          | 0  | 0                                       | 0                                  |        | 0  | 0     | 50        | 50         |     |  |  |
| Phase Task Dates            |   |        |             |  |   |                                    |        |    |       |           |            |     |  |  |
| Phase Task Name Start Date  |   | Date   | End Date Du |  | tion                                    |                                    |        |    |       |           |            |     |  |  |
| Pre-Procurement             | 7/  | 1/2019 | 9/28/20     | 19   | 89                                      |                                    |        |    |       |           |            |     |  |  |
| Procurement                 |   |        |             |  | 275                                     |                                    |        |    |       |           |            |     |  |  |
| Project Execution           |   | 1/2020 | 3/30/202    |  | 272                                     |                                    |        |    |       |           |            |     |  |  |
| Project Closeout            | 3/3   | 1/2021 | 6/28/202    | <u> </u>                                   | 89                                      |                                    |        |    |       |           |            |     |  |  |





## **LED Lighting and Lighting Control Improvements**

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

| CIP Alias | FY16 | FY17 | FY18 | FY19  | FY20  | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|-----------|------|------|------|-------|-------|------|------|------|------|------|------|-------|------------|
| 2021      | 0    | 0    | 0    | 6     | 0     | 50   | 248  | 252  | 0    | 0    | 0    | 556   | 550        |
| 2020      | 0    | 0    |      | 250   | 250   | 0    | 0    | 0    | 0    | 0    | 0    | 500   | 250        |
| 2019      | 0    |      | 2    | 1,172 | 1,600 |      |      |      |      | 0    | 0    | 2,774 | 2,772      |
| 2018      |      |      | 933  | 933   | 933   |      |      |      | 0    | 0    | 0    | 2,799 | 2,799      |

Description of CIP Budget was cut down to \$500,000.00 We plan on doing 4 Booster Stations only with this CIP. MFG 7/25/2019

Changes



## As-needed CIP Implementation Assistance and Related Services

| ☐ Innovation ☐ Conceptual WW  | CIP Type Allowance   | Make a Pla  |   |  |  |  |  |  |
|---|--|---|---|--|--|--|--|--|
| <ul><li>□ Water MP Right Siz</li><li>□ Reliability/Redunct</li><li>□ NEWTP Repurposin</li></ul> | dancy Project New To CIP   |   |   |  |  |  |  |  |
|   | nager Gaylor Johnson / Dan Edwards   | Budget Split  Class Lvl 1 Centralized Services  |   |  |  |  |  |  |
|   | rector Dan Alford  Dept WW Design Eng  S Case Prepared   | Class Lvl 2 Programs Class Lvl 3 Programs Location Multiple Counties  |   |  |  |  |  |  |
| Year Proje  | ect Added to CIP 2002  | Fund and Cost Center  | Wastewater - 5421-892111  |  |  |  |  |  |
|   | The purpose of this proposed contract is to proorder basis to support the GLWA.  | ovide implementation assista  | nce and related services on a task  |  |  |  |  |  |
| Project Alternatives  | This project provides for multi-discipline Engine Sewer Systems. The purpose of this proposed a services on a task order basis to support the Gin capital projects definition and planning, de monitoring; third party contract administration and resolution; technical training; value enginengineering study reports; identify minimum recriteria, minimum standards of quality, and proposal analysis assistance; engineering fore | contract is to provide implem<br>SLWA. The services provided<br>sign and construction phase<br>n/oversight assistance/sched<br>neering (VE) services on select<br>equirements, scope of work, be<br>eliminary design and oversigl | nentation assistance and related under this contract include assistance procurement assistance and uling services; claims/changes analysis ted design projects; develop pasis of process design, performance and services for design/build contracts; |  |  |  |  |  |
| Other Important Info  | Challenges: N/A - Active   |   |   |  |  |  |  |  |
| Related Project   | CS-1433, CS-166, CS-189  |   |   |  |  |  |  |  |
| <b>Primary Driver</b>   | N/A - Active   |   |   |  |  |  |  |  |
| Driver Explanation  | N/A - Active   |   |   |  |  |  |  |  |



### As-needed CIP Implementation Assistance and Related Services

**Phase** Study and Design and Construction Assistance Contract CS-166 Status Cancelled

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.

Description

| Start Date End Date |           |          |                  |          |
|---------------------|-----------|----------|------------------|----------|
| Co                  | st Estimo | ation Ir | formation        |          |
|                     | 1         |          | Cost Est. Class  |          |
|                     |           |          | Cost Est. Date   |          |
|                     |           |          | Cost Est. Source | <u> </u> |
|                     |           |          | Cost Est. Prepar | ed By    |

Phase Budget Wastewater

**Phase Status** Cancelled

| Cost Allocation          | СТА                         |
|--------------------------|-----------------------------|
| <b>Funding Source</b>    | Revenue Financed Capital    |
| Fund                     | Improvement & Extension Fun |
| Useful Life >20Yrs?      | No                          |
| Tot. Federal Loan Amount |                             |

#### Program/Allowance Task Information

| roject Manager | Ali Khraizat |
|----------------|--------------|
| CIP Number     | 380402       |

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

380400 CIP#

### As-needed CIP Implementation Assistance and Related Services

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. Projected Expenses based upon historical percentage of use for CIP projects split 50/50 for water & Wastewater.

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

### As-needed CIP Implementation Assistance and Related Services

| <b>Phase</b> GLWA Em   | nployees Projec    | ct management     |                          | Contract NA                        |               |              | Status Cancelled |                   |    |
|------------------------|--------------------|-------------------|--------------------------|------------------------------------|---------------|--------------|------------------|-------------------|----|
| <b>Title</b> GLWA Salo | aries Wtr          |                   |                          |                                    |               |              |                  |                   |    |
| Phase Budget           | Phase Budget Water |                   |                          |                                    |               |              | СТА              |                   |    |
| Phase Status           | Cancelled          |                   |                          |                                    | Fundi         | ng Source    | Revenue Fi       | nanced Capita     |    |
| Start Date             |                    |                   |                          |                                    |               | Fund         | Improveme        | ent & Extension F | un |
| End Date               |                    |                   |                          |                                    | Useful Li     | No           |                  |                   |    |
| Co                     | ost Estimation Ir  |                   | Tot. Federal Loan Amount |                                    |               |              |                  | \$0               |    |
|                        | 1                  | Cost Est. Class   |                          | Program/Allowance Task Information |               |              |                  |                   |    |
|                        |                    | Cost Est. Date    |                          | Project Mar                        | nager         |              |                  |                   |    |
|                        |                    | Cost Est. Source  |                          | CIP Numbe                          | r             |              |                  |                   |    |
|                        |                    | Cost Est. Prepare | ed By                    | Description                        |               |              |                  |                   |    |
|                        |                    |                   |                          |                                    |               |              |                  |                   |    |
|                        |                    | Phase Tot         | al Expens                | ses By FY (Al                      | I figures are | in \$1,000's | )                |                   |    |
| Prior Yr Actua         | FY20 FY            | 21 FY22           | FY23                     | FY24                               | FY25          | FY26+        | Total            | 5-Yr Total        |    |
|                        | 0                  |                   |                          |                                    |               |              | 0                | 0                 |    |



380400 CIP#

### As-needed CIP Implementation Assistance and Related Services

| Phase not applicable                |                             | Contract NA                        | :                   | Status | Closed Out |  |
|-------------------------------------|-----------------------------|------------------------------------|---------------------|--------|------------|--|
| <b>Title</b> Prior Year Actual Expe | nses-Wtr                    |                                    |                     |        |            |  |
| As needed contract. Accu            | mulated task expenditures i | reclassed to projects or           | O&M - \$(-105K)     |        |            |  |
| Phase Budget Water                  |                             |                                    | Cost Allocation C   | TA     |            |  |
| Phase Status Closed Out             |                             |                                    | Funding Source      |        |            |  |
| Start Date                          |                             |                                    | Fund                |        |            |  |
| End Date                            |                             | Us                                 | eful Life >20Yrs? N | 0      |            |  |
| Cost Estimatio                      | n Information               | Tot. Federal Loan Amount           |                     |        |            |  |
| 1                                   | Cost Est. Class             | Program/Allowance Task Information |                     |        |            |  |
|                                     | Cost Est. Date              | Project Manager                    |                     |        |            |  |
|                                     | Cost Est. Source            | CIP Number                         |                     |        |            |  |
|                                     | Cost Est. Prepared By       | Description                        |                     |        |            |  |
|                                     |                             |                                    |                     |        |            |  |
|                                     | Phase Total Expe            | enses By FY (All figures           | are in \$1,000's)   |        |            |  |
| Phase Task Dates                    |                             |                                    |                     |        |            |  |



380400 CIP#

### As-needed CIP Implementation Assistance and Related Services

| <b>Phase</b> not applic     | cable          |                         | Contract                           | NA                     | Status | Closed Out |  |
|-----------------------------|----------------|-------------------------|------------------------------------|------------------------|--------|------------|--|
| Title Prior Year A          | Actual Expense | s-WW                    |                                    |                        |        |            |  |
| As needed cont              | tract. Accumu  | lated task expenditures | reclassed to projec                | ts or O&M - \$(-105K)  |        |            |  |
| Phase Budget                | Wastewater     |                         |                                    | <b>Cost Allocation</b> | CTA    |            |  |
| Phase Status                | Closed Out     |                         |                                    | Funding Source         |        |            |  |
| Start Date                  |                |                         |                                    | Fund                   |        |            |  |
| End Date                    |                |                         | Useful Life >20Yrs? No             |                        |        |            |  |
| Cost Estimation Information |                |                         | Tot. Fe                            |                        |        |            |  |
|                             | 1              | Cost Est. Class         | Program/Allowance Task Information |                        |        |            |  |
|                             |                | Cost Est. Date          | Project Manage                     | er                     |        |            |  |
|                             |                | Cost Est. Source        | CIP Number                         |                        |        |            |  |
|                             |                | Cost Est. Prepared By   | Description                        |                        |        |            |  |
|                             |                |                         |                                    |                        |        |            |  |
|                             |                | Phase Total Exp         | enses By FY (All fig               | ures are in \$1,000's  | s)     |            |  |
| Phase Task Date             | <b></b>        |                         |                                    |                        |        |            |  |
| Tildse lask bale            | <del></del>    |                         |                                    |                        |        |            |  |



380400 CIP#

### As-needed CIP Implementation Assistance and Related Services

| hase Budget  | Wastewater        |                       |                                    | Cost Allocation       | СТА                         |  |  |
|--------------|-------------------|-----------------------|------------------------------------|-----------------------|-----------------------------|--|--|
| Phase Status | Closed Out        |                       |                                    | <b>Funding Source</b> | Revenue Financed Capital    |  |  |
| Start Date   |                   | 3/24/2006             |                                    | Fund                  | Improvement & Extension Fun |  |  |
| End Date     |                   | 7/24/2017             | Us                                 | eful Life >20Yrs?     | No                          |  |  |
| Co           | ost Estimation    | Information           | Tot. Feder                         | al Loan Amount        |                             |  |  |
|              | 1 Cost Est. Class |                       | Program/Allowance Task Information |                       |                             |  |  |
|              |                   | Cost Est. Date        | Project Manager                    |                       |                             |  |  |
|              |                   | Cost Est. Source      | CIP Number                         | 380401                |                             |  |  |
|              |                   | Cost Est. Prepared By | Description                        |                       |                             |  |  |

# GLWA Great Lakes Water Authority As-ne

### As-needed CIP Implementation Assistance and Related Services

GLWA FY 2021-2025 CIP

Phase Study and Design and Construction Assistance Contract CS-166 Status Cancelled

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.

| End Date    |                       |
|-------------|-----------------------|
| Cost Estima | ition Information     |
| 1           | Cost Est. Class       |
|             | Cost Est. Date        |
|             | Cost Est. Source      |
|             | Cost Est. Prepared By |

Phase Budget Water

Start Date

**Phase Status** Cancelled

| Cost Allocation          | СТА                         |
|--------------------------|-----------------------------|
| <b>Funding Source</b>    | Revenue Financed Capital    |
| Fund                     | Improvement & Extension Fun |
| Useful Life >20Yrs?      | No                          |
| Tot. Federal Loan Amount |                             |

#### Program/Allowance Task Information

| Project Manager | Grant Gartrell                              |  |  |  |  |
|-----------------|---|--|--|--|--|
| CIP Number      | 380402                                      |  |  |  |  |
| Description     | The purpose of this proposed contract is to |  |  |  |  |

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

380400 CIP#

### As-needed CIP Implementation Assistance and Related Services

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.

Projected Expenses based upon historical percentage of use for CIP projects split 50/50 for water & Wastewater.

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

### As-needed CIP Implementation Assistance and Related Services

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

| CIP Alias | FY16 | FY17  | FY18 | FY19  | FY20  | FY21  | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|-----------|------|-------|------|-------|-------|-------|------|------|------|------|------|-------|------------|
| 2021      | 0    | 0     | 0    |       | 0     |       |      |      |      |      |      | 0     | 0          |
| 2020      | 0    | 0     | 0    | 0     | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0          |
| 2019      | 0    | 210   | 500  | 1,606 | 1,606 | 1,606 |      |      |      | 0    | 0    | 5,528 | 4,818      |
| 2018      | 4770 | 1,400 | 100  |       |       |       |      |      | 0    | 0    | 0    | 6,270 | 100        |

**Description of CIP** Not being used by WRRF Design for PMA services instead the PMA services are being properly allocated to their **Changes** assigned CIP's. For non CIP related work the WRRF design engineering group is using O&M budget.

**Driver Explanation** N/A - Active

### GLWA FY 2021-2025 CIP

380500 CIP#

| ☐ Innovation ☐ Conceptual WW N ☐ Water MP Right Siz ☐ Reliability/Redund ☐ NEWTP Repurposir | ing                                      | Example of pipe being laid  |                              |  |  |  |  |  |
|---|--|---|------------------------------|--|--|--|--|--|
|   |  | Budget  | Split                        |  |  |  |  |  |
| Project Engineer/Mar  | nager Beena Chackunkal                   | Class LvI 1   | Centralized Services         |  |  |  |  |  |
| Dir   | <b>ector</b> Dan Alford                  | Class Lvl 2   | Programs                     |  |  |  |  |  |
| Managing  | <b>Dept</b> WW Design Eng                | Class Lvl 3   | Programs                     |  |  |  |  |  |
| <b>Date Original Busines</b>  | s Case Prepared                          | Location  | Multiple Counties            |  |  |  |  |  |
| Year Proje  | ect Added to CIP 2004                    | Fund and Cost Center  |                              |  |  |  |  |  |
| Problem Statement   | Various engineering as needed services t | for design and replacement of a   | iging water and sewer lines. |  |  |  |  |  |
| Project Alternatives  | water mains and sewers throughout the s  | roject involves designing water main and lateral sewer replacement projects for aging and dysfunctional mains and sewers throughout the system and several projects at the WRRF under different tasks on an ased basis. The work also includes civil, structural, architectural, hydraulics, mechanical, electrical, surveying, mentation and piping design services. |                              |  |  |  |  |  |
| Primary Driver  | N/A - Active                             |   |                              |  |  |  |  |  |

### Wastewater General Engineering Services on an As-needed Basis

## PM Weighted Score

20

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) | 1     |         |
| Regulatory (Environmental/Legal)        | 1     |         |
| Public Benefit                          | 1     |         |
| Efficiency and Innovation               | 1     |         |
| Financial                               | 1     |         |
| Operations and Maintenance              | 1     |         |
| Public Health and Safety                | 1     |         |
| Condition                               | 1     |         |

### RC Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) |       |         |
| Efficiency and Innovation               |       |         |
| Public Benefit                          |       |         |
| Operations and Maintenance              |       |         |
| Regulatory (Environmental/Legal)        |       |         |
| Public Health and Safety                |       |         |
| Financial                               |       |         |
| Condition                               |       |         |

380500 CIP#

| <b>hase</b> GLWA Er<br><b>He</b> GLWA Sal | . ,            | roject man  | agement      |            | Contro                             | ict NA        |              | Status Clo               | osed Out           |  |  |
|---|----------------|-------------|--------------|------------|------------------------------------|---------------|--------------|--------------------------|--------------------|--|--|
| Phase Budget                              | Water          |             |              |            |                                    | Cost A        | Allocation C | CTA                      |                    |  |  |
| Phase Status                              | Closed O       | ut          |              |            |                                    | Fundir        | ng Source R  | Revenue Financed Capital |                    |  |  |
| Start Date                                |                |             |              |            |                                    |               | Fund Ir      | mproveme                 | nt & Extension Fur |  |  |
| End Date                                  |                |             |              |            |                                    | Useful Lif    | e >20Yrs?    | 10                       |                    |  |  |
| С   | ost Estimat    | ion Informa | tion         |            | Tof                                | . Federal Loa | n Amount     |                          | \$0                |  |  |
| 3 Cost Est. Class                         |                |             |              |            | Program/Allowance Task Information |               |              |                          |                    |  |  |
|   | Cost Est. Date |             |              |            | Project Man                        | ager          |              |                          |                    |  |  |
|   |                | Cost        | Est. Source  |            | CIP Number                         |               |              |                          |                    |  |  |
|   |                | Cost        | Est. Prepare | d By       | Description                        |               |              |                          |                    |  |  |
| Cost Ty                                   | /pe            | Fiscal Ye   | ear E        | xpense     | Fringe Ben                         | efitNonPersor | nne          | Comme                    | nt                 |  |  |
| GLWA Salaries (                           | CIP2021        | FY19-       |              | \$148      |                                    |               | 2021 CIP     |                          |                    |  |  |
|   |                |             | Phase Tota   | al Expense | es By FY (All                      | figures are i | n \$1,000's) |                          |                    |  |  |
| rior Yr Actua                             | FY20           | FY21        | FY22         | FY23       | FY24                               | FY25          | FY26+        | Total                    | 5-Yr Total         |  |  |
| 148                                       | 0              | 0           | 0            | 0          | 0                                  | 0             | 0            | 148                      | 0                  |  |  |



380500 CIP#

| <b>Phase</b> not appli   | cable      |                             | Contract NA                         | Status Closed Out      |  |
|--------------------------|------------|-----------------------------|-------------------------------------|------------------------|--|
| <b>Title</b> Prior Year. | Actual Ex  | penses-Wtr                  |                                     |                        |  |
| As needed con            | ntract. Ac | cumulated task expenditures | reclassed to projects or O&M - \$(  | -132K)                 |  |
| Phase Budget             | Water      |                             | Cost Alloc                          | cation CTA             |  |
| Phase Status             | Closed C   | Dut                         | Funding S                           | ource                  |  |
| Start Date               |            |                             |                                     | Fund                   |  |
| End Date                 |            |                             | Useful Life >2                      | 20Yrs?                 |  |
| Co                       | ost Estima | ition Information           | Tot. Federal Loan Ar                | mount                  |  |
|                          | 1          | Cost Est. Class             | Program/Allow                       | vance Task Information |  |
|                          |            | Cost Est. Date              | Project Manager                     |                        |  |
|                          |            | Cost Est. Source            | CIP Number                          |                        |  |
|                          |            | Cost Est. Prepared By       | Description                         |                        |  |
|                          |            |                             |                                     |                        |  |
|                          |            | Phase Total Expe            | enses By FY (All figures are in \$1 | 1,000's)               |  |
| Phase Task Da            | tes        |                             |                                     |                        |  |



**Phase Task Dates** 

### GLWA FY 2021-2025 CIP

380500 CIP#

| Phase not applicable                   |                      | Contract NA            | Α                  | Status    | Closed Out |
|--|----------------------|------------------------|--------------------|-----------|------------|
| Title Prior Year Actual Expenses-WW    |                      |                        |                    |           |            |
| \$148K FY18 (380501) Backed out due to | o reclassification t | to O&M                 |                    |           |            |
| Phase Budget Wastewater                |                      |                        | Cost Allocation    | СТА       |            |
| Phase Status Closed Out                |                      |                        | Funding Source     |           |            |
| Start Date                             |                      |                        | Fund               |           |            |
| End Date                               |                      | Us                     | seful Life >20Yrs? |           |            |
| Cost Estimation Information            | on                   | Tot. Fede              | ral Loan Amount    |           |            |
| 1 Cost Es                              | t. Class             | Prog                   | gram/Allowance 1   | Task Info | ormation   |
| Cost Es                                | t. Date              | Project Manager        |                    |           |            |
| Cost Es                                | t. Source            | CIP Number             |                    |           |            |
| Cost Es                                | t. Prepared By       | Description            |                    |           |            |
|  |                      |                        |                    |           | ,          |
| P                                      | hase Total Expe      | nses By FY (All figure | s are in \$1,000's | )         |            |



380500 CIP#

### Wastewater General Engineering Services on an As-needed Basis

Contract CS-1499 Status Closed Out **Phase** Study and Design and Construction Assistance CS-1499 Wastewater General Engineering Services on an As-needed Basis (CS-1499 METCO) 380501 - Currently most of the tasks are for Wastewater projects. Cost Allocation CTA Phase Budget Wastewater Phase Status Closed Out Funding Source Revenue Financed Capital Fund Improvement & Extension Fun Start Date 5/12/2010 6/2/2018 Useful Life >20Yrs? No **End Date** Tot. Federal Loan Amount **Cost Estimation Information Program/Allowance Task Information** Cost Est. Class **Project Manager** Ali Khraizat Cost Est. Date **CIP Number** 380501 Cost Est. Source Contract Description Cost Est. Prepared By

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



380500 CIP#

| Phase Budget                | Water          |            |              |            |                                    | Cost           | Allocation               | CTA        |                   |  |  |
|-----------------------------|----------------|------------|--------------|------------|------------------------------------|----------------|--------------------------|------------|-------------------|--|--|
| Phase Status                | Closed Ou      | J†         |              |            |                                    | Fundi          | Revenue Financed Capital |            |                   |  |  |
| <b>Start Date</b> 5/12/2010 |                |            |              |            |                                    |                | Fund                     | Improvemer | nt & Extension Fu |  |  |
| End Date 6/2/2018           |                |            |              |            |                                    | Useful Li      | fe >20Yrs?               | No         |                   |  |  |
| C                           | ost Estimati   | on Informo | ation        |            | То                                 | t. Federal Loc | an Amount                |            | \$0               |  |  |
| 1 Cost Est. Class           |                |            |              |            | Program/Allowance Task Information |                |                          |            |                   |  |  |
|                             | Cost Est. Date |            |              |            | Project Manager                    |                |                          |            |                   |  |  |
|                             |                | Cost       | Est. Source  | ,          | CIP Number                         |                |                          |            |                   |  |  |
|                             |                | Cost       | Est. Prepare | ed By      | Description                        |                |                          |            |                   |  |  |
|                             |                |            |              |            |                                    |                |                          |            |                   |  |  |
|                             |                |            | Phase Total  | al Expense | es By FY (All                      | figures are    | in \$1,000's             | )          |                   |  |  |
| rior Yr Actua               | FY20           | FY21       | FY22         | FY23       | FY24                               | FY25           | FY26+                    | Total      | 5-Yr Total        |  |  |
| -148                        | 0              | 0          | 0            | 0          | 0                                  | 0              | C                        | -148       | 0                 |  |  |

### Wastewater General Engineering Services on an As-needed Basis

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

| CIP Alias | FY16  | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total  | 5-Yr Total |
|-----------|-------|------|------|------|------|------|------|------|------|------|------|--------|------------|
| 2021      | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0      | 0          |
| 2020      | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0      | 0          |
| 2019      | 0     | 282  | 114  | 114  | 91   |      |      |      |      | 0    | 0    | 601    | 205        |
| 2018      | 10064 | 228  | 228  |      |      |      |      |      | 0    | 0    | 0    | 10,520 | 228        |

Description of CIP CS-1499 has been closed remaining tasks to be complete under CS-292.

Changes



### **As-Needed General Engineering Services**

| <ul> <li>□ Innovation</li> <li>□ Conceptual WW I</li> <li>□ Water MP Right Siz</li> <li>□ Reliability/Redunce</li> <li>□ NEWTP Repurposin</li> </ul> | zing dancy  CIP Type Allowance  Project New To CIP          |                             |  |
|--|---|-----------------------------|--|
| Project Engineer/Mai<br>Dir<br>Managing<br>Date Original Busines   | nager Grant Gartrell rector Grant Gartrell J Dept Water Eng | Class Lvl 2<br>Class Lvl 3  | Centralized Services Programs          |
| Problem Statement  | Allowance for the study and design of critical              | projects throughout the sys | tem prior to bidding and construction. |
| Scope of Work /<br>Project Alternatives  | As-needed engineering services for water and                | d wastewater engineering.   |  |
| _  | Challenges: N/A - Active                                    |                             |  |
| Primary Driver   | N/A - Active  |                             |  |
| Driver Explanation   | N/A - Active  |                             |  |

# GLWA FY 2021-2025 CIP Great Lakes Water Authority As-Needed General Engine

### **As-Needed General Engineering Services**

## PM Weighted Score

39.8

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) | 3     |         |
| Regulatory (Environmental/Legal)        | 1     |         |
| Public Benefit                          | 1     |         |
| Efficiency and Innovation               | 1     |         |
| Financial                               | 1     |         |
| Operations and Maintenance              | 2     |         |
| Public Health and Safety                | 3     |         |
| Condition                               | 3     |         |

### RC Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Condition                               |       |         |
| Financial                               |       |         |
| Regulatory (Environmental/Legal)        |       |         |
| Public Benefit                          |       |         |
| Operations and Maintenance              |       |         |
| Public Health and Safety                |       |         |
| Efficiency and Innovation               |       |         |
| Performance (Service Level/Reliability) |       |         |



### **As-Needed General Engineering Services**

| ase Budget         | Wastewate     | r                     |                 | <b>Cost Allocation</b> | CTA               |            |
|--------------------|---------------|-----------------------|-----------------|------------------------|-------------------|------------|
| hase Status Active |               |                       |                 | <b>Funding Source</b>  | Revenue Financed  | Capital    |
| Start Date         |               |                       |                 | Fund                   | Improvement & Ext | ension Fun |
| End Date           |               |                       | Us              | seful Life >20Yrs?     | No                |            |
| Co                 | ost Estimatio | n Information         | Tot. Feder      | al Loan Amount         |                   | \$0        |
|                    | 5             | Cost Est. Class       | Prog            | ram/Allowance          | Task Information  |            |
|                    |               | Cost Est. Date        | Project Manager |                        |                   |            |
|                    |               | Cost Est. Source      | CIP Number      |                        |                   |            |
|                    |               | Cost Est. Prepared By | Description     |                        |                   |            |

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

| Prior Yr Actua | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|----------------|------|------|------|------|------|------|-------|-------|------------|
| -51            | 0    | 0    | 0    | 0    | 0    | 0    | 0     | -51   | 0          |



### **As-Needed General Engineering Services**

| <b>hase</b> not applicable                      | Contract NA         | Status Closed Out      |
|---|---------------------|------------------------|
| itle Prior Year Actual Expenses-WW              |                     |                        |
| \$157K FY18 (380601) Backed out to reconcile LT | D                   |                        |
| Phase Budget Wastewater                         | Cost Allo           | ocation CTA            |
| Phase Status Closed Out                         | Funding S           | Source                 |
| Start Date                                      |                     | Fund                   |
| End Date  | Useful Life >       | >20Yrs?                |
| Cost Estimation Information                     | Tot. Federal Loan A | Amount                 |
| 1 Cost Est. Class                               | Program/Allov       | wance Task Information |
| Cost Est. Date                                  | Project Manager     |                        |
| Cost Est. Source                                | CIP Number          |                        |
| Cost Est. Prepare                               | ed By Description   |                        |



### **As-Needed General Engineering Services**

Phase Design Contract CS-1432A Status Active

Title CS-1432A Water As-Needed Engineering Services

| 380601              |               |                       |                                    |                       |                             |  |
|---------------------|---------------|-----------------------|------------------------------------|-----------------------|-----------------------------|--|
| Phase Budget        | Water         |                       |                                    | Cost Allocation       | СТА                         |  |
| Phase Status        | Active        |                       |                                    | <b>Funding Source</b> | Revenue Financed Capital    |  |
| Start Date          | 7,200         |                       |                                    | Fund                  | Improvement & Extension Fun |  |
| End Date 12/12/2018 |               | Useful Life >20Yrs?   |                                    | No                    |                             |  |
| Co                  | ost Estimatio | on Information        | Tot. Fede                          | eral Loan Amount      |                             |  |
|                     | 5             | Cost Est. Class       | Program/Allowance Task Information |                       |                             |  |
|                     |               | Cost Est. Date        | Project Manager                    | Beena Chackun         | ıkal                        |  |
|                     |               | Cost Est. Source      | CIP Number                         | 380601                |                             |  |
|                     |               | Cost Est. Prepared By | Description                        | Alfred Benesh         |                             |  |

| Cost Type            | Fiscal Year | Expense | Fringe Benefit | NonPersonne | Comment  |
|----------------------|-------------|---------|----------------|-------------|----------|
| Engineering Services | FY19-       | \$56    |                |             | 2021 CIP |

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

| F | Prior Yr Actua | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|---|----------------|------|------|------|------|------|------|-------|-------|------------|
|   | 56             | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 56    | 0          |



### **As-Needed General Engineering Services**

Phase Design Contract CS-1432A Status Active

CS-1432A Wastewater As-Needed Engineering Services 380601 Phase Budget Wastewater Cost Allocation CTA **Phase Status** Active Funding Source Revenue Financed Capital **Start Date** Fund Improvement & Extension Fun 1/23/2008 **End Date** 12/12/2018 Useful Life >20Yrs? No Tot. Federal Loan Amount **Cost Estimation Information** Cost Est. Class Program/Allowance Task Information **Project Manager** Beena Chackunkal Cost Est. Date **CIP Number** 380601 Cost Est. Source Description Alfred Benesh Cost Est. Prepared By

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



### **As-Needed General Engineering Services**

| <b>Phase</b> not appli | cable            |                          | Contract NA                               | Status    | Status Closed Out |  |  |
|------------------------|------------------|--------------------------|---|-----------|-------------------|--|--|
| Title Prior Year       | Actual Expense   | es-Wtr                   |   |           |                   |  |  |
| As needed con          | tract. Accumi    | ulated task expenditures | reclassed to projects or O&M - \$(-157K)  |           |                   |  |  |
| Phase Budget           | Water            |                          | Cost Allocation                           | CTA       |                   |  |  |
| Phase Status           | Closed Out       |                          | Funding Source                            |           |                   |  |  |
| Start Date             |                  |                          | Fund                                      |           |                   |  |  |
| End Date               |                  |                          | Useful Life >20Yrs?                       |           |                   |  |  |
| Co                     | ost Estimation I | nformation               | Tot. Federal Loan Amount                  |           |                   |  |  |
|                        | 1                | Cost Est. Class          | Program/Allowance                         | Task Info | ormation          |  |  |
|                        |                  | Cost Est. Date           | Project Manager                           |           |                   |  |  |
|                        |                  | Cost Est. Source         | CIP Number                                |           |                   |  |  |
|                        |                  | Cost Est. Prepared By    | Description                               |           |                   |  |  |
|                        |                  |                          |   |           |                   |  |  |
|                        |                  | Phase Total Expo         | enses By FY (All figures are in \$1,000's | s)        |                   |  |  |
| Phase Task Date        | tes              |                          |   |           |                   |  |  |



### **As-Needed General Engineering Services**

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

| CIP Alias | FY16  | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total  | 5-Yr Total |
|-----------|-------|------|------|------|------|------|------|------|------|------|------|--------|------------|
| 2021      | 0     | 0    | 0    | 5    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 5      | 0          |
| 2020      | 0     | 0    | 2    | 94   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 96     | 0          |
| 2019      | 0     | 316  | 406  | 327  | 50   |      |      |      |      | 0    | 0    | 1,099  | 377        |
| 2018      | 14012 | 446  | 436  | 386  |      |      |      |      | 0    | 0    | 0    | 15,280 | 822        |



### As-Needed Geotechnical and Related Engineering Services

| <ul> <li>□ Innovation</li> <li>□ Conceptual WW MP</li> <li>□ Water MP Right Sizing</li> <li>□ Reliability/Redundancy</li> <li>□ NEWTP Repurposing</li> </ul> | Project Status Active  CIP Type Allowance  Project New To CIP | Example of testing being performe   | The second secon |
|--|---|---|--|
| TILITI Reporposing   |   | Budget  | Water  |
| Project Engineer/Manager   | Peter Fromm   | Class Lvl 1   | Centralized Services   |
| Director (   | Grant Gartrell  | Class Lvl 2   | Programs   |
| Managing Dept $ \lor $   | Water Eng   | Class Lvl 3   | Programs   |
| Date Original Business Case  | Prepared  | Location  | Multiple Counties  |
| Year Project Add   | led to CIP 2006   | Fund and Cost Center  |  |
| timely r   | •   |   | n professional engineering services in a<br>ed engineering problems that occur on a  |
| Project Alternatives geotection environ inspect service 1. 1802 2. 1803  |   | eotechnical engineering, cons<br>, soils sampling and testing, lar<br>onstruction inspection. This con<br>n for the follow transmission ma<br>sin | ntract includes design, construction   |
| Primary Driver Varies  |   |   |  |

# GLWA Great Lakes Water Authority

# GLWA FY 2021-2025 CIP As-Needed Geotechnical and Related Engineering Services

### PM Weighted Score

20

| Criteria                                | Score | Comment |
|---|-------|---------|
| Regulatory (Environmental/Legal)        | 1     |         |
| Performance (Service Level/Reliability) | 1     |         |
| Condition                               | 1     |         |
| Public Benefit                          | 1     |         |
| Operations and Maintenance              | 1     |         |
| Efficiency and Innovation               | 1     |         |
| Public Health and Safety                | 1     |         |
| Financial                               | 1     |         |

**Phase Task Dates** 

### **GLWA FY 2021-2025 CIP**

380700 CIP#

### As-Needed Geotechnical and Related Engineering Services

| <b>Phase</b> not appli | cable             |                          | Contract              | NA                     | Status    | Closed Out |
|------------------------|-------------------|--------------------------|-----------------------|------------------------|-----------|------------|
| Title Prior Year       | Actual Expense    | es-Wtr                   |                       |                        |           |            |
| As needed con          | tract. Accumu     | ulated task expenditures | reclassed to project  | s or O&M (\$-115K)     |           |            |
| Phase Budget           | Water             |                          |                       | <b>Cost Allocation</b> | СТА       |            |
| Phase Status           | Closed Out        |                          |                       | Funding Source         |           |            |
| Start Date             |                   |                          |                       | Fund                   |           |            |
| End Date               |                   |                          |                       | Useful Life >20Yrs?    |           |            |
| Co                     | ost Estimation Ir | nformation               | Tot. Fe               | deral Loan Amount      |           |            |
|                        | 1                 | Cost Est. Class          | P                     | rogram/Allowance       | Task Info | rmation    |
|                        |                   | Cost Est. Date           | Project Manage        | r                      |           |            |
|                        |                   | Cost Est. Source         | CIP Number            |                        |           |            |
|                        |                   | Cost Est. Prepared By    | Description           |                        |           |            |
|                        |                   | -                        |                       |                        |           |            |
|                        |                   | Phase Total Expe         | enses By FY (All figu | res are in \$1,000's   | )         |            |
|                        |                   |                          |                       |                        |           |            |



### As-Needed Geotechnical and Related Engineering Services

**Phase** Design & Construction Assistance

Contract CS-259

Status Active

Title Design/Construction Administration

| Engineering Ser | rvice    | es Contrac | ct CS-259, Somat Er | ngineerin | g (active)      |                                       |                                     |
|-----------------|----------|------------|---------------------|-----------|-----------------|---------------------------------------|-------------------------------------|
| Phase Budget    | Wa       | iter       |                     |           |                 | <b>Cost Allocation</b>                | CTA                                 |
| Phase Status    | Act      | tive       |                     |           | Funding Source  |                                       | Revenue Financed Capital            |
| Start Date      |          | 4/8/2009   |                     |           | Fund Ir         |                                       | Improvement & Extension Fun         |
| End Date        | 4/8/2021 |            |                     |           | U               | No                                    |                                     |
| Co              | ost E    | stimation  | Information         |           | Tot. Fede       | ral Loan Amount                       |                                     |
|                 |          | 2          | Cost Est. Class     |           | Prog            | gram/Allowance                        | Task Information                    |
|                 |          |            | Cost Est. Date      |           | Project Manager | Grant Gartrell                        |                                     |
|                 |          |            | Cost Est. Source    |           | CIP Number      | 380701                                |                                     |
|                 |          |            | Cost Est. Prepare   | ed By     | Description     | Engineering Ser<br>Soil Borings (CS-1 | vices, Concrete Testing and<br>488) |

| Cost Type            | Fiscal Year | Expense | Fringe BenefitNo | onPersonne | Comment  |
|----------------------|-------------|---------|------------------|------------|----------|
| Engineering Services | FY20        | \$1,415 |                  | 2          | 2021 CIP |
| Engineering Services | FY21        | \$715   |                  | 1          | 2021 CIP |

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

| Prior Yr Actua | FY20  | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|----------------|-------|------|------|------|------|------|-------|-------|------------|
| 0              | 1,415 | 715  | 0    | 0    | 0    | 0    | 0     | 2,130 | 715        |

| Phase Task Name   | Start Date | hase Task Name  | End Date | Duration |
|-------------------|------------|-----------------|----------|----------|
| Project Execution | 6/1/2016   | oject Execution | 1/1/2021 | 1675     |
| Project Closeout  | 1/2/2021   | oject Closeout  | 4/2/2021 | 90       |

380700 CIP#

### As-Needed Geotechnical and Related Engineering Services

| ıse Budget   | Wastewater    |                       | Cost Allocat          | tion CTA                     |  |
|--------------|---------------|-----------------------|-----------------------|------------------------------|--|
| Phase Status | Active        |                       | Funding Sou           | rce Revenue Financed Capital |  |
| Start Date   |               |                       | Fo                    | Improvement & Extension Fun  |  |
| End Date     |               |                       | Useful Life >20\      | No                           |  |
| Co           | ost Estimatio | n Information         | Tot. Federal Loan Amo | ount \$0                     |  |
|              | 5             | Cost Est. Class       | Program/Allowar       | nce Task Information         |  |
|              |               | Cost Est. Date        | Project Manager       |                              |  |
|              |               | Cost Est. Source      | CIP Number            |                              |  |
|              |               | Cost Est. Prepared By | Description           |                              |  |

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

380700 CIP#

### As-Needed Geotechnical and Related Engineering Services

| _ |
|---|





### As-Needed Geotechnical and Related Engineering Services

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

| CIP Alias | FY16 | FY17 | FY18 | FY19 | FY20  | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|-----------|------|------|------|------|-------|------|------|------|------|------|------|-------|------------|
| 2021      | 0    | 0    | 0    | 0    | 1,415 | 715  | 0    | 0    | 0    | 0    | 0    | 2,130 | 715        |
| 2020      | 0    | 0    | 0    | 620  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 620   | 0          |
| 2019      | 0    | 230  | 238  | 477  | 477   | 477  | 238  |      |      | 0    | 0    | 2,137 | 1,669      |
| 2018      |      | 650  | 907  | 333  | 333   | 333  |      |      | 0    | 0    | 0    | 2,556 | 1,906      |

**Description of CIP** Updated this CIP to reflect the work being conducted under its associated engineering contract, CS-259 **Changes** (formerly CS-1488) PF 8/9/2019



#### Geotechnical and Related Services on an As-Needed Basis

| Innovation |  |
|------------|--|
|            |  |

☐ Conceptual WW MP

☐ Water MP Right Sizing

☐ Reliability/Redundancy

☐ NEWTP Repurposing

**Project Status** Closed

CIP Type Allowance

**Project New To CIP** 



**Budget** Split

Class Lvl 1 Centralized Services

Class Lvl 2 Programs

Class Lvl 3 Programs

**Location** Multiple Counties

**Fund and Cost Center** 

Project Engineer/Manager Grant Gartrell

**Director** Grant Gartrell

Managing Dept Water Eng

**Date Original Business Case Prepared** 

Year Project Added to CIP 2007

**Problem Statement** 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 Project Alternatives additional engineering/ technical services as requested.

**Primary Driver** 

380800 CIP#

### Geotechnical and Related Services on an As-Needed Basis

| hase not applicable |             |   | Contract NA  | Status (      | Status Closed Out |  |  |
|---------------------|-------------|---|--|---------------|-------------------|--|--|
| Title Prior Year    | Actual Exp  | oenses-Wtr  |  |               |                   |  |  |
| As needed con       | ntract. Ac  | cumulated task expenditures i   | reclassed to projects or O&M - \$(-82K)                    |               |                   |  |  |
| Phase Budget        | Water       |   | Cost Allocation  | n CTA         |                   |  |  |
| Phase Status        |             |   | Funding Source   | 9             |                   |  |  |
| Start Date          |             |   | Fund   | d             |                   |  |  |
| End Date            |             |   | Useful Life >20Yrs?  | ? No          |                   |  |  |
| Co                  | ost Estimat | tion Information  | Tot. Federal Loan Amoun                                    | t             |                   |  |  |
|                     | 1           | Cost Est. Class Cost Est. Date Cost Est. Source Cost Est. Prepared By | Program/Allowance Project Manager  CIP Number  Description | e Task Inforn | nation            |  |  |
| Phase Task Dat      |             | Phase Total Expe  | enses By FY (All figures are in \$1,000                    | 's)           |                   |  |  |

380800 CIP#

### Geotechnical and Related Services on an As-Needed Basis

|                            | Contract C   | :S-1490   | Status Closed Out   |  |  |  |
|----------------------------|--|---|---|--|--|--|
| tants: As-Needed Geotechni | cal Services:Wtr   |   |   |  |  |  |
|                            | Cost Allocation CTA  |   |   |  |  |  |
| Jt                         | Funding Source Revenue Financed Capi   |   |   |  |  |  |
| 1/14/2010                  |  | Improvement & Extension Fun   |   |  |  |  |
| <b>End Date</b> 7/14/2016  |  | Jseful Life >20Yrs?   | No  |  |  |  |
| on Information             | Tot. Fede  | eral Loan Amount  |   |  |  |  |
| Cost Est. Class            | Program/Allowance Task Information   |   |   |  |  |  |
| Cost Est. Date             | Project Manager  | Grant Gartrell  |   |  |  |  |
| Cost Est. Source           | CIP Number   | 380801  |   |  |  |  |
| Cost Est. Prepared By      | <b>Description</b> As-Needed Geotechnical Services                                   |   |   |  |  |  |
|                            | 1/14/2010 7/14/2016  ion Information Cost Est. Class Cost Est. Date Cost Est. Source | tants: As-Needed Geotechnical Services:Wtr  1/14/2010 7/14/2016  Tot. Fede  Cost Est. Class Pro  Cost Est. Date Cost Est. Source CIP Number | Cost Allocation Funding Source  1/14/2010  7/14/2016  Useful Life >20Yrs?  Tot. Federal Loan Amount Cost Est. Class Program/Allowance Cost Est. Date Cost Est. Source  Project Manager CIP Number  380801 |  |  |  |

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

### Geotechnical and Related Services on an As-Needed Basis

| nase Design            |                            | Contract C   | :S-1490               | Status Closed Out        |  |  |  |
|------------------------|----------------------------|--|-----------------------|--------------------------|--|--|--|
| le CS-1490: NTH Consul | tants: As-Needed Geotechni | cal Services:WW                                    |                       |                          |  |  |  |
| Phase Budget Wastewa   | ter                        | Cost Allocation CTA                                |                       |                          |  |  |  |
| Phase Status Closed O  | ut                         |  | <b>Funding Source</b> | Revenue Financed Capital |  |  |  |
| Start Date             | 1/14/2010                  |  | Fund Improvement      |                          |  |  |  |
| End Date               | 7/14/2016                  | U  | Jseful Life >20Yrs?   | No                       |  |  |  |
| Cost Estimat           | ion Information            | Tot. Fede  | eral Loan Amount      |                          |  |  |  |
| 5                      | Cost Est. Class            | Program/Allowance Task Information                 |                       |                          |  |  |  |
|                        | Cost Est. Date             | Project Manager                                    | Grant Gartrell        |                          |  |  |  |
|                        | Cost Est. Source           | CIP Number   | 380801                |                          |  |  |  |
|                        | Cost Est. Prepared By      | <b>Description</b> As-Needed Geotechnical Services |                       |                          |  |  |  |

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

#### Geotechnical and Related Services on an As-Needed Basis

| <b>Phase</b> GLWA En  | nployees Pr  | oject mai  | nagement     |         | Contro                             | act NA    |                  | Status           | Closed (                    | Dut      |     |  |
|-----------------------|--------------|------------|--------------|---------|------------------------------------|-----------|------------------|------------------|-----------------------------|----------|-----|--|
| <b>itle</b> GLWA Salo | aries        |            |              |         |                                    |           |                  |                  |                             |          |     |  |
| Phase Budget          | Water        |            |              |         |                                    | (         | Cost Allocatio   | n CTA            | CTA                         |          |     |  |
| Phase Status          | Closed Ou    | Closed Out |              |         |                                    | I         | unding Sourc     | e Revenue        | e Finance                   | d Capita |     |  |
| Start Date            |              |            |              |         |                                    |           | Fun              | <b>d</b> Improve | Improvement & Extension Fun |          |     |  |
| End Date              |              |            |              |         |                                    | Use       | eful Life >20Yrs | ? No             |                             |          |     |  |
| C                     | ost Estimati | on Inform  | ation        |         | To                                 | t. Federo | ıl Loan Amour    | nt               |                             |          | \$0 |  |
|                       | 5            | Cost       | Est. Class   |         | Program/Allowance Task Information |           |                  |                  |                             |          |     |  |
|                       |              | Cost       | Est. Date    |         | Project Mar                        | nager     |                  |                  |                             |          |     |  |
|                       |              | Cost       | Est. Source  |         | CIP Numbe                          | r         |                  |                  |                             |          |     |  |
|                       |              | Cost       | Est. Prepare | ed By   | Description                        |           |                  |                  |                             |          |     |  |
|                       |              |            |              |         |                                    |           |                  |                  |                             |          |     |  |
|                       |              |            | Phase Tot    | al Expe | nses By FY (Al                     | l figures | are in \$1,000   | )'s)             |                             |          |     |  |
| Prior Yr Actua        | FY20         | FY21       | FY22         | FY23    | FY24                               | FY2       | 5 FY26+          | Tota             | ıl 5-Y                      | r Total  |     |  |
|                       | 0            |            |              |         |                                    |           |                  |                  | 0                           | 0        |     |  |

380800 CIP#

### Geotechnical and Related Services on an As-Needed Basis

| Phase not appli  | cable          |                       | Contract NA                               | Status           | Closed Out |  |
|------------------|----------------|-----------------------|---|------------------|------------|--|
| Title Prior Year | Actual Expens  | es-WW                 |   |                  |            |  |
| \$82K FY18 (3808 | 301) Backed o  | ut to reconcile LTD   |   |                  |            |  |
| Phase Budget     | Wastewater     |                       | Cost Allocation                           | CTA              |            |  |
| Phase Status     | Closed Out     |                       | Funding Source                            |                  |            |  |
| Start Date       |                |                       | Fund                                      |                  |            |  |
| End Date         |                |                       | Useful Life >20Yrs?                       | No               |            |  |
| Co               | ost Estimation | Information           | Tot. Federal Loan Amount                  |                  |            |  |
|                  | 1              | Cost Est. Class       | Program/Allowance                         | Task Information |            |  |
|                  |                | Cost Est. Date        | Project Manager                           |                  |            |  |
|                  |                | Cost Est. Source      | CIP Number                                |                  |            |  |
|                  |                | Cost Est. Prepared By | Description                               |                  |            |  |
|                  |                |                       |   |                  |            |  |
|                  |                | Phase Total Expe      | enses By FY (All figures are in \$1,000's | s)               |            |  |
| Phase Task Dat   | tes            |                       |   |                  |            |  |

#### Geotechnical and Related Services on an As-Needed Basis

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

|           |      |      |      |      |      | =    |      |      |      |      |      | =     |            |
|-----------|------|------|------|------|------|------|------|------|------|------|------|-------|------------|
| CIP Alias | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
| 2021      | 0    | 0    | 0    |      | 0    |      |      |      |      |      |      | 0     | 0          |
| 2020      | 0    | 0    | 0    | 0    |      |      |      |      |      |      | 0    | 0     | 0          |
| 2019      | 0    | 164  |      |      |      |      |      |      |      | 0    | 0    | 164   | 0          |
| 2018      | 2441 | 132  |      |      |      |      |      |      | 0    | 0    | 0    | 2,573 | 0          |

Description of CIP The contract (Contract CS-1490) associated with this CIP is closed out. GAG 8/8/2019
Changes

# GLWA Great Lakes Water Authority

#### **GLWA FY 2021-2025 CIP**

## **General Engineering Services**

| <ul> <li>□ Innovation</li> <li>□ Conceptual WW I</li> <li>□ Water MP Right Siz</li> <li>□ Reliability/Redunce</li> <li>□ NEWTP Repurposir</li> </ul> | zing dancy  CIP Type Allowance  Project New To CIP   | Analytical Lo                             |   |
|--|--|---|---|
| Project Engineer/Mar<br>Dir<br>Managing<br>Date Original Busines   | nager Beena Chackunkal rector Dan Alford Dept WW Design Eng                                  | Class Lvl 1<br>Class Lvl 2<br>Class Lvl 3 |   |
| Problem Statement  | As needed multi-discipline engineering se  | rvices for various small scale pro        | ojects at WTP and WRRF.                 |
| •  | This project provides for rapid design turn-<br>disciplinary professional services including |   | , |
| Other Important Info   | Challenges: N/A - Active   |   |   |
| Primary Driver   | N/A - Active   |   |   |
| Driver Explanation   | N/A - Active   |   |   |



## **General Engineering Services**

## PM Weighted Score

100

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) | 5     |         |
| Regulatory (Environmental/Legal)        | 5     |         |
| Public Benefit                          | 5     |         |
| Efficiency and Innovation               | 5     |         |
| Financial                               | 5     |         |
| Operations and Maintenance              | 5     |         |
| Public Health and Safety                | 5     |         |
| Condition                               | 5     |         |

#### RC Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Financial                               |       |         |
| Performance (Service Level/Reliability) |       |         |
| Condition                               |       |         |
| Public Health and Safety                |       |         |
| Efficiency and Innovation               |       |         |
| Public Benefit                          |       |         |
| Operations and Maintenance              |       |         |
| Regulatory (Environmental/Legal)        |       |         |



## **General Engineering Services**

| Phase not appli           | cable         |                           | Contract              | NA                     | Status | Closed Out |  |  |
|---------------------------|---------------|---------------------------|-----------------------|------------------------|--------|------------|--|--|
| <b>Title</b> Prior Year A | Actual Expe   | nses-Wtr                  |                       |                        |        |            |  |  |
| As needed con             | ntract. Accu  | mulated task expenditures | reclassed to project  | s or 0&M - (\$-75K)    |        |            |  |  |
| Phase Budget              | Water         |                           |                       | <b>Cost Allocation</b> | СТА    |            |  |  |
| Phase Status              | Closed Out    |                           |                       | Funding Source         |        |            |  |  |
| Start Date                |               |                           |                       | Fund                   |        |            |  |  |
| End Date                  |               |                           | Useful Life >20Yrs?   |                        |        |            |  |  |
| Co                        | ost Estimatio | n Information             | Tot. Fe               |                        |        |            |  |  |
|                           | 1             | Cost Est. Class           | P                     | ormation               |        |            |  |  |
|                           |               | Cost Est. Date            | Project Manage        | r                      |        |            |  |  |
|                           |               | Cost Est. Source          | CIP Number            |                        |        |            |  |  |
|                           |               | Cost Est. Prepared By     | Description           |                        |        |            |  |  |
|                           |               |                           |                       |                        |        |            |  |  |
|                           |               | Phase Total Expo          | enses By FY (All figu | res are in \$1,000's   | )      |            |  |  |
| Phase Task Dat            | tes .         |                           |                       |                        |        |            |  |  |

## **General Engineering Services**

| <b>ase</b> Study and Design | and Construction Assistance | Contract NA         | Status Closed Out                |
|-----------------------------|-----------------------------|---------------------|----------------------------------|
| e General Engineeri         | ng Services                 |                     |                                  |
| Phase Budget Water          |                             | Cost Allo           | ocation CTA                      |
| Phase Status Closed         | Out                         | Funding 9           | Source Revenue Financed Capital  |
| Start Date                  | 3/27/2008                   |                     | Fund Improvement & Extension Fun |
| End Date                    | 3/27/2018                   | Useful Life >       | 20Yrs? No                        |
| Cost Estim                  | ation Information           | Tot. Federal Loan A | smount \$0                       |
|                             | Cost Est. Class             | Program/Allo        | wance Task Information           |
|                             | Cost Est. Date              | Project Manager     |                                  |
|                             | Cost Est. Source            | CIP Number          |                                  |
| Cost Est. Prepared By       |                             | Description         |                                  |

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



## **General Engineering Services**

| and Construction Assistance   | Contract C  | S-1481  | Status Closed Out  |
|-------------------------------|---|---|--|
| eral Engineering Services     |   |   |  |
| jects are for Wastewater Serv | ices.   |   |  |
| ter                           |   | <b>Cost Allocation</b>  | СТА  |
| put                           |   | Funding Source  | Revenue Financed Capital   |
| 3/27/2008                     |   | Fund  | Improvement & Extension Fun  |
| 3/27/2018                     | U   | No  |  |
| tion Information              | Tot. Fede   | eral Loan Amount  |  |
| Cost Est. Class               | Pro   | gram/Allowance  | Task Information   |
| Cost Est. Date                | Project Manager   | Beena Chackun   | nkal   |
| Cost Est. Source              | CIP Number  | 380901  |  |
| Cost Est. Prepared By         | Description   |   |  |
|                               | eral Engineering Services jects are for Wastewater Serviter jut 3/27/2008 3/27/2018  tion Information Cost Est. Class Cost Est. Date Cost Est. Source | teral Engineering Services jects are for Wastewater Services.  ter  ut  3/27/2008  3/27/2018  Ution Information  Cost Est. Class  Pro  Cost Est. Date  Cost Est. Source  CIP Number | recal Engineering Services  iects are for Wastewater Services.  ter  Cost Allocation Funding Source  3/27/2008 Fund  3/27/2018 Useful Life >20Yrs?  Tot. Federal Loan Amount Cost Est. Class Program/Allowance Cost Est. Date Cost Est. Source  CIP Number  380901 |

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

380900 CIP#

## **General Engineering Services**

| hase not applicat   | ble                           | Contract NA                               | Status Closed Out |  |  |  |
|---------------------|-------------------------------|---|-------------------|--|--|--|
| itle Prior Year Act | tual Expenses-WW              |   |                   |  |  |  |
| \$63K FY18 (380901) | ) Backed out to reconcile LTD |   |                   |  |  |  |
| Phase Budget Wo     | astewater                     | Cost Allocation                           | CTA               |  |  |  |
| Phase Status Cla    | osed Out                      | Funding Source                            |                   |  |  |  |
| Start Date          |                               | Fund                                      |                   |  |  |  |
| End Date            |                               | Useful Life >20Yrs?                       |                   |  |  |  |
| Cost                | Estimation Information        | Tot. Federal Loan Amount                  |                   |  |  |  |
|                     | 1 Cost Est. Class             | Program/Allowance Task Information        |                   |  |  |  |
|                     | Cost Est. Date                | Project Manager                           |                   |  |  |  |
|                     | Cost Est. Source              | CIP Number                                |                   |  |  |  |
|                     | Cost Est. Prepared By         | Description                               |                   |  |  |  |
|                     |                               |   |                   |  |  |  |
|                     | Phase Total Evo               | enses By EV (All figures are in \$1,000's | c)                |  |  |  |

Phase lotal expenses by FT (All figures are in \$1,000 s)

## **General Engineering Services**

| <b>Phase</b> GLWA Em   | nployees Pro  | ject mar  | nagement     |         | Contro         | act NA      |                  | Status Closed Out |                    |   |  |
|------------------------|---------------|-----------|--------------|---------|----------------|-------------|------------------|-------------------|--------------------|---|--|
| <b>Title</b> GLWA Salo | aries         |           |              |         |                |             |                  |                   |                    |   |  |
| Phase Budget           | Water         |           |              |         |                | C           | ost Allocation   | СТА               |                    |   |  |
| Phase Status           | Closed Out    |           |              |         |                | Fu          | ınding Source    | Revenue Fi        | nanced Capital     |   |  |
| Start Date             |               |           |              |         |                |             | Fund             | Improveme         | ent & Extension Fu | n |  |
| End Date               |               |           |              |         |                | Usef        | ul Life >20Yrs?  | No                |                    |   |  |
| Co                     | ost Estimatio | n Informo | ation        |         | To             | t. Federal  | Loan Amount      |                   | \$0                | ) |  |
|                        | 5             | Cost      | Est. Class   |         |                | Progra      | m/Allowance      | Task Information  |                    |   |  |
|                        |               | Cost      | Est. Date    |         | Project Mar    | nager       |                  |                   |                    |   |  |
|                        |               | Cost      | Est. Source  |         | CIP Numbe      | r           |                  |                   |                    |   |  |
|                        |               | Cost      | Est. Prepare | ed By   | Description    |             |                  |                   |                    |   |  |
|                        |               |           |              |         |                |             |                  |                   |                    |   |  |
|                        |               |           | Phase Tot    | al Expe | nses By FY (Al | I figures c | are in \$1,000's | 5)                |                    |   |  |
| Prior Yr Actua         | FY20          | FY21      | FY22         | FY23    | FY24           | FY25        | FY26+            | Total             | 5-Yr Total         |   |  |
|                        | 0             |           |              |         |                |             |                  | 0                 | 0                  |   |  |
| Phase Task Dat         | les           |           |              |         |                |             |                  |                   |                    |   |  |





### **General Engineering Services**

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

| CIP Alias | FY16 | FY17  | FY18  | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|-----------|------|-------|-------|------|------|------|------|------|------|------|------|-------|------------|
| 2021      | 0    | 0     | 0     |      | 0    |      |      |      |      |      |      | 0     | 0          |
| 2020      | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0          |
| 2019      | 0    | 138   | 572   | 916  | 425  |      |      |      |      | 0    | 0    | 2,051 | 1,341      |
| 2018      | 28   | 1,250 | 1,154 |      |      |      |      |      | 0    | 0    | 0    | 2,432 | 1,154      |

**Description of CIP** CS-1481 has been closed out and the remaining work was transferred to CS-301. **Changes** 

## GLWA Great Lakes Water Authority

#### **GLWA FY 2021-2025 CIP**

### Power Quality: Electric Metering Improvement Program

| <ul> <li>□ Innovation</li> <li>□ Conceptual WW</li> <li>□ Water MP Right Si</li> <li>☑ Reliability/Redund</li> <li>□ NEWTP Repurposi</li> </ul> | zing dancy  CIP Type Program  Project New To CIP   | Example of an electri<br>met                                      | Schneider PowerLogic 10M5500   |
|---|--|---|--|
| Managing Date Original Busines  | nager Eric Griffin rector John Norton g Dept Energy Management ss Case Prepared 8/18/2016 ect Added to CIP 2016  | Class Lvl 2<br>Class Lvl 3  | Centralized Services Programs  |
| Problem Statement   | Advanced meters for measuring power usage load management practices, GLWA is experiencing a lot of power outages of us real wave form data to determine why we doubt age which effects the integrity of our equip                          | at our facilities. The installations and the                      | on of the New Power Monitors will give                                   |
|   | This program will increase the number of electractive demand management to reduce electrangement system for data archiving and u. The installation of the New Power Monitors will outages and the time period of sagging or swe 07/25/2019 | ricity rates. The meters can<br>se.<br>give us real wave form dat | a to determine why we are having   |
| Other Important Info  | Project History: Project is in the works targeting We would like to change the project to design affecting our preassuers that are causing water communicate DTE problems that we are faced equipment.MFG 7/25/2019                        | build and move up on the<br>er main breaks and boil wat           | CIP. The outages we are having are er advisories, We need this to better |
| Related Project   | Completed Adams Road booster station install   | l as a pilot piece  |  |
| Primary Driver  | 2 - Performance  |   |  |

**Driver Explanation** The outages we are having are affecting our preassuers that are causing water main breaks and boil water

### Power Quality: Electric Metering Improvement Program

advisories, We need this to better communicate DTE problems that we are faced with and come up with solutions to improve the process or equipment.

## GLWA Great Lakes Water Authority

#### GLWA FY 2021-2025 CIP

## Power Quality: Electric Metering Improvement Program

## PM Weighted Score

74.8

| Critoria                                | Cooro | Commont |
|---|-------|---------|
| Criteria                                | Score | Comment |
| Performance (Service Level/Reliability) | 5     |         |
| Regulatory (Environmental/Legal)        | 3     |         |
| Public Benefit                          | 4     |         |
| Efficiency and Innovation               | 5     |         |
| Financial                               | 3     |         |
| Operations and Maintenance              | 2     |         |
| Public Health and Safety                | 4     |         |
| Condition                               | 4     |         |

#### RC Weighted Score

| Criteria                                | Score | Comment |
|---|-------|---------|
| Performance (Service Level/Reliability) |       |         |
| Public Health and Safety                |       |         |
| Condition                               |       |         |
| Regulatory (Environmental/Legal)        |       |         |
| Public Benefit                          |       |         |
| Financial                               |       |         |
| Operations and Maintenance              |       |         |
| Efficiency and Innovation               |       |         |



### Power Quality: Electric Metering Improvement Program

|                    |          |            |            |           |          | •           |          |           | •           |           |        |                |       |
|--------------------|----------|------------|------------|-----------|----------|-------------|----------|-----------|-------------|-----------|--------|----------------|-------|
| hase Construction  |          |            |            |           |          | Contro      | act NA   | \         |             | Status    | Futi   | ure Planned S  | start |
| itle Energy Manag  | ement:   | Wtr - Elec | ctric Met  | ering Imp | orove    | ment Progr  | am       |           |             |           |        |                |       |
| Phase Budget Wate  | er       |            |            |           |          |             |          | Cost A    | Allocation  | СТА       |        |                |       |
| Phase Status Futu  | re Plann | ed Start   |            |           |          |             |          | Fundin    | ng Source   | Revenue   | e Find | anced Capito   | al    |
| Start Date         |          |            |            |           |          |             |          |           | Fund        | Improve   | men    | nt & Extension | Fun   |
| End Date           |          |            |            |           |          |             | Us       | eful Life | e >20Yrs?   | No        |        |                |       |
| Cost Es            | timation | n Informa  | ıtion      |           |          | То          | t. Fede  | al Loai   | n Amount    |           |        |                |       |
|                    | 1        | Cost       | Est. Class | 3         |          |             | Prog     | ıram/A    | llowance 1  | Task Info | rma    | tion           |       |
|                    |          | Cost       | Est. Date  |           | F        | Project Mar | nager    |           |             |           |        |                |       |
|                    |          | Cost       | Est. Sour  | ce        | (        | CIP Numbe   | r        |           |             |           |        |                |       |
|                    |          | Cost       | Est. Prep  | ared By   | [        | Description |          |           |             |           |        |                |       |
| Cost Type          |          | Fiscal Ye  | ear        | Expens    | <u> </u> | Fringe Ber  | nefitNor | ıPerson   | ine         | Com       | nmer   | nt             |       |
| Construction       | F        | Y25        |            |           | \$313    |             |          |           | 2021 CIF    | )         |        |                |       |
| Construction       | F        | Y26+       |            | \$2       | 2,187    |             |          |           | 2021 CIF    | )         |        |                |       |
|                    |          |            | Phase T    | otal Exp  | ense     | s By FY (Al | l figure | s are ii  | n \$1,000's | )         |        |                |       |
| Prior Yr Actua FY2 | 0        | FY21       | FY22       | FY2       | 23       | FY24        | FY2      | 25        | FY26+       | Tota      | I      | 5-Yr Total     |       |
| 0                  | 0        | 0          |            | 0         | 0        | 0           |          | 313       | 2,187       | 2,        | 500    | 313            |       |
| Phase Task Dates   |          |            |            |           |          |             |          |           |             |           |        |                |       |

| Phase Task Name   | Start Date | End Date   | Duration |
|-------------------|------------|------------|----------|
| Pre-Procurement   | 7/1/2023   | 12/31/2023 | 183      |
| Procurement       | 1/1/2024   | 7/31/2024  | 212      |
| Project Execution | 8/1/2024   | 4/29/2027  | 1001     |
| Project Closeout  | 4/30/2027  | 7/29/2027  | 90       |



#### Power Quality: Electric Metering Improvement Program

Phase Construction Contract NA Status Future Planned Start

Title Energy Management: WW - Electric Metering Improvement Program

| Phase Budget | Wastewater           |
|--------------|----------------------|
| Phase Status | Future Planned Start |
| Start Date   |                      |
| End Date     |                      |

| Cost Estimation | Information           |
|-----------------|-----------------------|
| 5               | Cost Est. Class       |
| 7/24/2019       | Cost Est. Date        |
| Engineering     | Cost Est. Source      |
| Michael Graham  | Cost Est. Prepared By |

| Cost Allocation          | СТА                         |
|--------------------------|-----------------------------|
| Funding Source           | Revenue Financed Capital    |
| Fund                     | Improvement & Extension Fun |
| Useful Life >20Yrs?      | No                          |
| Tot. Federal Loan Amount |                             |

Program/Allowance Task Information

| 1109            | Juni/Allowance rask illionnation |
|-----------------|----------------------------------|
| Project Manager |                                  |
| CIP Number      |                                  |
| Description     |                                  |

| Cost Type    | Fiscal Year | Expense | Fringe Benefit | NonPersonne | Comment  |
|--------------|-------------|---------|----------------|-------------|----------|
| Construction | FY21        | \$313   |                |             | 2021 CIP |
| Construction | FY22        | \$1,195 |                |             | 2021 CIP |
| Construction | FY23        | \$992   |                |             | 2021 CIP |

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

| Prior Yr Actual | FY20 | FY21 | FY22  | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |
|-----------------|------|------|-------|------|------|------|-------|-------|------------|
| 0               | 0    | 313  | 1,195 | 992  | 0    | 0    | 0     | 2,500 | 2,500      |

| Phase Task Name   | Start Date | End Date   | Duration |
|-------------------|------------|------------|----------|
| Pre-Procurement   | 7/1/2019   | 12/31/2019 | 183      |
| Procurement       | 1/1/2020   | 7/31/2020  | 212      |
| Project Execution | 8/1/2020   | 4/29/2023  | 1001     |
| Project Closeout  | 4/30/2023  | 7/29/2023  | 90       |





### Power Quality: Electric Metering Improvement Program

| Phase GLWA Em                     | nployees Pro                     | oject manager | nent       |                        | Contract                    | NA            | Status          | Future Planned | Start |  |  |
|-----------------------------------|----------------------------------|---------------|------------|------------------------|-----------------------------|---------------|-----------------|----------------|-------|--|--|
| Title GLWA Sala                   | aries                            |               |            |                        |                             |               |                 |                |       |  |  |
| Phase Budget                      | Water                            |               |            |                        |                             | Cost Allo     | cation CTA      |                |       |  |  |
| Phase Status Future Planned Start |                                  |               |            |                        | oceeds                      |               |                 |                |       |  |  |
| Start Date                        | Start Date                       |               |            |                        | Fund Construction Bond Fund |               |                 |                |       |  |  |
| End Date                          |                                  |               |            | Useful Life >20Yrs? No |                             |               |                 |                |       |  |  |
| Cost Estimation Information       |                                  |               |            |                        | Tot. Fe                     |               | \$0             |                |       |  |  |
|                                   | 5 Cost Est. Class Cost Est. Date |               |            |                        |                             | Program/Allov | wance Task Info | ormation       |       |  |  |
|                                   |                                  |               |            |                        | roject Manag                | er            |                 |                |       |  |  |
| Cost Est. Source                  |                                  |               |            | CIP Number             |                             |               |                 |                |       |  |  |
|                                   |                                  | Cost Est. P   | repared By |                        | Description                 |               |                 |                |       |  |  |
|                                   |                                  | I             |            |                        |                             | 1             |                 |                |       |  |  |
| Cost Ty                           | pe                               | Fiscal Year   | Expense    | <del>)</del>           | Fringe Benefit              | NonPersonne   | Cor             | nment          |       |  |  |
| GLWA Salaries C                   | CIP2021                          | FY20          |            | \$86                   |                             |               | 2021 CIP        |                |       |  |  |
|                                   | 2100001                          | EVO1          | Φ.         | 100                    |                             |               | 0001 CID        |                | 1     |  |  |

| Cost Type             | Fiscal Year | Expense | Fringe Benefit | NonPersonne | Comment  |
|-----------------------|-------------|---------|----------------|-------------|----------|
| GLWA Salaries CIP2021 | FY20        | \$86    |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY21        | \$133   |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY22        | \$345   |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY23        | \$345   |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY24        | \$112   |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY25        | \$132   |                |             | 2021 CIP |
| GLWA Salaries CIP2021 | FY26+       | \$717   |                |             | 2021 CIP |

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

| Prior Yr Actua | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26+ | Total | 5-Yr Total |  |
|----------------|------|------|------|------|------|------|-------|-------|------------|--|
| 0              | 86   | 133  | 345  | 345  | 112  | 132  | 717   | 1,870 | 1,067      |  |

381000 CIP#

## Power Quality: Electric Metering Improvement Program

| vild        |                                      | Contract TBD   | Status  | Status Future Planned Start  |  |  |
|-------------|--------------------------------------|--|---|--|--|--|
| % for RFP   |                                      |  |   |  |  |  |
| er          |                                      | Cost Allocation  | СТА   |  |  |  |
| re Planned  | Start                                | Funding Source   |   |  |  |  |
|             |                                      | Fund   |   |  |  |  |
|             |                                      | Useful Life >20Yrs?  | No  |  |  |  |
| timation In | ormation                             | Tot. Federal Loan Amount   |   | \$0  |  |  |
| 5           | Cost Est. Class                      | Program/Allowance  | Task Info   | ormation   |  |  |
| 2019        | Cost Est. Date                       | Project Manager  |   |  |  |  |
|             | Cost Est. Source                     | CIP Number   |   |  |  |  |
|             | Cost Est. Prepared By                | Description  |   |  |  |  |
|             |                                      |  |   |  |  |  |
|             | Phase Total Exp                      | enses By FY (All figures are in \$1,000's                                    | <b>5)</b>   |  |  |  |
|             |                                      |  |   |  |  |  |
| r           | % for RFP er ee Planned timation Inf | timation Information  Cost Est. Class Cost Est. Source Cost Est. Prepared By | Cost Allocation Funding Source Fund Useful Life >20Yrs?  timation Information  Cost Est. Class Program/Allowance Project Manager Cost Est. Source Cost Est. Prepared By  Cost Est. Prepared By | Cost Allocation CTA Funding Source Fund Useful Life >20Yrs? No  Tot. Federal Loan Amount  Cost Est. Class Cost Est. Date Cost Est. Source CIP Number |  |  |



#### Power Quality: Electric Metering Improvement Program

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

| CIP Alias | FY16 | FY17  | FY18  | FY19  | FY20  | FY21  | FY22  | FY23  | FY24  | FY25  | FY26  | Total | 5-Yr Total |
|-----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------|
| 2021      | 0    | 0     | 0     | 0     | 86    | 446   | 1,540 | 1,337 | 112   | 445   | 2,904 | 6,870 | 3,880      |
| 2020      | 0    | 0     |       | 0     | 0     | 0     | 0     | 0     | 0     | 5,000 | 0     | 5,000 | 0          |
| 2019      | 0    |       |       |       | 120   | 120   | 510   | 878   | 4,372 | 0     | 0     | 6,000 | 1,628      |
| 2018      |      | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |       | 0     | 0     | 0     | 6,000 | 5,000      |

**Description of CIP** Other initiatives are presenting themselves. Wastewater and water deferred this project to 2025. Standard Changes installation of electric meters in WW CIP programs. Better understanding of Snyder electrical monitoring system and Aquasight projects. The need for this project has changed due to DTE power outages. The outages we are having are affecting our preassuers that are causing water main breaks and boil water advisories, We need this to better communicate DTE problems that we are faced with and come up with solutions to improve the process or equipment. MFG 7/25/2019