



Appendix A: Water Business Case Evaluations

Please consider the environment before printing this document.

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**CIP 11101: LH WTP Low and High Lift Pumping, Filter Backwash
Pumps & Flocculation Improvements**



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

Project Significance 111003 RECLASSIFIED INTO THIS PROJECT. Improvements needed to align the existing low lift pumping rate with the Lake Huron WTP production rate per the 2015 WMPU. Currently constant speed pumping forces the WTP to operate in a batch mode. Existing electrical gear for low and high lift pumping units and filter backwash pumps are original to plant, beyond useful service life and need to be replaced to improve reliability, serviceability, maintainability, and efficiency. In addition, the existing flocculators experience high breakage rates, and by the nature of their design are difficult to access for maintenance, etc. They require replacement with a new system that is reliable and easier to maintain. Replacement of phosphoric acid chemical storage tanks and fill piping. Existing flocculator drives are horizontal type with submerged bearings that are expensive to maintain. This evaluation will focus on alternatives that may provide more efficient flocculation and are easier and less costly to maintain.

Year Added: 2010

Date Original BCE Prepared: 3/3/2010

Date BCE Last Updated: 9/15/2017

Project Engineer/Manager: Jorge Nicolas

Title: Engineer

Phone: (313) 926-8130

Email: Jorge.Nicolas@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Lake Huron

Project Location: Saint Clair County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Currently constant speed pumping forces the Lake Huron WTP to operate in a batch mode as the low lift pump capacities exceed the high lift pump capacities. Improvements needed to align the existing low lift pumping rate with the Lake Huron WTP production rate per the 2015 WMPU. Replace with new:

1. High-voltage electrical system for high lift pumps
2. Filter rate control valves and appurtenances
3. Flocculator and drives (new technology targeted)



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

4. Phosphoric acid storage tanks

Project History:

Driver: 8 - Efficiency

Challenges: Coordination between existing pumping unit and motor required during design. Critical speed analysis may show pump improvements needed to operate at reduced speeds. Uncovering an innovative rehabilitation design to minimize maintenance of existing drives.

Other Important Info: *Innovation note: Ensure energy efficiency.

Updated project expenses to account for inflation, moved contract start back one year, added GLWA costs. Portions of project were identified in the 2015 Master Plan. Existing flocculator drives are horizontal type with submerged bearings that are expensive to maintain.

Related Project:



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

Phase Overview

Phase Title LH WTP Low and High Lift Pumping Improvements

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 12/30/2018

End Date: 1/25/2027

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: Existing LL Pumps: 2 - 100 mgd and 2 - 200 mgd; firm = 400 mgd
Future LL Pumps: 2 - 150 mgd and 2 - 100 mgd; firm = 350 mgd
Future: LL Pumps 1 - 150 mgd pump will have VFD. 1 - 100 mgd pump will have a VFD by the time this project is started via another contract being executed by plant O&M staff.



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

Phase Overview

Phase Title LH WTP Low and High Lift Pumping Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 1/22/2022

End Date: 1/25/2027

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: Existing LL Pumps: 2 - 100 mgd and 2 - 200 mgd; firm = 400 mgd
 Future LL Pumps: 2 - 150 mgd and 2 - 100 mgd; firm = 350 mgd
 Future: LL Pumps 1 - 150 mgd pump will have VFD. 1 - 100 mgd pump will have a VFD by the time this project is started via another contract being executed by plant O&M staff.

Phase Expenses

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **NA**

Phase Title **LH WTP Low and High Lift Pumping Improvements** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|-------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | 375 | 1,550 | 3,108 | 352 | 1,714 |
| GLWA Salaries | | | 18 | 42 | 42 | 42 | 158 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 7 | 17 | 17 | 17 | 63 |



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

| | | | | | | | |
|---|------|------|------|-------|-------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 1 | 2 | 2 | 2 | 8 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 401 | 1,611 | 3,169 | 413 | 1,943 |

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | LH WTP Low and High Lift Pumping Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|-------|-----------------|
| Construction | | | | | | 4,037 | 40,814 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|-------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 4,037 | 40,814 |

| | | | | | | | |
|-------------------------|------|------|------|-------|-------|-------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 401 | 1,611 | 3,169 | 4,450 | 42,757 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|------------|--|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| Task Name | Start Date | Duration | End Date | |
| Scope Development | 1/25/2022 | 90 | 4/25/2022 | |
| Procurement | 4/26/2022 | 188 | 10/31/2022 | |
| Project Execution | 11/1/2022 | 1455 | 10/26/2026 | |
| Project Closeout | 10/27/2026 | 90 | 1/25/2027 | |



LH WTP Low and High Lift Pumping, Filter Backwash Pumps & Flocculation Improvements

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 12/30/2018 | 90 | 3/30/2019 |
| Procurement | 3/31/2019 | 365 | 3/30/2020 |
| Project Execution | 3/31/2020 | 2400 | 10/26/2026 |
| Project Closeout | 10/27/2026 | 90 | 1/25/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

64.6

Review Committee Score

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

Review Committee Weighted Score

71.6

Describe Here the Changes from the 2018 CIP to 2019 CIP

rescheduled by moving back a fiscal year for the start, increased construction budget to account for inflation, changed project delivery from DBB to DB; added GLWA engineering costs. Previously presented on 10/24/17 as NEW project 111008.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|------|-------|-------|-------|-----------------|--------|
| 2018 | | 200 | 2,500 | 3,000 | | | | | | 5,700 |
| 2019 | | | 0 | 0 | 401 | 1,611 | 3,169 | 4,450 | 42,757 | 52,388 |

**CIP 111002: LH WTP Miscellaneous Mechanical HVAC
Improvements**



New CIP# **111002**

Old CIP# **1280**

LH WTP Miscellaneous Mechanical HVAC Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

LH WTP Miscellaneous Mechanical HVAC Improvements

Project Significance Existing heating, ventilating and air-conditioning systems Lake Huron are 40 years old and are either not operable or energy-inefficient. Thus, replacement with new, energy efficient mechanical HVAC systems is needed.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/15/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Treatment Plants & Facilities

Title: Director - Field Services

Project Classification Level 3: Lake Huron

Phone: (313) 926-8114

Project Location: Saint Clair County

Email: Todd.King@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The work includes replacement of the existing Natural Gas-Fired hot water boilers, back flow preventers, and dehumidification units with related accessories.

Project History: The Lake Huron WTP was placed in service in 1976. The boilers in the admin building, the chiller, and the dehumidification system have surpassed their expected life span and require replacement.

Driver: 1 - Condition

Challenges: Heating system modifications will be seasonally dependent.

Other Important Info: Complete analysis and the report are attached below.

Related Project: This BCE requests augmentation of the construction budget for CIP No. 1280 from \$2.5 million to \$7.14 million based on the preliminary engineering work conducted by Tetrattech under project CS-1732.



LH WTP Miscellaneous Mechanical HVAC Improvements

Phase Overview

Phase Title CON-182, Miscellaneous Mechanical Improvements at Lake Huron WTP, C1

Phase Category: C

Construction

Budget: Water

Contract Number: CON-182

Phase Status: Future Planned Start

Start Date: 8/27/2016

End Date: 8/24/2018

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: Backflow Preventor Replacement

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1732, Miscellaneous Mechanical Improvements at Lake Huron WTP

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1732

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



LH WTP Miscellaneous Mechanical HVAC Improvements

Phase Overview

Phase Title CON-212, LH WTP Electrical & Mechanical Process Improvements, C2

Phase Category: C

Construction

Budget: Water

Contract Number: CON-212

Phase Status: New

Start Date: 2/15/2018

End Date: 4/23/2020

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Misc Mech HVAC Imprvts

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **CON-182**

Phase Title **CON-182, Miscellaneous Mechanical Improvements at Lake Huron WTP, C1** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 165 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



LH WTP Miscellaneous Mechanical HVAC Improvements

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 165 | 0 | 0 | 0 | 0 | 0 | 0 |

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 217 | 101 | 101 | | | | |
| GLWA Salaries | 11 | 21 | 21 | 9 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 4 | 8 | 8 | 4 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 233 | 131 | 131 | 13 | 0 | 0 | 0 |



New CIP# **111002**

LH WTP Miscellaneous Mechanical HVAC Improvements

Old CIP# **1280**

| | | | | | |
|----------------------|--|---------------|-----------------|--------------|---------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | CON-212 |
| Phase Title | CON-212, LH WTP Electrical & Mechanical Process Improvements, C2 | | PPAT CIP Number | Phase Status | New |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|------|------|------|-----------------|
| Construction | 383 | 3,535 | 3,742 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|-------|-------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 0 | 0 | 0 | 0 | 0 | | 0 |
| Current Phase Non-Personnel Expenses | 0 | 0 | 0 | 0 | 0 | | 0 |
| Current Phase Total | 383 | 3,535 | 3,742 | 0 | 0 | | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|------|------|------|-----------------|
| | 781 | 3,666 | 3,873 | 13 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|------------|----------|-----------|
| Phase Category | C | | |
| Budget | Water | | |
| Phase Status | New | | |
| Contract No | CON-212 | | |
| Cost Est Class | | | |
| Construction | | | |
| Task Name | Start Date | Duration | End Date |
| Scope Development | 11/15/2016 | 90 | 2/13/2017 |
| Procurement | 2/14/2017 | 365 | 2/14/2018 |
| Project Execution | 2/15/2018 | 798 | 4/23/2020 |
| Project Closeout | 4/24/2020 | 90 | 7/23/2020 |



LH WTP Miscellaneous Mechanical HVAC Improvements

New CIP# **111002**

Old CIP# **1280**

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | CON-182 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 8/27/2016 | 90 | 11/25/2016 |
| Procurement | 11/26/2016 | 365 | 11/26/2017 |
| Project Execution | 11/27/2017 | 179 | 5/25/2018 |
| Project Closeout | 5/26/2018 | 90 | 8/24/2018 |

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1732 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 2/21/2015 | 90 | 5/22/2015 |
| Procurement | 5/23/2015 | 365 | 5/22/2016 |
| Project Execution | 5/23/2016 | 1431 | 4/23/2020 |
| Project Closeout | 4/24/2020 | 90 | 7/23/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli) | 4 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 4 | |
| Public Health & Safety | 4 | |
| Public Benefit | 1 | |
| Financial | 4 | |
| Efficiency and Innovation | 4 | |

Project Manager Weighted Score

66.8

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reliabilit | 5 | |
| Regulatory (Environmental/Legal) | 4 | |
| O&M | 4 | |
| Public Health & Safety | 4 | |
| Public Benefit | 0 | |
| Financial | 3 | |
| Efficiency and Innovation | 4 | |

Review Committee Weighted Score

77

Describe Here the Changes from the 2018 CIP to 2019 CIP



LH WTP Miscellaneous Mechanical HVAC Improvements

New CIP# **111002**

Old CIP# **1280**

added GLWA costs; made relatively minor increase to overall budget to account for inflation.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | 270 | 1,030 | 3,130 | 3,050 | 422 | | | | 7,902 |
| 2019 | 18 | 291 | 781 | 3,666 | 3,873 | 13 | 0 | 0 | 0 | 8,642 |

CIP 11103: LH WTP Flocculation Improvements, Alternatives



New CIP# **111003**

Old CIP# **1289**

LH WTP Flocculation Improvements, Alternatives

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Reclassified

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **LH WTP Flocculation Improvements, Alternatives**

Project Significance PROJECT RECLASSIFIED INTO CIP#111001: Existing flocculator drives are horizontal type with submerged bearings that are expensive to maintain. This evaluation will focus on alternatives that may provide more efficient flocculation and are easier and less costly to maintain.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 10/13/2017

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Lake Huron

Project Location: Saint Clair County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work:

Project History:

Driver: 1 - Condition

Challenges: Uncovering an innovative rehabilitation design to minimize maintenance of existing drives.

Other Important Info: Existing flocculator drives are horizontal type with submerged bearings that are expensive to maintain.

Related Project:



LH WTP Flocculation Improvements, Alternatives

New CIP# 111003

Old CIP# 1289

ALL PHASES TOTAL

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Project Manager Weighted Score | | |
| <input type="text"/> | | |

Review Committee Score

| Criteria | Score | Score Comment |
|--|-------|---------------|
| Condition | | |
| Performance (Service Level/Reliabilit | | |
| Regulatory (Environmental/Legal) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Review Committee Weighted Score | | |
| <input type="text"/> | | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | | 125 | | | | | | | 125 |

CIP 11104: LH WTP Electrical Tunnel Rehabilitation



LH WTP Electrical Tunnel Rehabilitation

New CIP# 111004

Old CIP# 1298

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

LH WTP Electrical Tunnel Rehabilitation

Project Significance Existing electrical tunnel concrete has failed in the past and has seen emergency repairs. This project will provide permanent concrete and structural improvements to this tunnel that carries the primary electrical feed to the entire plant.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/15/2017

Project Engineer/Manager: Jorge Nicolas

Title: Engineer

Phone: (313) 926-8130

Email: Jorge.Nicolas@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Lake Huron

Project Location: Saint Clair County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Repairing electrical tunnel to prevent intrusion of water and further structural damage to concrete cables, duct banks and cable trays.

Project History: n/a

Driver: 1 - Condition

Challenges: None.

Other Important Info: moved construction start to FY2019, added GLWA costs, changed project delivery from DBB to DB

Related Project: none



LH WTP Electrical Tunnel Rehabilitation

New CIP# **111004**

Old CIP# **1298**

Phase Overview

Phase Title CS-245 LH WTP Electrical Tunnel Rehabilitation

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: CS-245

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/1/2017

Cost Estimation Source: consultant

Cost Estimation Prep By: consultant Benesch

Useful Life > 20Yrs Yes

Comments: Benesch

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title LH WTP Electrical Tunnel Rehabilitation

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



LH WTP Electrical Tunnel Rehabilitation

New CIP# 111004

Old CIP# 1298

Phase Expenses

| | | | | | |
|---------------|--|-----------------|-------|--------------|----------------------|
| CURRENT PHASE | Design & Construction Assistance | BUDGET | Water | Contract No | CS-245 |
| Phase Title | CS-245 LH WTP Electrical Tunnel Rehabilitation | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 100 | 16 | 34 | | | | |
| GLWA Salaries | 11 | 21 | 21 | 4 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 4 | 8 | 8 | 2 | 0 | 0 | 0 |

| | | | | | | | |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 1 | 1 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 116 | 46 | 64 | 6 | 0 | 0 | 0 |



LH WTP Electrical Tunnel Rehabilitation

New CIP# **111004**

Old CIP# **1298**

CURRENT PHASE **Construction** BUDGET **Water** Contract No **NA**

Phase Title **LH WTP Electrical Tunnel Rehabilitation** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|------|------|------|-----------------|
| Construction | | 368 | 4,232 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|-------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | | 0 | 0 | | | | 0 |
| Current Phase Non-Personnel Expenses | | 0 | 0 | | | | 0 |
| Current Phase Total | | 368 | 4,232 | | | | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|-------|------|------|------|-----------------|
| | 116 | 414 | 4,296 | 6 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 5/2/2018 | 90 | 7/31/2018 |
| | | Procurement | 8/1/2018 | 188 | 2/5/2019 |
| | | Project Execution | 2/6/2019 | 420 | 4/1/2020 |
| | | Project Closeout | 4/2/2020 | 90 | 7/1/2020 |



LH WTP Electrical Tunnel Rehabilitation

New CIP# **111004**

Old CIP# **1298**

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | CS-245 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 10/31/2016 | 90 | 1/29/2017 |
| Procurement | 1/30/2017 | 365 | 1/30/2018 |
| Project Execution | 1/31/2018 | 791 | 4/1/2020 |
| Project Closeout | 4/2/2020 | 90 | 7/1/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

46.8

Review Committee Score

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

Review Committee Weighted Score

38.6

Describe Here the Changes from the 2018 CIP to 2019 CIP

moved construction start to FY2019, added GLWA costs, changed project delivery from DBB to DB

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | | 1,000 | 3,000 | 1,600 | | | | | 5,600 |
| 2019 | | | 116 | 414 | 4,296 | 6 | 0 | 0 | 0 | 4,832 |

CIP 11105: LH WTP Concrete Crack Repair



LH WTP Concrete Crack Repair

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

LH WTP Concrete Crack Repair

Project Significance Concrete repairs to prevent further deterioration to critical structures at Lake Huron WTP

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 8/18/2016

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Jorge Nicolas

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Lake Huron

Phone: (313) 926-8130

Project Location: Saint Clair County

Email: Jorge.Nicolas@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project includes miscellaneous concrete and other improvements at several areas in the plant where significant damage, deterioration and water leakage exists such as basement floor slab crack, concrete spalling jointing repair, roof drainage improvement, pave service roads, walls and stairwells etc.

Project History:

Driver: N/A - Under Procurement

Challenges: N/A - Under Procurement

Other Important Info:

Related Project:



LH WTP Concrete Crack Repair

New CIP# 111005

Old CIP# 1299

Phase Overview

Phase Title LH-397, LH WTP Concrete Crack Repair

Phase Category: C

Budget: Water

Contract Number: LH-397

Phase Status: Closed Out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By: Consultant Benesch

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE Construction BUDGET Water Contract No LH-397

Phase Title LH-397, LH WTP Concrete Crack Repair PPAT CIP Number Phase Status Closed Out

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |



LH WTP Concrete Crack Repair

New CIP# 111005

Old CIP# 1299

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

| Phase Tasks and Dates | |
|-----------------------|--------------------------|
| Phase Category | C Construction |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | LH-397 |
| Cost Est Class | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

Project has been officially closed out. Need CIP Close-Out Summary.

**CIP 11106: LH WTP Replacement of Filter Instrumentation and Raw
Water Flow Metering Improvements**



LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

New CIP# **111006**

Old CIP# **1300**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

Project Significance The filter instrumentation and raw water metering at the Lake Huron WTP is non-functioning and is in need of replacement. Replacement of this equipment is needed for reliable plant operations.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/15/2017

Project Engineer/Manager: Todd King

Title: Director - Field Services

Phone: (313) 926-8114

Email: Todd.King@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Lake Huron

Project Location: Saint Clair County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The filter instrumentation and raw water metering at the Lake Huron WTP is non-functioning and is in need of replacement.

Project History: n/a

Driver: N/A - Under Procurement

Challenges: Venturi meters are non-standard dimensions and determining accuracy may be difficult.

Other Important Info: Design is in progress by TetraTech under CS-1771

Related Project: none



LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

New CIP# **111006**

Old CIP# **1300**

Phase Overview

Phase Title LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1771 LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1771

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

New CIP# **111006**

Old CIP# **1300**

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|-------|------|-----------------|
| Construction | | | 8,508 | 9,677 | 6,815 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|-------|-------|-------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 8,508 | 9,677 | 6,815 | 0 | 0 |



LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

New CIP# **111006**

Old CIP# **1300**

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|---------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | CS-1771 |
| Phase Title | CS-1771 LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 627 | 13 | 109 | 109 | 64 | | |
| GLWA Salaries | 11 | 21 | 21 | 21 | 21 | 3 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 4 | 8 | 8 | 8 | 8 | 1 | 0 |
| Current Phase Non-Personnel Expenses | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| Current Phase Total | 643 | 43 | 139 | 139 | 94 | 4 | 0 |

| | | | | | | | |
|-------------------------|------|------|-------|-------|-------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 643 | 43 | 8,647 | 9,816 | 6,909 | 4 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|----------------------|----------|------------|
| Phase Category | C | | |
| Budget | Water | | |
| Phase Status | Future Planned Start | | |
| Contract No | NA | | |
| Cost Est Class | | | |
| Construction | | | |
| Task Name | Start Date | Duration | End Date |
| Scope Development | 3/5/2018 | 90 | 6/3/2018 |
| Procurement | 6/4/2018 | 363 | 6/2/2019 |
| Project Execution | 6/3/2019 | 907 | 11/26/2021 |
| Project Closeout | 11/27/2021 | 90 | 2/25/2022 |



LH WTP Replacement of Filter Instrumentation and Raw Water Flow Metering Improvements

New CIP# **111006**

Old CIP# **1300**

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1771 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 7/26/2016 | 90 | 10/24/2016 |
| Procurement | 10/25/2016 | 365 | 10/25/2017 |
| Project Execution | 10/26/2017 | 1492 | 11/26/2021 |
| Project Closeout | 11/27/2021 | 90 | 2/25/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 5 | |
| O&M | 5 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 2 | |

Project Manager Weighted Score

64.2

Review Committee Score

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

Review Committee Weighted Score

62.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

moved back one year for the construction start; adjusted cost up to account for revised engineering cost estimate due to 30% design completion and more scope definition since last CIP update; added GLWA costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|--------|--------|-------|-------|------|-----------------|--------|
| 2018 | | 100 | 600 | 12,150 | 11,780 | | | | | 24,630 |
| 2019 | 1 | 252 | 643 | 43 | 8,647 | 9,816 | 6,909 | 4 | 0 | 26,315 |

**CIP 111007: LH WTP Raw Sludge Clarifier and Raw Sludge
Pumping System Improvements**



LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

New CIP# 111007

Old CIP# 1318

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements**

Project Significance This project will provide a study and design on the structural integrity, capacity and performance requirements for pumps and piping to meet maximum design flows. The construction services will re-construct the clarifiers, piping and pumps to meet the des

Year Added: 2016

CIP Type: Project

Date Original BCE Prepared: 8/7/2015

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Treatment Plants & Facilities

Title: Director - Field Services

Project Classification Level 3: Lake Huron

Phone: (313) 926-8114

Project Location: Saint Clair County

Email: Todd.King@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The sludge clarifier is integral to the backwash water treatment system and the walls of the clarifiers are severely bowed and in the process of failing. If the clarifier and backwash tank fail, the ability to backwash the Lake Huron WTP filters will be lost and result in the loss of the Lake Huron WTP to the system until a temporary bypass can be arranged.

Project History: The clarifier/backwash structure is original to the plant. The tank walls appear to have been inadequately designed and/or constructed to withstand the loading of the surround soils.

Driver: 1 - Condition

Challenges: Improvements will require coordination with plant operations (filter backwashing).

Other Important Info: n/a

Related Project: This project should be completed prior to cessation of treatment at the Northeast WTP.



LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

New CIP# 111007

Old CIP# 1318

Phase Overview

Phase Title LH WTP - Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-171, Brown & Caldwell, LH WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-171

Phase Status: Under Procurement

Start Date: 10/2/2017

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: CS-171 is almost awarded as of 9/18/2017.

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

New CIP# 111007

Old CIP# 1318

Phase Expenses

| | | | | | | |
|---------------|--|--------|-----------------|-------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA | |
| Phase Title | LH WTP - Raw Sludge Clarifier and Raw Sludge Pumping System Improvements | | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|-------|------|-----------------|
| Construction | | | 1,453 | 3,411 | 1,137 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|------|-------|-------|-------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 1,453 | 3,411 | 1,137 | 0 | 0 |



LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

New CIP# **111007**

Old CIP# **1318**

CURRENT PHASE **Study and Design and Construction Assistance**

BUDGET **Water**

Contract No **CS-171**

Phase Title **CS-171, Brown & Caldwell, LH WTP-Raw Sludge Clarifier and Raw Sludge Pumping System Improvements**

PPAT CIP Number

Phase Status **Under Procurement**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 406 | 182 | 129 | 167 | 56 | | |
| GLWA Salaries | 11 | 21 | 21 | 21 | 19 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 4 | 8 | 8 | 8 | 8 | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 1 | 1 | 1 | 1 | 1 | | 0 |

Current Phase Total

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 422 | 212 | 159 | 197 | 84 | | 0 |

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|-------|-------|-------|------|-----------------|
| 422 | 212 | 1,612 | 3,608 | 1,221 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 9/3/2018 | 90 | 12/2/2018 |
| Procurement | 12/3/2018 | 273 | 9/2/2019 |
| Project Execution | 9/3/2019 | 727 | 8/30/2021 |
| Project Closeout | 8/31/2021 | 90 | 11/29/2021 |



LH WTP Raw Sludge Clarifier and Raw Sludge Pumping System Improvements

New CIP# 111007

Old CIP# 1318

| | |
|----------------|-------------------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Under Procurement |
| Contract No | CS-171 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 8/1/2016 | 90 | 10/30/2016 |
| Procurement | 10/31/2016 | 365 | 10/31/2017 |
| Project Execution | 11/1/2017 | 1398 | 8/30/2021 |
| Project Closeout | 8/31/2021 | 90 | 11/29/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

62.2

Review Committee Score

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

Review Committee Weighted Score

53.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Extended total project by one year; rounded construction to nearest million (\$6-M); increased engineering costs to just over \$1M; added GLWA costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|-------|-------|-------|------|-----------------|-------|
| 2018 | | | 50 | 920 | 6,163 | | | | | 7,133 |
| 2019 | | 9 | 422 | 212 | 1,612 | 3,608 | 1,221 | 0 | 0 | 7,084 |

**CIP 11108: LH WTP Architectural Programming – Laboratory and
Admin Building Architectural Improvements Study**



New CIP#

Old CIP#

**LH WTP Architectural Programming - Laboratory and Admin Building
Architectural Improvements Study**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Project Significance Existing laboratory and admin. Building interior is original to the plant and is in need of modernization.

Year Added: 2017

CIP Type: Project

Date Original BCE Prepared: 9/27/2017

Budget: Water

Date BCE Last Updated: 9/27/2017

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Treatment Plants & Facilities

Title:

Project Classification Level 3: Lake Huron

Phone:

Project Location: Saint Clair County

Email:

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Modernize lab and admin building offices, common areas, conference room, lunch room, lobby, entry-way, locker rooms, showers, and bathrooms.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



**LH WTP Architectural Programming - Laboratory and Admin Building
Architectural Improvements Study**

Phase Overview

Phase Title LH WTP Architectural Programming - Laboratory and Admin Building Architectural Improvements Study

Phase Category: S

Budget: Water

Contract Number: NA

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | 300 |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 0 |



**LH WTP Architectural Programming - Laboratory and Admin Building
Architectural Improvements Study**

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 300 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 300 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | S |
| Budget | Water |
| Phase Status | New |
| Contract No | NA |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 8/1/2017 | 150 | 12/29/2017 |
| Procurement | 12/29/2017 | 210 | 7/27/2018 |
| Project Execution | 7/27/2018 | 365 | 7/27/2019 |
| Project Closeout | 7/27/2019 | 90 | 10/25/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP



New CIP# **111008**

Old CIP#

**LH WTP Architectural Programming - Laboratory and Admin Building
Architectural Improvements Study**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2019 | | | | | | | | | 300 | 300 | |

**CIP 112001: NE WTP Yard Piping Replacement (State Fair Valve
Rehab)**



New CIP# **112001**

Old CIP# **1272**

NE WTP Yard Piping Replacement (State Fair Valve Rehab)

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **NE WTP Yard Piping Replacement (State Fair Valve Rehab)**

Project Significance Flow control valves are needed at the terminus of the proposed 84-inch Waterworks Park to Northeast finish water transmission system. This project is needed to control flow rates from Waterworks Park to the re-purposed Northeast system.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Treatment Plants & Facilities

Title:

Project Classification Level 3: Northeast

Phone:

Project Location: City of Detroit

Email:

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The work includes providing and installing water main, new state fair valve and bulk heads.

Project History:

Driver: 2 - Performance

Challenges: Sequencing of construction with the phase-over of Northeast WTP becoming a booster station. Connecting to existing piping and/or reservoirs will require reservoir shut and isolation, requiring close coordination with operations.

Other Important Info:

Related Project:



NE WTP Yard Piping Replacement (State Fair Valve Rehab)

Phase Overview

Phase Title **NE WTP Yard Piping Replacement (State Fair Valve Rehab)**

Phase Category: **DB**

Design and Build

Budget: **Water**

Contract Number:

Phase Status: **Future Planned Start**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **DE**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No

Phase Title **NE WTP Yard Piping Replacement (State Fair Valve Rehab)** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|-------|------|-----------------|
| Construction | | | | 700 | 1,988 | 112 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 0 | 0 | 0 | 0 | 0 |



NE WTP Yard Piping Replacement (State Fair Valve Rehab)

| | | | | | | | |
|----------------------------|------|------|------|------|-------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 700 | 1,988 | 112 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|-------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 700 | 1,988 | 112 | 0 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2019 | 90 | 6/30/2019 |
| Procurement | 7/1/2019 | 365 | 6/30/2020 |
| Project Execution | 7/1/2020 | 727 | 6/28/2022 |
| Project Closeout | 6/29/2022 | 90 | 9/27/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

46

Review Committee Score

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

Review Committee Weighted Score

62.2

Describe Here the Changes from the 2018 CIP to 2019 CIP



NE WTP Yard Piping Replacement (State Fair Valve Rehab)

New CIP# **112001**

Old CIP# **1272**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|-------|------|-----------------|-------|
| 2018 | | | 800 | | | | | | | 800 |
| 2019 | | | | | 0 | 700 | 1,988 | 112 | 0 | 2,800 |

**CIP 112002: NE WTP Low Lift Pumping Plant Caisson
Rehabilitation**



New CIP# 112002

Old CIP# 1273

NE WTP Low Lift Pumping Plant Caisson Rehabilitation

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

NE WTP Low Lift Pumping Plant Caisson Rehabilitation

Project Significance Preventing further degradation of steel and concrete structure of the Low Lift Pumps Caisson at the Northeast WTP

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Govind Patel

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Northeast

Phone: (313) 245-1603

Project Location: City of Detroit

Email: Govind.Patel@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The work includes design and repair of concrete cracks and concrete restoration to stop leakage on the concrete covers of the encased steel beams and along the inner surfaces of the caisson wall.

Project History: CS-1744 is the engineering services contract associated with this project. CON -215 will be the construction contract.

Driver: N/A - Under Procurement

Challenges: Under Procurement

Other Important Info: n/a

Related Project: none



NE WTP Low Lift Pumping Plant Caisson Rehabilitation

Phase Overview

Phase Title CS-1744, FKE, NE WTP Low Lift Pumping Plant Caisson Rehabilitation

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1744

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: FKE

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title NE WTP Low Lift Pumping Plant Caisson Rehabilitation

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



NE WTP Low Lift Pumping Plant Caisson Rehabilitation

Phase Expenses

| | | | | | | |
|---------------|--|--------|-----------------|-------------|--------------|--------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | CS-1744 | |
| Phase Title | CS-1744, FKE, NE WTP Low Lift Pumping Plant Caisson Rehabilitation | | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 41 | 73 | 30 | | | | |
| GLWA Salaries | 11 | 21 | 21 | 21 | 3 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 4 | 8 | 8 | 8 | 1 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 57 | 103 | 60 | 30 | 4 | 0 | 0 |



NE WTP Low Lift Pumping Plant Caisson Rehabilitation

CURRENT PHASE **Construction** BUDGET **Water** Contract No **NA**

Phase Title **NE WTP Low Lift Pumping Plant Caisson Rehabilitation** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | 13 | 728 | 559 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 13 | 728 | 559 | 0 | 0 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|------|------|-----------------|
| | 70 | 831 | 619 | 30 | 4 | 0 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | 8/17/2017 | 90 |
| | | Procurement | 11/16/2017 | 188 |
| | | Project Execution | 5/24/2018 | 586 |
| | | Project Closeout | 1/1/2020 | 90 |
| | | | End Date | |
| | | | 11/15/2017 | |
| | | | 5/23/2018 | |
| | | | 12/31/2019 | |
| | | | 3/31/2020 | |



NE WTP Low Lift Pumping Plant Caisson Rehabilitation

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1744 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 8/18/2015 | 90 | 11/16/2015 |
| Procurement | 11/17/2015 | 365 | 11/16/2016 |
| Project Execution | 11/17/2016 | 1139 | 12/31/2019 |
| Project Closeout | 1/1/2020 | 90 | 3/31/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

51.4

Review Committee Score

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

Review Committee Weighted Score

51.6

Describe Here the Changes from the 2018 CIP to 2019 CIP

Increased construction budget to \$1.3M because detailed design is complete and provided a more accurate estimate of the construction; added engineering fees for CS-1744; added GLWA costs; extended project schedule to account for procurement times and construction of project based on final design documents.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|------|------|------|------|------|-----------------|-------|
| 2018 | | 150 | 1,183 | | | | | | | 1,333 |
| 2019 | 11 | 152 | 70 | 831 | 619 | 30 | 4 | 0 | 0 | 1,717 |

CIP 112003: NE WTP High-Lift Pumping Station Electrical Elements



New CIP#

Old CIP#

NE WTP High-Lift Pumping Station Electrical Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

NE WTP High-Lift Pumping Station Electrical Improvements

Project Significance Upgrade the existing medium voltage and low voltage electrical systems for the high-lift pumping station only.

Year Added: 2017

CIP Type: Project

Date Original BCE Prepared: 9/27/2017

Budget: Water

Date BCE Last Updated: 9/27/2017

Project Classification Level 1: Water

Project Engineer/Manager: Jorge Nicolas

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Northeast

Phone: (313) 926-8130

Project Location: City of Detroit

Email: Jorge.Nicolas@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Electrical system improvements for high-lift pumping equipment only.

Project History:

Driver:

Challenges:

Other Important Info: Identified in the 2015 WMPU

Related Project:



NE WTP High-Lift Pumping Station Electrical Improvements

Phase Overview

Phase Title NE WTP High-Lift Pumping Station Electrical Improvements

Phase Category: C

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title

Phase Category: D/CA

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



NE WTP High-Lift Pumping Station Electrical Improvements

Phase Expenses

| | | | | | |
|---------------|--|-----------------|----------------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | <input type="text"/> |
| Phase Title | NE WTP High-Lift Pumping Station Electrical Improvements | PPAT CIP Number | <input type="text"/> | Phase Status | New |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 56,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 56,000 |



NE WTP High-Lift Pumping Station Electrical Improvements

| | | | | | | | | | | |
|--|-------------|---|-------------|-------------|-------------|-----------------|------------------------|----------------------|--------------|----------------------|
| CURRENT PHASE | | Design & Construction Assistance | | | | BUDGET | | Water | Contract No | <input type="text"/> |
| Phase Title | | <input type="text"/> | | | | PPAT CIP Number | | <input type="text"/> | Phase Status | New |
| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| Construction | | | | | | | | | | |
| Engineering Services | | | | | | | 6,000 | | | |
| GLWA Salaries | | | | | | | 183 | | | |
| Materials | | | | | | | | | | |
| Other | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | 73 | | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | 9 | | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | 6,265 | | | |

| | | | | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|--|--|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | 0 | 0 | 0 | 0 | 62,265 | | | |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 8/18/2025 | 90 | 11/16/2025 |
| Procurement | 11/17/2025 | 188 | 5/24/2026 |
| Project Execution | 5/25/2026 | 1453 | 5/17/2030 |
| Project Closeout | 5/18/2030 | 90 | 8/16/2030 |



NE WTP High-Lift Pumping Station Electrical Improvements

| | |
|----------------|-------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/24/2023 | 90 | 9/22/2023 |
| Procurement | 9/23/2023 | 365 | 9/22/2024 |
| Project Execution | 9/23/2024 | 2062 | 5/17/2030 |
| Project Closeout | 5/18/2030 | 90 | 8/16/2030 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|--------|
| 2019 | | | | | 0 | 0 | 0 | 0 | 62,265 | 62,265 |

CIP 112004: NE WTP Relocation of 12” service line at front of plant



New CIP#

Old CIP#

NE - WTP Relocation of 12" service line at front of plant

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

NE - WTP Relocation of 12" service line at front of plant

Project Significance Plant service water is currently fed off of a DWSD owned 12" water main along 8 Mile Road in front of the plant. GLWA is charged by DWSD for use of this water which represents a substantial long term cost. Project involves disconnecting from the DWSD 12" main and connecting to a GLWA main exiting the plant for its service water supply.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: Govind Patel

Title: Engineer

Phone: (313) 245-1603

Email: Govind.Patel@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Northeast

Project Location: City of Detroit

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Disconnect service water feed for plant from the existing 12" water main owned by DWSD and connect it via new service water piping to an existing GLWA transmission main existing the plant grounds. Work involves site civil and buried piping work.

Project History:

Driver:

Challenges: Coordinating with DWSD on the disconnection from its 12" water main.

Other Important Info:

Related Project:



NE - WTP Relocation of 12" service line at front of plant

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 6/23/2018

End Date: 6/22/2021

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/26/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: G. Gartrell

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|------|------|-----------------|
| Construction | | | 993 | 1,407 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | 21 | 21 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 8 | 8 | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 1 | 1 | | | 0 |



NE - WTP Relocation of 12" service line at front of plant

| | | | | | | | | |
|----------------------------|------|------|-------|-------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | 1,023 | 1,437 | | | 0 | |

| | | | | | | | | |
|-------------------------|------|------|-------|-------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | 1,023 | 1,437 | | | 0 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/23/2018 | 90 | 9/21/2018 |
| Procurement | 9/22/2018 | 365 | 9/22/2019 |
| Project Execution | 9/23/2019 | 547 | 3/23/2021 |
| Project Closeout | 3/24/2021 | 90 | 6/22/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 1 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 3 | |
| Efficiency and Innovation | 1 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



NE - WTP Relocation of 12" service line at front of plant

New CIP# **112004**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|-------|-------|------|------|-----------------|-------|--|
| 2019 | | | | | 1,023 | 1,437 | | | 0 | 2,460 | |

**CIP 113001: SW WTP Sludge Treatment & Waste Wash Water
Treatment Facilities**



SW WTP Sludge Treatment & Waste Wash Water Treatment Facilities

New CIP# **113001**

Old CIP# **262**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Sludge Treatment & Waste Wash Water Treatment Facilities

Project Significance N/A - Pending Closeout

Year Added: 2003

CIP Type: Project

Date Original BCE Prepared:

Budget: Water

Date BCE Last Updated: 9/6/2017

Project Classification Level 1: Water

Project Engineer/Manager: Partho Ghosh

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Southwest

Phone: (313) 297-5921

Project Location: Wayne County - Outside Detroit

Email: Partho.Ghosh@glwater.org

Fund: 5519

Manager: Philip Kora

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: N/A - Pending Closeout

Project History:

Driver: N/A - Pending Closeout

Challenges: N/A - Pending Closeout

Other Important Info:

Related Project:



SW WTP Sludge Treatment & Waste Wash Water Treatment Facilities

New CIP# **113001**

Old CIP# **262**

Phase Overview

Phase Title SW-548, SW WTP, Sludge Treatment & Waste Wash Water Treatment Facilities

Phase Category: C

Construction

Budget: Water

Contract Number: SW-548

Phase Status: Pending Close-out

Start Date: 5/12/2010

End Date: 7/3/2016

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE

Construction

BUDGET

Water

Contract No

SW-548

Phase Title

SW-548, SW WTP, Sludge Treatment & Waste Wash Water Treatment Facilities

PPAT CIP Number

Phase Status

Pending Close-out

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SW WTP Sludge Treatment & Waste Wash Water Treatment Facilities

New CIP# 113001

Old CIP# 262

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | SW-548 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | 5/10/2010 | 1062 | 4/6/2013 |
| Project Closeout | 4/6/2013 | 1184 | 7/3/2016 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



SW WTP Sludge Treatment & Waste Wash Water Treatment Facilities

New CIP# **113001**

Old CIP# **262**

GLWA-Procurement has terminated the Contract with SW-548 Contractor Colasanti. Therefore no further spending is expected from this Contract. However, a final change order may need to be processed to officially close out this Contract.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|--------|------|-------|------|------|------|------|------|-----------------|--------|
| 2018 | 47,587 | | 1,793 | | | | | | | 49,380 |
| 2019 | 15 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |

**CIP 113002: SW WTP High Lift Pump Discharge Valve Actuators
Replacement**



SW WTP High Lift Pump Discharge Valve Actuators Replacement

New CIP# **113002**

Old CIP# **1277**

PROJECT SUMMARY

- Innovation
- MP Right Sizing**
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **SW WTP High Lift Pump Discharge Valve Actuators Replacement**

Project Significance Existing oil hydraulic high lift valve actuators are leaking oil and at the end of service life. The leaking actuators pose safety concerns and replacement of valve actuators is needed.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Shakil Ahmed

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Southwest

Phone: (313) 928-0204

Project Location: Wayne County - Outside Detroit

Email: Shakil.Ahmed@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project involves replacement of the valve actuators at the high lift pump system as the existing oil hydraulic actuators are leaking and at the end of their service life.

Project History: n/a

Driver: 1 - Condition

Challenges: Sequencing the demolition and replacement of the existing oil hydraulic power system will require shutdown of individual high lift pumping units.

Other Important Info: n/a

Related Project: none



SW WTP High Lift Pump Discharge Valve Actuators Replacement

Phase Overview

Phase Title CS-034, Tetra Tech, High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: CS-034

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: Design contract is CS-034 Tetra Tech

Phase Overview

Phase Title Construction, SW WTP High Lift Pump Discharge Valve Actuators Replacement

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments:



SW WTP High Lift Pump Discharge Valve Actuators Replacement

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|--------|
| CURRENT PHASE | Design & Construction Assistance | BUDGET | Water | Contract No | CS-034 |
| Phase Title | CS-034, Tetra Tech, High Lift Pump Discharge Valve Actuators Replacement at Southwest WTP | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 180 | 46 | 65 | 33 | | | |
| GLWA Salaries | 4 | 8 | 8 | 8 | 4 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 2 | 3 | 3 | 3 | 2 | 0 | 0 |
| Current Phase Non-Personnel Expenses | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | 186 | 57 | 76 | 44 | 6 | 0 | 0 |



SW WTP High Lift Pump Discharge Valve Actuators Replacement

| | | | | | | |
|----------------------|---|---------------|-----------------|-------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | | |
| Phase Title | Construction, SW WTP High Lift Pump Discharge Valve Actuators Replacement | | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|-------|------|------|-----------------|
| Construction | | 1,100 | 2,800 | 1,100 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|-------|-------|-------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | | 0 | 0 | 0 | | | 0 |
| Current Phase Non-Personnel Expenses | | 0 | 0 | 0 | | | 0 |
| Current Phase Total | | 1,100 | 2,800 | 1,100 | | | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|-------|------|------|-----------------|
| | 186 | 1,157 | 2,876 | 1,144 | 6 | 0 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|------------|--|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | | | | |
| Cost Est Class | | | | |
| Task Name | Start Date | Duration | End Date | |
| Scope Development | 11/30/2017 | 90 | 2/28/2018 | |
| Procurement | 3/1/2018 | 277 | 12/3/2018 | |
| Project Execution | 12/4/2018 | 727 | 11/30/2020 | |
| Project Closeout | 12/1/2020 | 90 | 3/1/2021 | |



SW WTP High Lift Pump Discharge Valve Actuators Replacement

| | |
|----------------|--------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-034 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 4/2/2016 | 90 | 7/1/2016 |
| Procurement | 7/2/2016 | 365 | 7/2/2017 |
| Project Execution | 7/3/2017 | 1246 | 11/30/2020 |
| Project Closeout | 12/1/2020 | 90 | 3/1/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

64

Review Committee Score

| Criteria | Score | Score Comment |
|---|-------|--|
| Condition | 4 | |
| Performance (Service Level/Reliability) | 2 | Primary difference between PM & Review Committee |
| Regulatory (Environmental/Legal) | 3 | |
| O&M | 5 | |
| Public Health & Safety | 2 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 3 | |

Review Committee Weighted Score

53.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Increased construction budget to reflect estimated from TetraTech 30% design; added engineering services budget; added GLWA costs; extended schedule to account for procurement times.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|-------|-------|------|------|-----------------|-------|
| 2018 | | 160 | 160 | 900 | 900 | | | | | 2,120 |
| 2019 | 3 | 112 | 186 | 1,157 | 2,876 | 1,144 | 6 | 0 | 0 | 5,484 |

**CIP 113003: SW WTP Low and High Lift Pumping & Rapid Mix
Chamber BFVs, Sluice Gates, Flocculation & Filtration System
Improvements**



New CIP# 113003

Old CIP# 1283

SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

Project Significance Replacing improperly functioning as well as cracked valves and gates, causing operational and maintenance concerns. Low and High Lift Pumping Improvements: Existing pumping station equipment including pumps, motors, switchgear, controls, gates, valves, etc. are all original to the plant and are over-sized for the current and projected system water demands for at least the next 20 years. The station's electrical system and controls are difficult and costly to maintain and have reduced reliability due to age and lack of available parts on the market. Large size and age of pumps and motors are inefficient. Flocculation & Filtration System Improvements: Existing filter media, auxiliary scour, backwash, and related appurtenances are all original to the plant construction (circa 1962) and need to be replaced for reliability and efficiency improvements. Flocculator equipment upgrades were identified in the 2015 WMPU project.

Year Added: 2014

Date Original BCE Prepared: 8/19/2014

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Southwest

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The work includes study, design, and construction services for the replacement of 2 - 72" diameter butterfly valves, 4 motorized sluice gates, 7 potable sluice gates, and 1 - 36" flag valve. Replacement of high and low lift pumps, motors, motor controls, medium-voltage switchgear, and MCCs. Replace and improve filtration system equipment and components as well as flocculator equipment upgrades.

Project History:



**SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates,
Flocculation & Filtration System Improvements**

New CIP#

Old CIP#

Driver: 4 - O&M

Challenges:

Other Important Info: This work is included in the 2015 water master plan update

Related Project:



SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

Phase Overview

Phase Title SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements (E1, E2, E3, E2B, E3B,)

Phase Category: D/CA

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

Phase Overview

Phase Title SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates (C, C2)

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **NA**

Phase Title **SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements (E1, E2, E3, E2B, E3B,)** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | 21,490 |
| GLWA Salaries | | | | | | | 314 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | 0 | 0 | 0 | 0 | 126 |



SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

| | | | | | | | | |
|--------------------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | 0 | 0 | 0 | 0 | 16 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | 0 | 0 | 0 | 0 | 21,946 | |

CURRENT PHASE **Construction** BUDGET **Water** Contract No **NA**

Phase Title **SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates (C, C2)** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 126,340 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | 0 | 0 | 126,340 |

| | | | | | | | |
|------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 148,286 |

| Phase Tasks and Dates | |
|-----------------------|------------------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |
| Construction | |
| Task Name | Start Date Duration End Date |
| Scope Development | |
| Procurement | |
| Project Execution | |



SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates, Flocculation & Filtration System Improvements

| Task Name | Start Date | Duration | End Date |
|------------------|------------|----------|----------|
| Project Closeout | | | |

| | | | | |
|----------------|----------------------|---|--|--|
| Phase Category | D/CA | Design & Construction Assistance | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

| |
|---------------------------------------|
| Project Manager Weighted Score |
| 66.6 |

Review Committee Score

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

| |
|--|
| Review Committee Weighted Score |
| 67.6 |

Describe Here the Changes from the 2018 CIP to 2019 CIP

Adjusted construction budget for inflation; increased overall budget due to design component; added scope related to flocculation and filtration system, added GLWA costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|-------|-----------------|-------|
| 2018 | | | | | | | | 2,940 | | 2,940 |



**SW WTP Low and High Lift Pumping & Rapid Mix Chamber BFVs, Sluice Gates,
Flocculation & Filtration System Improvements**

New CIP#

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|---------|--|
| 2019 | | | | | 0 | 0 | 0 | 0 | 148,286 | 148,286 | |

CIP 113004: SW WTP Raw Water Sampling Modifications



New CIP# 113004

Old CIP# 1297

SW WTP Raw Water Sampling Modifications

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Raw Water Sampling Modifications

Project Significance Existing raw water sampling location include recycled decant flows from residual handling facilities and do not represent a true raw water sample. A new sample pump system located upstream of the recycled decant flows is needed to obtain a true raw water

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Southwest

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: This project will design the modifications necessary to eliminate the decant and recycle of solid handling flows from the raw water sample location serving the Southwest WTP. This project will provide for a representative raw water only sample that will improve process monitoring and associated chemical usage.

Project History: n/a

Driver: 3 - Regulatory

Challenges: Improvements may require another tap to the existing raw water tunnel requiring a plant shutdown (low lift pumping as a minimum). Coordination with operations required.

Other Important Info: n/a

Related Project: CS-1730 Consulting engineering contract for study, design and construction administration services, FTC&H is vendor



SW WTP Raw Water Sampling Modifications

New CIP# **113004**

Old CIP# **1297**



SW WTP Raw Water Sampling Modifications

Phase Overview

Phase Title SW WTP Residual Handling Facility's Decant Flow Modifications

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: near procurement

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1730, FTC&H, SW WTP Residual Handling Facility's Decant Flow Modifications

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1730

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: FTC&H is the consultant

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SW WTP Raw Water Sampling Modifications

Phase Expenses

| | | | | | |
|---------------|---|--------|-----------------|----------------------|----|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | SW WTP Residual Handling Facility's Decant Flow Modifications | | PPAT CIP Number | Phase Status | |
| | | | | Future Planned Start | |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|------|------|------|-----------------|
| Construction | | 968 | 1,664 | 168 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|-------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 968 | 1,664 | 168 | 0 | 0 | 0 |



SW WTP Raw Water Sampling Modifications

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|---------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | CS-1730 |
| Phase Title | CS-1730, FTC&H, SW WTP Residual Handling Facility's Decant Flow Modifications | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 139 | 80 | 111 | 37 | | | |
| GLWA Salaries | 18 | 4 | 7 | 1 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 7 | 2 | 3 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | 165 | 86 | 121 | 38 | 0 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|------|------|------|-----------------|
| | 165 | 1,054 | 1,785 | 206 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|----------------------|----------|------------|
| Phase Category | C | | |
| Budget | Water | | |
| Phase Status | Future Planned Start | | |
| Contract No | NA | | |
| Cost Est Class | | | |
| Construction | | | |
| Task Name | Start Date | Duration | End Date |
| Scope Development | 1/2/2018 | 90 | 4/2/2018 |
| Procurement | 4/3/2018 | 188 | 10/8/2018 |
| Project Execution | 10/9/2018 | 713 | 9/21/2020 |
| Project Closeout | 9/22/2020 | 90 | 12/21/2020 |



SW WTP Raw Water Sampling Modifications

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1730 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 6/26/2016 | 90 | 9/24/2016 |
| Procurement | 9/25/2016 | 365 | 9/25/2017 |
| Project Execution | 9/26/2017 | 1091 | 9/21/2020 |
| Project Closeout | 9/22/2020 | 90 | 12/21/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 2 | |
| Performance (Service Level/Reli) | 4 | |
| Regulatory (Environmental/Lega) | 5 | |
| O&M | 3 | |
| Public Health & Safety | 3 | |
| Public Benefit | 1 | |
| Financial | 0 | |
| Efficiency and Innovation | 0 | |

Project Manager Weighted Score

53.2

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reliabilit | 5 | |
| Regulatory (Environmental/Legal) | 5 | |
| O&M | 2 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 0 | |
| Efficiency and Innovation | 0 | |

Review Committee Weighted Score

44.8

Describe Here the Changes from the 2018 CIP to 2019 CIP

Added engineering consulting budget, added GLWA costs; extended schedule to account for procurement timelines.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | 100 | 3,100 | 2,309 | | | | | | 5,509 |
| 2019 | 7 | 135 | 165 | 1,054 | 1,785 | 206 | 0 | 0 | 0 | 3,352 |

CIP 113005: SW WTP Residuals Management



SW WTP Residuals Management

New CIP#

Old CIP#

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Residuals Management

Project Significance The current system is too limited with regard to the plant's ability to quickly discharge and otherwise dispose of water plant residuals from the sedimentation basins, flocculator chambers, associated channels, and the residuals handling facility raw solids storage tanks, thickeners, and associated channels to the local sewer system in instances where the plant needs to free the water treatment process from excess solids that inhibit effective water treatment.

Year Added: 2017

Date Original BCE Prepared: 9/27/2017

Date BCE Last Updated: 9/27/2017

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Southwest

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Study the existing design and construction of the plant facilities, determine hydraulic and treatment bottlenecks, develop alternative solutions, and identify the best alternative to quickly discharge water plant residuals from plant processes, tanks, channels, etc. to the local sewer system so that water treatment and quality problems are avoided.

Project History:

Driver: 2 - Performance

Challenges:

Other Important Info:

Related Project:



SW WTP Residuals Management

New CIP#

Old CIP#



SW WTP Residuals Management

New CIP#

Old CIP#

Phase Overview

Phase Title SW WTP Residuals Management

Phase Category: S

Budget: Water

Contract Number: NA

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

Study

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SW WTP Residuals Management

Phase Category: DB

Budget: Water

Contract Number: NA

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SW WTP Residuals Management

New CIP#

Old CIP#

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | 1,000 |
| GLWA Salaries | | | | | | | 100 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 40 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 5 |

| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 1,145 |

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|
| Current Phase Fringe Benefit Expenses | | | | | | | |
| Current Phase Non-Personnel Expenses | | | | | | | |
| Current Phase Total | | | | | | | |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 1,145 |



SW WTP Residuals Management

New CIP# 113005

Old CIP#

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| | |
|----------------|-------|
| Phase Category | S |
| Budget | Water |
| Phase Status | New |
| Contract No | NA |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 12/4/2017 | 60 | 2/2/2018 |
| Procurement | 2/2/2018 | 210 | 8/31/2018 |
| Project Execution | 8/31/2018 | 300 | 6/27/2019 |
| Project Closeout | 6/27/2019 | 90 | 9/25/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP



SW WTP Residuals Management

New CIP#

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2019 | | | | | | | | | 1,145 | 1,145 | |

**CIP 113006: SW STP Chlorine Scrubber, Raw Water Screens &
Related Improvements**



New CIP#

Old CIP#

SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

Project Significance Existing chlorine gas scrubber needs to be replaced for reliability and safety reasons. Related improvements include ventilation, alarms, instruments, and controls. The existing raw water screens are original to the plant, do not operate and are needed to protect the low lift pumps.

Year Added: 2017

Date Original BCE Prepared: 9/27/2017

Date BCE Last Updated: 9/27/2017

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Southwest

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Replace the existing gas chlorine scrubber with new unit plus related ventilation, alarms, instruments, and controls; as well as replacement of the existing raw water screens.

Project History:

Driver: 5 - Public Health & Safety

Challenges:

Other Important Info:

Related Project:



SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

New CIP#

Old CIP#

Phase Overview

Phase Title SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

Phase Category: DB

Budget: Water

Contract Number: NA

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 7,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | 22 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 9 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 1 |



SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

New CIP#

Old CIP#

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 7,032 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 7,032 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 5/11/2027 | 90 | 8/9/2027 |
| Procurement | 8/10/2027 | 365 | 8/9/2028 |
| Project Execution | 8/10/2028 | 503 | 12/26/2029 |
| Project Closeout | 12/27/2029 | 90 | 3/27/2030 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP



SW WTP Chlorine Scrubber, Raw Water Screens & Related Improvements

New CIP# **113006**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2019 | | | | | | | | | 7,032 | 7,032 | |

**CIP 113007: SW WTP Architectural and Building Mechanical
Improvements**



SW WTP Architectural and Building Mechanical Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW WTP Architectural and Building Mechanical Improvements

Project Significance The existing building mechanical equipment (HVAC, dehumidification, plumbing) and architectural features (doors, windows, flooring, furnishings, etc.) throughout the facility are over 50 years old. They are beyond their useful service life and need to be replaced with more reliable, energy efficient systems. The architectural improvements will be limited to the administration and high/low lift buildings on this project. Existing filter media, auxiliary scour, backwash, and related appurtenances are all original to the plant construction (circa 1962) and need to be replaced for reliability and efficiency improvements. Flocculator equipment upgrades were identified in the 2015 WMPU project.

Year Added: 2017

Date Original BCE Prepared: 9/27/2017

Date BCE Last Updated: 9/27/2017

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Southwest

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Replace the dehumidification, HVAC and selected plumbing system equipment with new as well as replacing exterior and interior doors and windows with new. Renovate the existing laboratory. FROM FORMER 113008: Replace and improve filtration system equipment and components as well as flocculator equipment upgrades.

Project History:

Driver:

Challenges:

Other Important Info: CS-1528 water master plan update included these improvements.



SW WTP Architectural and Building Mechanical Improvements

New CIP#

Old CIP#

Related Project:



SW WTP Architectural and Building Mechanical Improvements

Phase Overview

Phase Title SW WTP Architectural and Building Mechanical Improvements

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SW WTP Architectural and Building Mechanical Improvements

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SW WTP Architectural and Building Mechanical Improvements

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | 6,100 |
| GLWA Salaries | | | | | | | 163 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 65 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 8 |

Current Phase Total

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 6,336 |



SW WTP Architectural and Building Mechanical Improvements

| | | | | | | | | | | | |
|--|---|---------------------|------|------|-----------------|----------------------|-----------------|-----------------|-----|-------------|----------------------|
| CURRENT PHASE | | Construction | | | | BUDGET | | Water | | Contract No | <input type="text"/> |
| Phase Title | SW WTP Architectural and Building Mechanical Improvements | | | | PPAT CIP Number | <input type="text"/> | | Phase Status | New | | |
| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| Construction | | | | | | | 31,000 | | | | |
| Engineering Services | | | | | | | | | | | |
| GLWA Salaries | | | | | | | | | | | |
| Materials | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | | 0 | | | |
| Current Phase Non-Personnel Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | | 0 | | | |
| Current Phase Total | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | | | | | | | 31,000 | | | |

| | | | | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|--|--|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| | | | | | | | 37,336 | | | | |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|------------|----------|-----------|
| Phase Category | C | | | |
| Budget | Water | | | |
| Phase Status | New | | | |
| Contract No | <input type="text"/> | | | |
| Cost Est Class | <input type="text"/> | | | |
| Construction | | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 11/12/2029 | 90 | 2/10/2030 |
| | Procurement | 2/11/2030 | 188 | 8/18/2030 |
| | Project Execution | 8/19/2030 | 1079 | 8/2/2033 |
| | Project Closeout | 8/3/2033 | 90 | 11/1/2033 |



SW WTP Architectural and Building Mechanical Improvements

| | |
|----------------|-------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 5/11/2027 | 90 | 8/9/2027 |
| Procurement | 8/10/2027 | 365 | 8/9/2028 |
| Project Execution | 8/10/2028 | 1818 | 8/2/2033 |
| Project Closeout | 8/3/2033 | 90 | 11/1/2033 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|--------|
| 2019 | | | | | | | | | 37,336 | 37,336 |

**CIP 114001: SPW WTP 1958 Filter Rehabilitation and Auxiliary
Facilities**



New CIP# **114001**

SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Old CIP# **917**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Project Significance Rehabilitation of Springwells WTP 1958 Filters and 1930s failed filters to provide the WTP with a renovated capacity of 295 MGD

Year Added: 2002

CIP Type: Project

Date Original BCE Prepared: 3/29/2004

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Springwells

Phone: (313) 999-3875

Project Location: Wayne County - Outside Detroit

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project includes the study, design (CS-1425) and construction assistance of improvements to the Springwells WTP that includes the replacement of Phosphoric Acid Feed System, rehabilitation of the 1958 Filters, rehabilitation of failed 1930s Filters, Update of Operation and Maintenance Manuals, and addition of polymer systems and controls. Provide construction services to furnish and install new filter media, underdrains, filter valves, and rate controllers; replace the existing filter control consoles, hydraulic control valves with electric control valves, enclosures; add appurtenances to enable automatic backwashing of the filters; provide a Filter Aid Polymer System to the 1930 and 1958 filter complexes; Programmable Logic Controller-based controls for automatic control of the polymer system; install a local instrumentation and controls system.

Project History:

Driver: 1 - Condition

Challenges: N/A - Active

Other Important Info:

Related Project:



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

New CIP# **114001**

Old CIP# **917**



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Phase Overview

Phase Title SP-563, Walsh, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities ©

Phase Category: C

Construction

Budget: Water

Contract Number: SP-563

Phase Status: Active

Start Date: 7/8/2013

End Date: 12/14/2018

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Walsh

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM Todd King

Phase Overview

Phase Title CS-1425, CDM, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities (E1 & E2)

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1425

Phase Status: Active

Start Date: 1/18/2008

End Date: 12/14/2018

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CDM

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Phase Overview

Phase Title CS-200, CDM, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities (E3)

Phase Category: CA

Construction Assistance

Budget: Water

Contract Number: CS-200

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Add CS-200 CDM

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-073, Lake Erie Electric Inspection Services (2nd C)

Phase Category: CA

Construction Assistance

Budget: Water

Contract Number: cs-073

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Phase Expenses

| | | | | | |
|---------------|--|-----------------|--------------|--------------|--------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | SP-563 |
| Phase Title | SP-563, Walsh, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities © | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|-------|-------|------|------|------|------|-----------------|
| Construction | 6,327 | 3,028 | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|-------|-------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 6,327 | 3,028 | 0 | 0 | 0 | 0 | 0 |



New CIP# **114001**

SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Old CIP# **917**

CURRENT PHASE **Study and Design and Construction Assistance**

BUDGET **Water**

Contract No **CS-1425**

Phase Title **CS-1425, CDM, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities (E1 & E2)**

PPAT CIP Number

Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | 418 | 10 | | | | | |
| GLWA Salaries | 42 | 74 | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 17 | 30 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2 | 4 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 479 | 118 | 0 | 0 | 0 | 0 | 0 |



New CIP# **114001**

SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

Old CIP# **917**

CURRENT PHASE **Construction Assistance**

BUDGET **Water**

Contract No **CS-200**

Phase Title **CS-200, CDM, SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities (E3)**

PPAT CIP Number

Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 445 | 355 | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | | | | | |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | | | | | |

Current Phase Total

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 445 | 355 | | | | | |



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

| | | | | | | | | | | | |
|--|-------------|--|-------------|-------------|-------------|-----------------|------------------------|------------------------|--|--------------|--------|
| CURRENT PHASE | | Construction Assistance | | | | BUDGET | | Water | | Contract No | cs-073 |
| Phase Title | | CS-073, Lake Erie Electric Inspection Services (2nd C) | | | | PPAT CIP Number | | | | Phase Status | Active |
| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| Construction | | | | | | | | | | | |
| Engineering Services | 30 | | | | | | | | | | |
| GLWA Salaries | | | | | | | | | | | |
| Materials | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 0 | | | | | | | | | |
| Current Phase Non-Personnel Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 0 | | | | | | | | | |
| Current Phase Total | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 30 | | | | | | | | | |

| | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 7,281 | 3,501 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|--------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Active | | | | |
| Contract No | SP-563 | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 10/9/2012 | 90 | 1/7/2013 |
| | | Procurement | 1/8/2013 | 180 | 7/7/2013 |
| | | Project Execution | 7/8/2013 | 1953 | 11/12/2018 |
| | | Project Closeout | 11/13/2018 | 90 | 2/11/2019 |



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

New CIP# **114001**

Old CIP# **917**

| | |
|----------------|--------|
| Phase Category | CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | cs-073 |
| Cost Est Class | |

Construction Assistance

| | |
|----------------|--------|
| Phase Category | CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-200 |
| Cost Est Class | |

Construction Assistance

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1425 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/8/2010 | 90 | 1/6/2011 |
| Procurement | 1/7/2011 | 365 | 1/7/2012 |
| Project Execution | 1/8/2012 | 2500 | 11/12/2018 |
| Project Closeout | 11/13/2018 | 90 | 2/11/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 3 | |
| Financial | 2 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

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



SPW WTP 1958 Filter Rehabilitation and Auxiliary Facilities

New CIP# **114001**

Old CIP# **917**

Project Manager Weighted Score

62.2

Review Committee Weighted Score

62.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated construction based on actual invoicing to date from Walsh; extended completion due to anticipated change order for time only; added GLWA costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|--------|--------|-------|-------|------|------|------|------|-----------------|--------|
| 2018 | 56,759 | 20,353 | 310 | | | | | | | 77,422 |
| 2019 | 71,252 | 11,430 | 7,281 | 3,501 | 0 | 0 | 0 | 0 | 0 | 93,464 |

CIP 114002: SPW WTP Low Lift and High Lift Pump Station



New CIP# **114002**

Old CIP# **1071**

SPW WTP Low Lift and High Lift Pump Station

PROJECT SUMMARY

- Innovation
- MP Right Sizing**
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Low Lift and High Lift Pump Station

Project Significance Existing low & high lift pumping system electrical is original, unsafe, not reliable, and is oversized for current & projected demands. New and/or rehabilitated pumping system equipment is needed.

Year Added: 2004

Date Original BCE Prepared: 3/29/2004

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: Erich Klun

Title: Manager

Phone: (313) 926-8151

Email: erich.klun@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Springwells

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The electrical gear at the Springwells WTP high and low lift stations is old and parts are no longer available. The outdated equipment also poses safety issues. Furthermore, the pumps may be right-sized to provide more efficient pumping systems.

Project History:

Driver: 1 - Condition

Challenges: Extremely complicated sequence of construction required to replace electrical gear while maintaining system demands throughout construction. During construction, new costly equipment will be operating next to existing equipment/facilities to be demolished

Other Important Info:

Related Project: Springwells WTP Reservoir Fill Line, Springwells Yard Piping Replacement, Springwells Water Production Flow Metering



SPW WTP Low Lift and High Lift Pump Station

Phase Overview

Phase Title SPW WTP - Low Lift and High Lift Pump Station

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-103, SPW WTP - Low Lift and High Lift Pump Station

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-103

Phase Status: Under Procurement

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Low Lift and High Lift Pump Station

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP - Low Lift and High Lift Pump Station | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|--------|-------|-----------------|
| Construction | | | | | 10,375 | 7,750 | 56,875 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|----------------------------|------|------|------|------|--------|-------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 10,375 | 7,750 | 56,875 |



SPW WTP Low Lift and High Lift Pump Station

CURRENT PHASE **Study and Design and Construction Assistance** BUDGET **Water** Contract No **CS-103**

Phase Title **CS-103, SPW WTP - Low Lift and High Lift Pump Station** PPAT CIP Number Phase Status **Under Procurement**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | 433 | 1,372 | 2,420 | 1,392 | 792 | 864 | 2,663 |
| GLWA Salaries | 21 | 42 | 42 | 42 | 42 | 42 | 145 |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 8 | 17 | 17 | 17 | 17 | 17 | 58 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 2 | 2 | 2 | 2 | 2 | 7 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 463 | 1,433 | 2,481 | 1,453 | 853 | 925 | 2,873 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|-------|--------|-------|-----------------|
| | 463 | 1,433 | 2,481 | 1,453 | 11,228 | 8,675 | 59,748 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | 9/29/2020 | 90 |
| | | Procurement | 12/29/2020 | 188 |
| | | Project Execution | 7/6/2021 | 1791 |
| | | Project Closeout | 6/2/2026 | 90 |
| | | | End Date | |
| | | | 12/28/2020 | |
| | | | 7/5/2021 | |
| | | | 6/1/2026 | |
| | | | 8/31/2026 | |



SPW WTP Low Lift and High Lift Pump Station

| | |
|----------------|-------------------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Under Procurement |
| Contract No | CS-103 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 11/2/2016 | 90 | 1/31/2017 |
| Procurement | 2/1/2017 | 365 | 2/1/2018 |
| Project Execution | 2/2/2018 | 3041 | 6/1/2026 |
| Project Closeout | 6/2/2026 | 90 | 8/31/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

78.6

Review Committee Score

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

Review Committee Weighted Score

69.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Refined schedule based on the pending award of the design contract as of 9/18/2017; added consultant contract costs; added GLWA costs

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|--------|--------|--------|--------|-----------------|--------|
| 2018 | | | 1,500 | 2,000 | 12,500 | 22,000 | 21,500 | 26,500 | | 86,000 |
| 2019 | | 22 | 463 | 1,433 | 2,481 | 1,453 | 11,228 | 8,675 | 59,748 | 85,503 |

**CIP 114003: WTP Water Production Flow Metering Improvements at
NE, SW, and SPW WTP**



New CIP# 114003

Old CIP# 1264

WTP Water Production Flow Metering Improvements at NE, SW, and SPW WTP

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

WTP Water Production Flow Metering Improvements at NE, SW, and SPW WTP

Project Significance Existing water production flow meters need to be rehabilitated to place back into reliable and accurate service. Once completed, accurate flow measurement from these plants will answer non-revenue water questions.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Jorge Nicolas

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Springwells

Phone: (313) 926-8130

Project Location: Multiple Counties

Email: Jorge.Nicolas@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Water production metering is needed at the Water Treatment Plants to manage non-revenue and provide estimates of usage for non-wholesale customers.

Project History: n/a

Driver: 7 - Financial

Challenges: Removing and replacing existing meters in original piping requires isolation using existing yard piping and valving. Condition of existing pipe and valves needs to be adequately addressed in the final design documents and coordinated with operations.

Other Important Info: n/a

Related Project: CS-1656 ASI



WTP Water Production Flow Metering Improvements at NE, SW, and SPW WTP

Phase Overview

Phase Title CON-133, Water Production Flow Metering Improvements at NE, SW, and SPW WTP

Phase Category: C

Construction

Budget: Water

Contract Number: CON-133

Phase Status: Active

Start Date: 7/31/2017

End Date: 10/29/2019

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source: consultant

Cost Estimation Prep By: Consultant Applied Science

Useful Life > 20Yrs Yes

Comments: LCG Global is contractor

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **CON-133**

Phase Title **CON-133, Water Production Flow Metering Improvements at NE, SW, and SPW WTP** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|-------|------|------|-----------------|
| Construction | 688 | 2,476 | 2,476 | 1,238 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | 11 | 21 | 21 | 13 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 4 | 8 | 8 | 5 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 1 | 1 | 1 | 1 | 0 | 0 | 0 |



WTP Water Production Flow Metering Improvements at NE, SW, and SPW
WTP

| | | | | | | | |
|----------------------------|------|-------|-------|-------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 704 | 2,506 | 2,506 | 1,257 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|-------|-------|-------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 704 | 2,506 | 2,506 | 1,257 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|---------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | CON-133 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | 7/31/2017 | 1096 | 7/31/2020 |
| Project Closeout | 8/1/2020 | 90 | 10/30/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

59.8

Review Committee Score

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

Review Committee Weighted Score

50.6

Describe Here the Changes from the 2018 CIP to 2019 CIP



**WTP Water Production Flow Metering Improvements at NE, SW, and SPW
WTP**

Adjusted construction budget to reflect contract award CON-133 with the NTP issued to LCG on 7/31/2017.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|-------|-------|-------|-------|------|------|-----------------|--------|
| 2018 | | 1,000 | 8,800 | 2,100 | 1,000 | | | | | 12,900 |
| 2019 | 171 | 15 | 704 | 2,506 | 2,506 | 1,257 | 0 | 0 | 0 | 7,159 |

CIP 114004: SPW WTP Concrete Crack Repairs



New CIP# 114004

SPW WTP Concrete Crack Repairs

Old CIP# 1265

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Concrete Crack Repairs

Project Significance Concrete repairs to prevent further deterioration to critical structures at Springwells WTP

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Jorge Nicolas

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Springwells

Phone: (313) 926-8130

Project Location: Wayne County - Outside Detroit

Email: Jorge.Nicolas@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This construction project involves repairing cracked and spalled concrete to stop water leaking from water-containing structures, to stop water from migrating into buildings and tunnels, and to repair deteriorated concrete where substantial delamination has occurred. The project also involves re-grading and re-constructing a plant roadway over pedestrian and utility tunnels to protect these tunnels from water infiltration and damage.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project:



SPW WTP Concrete Crack Repairs

New CIP# **114004**

Old CIP# **1265**

Phase Overview

Phase Title **SP-570, SPW WTP Concrete Crack Repairs**

Phase Category: **C**

Construction

Budget: **Water**

Contract Number: **SP-570**

Phase Status: **Closed Out**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By: **Consultant Benesch**

Useful Life > 20Yrs **Yes**

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **SP-570**

Phase Title **SP-570, SPW WTP Concrete Crack Repairs** PPAT CIP Number Phase Status **Closed Out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |



SPW WTP Concrete Crack Repairs

New CIP#

Old CIP#

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|---|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | | 0 |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|---|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | | 0 |

| Phase Tasks and Dates | |
|-----------------------|--------------------------|
| Phase Category | C Construction |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | SP-570 |
| Cost Est Class | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Concrete Crack Repairs

New CIP# **114004**

Old CIP# **1265**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | 398 | 600 | | | | | | | | 998 |
| 2019 | 404 | 91 | | | | | | | 0 | 495 |

**CIP 114005: SPW WTP Administration Building Improvements &
Underground Fire Protecting Loop**



New CIP# **114005**

Old CIP# **1266**

SPW WTP Administration Building Improvements & Underground Fire Protection Loop

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Project Significance Existing administration building is over 80 years old with many of its facilities being original. The building needs architectural, plumbing and electrical improvements. Improvements will provide reliable fire protection to all plant facilities, replace non-functioning isolation valves and hydrants, provide fire system backflow protection, and bring the fire system into conformance with the requirements of the Dearborn Fire Marshal.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Springwells

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The work includes, but not necessarily limited to, removal and replacement of the existing plumbing piping, fittings, valves, plumbing fixtures, and any other necessary accessories. The work also includes relocating the electrical gear from basement to first floor locker room.

The existing underground fire protection line loops the Pump, Switch, Boiler and Turbine houses and is supplied water off the high lift headers in the Pump House Header Vault. The supply does not currently have backflow prevention and several branches off the loop used to feed an irrigation system serving the grassy areas covering the reservoirs, 1930 Sed. Basin and 1958 Sed. Basin. Isolation valves and fire hydrants are non-functioning and are beyond their useful life, and the old cast iron piping is susceptible to frequent breaks.

Project History: The fire loop and appurtenances are original to the existing plant commissioned around 1930. The loop crosses the construction staging area (blue tarps shown in the Project Map from Contract SP-563) in the northeast corner of the site and has been exposed to heavy construction traffic over the years.

Driver: 1 - Condition



SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Challenges: Major component of this project includes the relocation/replacement of existing electrical gear located in the basement, and switchover to the new gear and location will need to be seamless. All plumbing needs to be replaced, the majority of which is conc The underground facilities (e.g., electrical duct banks, gas service mains, fiber optic, tunnels, conduits, major pipelines, etc.) at Springwells have been modified several times since initially being commissioned around 1930. The new fire loop will cross a lot of buried utilities and structures, and identification of these facilities and showing them accurately in Contract Documents will be critical to minimizing interruptions/complications during construction. Even then, with all of the underground utilities between the Pump House and Administration Building, and between the Machine Shop/Garage and the 1930 Mixing Chamber, surprises during construction will be difficult to avoid.

Other Important Info: The project was first identified in the November 2002 Needs Assessment completed by Hazen & Sawyer under CS-1304. The opinion of probable construction at that time for just replacing the existing piping was \$1,076,400.00.

Related Project: Depending on when the project gets underway, this project may need to be coordinated with current on-going contracts SP-563, SCP-SP-009 and construction contracts resulting from the designs being completed under contracts CS-1671 and SCP-CS-1656. Other planned projects that may be related to this project include paving improvements, underground structure rehabilitation and 72" yard piping improvements/replacement.



SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Phase Overview

Phase Title SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Administration Building Improvements & Underground Fire Protection Loop

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP Administration Building Improvements & Underground Fire Protection Loop | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | 20 | 383 | 186 | 290 | 121 | |
| GLWA Salaries | | 7 | 21 | 21 | 21 | 17 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 3 | 8 | 8 | 8 | 7 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 30 | 413 | 216 | 320 | 146 | 0 |



SPW WTP Administration Building Improvements & Underground Fire Protection Loop

| | | | | | | |
|----------------------|---|---------------|-----------------|-------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA | |
| Phase Title | SPW WTP Administration Building Improvements & Underground Fire Protection Loop | | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|-------|-------|-----------------|
| Construction | | | | 2,042 | 3,500 | 1,458 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|-------|-------|-------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 2,042 | 3,500 | 1,458 | |

| | | | | | | | |
|-------------------------|------|------|------|-------|-------|-------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 30 | 413 | 2,258 | 3,820 | 1,604 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|-----------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 2/24/2020 | 90 | 5/24/2020 |
| | Procurement | 5/25/2020 | 188 | 11/29/2020 |
| | Project Execution | 11/30/2020 | 753 | 12/23/2022 |
| | Project Closeout | 12/24/2022 | 90 | 3/24/2023 |



SPW WTP Administration Building Improvements & Underground Fire Protection Loop

| | |
|----------------|----------------------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 2/24/2018 | 90 | 5/25/2018 |
| Procurement | 5/26/2018 | 365 | 5/26/2019 |
| Project Execution | 5/27/2019 | 1306 | 12/23/2022 |
| Project Closeout | 12/24/2022 | 90 | 3/24/2023 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

63.8

Review Committee Score

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

Review Committee Weighted Score

67.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated schedule to account for two procurements, one for A/E design and one for the construction; increased engineering services costs based on past year's experience on contracted services; increased construction cost to account for inflation; added GLWA costs. Reclassified 114014 into this project. 114004 project expenses in 2018-2022 CIP where \$3,289.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|-------|-------|-------|-------|-----------------|-------|
| 2018 | | | | 300 | 1,700 | | | | | 2,000 |
| 2019 | | | 0 | 30 | 413 | 2,258 | 3,820 | 1,604 | 0 | 8,125 |

**CIP 114006: SPW WTP Replacement of Rapid Mix Units 1959
Process Train**



New CIP# **114006**

SPW WTP Replacement of Rapid Mix Units 1958 Process Train

Old CIP# **1267**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **SPW WTP Replacement of Rapid Mix Units 1958 Process Train**

Project Significance Existing rapid mixing units at the 1958 treatment train are not operable and are needed for effective water treatment at Springwells.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2017

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Brian Dara

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Springwells

Phone: (313) 926-8121

Project Location: Wayne County - Outside Detroit

Email: Brian.Dara@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The work includes removal and replacement of all of the four rapid mixers including electrical, mechanical and structural components.

Project History: n/a

Driver: 1 - Condition

Challenges: Work requires treatment trains to be shut down to complete the installation/replacement, so coordination with operations and overall system demands required.

Other Important Info: n/a

Related Project: CS-045 Hazen & Sawyer



SPW WTP Replacement of Rapid Mix Units 1958 Process Train

Phase Overview

Phase Title SPW WTP Replacement of Rapid Mix Units WTP 1958 Process Train

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SCP-CS-045, Hazen & Sawyer, SPW WTP Replacement of Rapid Mix Units WTP 1958 Process Train

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: SCP-CS-045

Phase Status: Active

Start Date: 2/6/2017

End Date: 5/9/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Hazen and Sawyer

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Replacement of Rapid Mix Units 1958 Process Train

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP Replacement of Rapid Mix Units WTP 1958 Process Train | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|------|------|------|------|-----------------|
| Construction | | 1,136 | 201 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|-------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 1,136 | 201 | 0 | 0 | 0 | 0 |



SPW WTP Replacement of Rapid Mix Units 1958 Process Train

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|------------|
| CURRENT PHASE | Design & Construction Assistance | BUDGET | Water | Contract No | SCP-CS-045 |
| Phase Title | SCP-CS-045, Hazen & Sawyer, SPW WTP Replacement of Rapid Mix Units WTP 1958 Process Train | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 116 | 137 | | | | | |
| GLWA Salaries | 5 | 8 | 7 | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 2 | 3 | 3 | | | | |
| Current Phase Non-Personnel Expenses | 0 | 0 | 0 | | | | |
| Current Phase Total | 123 | 148 | 10 | | | | |

| | | | | | | | |
|-------------------------|------|-------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 123 | 1,284 | 211 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|----------------------|----------|------------|
| Phase Category | C | | |
| Budget | Water | | |
| Phase Status | Future Planned Start | | |
| Contract No | NA | | |
| Cost Est Class | | | |
| Construction | | | |
| Task Name | Start Date | Duration | End Date |
| Scope Development | 9/21/2017 | 90 | 12/20/2017 |
| Procurement | 12/21/2017 | 188 | 6/27/2018 |
| Project Execution | 6/28/2018 | 363 | 6/26/2019 |
| Project Closeout | 6/27/2019 | 90 | 9/25/2019 |



SPW WTP Replacement of Rapid Mix Units 1958 Process Train

| | |
|----------------|------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-045 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 5/3/2016 | 90 | 8/1/2016 |
| Procurement | 8/2/2016 | 365 | 8/2/2017 |
| Project Execution | 8/3/2017 | 692 | 6/26/2019 |
| Project Closeout | 6/27/2019 | 90 | 9/25/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

72

Review Committee Score

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

Review Committee Weighted Score

69.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Added CS-045 engineering Hazen services budget; added GLWA costs; revised schedule to account for procurement schedule

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|------|------|------|------|-----------------|-------|
| 2018 | | 100 | 875 | 275 | | | | | | 1,250 |
| 2019 | | 104 | 123 | 1,284 | 211 | 0 | 0 | 0 | 0 | 1,722 |

**CIP 114007: SPW WTP Powdered Activated Carbon System
Improvements**



New CIP# 114007

Old CIP# 1268

SPW WTP Powdered Activated Carbon System Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Powdered Activated Carbon System Improvements

Project Significance Existing PAC system is not operable and is needed at times to control taste and odor episodes.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Treatment Plants & Facilities

Title:

Project Classification Level 3: Springwells

Phone:

Project Location: Wayne County - Outside Detroit

Email:

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Existing PAC system is not operable. The plant is able to feed powdered activated carbon (PAC) when needed but only through extraordinary measures because the existing PAC feed systems does not operate as intended. The extraordinary measures cause additional operation and maintenance expense and inefficiencies that should be corrected in the long term. Due to the infrequent need to feed PAC, there is not an immediate need to replace the entire existing PAC system at Springwells. If raw water quality deteriorates unexpectedly and taste and odor causing compound concentrations steadily increase, then replacement of the PAC system at an earlier date would be warranted.

Project History: n/a

Driver: 1 - Condition

Challenges: Layout of piping to correct existing problems and drainage difficult. Diffuser replacement/relocation/installation will require plant shutdowns to complete, so it will be seasonal demand dependent.

Other Important Info: n/a

Related Project: none



SPW WTP Powdered Activated Carbon System Improvements

New CIP# **114007**

Old CIP# **1268**



SPW WTP Powdered Activated Carbon System Improvements

Phase Overview

Phase Title SPW WTP Powdered Activated Carbon System Improvements

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SPW WTP Powdered Activated Carbon System Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Powdered Activated Carbon System Improvements

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP Powdered Activated Carbon System Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | 820 |
| GLWA Salaries | | | | | | | 82 |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | | 0 | 0 | 0 | 0 | 33 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | | 0 | 0 | 0 | 0 | 4 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | | 0 | 0 | 0 | 0 | 939 |



SPW WTP Powdered Activated Carbon System Improvements

| | | | | | | | | | | | |
|--|-------------|---|-------------|-------------|-------------|-----------------|------------------------|--------------|--|--------------|----------------------|
| CURRENT PHASE | | Construction | | | | BUDGET | | Water | | Contract No | NA |
| Phase Title | | SPW WTP Powdered Activated Carbon System Improvements | | | | PPAT CIP Number | | | | Phase Status | Future Planned Start |
| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| Construction | | | | | | | 3,000 | | | | |
| Engineering Services | | | | | | | | | | | |
| GLWA Salaries | | | | | | | | | | | |
| Materials | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| | | | | | | | 0 | | | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| | | | | | | | 0 | | | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| | | | | | | | 3,000 | | | | |

| | | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | | 0 | 0 | 0 | 0 | 3,939 | |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 7/15/2024 | 90 | 10/13/2024 |
| | | Procurement | 10/14/2024 | 188 | 4/20/2025 |
| | | Project Execution | 4/21/2025 | 361 | 4/17/2026 |
| | | Project Closeout | 4/18/2026 | 90 | 7/17/2026 |



SPW WTP Powdered Activated Carbon System Improvements

New CIP# **114007**

Old CIP# **1268**

| | |
|----------------|----------------------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 10/8/2022 | 90 | 1/6/2023 |
| Procurement | 1/7/2023 | 365 | 1/7/2024 |
| Project Execution | 1/8/2024 | 830 | 4/17/2026 |
| Project Closeout | 4/18/2026 | 90 | 7/17/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

71.4

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|------------------------------------|
| Condition | 5 | |
| Performance (Service Level/Reliabilit | 5 | |
| Regulatory (Environmental/Legal) | 3 | PM considers this a regulatory iss |
| O&M | 4 | |
| Public Health & Safety | 1 | |
| Public Benefit | 5 | |
| Financial | 2 | |
| Efficiency and Innovation | 1 | |

Review Committee Weighted Score

63.8

Describe Here the Changes from the 2018 CIP to 2019 CIP

Revised schedule to account for DBB multi procurements; added engineering services costs; added GLWA costs; adjusted construction estimate for inflation.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|-------|------|------|-----------------|-------|
| 2018 | | | | | 900 | 2,000 | | | | 2,900 |
| 2019 | | | 0 | | 0 | 0 | 0 | 0 | 3,939 | 3,939 |

**CIP 114008: SPW WTP 1930 Sedimentation Basin Sluice Gates,
Guides & Hoists Improvement**



New CIP# **114008**

Old CIP# **1269**

SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements

Project Significance Existing sedimentation basin gates, guides and hoists are early 1930s and are in need of upgrade. Further, upgrades must result in a safer mode of gate operation.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Treatment Plants & Facilities

Title:

Project Classification Level 3: Springwells

Phone:

Project Location: Wayne County - Outside Detroit

Email:

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project will evaluate and rehabilitate or replace the sluice gates, guides and hoists at the 1930s Filter Building at the Springwells Water Treatment Plant. These gates and appurtenances have surpassed their expected service life and require rehabilitation and/or replacement for the isolation and operation of the 1930s filters and overall maintenance of various systems at the Springwells WTP. Options for maintenance of flows are limited with current condition of these gates.

Project History: n/a

Driver: 1 - Condition

Challenges: Work will either require sedimentation basins to be shut down and dewatered or the work performed by divers. In either case, portions of the 1930 plant will need to be shut down to complete the work.

Other Important Info: n/a

Related Project: none



**SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists
Improvements**

New CIP# **114008**

Old CIP# **1269**



SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements

Phase Overview

Phase Title 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **NA**

Phase Title **1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements at Springwells WTP** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|-------|------|-----------------|
| Construction | | 411 | 4,123 | 6,800 | 5,667 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | 9 | 21 | 21 | 21 | 2 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 4 | 8 | 8 | 8 | 1 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 1 | 1 | 1 | 0 | 0 |



SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements

| | | | | | | | |
|----------------------------|------|------|-------|-------|-------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 424 | 4,153 | 6,830 | 5,697 | 3 | 0 |

| | | | | | | | |
|-------------------------|------|------|-------|-------|-------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 424 | 4,153 | 6,830 | 5,697 | 3 | 0 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 1/24/2018 | 90 | 4/24/2018 |
| Procurement | 4/25/2018 | 365 | 4/25/2019 |
| Project Execution | 4/26/2019 | 1091 | 4/21/2022 |
| Project Closeout | 4/22/2022 | 90 | 7/21/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 4 | |
| Public Health & Safety | 5 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

61.8

Review Committee Score

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

Review Committee Weighted Score

52.8

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improvements

Changed to design-build project delivery; pushed back schedule by a year; increased overall delivery schedule to account for procurement of DB contractor, increased budget for inflation; added GLWA costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|------|-----------------|--------|
| 2018 | | | 1,200 | 2,000 | 4,000 | 300 | | | | 7,500 |
| 2019 | | | 0 | 424 | 4,153 | 6,830 | 5,697 | 3 | 0 | 17,107 |

CIP 114009: SPW WTP Service Area Redundancy Study



SPW WTP Service Area Redundancy Study

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Service Area Redundancy Study

Project Significance Hydraulic analysis and Evaluation of options to maintain adequate pressure at Springwell's high pressure district. FROM 132010: Construction of West Service Center Division Valves is needed to convey Lake Huron flows through the West Service Center to the Springwells high service area while the Springwells raw water tunnel is out of service for repairs. Construction of active bypass around the Newburgh Pump Station.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/21/2017

Project Engineer/Manager: Timothy Kuhns

Title: Manager

Phone: (313) 926-8114

Email: Timothy.Kuhns@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Springwells

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: This study involves hydraulic analyses and evaluation of options to transmit finished water from the Lake Huron Water Treatment Plant through the West Service Center in order to provide finished water to the Springwells Water Treatment Plant's high-pressure district. FROM 132010: Lake Huron WTP needs to provide flows to the Springwells high service area while the Springwells raw water tunnel is out of service for repair.

Project History:

Driver: 1 - Condition

Challenges: N/A - Under Procurement. FROM 132010: Coordination with operations critical meet testing of existing valves. Isolation, shutdown and operation of Lake Huron and Springwells WTPs, North Service Center, and other facilities.

Other Important Info:

Related Project: Springwells WTP Reservoir Fill Line



SPW WTP Service Area Redundancy Study

New CIP# **114009**

Old CIP# **1295**



SPW WTP Service Area Redundancy Study

New CIP# **114009**

Old CIP# **1295**

Phase Overview

Phase Title CS-1772 Springwells Water Treatment Plant Service Area Redundancy Study

Phase Category: S

Study

Budget: Water

Contract Number: CS-1772

Phase Status: Active

Start Date: 11/4/2016

End Date: 11/14/2017

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE Study

BUDGET Water

Contract No CS-1772

Phase Title CS-1772 Springwells Water Treatment Plant Service Area Redundancy Study

PPAT CIP Number

Phase Status Active

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 145 | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SPW WTP Service Area Redundancy Study

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 145 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 145 | 0 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|---------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1772 |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/24/2017 | 125 | 2/26/2018 |
| Procurement | 2/27/2018 | 295 | 12/19/2018 |
| Project Execution | 12/20/2018 | 363 | 12/18/2019 |
| Project Closeout | 7/1/2019 | 87 | 9/26/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 5 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 5 | |
| Public Health & Safety | 5 | |
| Public Benefit | 5 | |
| Financial | 5 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

85.6

Review Committee Score

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

Review Committee Weighted Score

78

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Service Area Redundancy Study

New CIP# **114009**

Old CIP# **1295**

Changed allocation of expenses. Updated Project Prioritization.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2018 | | 450 | | | | | | | | 450 | |
| 2019 | | 193 | 145 | 0 | 0 | 0 | 0 | 0 | 0 | 338 | |

**CIP 114010: SPW WTP Yard Piping and High Lift Header
Improvements**



SPW WTP Yard Piping and High Lift Header Improvements

- PROJECT SUMMARY
- Innovation
 - MP Right Sizing
 - System Reliability

Project Status

Project Status Guide:
 Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Project Significance Six (6) of the seven (7) 72-inch mains leaving the site are original to the 1930 plant construction and consist of riveted steel pipe material. Main No. 7 is a prestressed concrete cylinder pipe material installed in 1958. The steel mains are known to be leaking and are in need of replacement to maintain system reliability. Additionally, isolation valves associated with the 72-inch mains need to be replaced. Other yard piping, including gravity sewers and process piping, need to be assessed and replaced and or rehabilitated.

Year Added: 2012
Date Original BCE Prepared: 9/8/2016
Date BCE Last Updated: 9/21/2017
Project Engineer/Manager: Erich Klun
Title: Manager
Phone: (313) 926-8151
Email: erich.klun@glwater.org
Manager: Grant Gartrell
Managing Dept Water Eng

CIP Type: Project
Budget: Water
Project Classification Level 1: Water
Project Classification Level 2: Treatment Plants & Facilities
Project Classification Level 3: Springwells
Project Location: Wayne County - Outside Detroit
Fund: 5519
Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Existing yard piping is original riveted steel from the early 1930s and has experienced leaks. These leaks have potential to disrupt service to Springwells Service area customers. Scope will also include performing a condition assessment, cleaning and replacement/rehabilitation of all gravity sewers (including manholes) and other pressure pipe. Other site improvements will include replacement of access drives, new guard shack, construction trailer utility hook-up station, and other site miscellaneous site improvements. Formerly CIP 1248.

Project History: n/a

Driver: 1 - Condition

Challenges: Complex construction sequencing, and reliability of existing gate valves for isolation will be critical. Design will need to address the isolation valve issue, as well as the condition of the existing yard piping being connected to.



SPW WTP Yard Piping and High Lift Header Improvements

New CIP# **114010**

Old CIP# **1306**

Other Important Info: n/a

Related Project: Low-Lift and High-Lift Station Upgrades, Water Production Flow Metering Upgrades at Springwells WTP.



SPW WTP Yard Piping and High Lift Header Improvements

Phase Overview

Phase Title SPW WTP Yard Piping Improvements

Phase Category: DB

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SPW WTP Yard Piping Improvements

Phase Category: D

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Yard Piping and High Lift Header Improvements

Phase Expenses

| | | | | | |
|---------------|----------------------------------|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Design and Build | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP Yard Piping Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 110,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | 89 |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 110,129 |

| | | | | | |
|---------------|----------------------------------|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Design | BUDGET | Water | Contract No | NA |
| Phase Title | SPW WTP Yard Piping Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

Current Phase Fringe Benefit Expenses

Current Phase Non-Personnel Expenses

Current Phase Total

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 110,129 |



SPW WTP Yard Piping and High Lift Header Improvements

New CIP# **114010**

Old CIP# **1306**

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | 3/9/2024 | 90 | 6/7/2024 |
| Procurement | 6/8/2024 | 365 | 6/8/2025 |
| Project Execution | 6/9/2025 | 2552 | 6/4/2032 |
| Project Closeout | 6/5/2032 | 90 | 9/3/2032 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

53.8

Review Committee Score

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

Review Committee Weighted Score

62.2

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Yard Piping and High Lift Header Improvements

Further defined scope to include all site improvements since the site will be dug up to replace the major yard piping, including gravity sewers and drains, pressure piping, etc. Combined the header vault and yard piping design and construction.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|-------|-------|-------|------|-----------------|---------|
| 2018 | | | | 2,000 | 7,000 | 8,000 | 8,000 | | | 25,000 |
| 2019 | | | 0 | 0 | 0 | 0 | 0 | 0 | 110,129 | 110,129 |

**CIP 114011: SPW WTP Steam, Condensate Return, and Compressed
Air Piping Improvements**



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements**

Project Significance These existing mechanical systems are largely broken and leaking creating an inefficient use of energy.

Year Added: 2012

CIP Type: Project

Date Original BCE Prepared: 3/6/2012

Budget: Water

Date BCE Last Updated: 9/21/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Springwells

Phone: (313) 999-3875

Project Location: Wayne County - Outside Detroit

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This engineering services contract involves designing a new, more energy-efficient steam heating system for the entire Springwells Water Treatment Plant, including all steam unit heaters, steam piping, condensate return piping, condensate return pumping stations, steam pressure reducing valves, and appurtenances. This project also involves replacing the compressed air piping in the plant used for service air. Once completed, the project will provide energy savings by eliminating extensive steam and condensate leaking currently inherent in the antiquated system. This project includes design and construction administration (CS-1671) and construction (SP-TBD) to replace the leaking steam piping, condensate return piping and compressed air piping throughout the Springwells WTP. The scope of work includes replacing inefficient unit heaters, radiators, condensate return pump stations, pressure reducing valves, regulators, and heating system appurtenances throughout the plant. Once completed, the project will provide energy savings by eliminating extensive steam and condensate leaking currently inherent in the antiquated system.

Project History: n/a

Driver: N/A - Under Procurement

Challenges: Many components of the existing system are original to the existing heating system, are not functioning and need to be demolished/removed.



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

New CIP# **114011**

Old CIP# **1307**

Seasonal work and sequencing with the heating season is required.

Other Important Info: n/a

Related Project: none



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

Phase Overview

Phase Title Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1671 Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-1671

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: METCO

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|-------|------|------|-----------------|
| Construction | | 1,278 | 4,578 | 4,444 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|-------|-------|-------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 1,278 | 4,578 | 4,444 | 0 | 0 | 0 |



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|---------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | CS-1671 |
| Phase Title | CS-1671 Steam, Condensate Return, and Compressed Air Piping Improvements at Springwells WTP | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 431 | 98 | 216 | 180 | | | |
| GLWA Salaries | 13 | 21 | 21 | 21 | 5 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 5 | 8 | 8 | 8 | 2 | 0 | 0 |
| Current Phase Non-Personnel Expenses | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Current Phase Total | 450 | 128 | 246 | 210 | 7 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|-------|------|------|-----------------|
| | 450 | 1,406 | 4,824 | 4,654 | 7 | 0 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|----------------------|----------|-----------|
| Phase Category | C | | |
| Budget | Water | | |
| Phase Status | Future Planned Start | | |
| Contract No | NA | | |
| Cost Est Class | | | |
| Construction | | | |
| Task Name | Start Date | Duration | End Date |
| Scope Development | 11/30/2017 | 90 | 2/28/2018 |
| Procurement | 3/1/2018 | 307 | 1/2/2019 |
| Project Execution | 1/3/2019 | 839 | 4/21/2021 |
| Project Closeout | 4/22/2021 | 90 | 7/21/2021 |



SPW WTP Steam, Condensate Return, and Compressed Air Piping Improvements

| | |
|----------------|---------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1671 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/1/2016 | 90 | 12/30/2016 |
| Procurement | 12/31/2016 | 365 | 12/31/2017 |
| Project Execution | 1/1/2018 | 1206 | 4/21/2021 |
| Project Closeout | 4/22/2021 | 90 | 7/21/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

63.8

Review Committee Score

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

Review Committee Weighted Score

62.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Project costs updated based on Consultant's opinion of probable construction cost dated February 2017 included in the Final Basis of Design Report;

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|------|------|-----------------|--------|
| 2018 | | 300 | 3,450 | 2,500 | | | | | | 6,250 |
| 2019 | 19 | 261 | 450 | 1,406 | 4,824 | 4,654 | 7 | 0 | 0 | 11,621 |

**CIP 114012: SPW WTP Water Treatment Plant 1930 Filter Building-
Roof Replacement**



SPW WTP Water Treatment Plant 1930 Filter Building-Roof Replacement

New CIP# **114012**

Old CIP# **1320**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Water Treatment Plant 1930 Filter Building-Roof Replacement

Project Significance The existing roof over the 1930 filters is leaking in places and poses water quality concerns due to roof leaks.

Year Added: 2016

CIP Type: Project

Date Original BCE Prepared: 10/11/2016

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Paula Anderson

Project Classification Level 2: Treatment Plants & Facilities

Title: Manager

Project Classification Level 3: Springwells

Phone: (313) 410-7600

Project Location: Wayne County - Outside Detroit

Email: paula.anderson@glwater.org

Fund: 5519

Manager: Paula Anderson

Cost Center: 882111

Managing Dept: Water Eng

PROJECT INFORMATION

Scope of Work: This project encompasses replacement of the existing 1930 Filter Building roofing system, including the built-up roofing material, flashing, roof drains/conductors and sealing cap stones to prevent water from penetrating the building envelop and causing water damage. Construction activity under Contract SP-563 in 2014-2015 revealed that water damage has been on-going and is causing clerestory window lintel deterioration. Additionally, construction traffic under Contract SP-563 has shown the built-up material to be blistering and spongy.

Project History: n/a

Driver: 1 - Condition

Challenges: Seasonal construction work, and construction will require working around new rooftop equipment installed under SP-563.

Other Important Info: n/a

Related Project: none



SPW WTP Water Treatment Plant 1930 Filter Building-Roof Replacement

New CIP# **114012**

Old CIP# **1320**

Phase Overview

Phase Title Springwells Water Treatment Plant 1930 Filter Building-Roof Replacement

Phase Category: DB

Budget: Water

Contract Number: NA

Phase Status: Under Procurement

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: DB093

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **NA**

Phase Title **Springwells Water Treatment Plant 1930 Filter Building-Roof Replacement** PPAT CIP Number Phase Status **Under Procurement**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|------|------|------|------|-----------------|
| Construction | 482 | 2,410 | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | 3 | 7 | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 1 | 3 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SPW WTP Water Treatment Plant 1930 Filter Building-Roof Replacement

New CIP# **114012**

Old CIP# **1320**

| | | | | | | | |
|----------------------------|------|-------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 486 | 2,420 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|-------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 486 | 2,420 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Under Procurement |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/1/2017 | 91 | 12/31/2017 |
| Procurement | 12/31/2017 | 272 | 9/29/2018 |
| Project Execution | 9/29/2018 | 456 | 12/29/2019 |
| Project Closeout | 12/29/2019 | 90 | 3/28/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

70.6

Review Committee Score

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

Review Committee Weighted Score

61

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Water Treatment Plant 1930 Filter Building-Roof Replacement

New CIP# **114012**

Old CIP# **1320**

Changes made due to delay in getting bid documents released for bidding purposes.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|------|-------|------|------|------|------|-----------------|-------|
| 2018 | | 3,000 | | | | | | | | 3,000 |
| 2019 | | | 486 | 2,420 | 0 | 0 | 0 | 0 | 0 | 2,906 |

New CIP 114013: SPW WTP Reservoir Fill Line Improvements



New CIP# **114013**

Old CIP# **1389**

SPW WTP Reservoir Fill Line Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Reservoir Fill Line Improvements

Project Significance Reservoir fill line to Springwells is needed to provide finished water to the Springwells high service area from Southwest and Waterworks Park while the Springwells raw water tunnel is out of service for repairs and during times when the Springwells Low Lift Station is taken offline for inspections, repairs or maintenance.

Year Added: 2016

Date Original BCE Prepared: 10/11/2016

Date BCE Last Updated: 9/21/2017

Project Engineer/Manager: Erich Klun

Title: Manager

Phone: (313) 926-8151

Email: erich.klun@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Springwells

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Reservoir fill line to Springwells is needed to provide finished water to the Springwells high service area from Southwest and Waterworks Park while the Springwells raw water tunnel is out of service for repairs.

Project History: n/a

Driver: 1 - Condition

Challenges: Very complicated sequence of construction, and coordination with wholesale customers is required.

Other Important Info: n/a

Related Project: West Service Center Division Valve Replacements, Pennsylvania, Springwells, Northeast Raw Water Tunnel Repairs, and Low Lift Station pump suction gate replacement.



SPW WTP Reservoir Fill Line Improvements

New CIP# **114013**

Old CIP# **1389**



SPW WTP Reservoir Fill Line Improvements

Phase Overview

Phase Title SCP-CS-038 Springwells Reservoir Fill Line Improvements

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: SCP-CS-038

Phase Status: Active

Start Date: 10/11/2016

End Date: 10/7/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: AECOM

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SPW WTP Reservoir Fill Line Improvements

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Reservoir Fill Line Improvements

Phase Expenses

| | | | | | |
|---------------|---|-----------------|--------------|--------------|------------|
| CURRENT PHASE | Design & Construction Assistance | BUDGET | Water | Contract No | SCP-CS-038 |
| Phase Title | SCP-CS-038 Springwells Reservoir Fill Line Improvements | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 139 | 52 | 61 | | | | |
| GLWA Salaries | 29 | 42 | 42 | 42 | 14 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 12 | 17 | 17 | 17 | 6 | 0 | 0 |

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 2 | 2 | 2 | 1 | 0 | 0 |

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 181 | 113 | 122 | 61 | 21 | 0 | 0 |



SPW WTP Reservoir Fill Line Improvements

| | | | | | |
|----------------------|--|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | |
| Phase Title | SPW WTP Reservoir Fill Line Improvements | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | 2,356 | 3,534 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | | | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | | | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 2,356 | 3,534 | | | | |

| | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 181 | 2,469 | 3,656 | 61 | 21 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 10/23/2017 | 90 | 1/21/2018 |
| | | Procurement | 1/22/2018 | 280 | 10/29/2018 |
| | | Project Execution | 10/30/2018 | 547 | 4/29/2020 |
| | | Project Execution | 4/30/2020 | 90 | 7/29/2020 |



SPW WTP Reservoir Fill Line Improvements

| | |
|----------------|------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-038 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 8/9/2015 | 90 | 11/7/2015 |
| Procurement | 11/8/2015 | 365 | 11/7/2016 |
| Project Execution | 11/8/2016 | 1268 | 4/29/2020 |
| Project Closeout | 4/30/2020 | 90 | 7/29/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 5 | |
| Public Health & Safety | 1 | |
| Public Benefit | 5 | |
| Financial | 4 | |
| Efficiency and Innovation | 4 | |

Project Manager Weighted Score

68.2

Review Committee Score

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

Review Committee Weighted Score

77.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated per current design developing under Consultant's design;

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | 200 | 3,300 | 4,000 | | | | | | 7,500 |
| 2019 | | 120 | 181 | 2,469 | 3,656 | 61 | 21 | 0 | 0 | 6,508 |

**CIP 114014: SPW WTP Underground Fire Protection Loop
Improvements**



SPW WTP Underground Fire Protection Loop Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Reclassified

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Underground Fire Protection Loop Improvements

Project Significance Reclassified into Project 114005: Improvements will provide reliable fire protection to all plant facilities, replace non-functioning isolation valves and hydrants, provide fire system backflow protection, and bring the fire system into conformance with the requirements of the Dearborn Fire Marshal.

Year Added: 2016

Date Original BCE Prepared: 7/28/2016

Date BCE Last Updated: 10/13/2017

Project Engineer/Manager: Erich Klun

Title: Manager

Phone: (313) 926-8151

Email: erich.klun@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Springwells

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The existing underground fire protection line loops the Pump, Switch, Boiler and Turbine houses and is supplied water off the high lift headers in the Pump House Header Vault. The supply does not currently have backflow prevention and several branches off the loop used to feed an irrigation system serving the grassy areas covering the reservoirs, 1930 Sed. Basin and 1958 Sed. Basin. Isolation valves and fire hydrants are non-functioning and are beyond their useful life, and the old cast iron piping is susceptible to frequent breaks.

Project History: The fire loop and appurtenances are original to the existing plant commissioned around 1930. The loop crosses the construction staging area (blue tarps shown in the Project Map from Contract SP-563) in the northeast corner of the site and has been exposed to heavy construction traffic over the years.

Driver: 5 - Public Health & Safety

Challenges: The underground facilities (e.g., electrical duct banks, gas service mains, fiber optic, tunnels, conduits, major pipelines, etc.) at Springwells have been modified several times since initially being commissioned around 1930. The new fire loop will cross a lot of buried utilities and structures, and



SPW WTP Underground Fire Protection Loop Improvements

New CIP# **114014**

Old CIP# **1407**

identification of these facilities and showing them accurately in Contract Documents will be critical to minimizing interruptions/complications during construction. Even then, with all of the underground utilities between the Pump House and Administration Building, and between the Machine Shop/Garage and the 1930 Mixing Chamber, surprises during construction will be difficult to avoid.

Other Important Info: The project was first identified in the November 2002 Needs Assessment completed by Hazen & Sawyer under CS-1304. The opinion of probable construction at that time for just replacing the existing piping was \$1,076,400.00.

Related Project: Depending on when the project gets underway, this project may need to be coordinated with current on-going contracts SP-563, SCP-SP-009 and construction contracts resulting from the designs being completed under contracts CS-1671 and SCP-CS-1656. Other planned projects that may be related to this project include paving improvements, underground structure rehabilitation and 72" yard piping improvements/replacement.



SPW WTP Underground Fire Protection Loop Improvements

Phase Overview

Phase Title Springwells WTP Underground Fire Protection Loop Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Springwells WTP Underground Fire Protection Loop Improvements

Phase Category: CA

Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SPW WTP Underground Fire Protection Loop Improvements

Phase Overview

Phase Title Springwells WTP Underground Fire Protection Loop Improvements

Phase Category: D

Design

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE

Construction

BUDGET

Water

Contract No

NA

Phase Title

Springwells WTP Underground Fire Protection Loop Improvements

PPAT CIP Number

Phase Status

Future Planned Start

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SPW WTP Underground Fire Protection Loop Improvements

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

CURRENT PHASE **Construction Assistance** BUDGET **Water** Contract No **NA**

Phase Title **Springwells WTP Underground Fire Protection Loop Improvements** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SPW WTP Underground Fire Protection Loop Improvements

| | | | | | |
|----------------------|---|---------------|-----------------|--------------|----------------------|
| CURRENT PHASE | Design | BUDGET | Water | Contract No | NA |
| Phase Title | Springwells WTP Underground Fire Protection Loop Improvements | | PPAT CIP Number | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 1/8/2018 | 400 | 2/12/2019 |
| | | Procurement | 5/28/2019 | 180 | 11/24/2019 |
| | | Project Execution | 11/24/2019 | 250 | 7/31/2020 |
| | | Project Closeout | 7/31/2020 | 90 | 10/29/2020 |



SPW WTP Underground Fire Protection Loop Improvements

| | |
|----------------|----------------------|
| Phase Category | CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 1/8/2018 | 400 | 2/12/2019 |
| Procurement | 5/28/2019 | 180 | 11/24/2019 |
| Project Execution | 11/24/2019 | 250 | 7/31/2020 |
| Project Closeout | 7/31/2020 | 90 | 10/29/2020 |

| | |
|----------------|----------------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 1/8/2018 | 90 | 4/8/2018 |
| Procurement | 4/9/2018 | 225 | 11/20/2018 |
| Project Execution | 11/21/2018 | 180 | 5/20/2019 |
| Project Closeout | 5/20/2019 | 7 | 5/27/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

63.8

Review Committee Score

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

Review Committee Weighted Score

67.4

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Underground Fire Protection Loop Improvements

New CIP# **114014**

Old CIP# **1407**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|-------|------|------|------|------|-----------------|-------|--|
| 2018 | | | 380 | 2,909 | | | | | | 3,289 | |
| 2019 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

CIP 114015: SPW WTP Emergency Grating Replacement



SPW WTP Emergency Grating Replacement

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SPW WTP Emergency Grating Replacement

Project Significance Emergency replacement of original 1930 steel grating and structural steel in the Low Lift Station, Pump House Cable Vault and Garage basement (5 locations total).

Year Added: 2017

CIP Type: Project

Date Original BCE Prepared: 3/29/2017

Budget: Water

Date BCE Last Updated: 9/21/2017

Project Classification Level 1: Water

Project Engineer/Manager: Erich Klun

Project Classification Level 2: Treatment Plants & Facilities

Title: Manager

Project Classification Level 3: Springwells

Phone: (313) 926-8151

Project Location: Wayne County - Outside Detroit

Email: erich.klun@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Emergency replacement of original 1930 steel grating and structural steel in the Low Lift Station, Pump House Cable Vault and Garage basement (5 locations total).

Project History: Work was originally included in CS-1474, but due to reconsideration of system demands and putting SP-569 on hold, the structural improvements were necessary to protect the safety of operators and others working on-site.

Driver: 5 - Public Health & Safety

Challenges: Maintaining system operations during construction and eliminating the potential for flooding the Low Lift Station during construction. LOTO of low lift pumping units for diver work associated with plugging the suction line to pump Nos. 9 and 10.

Other Important Info: Replacement of structural steel in the Low Lift Station required the demolition of pump Nos. 9 and 10, as well as the replacement of sump pump S1 and S2.

Related Project: Low Lift and High Lift Pumping Improvements at Springwells (CS-103).



SPW WTP Emergency Grating Replacement

New CIP# **114015**

Old CIP# **1412**



SPW WTP Emergency Grating Replacement

Phase Overview

Phase Title Emergency Grating Replacement at Springwells WTP

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Active

Start Date: 5/1/2017

End Date: 8/27/2018

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Contract No. is SCP-DB-112

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **NA**

Phase Title **Emergency Grating Replacement at Springwells WTP** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|-------|------|------|------|------|------|-----------------|
| Construction | 2,500 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | 5 | 8 | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 2 | 3 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



SPW WTP Emergency Grating Replacement

| | | | | | | | |
|----------------------------|-------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2,507 | 11 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|-------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2,507 | 11 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|--------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Active |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 1/30/2016 | 90 | 4/29/2016 |
| Procurement | 4/30/2016 | 365 | 4/30/2017 |
| Project Execution | 5/1/2017 | 399 | 6/4/2018 |
| Project Closeout | 6/5/2018 | 90 | 9/3/2018 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

100

Review Committee Score

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

Review Committee Weighted Score

100

Describe Here the Changes from the 2018 CIP to 2019 CIP



SPW WTP Emergency Grating Replacement

New CIP# **114015**

Old CIP# **1412**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|------|------|------|------|------|-----------------|-------|
| 2018 | | 500 | 2,000 | | | | | | | 2,500 |
| 2019 | | 254 | 2,507 | 11 | 0 | 0 | 0 | 0 | 0 | 2,772 |

**CIP 115001: WWP WTP Yard Piping, Valves and Venturi Meters
Replacement**



WWP WTP Yard Piping, Valves and Venturi Meters Replacement

New CIP# 115001

Old CIP# 1166

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **WWP WTP Yard Piping, Valves and Venturi Meters Replacement**

Project Significance Existing yard piping is 100 years old and requires replacement with new piping installed in a more efficient configuration.

Year Added: 2007

CIP Type: Project

Date Original BCE Prepared: 4/23/2007

Budget: Water

Date BCE Last Updated: 9/20/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: Treatment Plants & Facilities

Title: Manager

Project Classification Level 3: Water Works Park

Phone: (313) 926-8114

Project Location: City of Detroit

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Much of the yard piping and valve system at Waterworks Park is old and at the end of its service life. Furthermore, the Water Treatment Plant does not have functioning production flow metering as the existing equipment is oversized and non-functioning. Replacement of the yard piping, valve, and metering system is needed at the site.

Project History:

Driver: 1 - Condition

Challenges: Very complicated sequence of construction, and demands of DWSD-R must be maintained along with coordination with 84" between Water Works Park and Northeast WTPs. Condition of existing valves required to complete the work is unknown, and even though it is

Other Important Info:

Related Project: New Waterworks Park to Northeast Transmission Main



WWP WTP Yard Piping, Valves and Venturi Meters Replacement

Phase Overview

Phase Title WWP WTP Yard Piping, Valves and Venturi Meters Replacement

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 11/19/2018

End Date: 7/23/2021

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-055, AECOM, WWP WTP Yard Piping, Valves and Venturi Meters Replacement

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number: CS-055

Phase Status: Active

Start Date: 5/22/2017

End Date: 7/23/2021

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



WWP WTP Yard Piping, Valves and Venturi Meters Replacement

Phase Expenses

| | | | | | |
|---------------|--|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | WWP WTP Yard Piping, Valves and Venturi Meters Replacement | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|--------|--------|--------|------|-----------------|
| Construction | | | 19,833 | 34,000 | 14,167 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|------|--------|--------|--------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | 0 | 0 | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | 0 | 0 | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 19,833 | 34,000 | 14,167 | | |



WWP WTP Yard Piping, Valves and Venturi Meters Replacement

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|--------|
| CURRENT PHASE | Study and Design and Construction Assistance | BUDGET | Water | Contract No | CS-055 |
| Phase Title | CS-055, AECOM, WWP WTP Yard Piping, Valves and Venturi Meters Replacement | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 382 | 907 | 877 | 405 | 169 | | |
| GLWA Salaries | 21 | 42 | 42 | 42 | 42 | 19 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 8 | 17 | 17 | 17 | 17 | 8 | 0 |
| Current Phase Non-Personnel Expenses | 1 | 2 | 2 | 2 | 2 | 1 | 0 |
| Current Phase Total | 412 | 968 | 938 | 466 | 230 | 28 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|--------|--------|--------|------|-----------------|
| | 412 | 968 | 20,771 | 34,466 | 14,397 | 28 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 12/31/2018 | 90 | 3/31/2019 |
| | | Procurement | 4/1/2019 | 230 | 11/17/2019 |
| | | Project Execution | 11/18/2019 | 725 | 11/12/2021 |
| | | Project Closeout | 11/13/2021 | 90 | 2/11/2022 |



WWP WTP Yard Piping, Valves and Venturi Meters Replacement

| | |
|----------------|--------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-055 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 3/26/2016 | 90 | 6/24/2016 |
| Procurement | 6/25/2016 | 365 | 6/25/2017 |
| Project Execution | 6/26/2017 | 1600 | 11/12/2021 |
| Project Closeout | 11/13/2021 | 90 | 2/11/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

58.6

Review Committee Score

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

Review Committee Weighted Score

65.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated project expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|--------|--------|--------|--------|------|-----------------|--------|
| 2018 | | | 5,500 | 27,900 | 20,500 | | | | | 53,900 |
| 2019 | | 9 | 412 | 968 | 20,771 | 34,466 | 14,397 | 28 | 0 | 71,051 |

CIP 1152002: WWP WTP Concrete and Road Improvements



New CIP# **115002**

Old CIP# **1274**

WWP WTP Concrete and Road Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

WWP WTP Concrete and Road Improvements

Project Significance Necessary concrete repairs to prevent further deterioration to critical treatment systems at Waterworks Park WTP

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Jorge Nicolas

Project Classification Level 2: Treatment Plants & Facilities

Title: Engineer

Project Classification Level 3: Water Works Park

Phone: (313) 926-8130

Project Location: City of Detroit

Email: Jorge.Nicolas@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This construction project involves repairing cracked and spalled concrete to stop water leaking from water-containing structures and process units (i.e., filter tanks, sedimentation basins, ozone contactors), re-constructing plant roadways and parking areas that have substantial pavement deterioration, and re-grading and re-paving the administration building parking area to improve drainage.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project:



WWP WTP Concrete and Road Improvements

Phase Overview

Phase Title **WW-538 WWP WTP Concrete and Road Improvements**

Phase Category: **C**

Construction

Budget: **Water**

Contract Number: **WW-538**

Phase Status: **Closed Out**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By: **Consultant Benesch**

Useful Life > 20Yrs **Yes**

Comments: **Angelo lafrate**

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **WW-538**

Phase Title **WW-538 WWP WTP Concrete and Road Improvements** PPAT CIP Number Phase Status **Closed Out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | | 0 |



WWP WTP Concrete and Road Improvements

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|---|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | | 0 |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|---|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | | 0 |

Phase Tasks and Dates

| | | |
|----------------|---|---|
| Phase Category | <input type="text" value="C"/> | <input type="text" value="Construction"/> |
| Budget | <input type="text" value="Water"/> | |
| Phase Status | <input type="text" value="Closed Out"/> | |
| Contract No | <input type="text" value="WW-538"/> | |
| Cost Est Class | <input type="text"/> | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



WWP WTP Concrete and Road Improvements

New CIP# **115002**

Old CIP# **1274**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|------|------|------|------|------|------|-----------------|-------|
| 2018 | 761 | 2,275 | | | | | | | | 3,036 |
| 2019 | 3 | 1,948 | | | | | | | 0 | 1,951 |

CIP 115003: WWP WTP Comprehensive Condition Assessment



WWP WTP Comprehensive Condition Assessment

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **WWP WTP Comprehensive Condition Assessment**

Project Significance A condition assessment of Waterworks Park Water Treatment Plant has not been completed since the 2004 reconstruction. Condition assessment is needed to identify critical assets in need of repair or replacement.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Grant Gartrell

Project Classification Level 2: Treatment Plants & Facilities

Title: Director - Engineering

Project Classification Level 3: Water Works Park

Phone: (313) 926-8139

Project Location: City of Detroit

Email: Grant.Gartrell@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: A condition assessment of Waterworks Park Water Treatment Plant has not been completed since the 2004 reconstruction. Continued and periodic inspection of the Water Treatment Plant is needed to maintain a reliable production system, especially given the reliance on Waterworks Park to provide finish water to the Northeast Service Area.

Project History: n/a

Driver: 1 - Condition

Challenges: Coordinating shutdowns required for condition assessment inspections.

Other Important Info: n/a

Related Project: Yard Piping, Valves and Venturi Meters Replacement



WWP WTP Comprehensive Condition Assessment

Phase Overview

Phase Title **Comprehensive Condition Assessment at Waterworks Park WTP**

Phase Category: S **Study**

Budget: Water

Contract Number: NA

Phase Status: Active

Start Date: 8/2/2017

End Date: 8/2/2019

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: CS-147, HRC

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Study** BUDGET **Water** Contract No **NA**

Phase Title **Comprehensive Condition Assessment at Waterworks Park WTP** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 131 | 262 | 153 | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



WWP WTP Comprehensive Condition Assessment

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 131 | 262 | 153 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 131 | 262 | 153 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|--------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | NA |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | 8/2/2017 | 730 | 8/2/2019 |
| Project Closeout | 8/5/2019 | 57 | 10/1/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 3 | |
| Performance (Service Level/Reli) | 3 | |
| Regulatory (Environmental/Lega) | 3 | |
| O&M | 1 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

38

Review Committee Score

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

Review Committee Weighted Score

35.6

Describe Here the Changes from the 2018 CIP to 2019 CIP



WWP WTP Comprehensive Condition Assessment

New CIP# **115003**

Old CIP# **1301**

REVISED PER AWARDED CONTRACT CS-147 TO HRC.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2018 | | 200 | 375 | | | | | | | 575 | |
| 2019 | | | 131 | 262 | 153 | 0 | 0 | 0 | 0 | 546 | |

CIP 115004: WWP WTP Chlorine System Upgrade



New CIP# 115004

Old CIP# 1410

WWP WTP Chlorine System Upgrade

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

WWP WTP Chlorine System Upgrade

Project Significance WWP Chlorine System has experienced numerous leaks and has compromised the safety of plant

Year Added: 2017

CIP Type: Project

Date Original BCE Prepared: 3/17/2017

Budget: Water

Date BCE Last Updated: 9/18/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Treatment Plants & Facilities

Title: Director - Field Services

Project Classification Level 3: Water Works Park

Phone: (313) 926-8114

Project Location: City of Detroit

Email: Todd.King@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Demolition and replacement of all mechanical systems, equipment and piping related to chlorine transport, vaporization and application. New chlorine system will be able to meet current dose rates and be able to meet future loadings estimated for WWP after the Northeast WTP treatment system is taken off line.

Project History: The WWP facility began serving customers with finished water in 2003. More recently, the chlorine system has had one major leak and several minor leaks on a recurring and more frequent basis. Since chlorine is a highly toxic material, yet integral for providing finished water in accordance with the Safe Drinking Water Act, a study and design project was initiated under the CIP allowance as project CS-1721. This construction project will be based on the study and design conducted under that work. In addition, the original design was oversized relative to the current operating conditions and resulted in operational problems due to the turndown required.

Driver: 1 - Condition

Challenges: It will be critical for the contractor to phase the work to provide ongoing chlorine application during the retrofit.

Other Important Info: n/a

Related Project: CS-1721 is the study and design project for this proposed work. It is currently underway and at 50% design completion as of March 2017. Also,



WWP WTP Chlorine System Upgrade

New CIP# **115004**

Old CIP# **1410**

this project must be completed prior to the decommissioning of the Northeast WTP treatment process.



WWP WTP Chlorine System Upgrade

Phase Overview

Phase Title Water Works Park WTP Chlorine System Upgrade

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Under Procurement

Start Date: 9/1/2017

End Date: 6/8/2020

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CON-208,

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1721 Water Works Park WTP Chlorine System Upgrade

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: CS-1721

Phase Status: Active

Start Date: 7/8/2016

End Date: 1/25/2018

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CDM

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



WWP WTP Chlorine System Upgrade

New CIP# **115004**

Old CIP# **1410**

Phase Expenses

| | | | | | |
|----------------------|--|-----------------|--------------|--------------|-------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | Water Works Park WTP Chlorine System Upgrade | PPAT CIP Number | | Phase Status | Under Procurement |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|------|------|------|-----------------|
| Construction | 428 | 2,943 | 2,739 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|-------|-------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 428 | 2,943 | 2,739 | 0 | 0 | 0 | 0 |



WWP WTP Chlorine System Upgrade

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **CS-1721**

Phase Title **CS-1721 Water Works Park WTP Chlorine System Upgrade** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | 238 | 170 | 128 | | | | |
| GLWA Salaries | 4 | 8 | 8 | 3 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2 | 3 | 3 | 1 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 244 | 181 | 139 | 4 | 0 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|-------|------|------|------|-----------------|
| | 672 | 3,124 | 2,878 | 4 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|-------------------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Under Procurement | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | 7/18/2017 | 90 |
| | | Procurement | 10/17/2017 | 84 |
| | | Project Execution | 1/10/2018 | 821 |
| | | Project Closeout | 4/11/2020 | 90 |
| | | | End Date | |
| | | | 10/16/2017 | |
| | | | 1/9/2018 | |
| | | | 4/10/2020 | |
| | | | 7/10/2020 | |



WWP WTP Chlorine System Upgrade

| | |
|----------------|---------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1721 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/6/2015 | 90 | 7/5/2015 |
| Procurement | 7/6/2015 | 365 | 7/5/2016 |
| Project Execution | 7/6/2016 | 1374 | 4/10/2020 |
| Project Closeout | 4/11/2020 | 90 | 7/10/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

85.8

Review Committee Score

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

Review Committee Weighted Score

84

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | 290 | 700 | 8,700 | | | | | | 9,690 |
| 2019 | | 371 | 672 | 3,124 | 2,878 | 4 | 0 | 0 | 0 | 7,049 |

**CIP 116001: WTP General Purpose Pennsylvania, Springwells and
Northeast Raw Water Supply Tunnel Improvements**



New CIP# **116001**
Old CIP# **1292**

WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Reclassified

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements**

Project Significance PROJECT RECLASSIFIED INTO 116002. Project critical to production at Springwells WTP during repurposing of Northeast WTP as recommended by the 2015 WMPU. Contract CS-1623 identified problem areas on the raw water supply system that compromised the system's ability to meet demands

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: Todd King

Title: Director - Field Services

Phone: (313) 926-8114

Email: Todd.King@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: General Purpose

Project Location: City of Detroit

Fund: 5519

Cost Center: 82111

PROJECT INFORMATION

Scope of Work: The scope of this project is to address miscellaneous repairs identified as part of the ongoing raw water tunnel inspection project. The scope of these repairs is to rehabilitate structures within the tunnels, shafts and related appurtenances that are identified during the raw water tunnel inspections. Note: due to the scale of the repairs for the Springwells, Pennsylvania and Northeast Tunnels, a separate CIP project request was generated (CIP 1327).

Project History: n/a

Driver: 1 - Condition

Challenges: Maintaining a supply of raw water to Springwells, Northeast and Water Works Park throughout construction to meet finished water production requirements/demands of the system. Specialized/complicated construction.

Other Important Info: n/a



**WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water
Supply Tunnel Improvements**

New CIP# **116001**

Old CIP# **1292**

Related Project: Pennsylvania, Springwells & NE Raw Water Tunnel Improvements based on CS-1623 inspection results



WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Phase Expenses

CURRENT PHASE

BUDGET

Contract No

Phase Title

PPAT CIP Number

Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Under Procurement |
| Contract No | DB-150 |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | | | |
| Procurement | 10/24/2017 | 97 | 1/29/2018 |
| Project Execution | 1/30/2018 | 1091 | 1/25/2021 |
| Project Closeout | 1/26/2021 | 83 | 4/19/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 3 | |
| O&M | 5 | |
| Public Health & Safety | 5 | |
| Public Benefit | 5 | |
| Financial | 5 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

85.6

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



WTP General Purpose Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

New CIP# **116001**

Old CIP# **1292**

Project has been reclassified into project 116002.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|------|------|------|------|-----------------|-------|
| 2018 | | | 1,000 | 1,000 | 500 | | | | | 2,500 |
| 2019 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**CIP 116002: Pennsylvania, Springwells and Northeast Raw Water
Supply Tunnel Improvements**



Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

Project Significance Project critical to production at Springwells WTP during repurposing of Northeast WTP as recommended by the 2015 WMPU. Contract CS-1623 identified problem areas on the raw water supply system that compromised the system's ability to meet demands during the repurposing of Northeast WTP.

Year Added: 2016

Date Original BCE Prepared: 8/11/2015

Date BCE Last Updated: 10/10/2017

Project Engineer/Manager: Todd King

Title: Director - Field Services

Phone: (313) 926-8114

Email: Todd.King@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: General Purpose

Project Location: City of Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The scope of work is to conduct supplemental investigations to design the repairs for the sections of tunnel identified in CS-1623 as having structural concerns. Three areas were identified with the highest concern being a portion of the Springwells Tunnel near the Springwells WTP.

Project History: Portions of the Raw Water Tunnel system are approaching 100 years of service. The Northeast Tunnel failed catastrophically in the late 80s due to infiltration of sand through cracking. This project is based on the recommendations of CS-1623, currently underway, which is inspecting all GLWA raw water tunnels.

Driver: 1 - Condition

Challenges: The tunnels are approximately 80 feet below the surface of the Detroit River. This poses challenges for assessing the extent of damage to the structures, as well as repair. Dewatering the tunnels to repair them will create extensive stresses that must be considered prior to performing the work. Maintaining a supply of raw water to Springwells, Northeast and Water Works Park throughout construction to meet finished water production requirements/demands of the system. Specialized/complicated construction.



Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

New CIP# **116002**

Old CIP# **1327**

Other Important Info: n/a

Related Project: CS-1623 is currently being completed. This project is a predecessor project to allow for the repurposing of NE WTP.



Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

[Change PPAT PM](#)

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|-------|-------|-------|-------|-------|-------|-----------------|
| Construction | 3,564 | 8,920 | 5,346 | 5,346 | 5,346 | 3,878 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | 42 | 84 | 84 | 84 | 84 | 83 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 17 | 34 | 34 | 34 | 34 | 33 | |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 2 | 4 | 4 | 4 | 4 | 4 | |



Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

| | | | | | | | |
|----------------------------|-------|-------|-------|-------|-------|-------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 3,625 | 9,042 | 5,468 | 5,468 | 5,468 | 3,998 | |

| | | | | | | | |
|-------------------------|-------|-------|-------|-------|-------|-------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 3,625 | 9,042 | 5,468 | 5,468 | 5,468 | 3,998 | |

Phase Tasks and Dates

| | |
|----------------|--------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Active |
| Contract No | DB-150 |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 11/15/2016 | 90 | 2/13/2017 |
| Procurement | 2/14/2017 | 365 | 2/14/2018 |
| Project Execution | 2/15/2018 | 1796 | 1/16/2023 |
| Project Closeout | 1/17/2023 | 90 | 4/17/2023 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 5 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 5 | |
| Public Health & Safety | 5 | |
| Public Benefit | 5 | |
| Financial | 5 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

85.6

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | | |
| Condition | | |
| Performance (Service Level/Reliabilit | | |
| Regulatory (Environmental/Legal) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements

This project now includes CIP 116001 that was previously included in the CIP 2018-2022 with projected expenses of \$2,5M.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|--------|--------|-------|-------|-------|-----------------|--------|
| 2018 | | 500 | 2,000 | 10,000 | 15,000 | 4,900 | | | | 32,400 |
| 2019 | | 10 | 3,625 | 9,042 | 5,468 | 5,468 | 5,468 | 3,998 | | 33,079 |

**CIP 116003: Genesee and Lapeer County Transmission System
Improvements**



Genesee and Lapeer County Transmission System Improvements

New CIP# 116003

Old CIP# 1355

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Genesee and Lapeer County Transmission System Improvements

Project Significance Project critical to maintaining chlorine residual to customers connected to the 72" main feeding Flint and Genesee County and abandonment of the 72" main once Flint and Genesee County are off the system. Projects need to be substantially complete by July

Year Added: 2016

Date Original BCE Prepared: 4/27/2017

Date BCE Last Updated: 9/18/2017

Project Engineer/Manager: Todd King

Title: Director - Field Services

Phone: (313) 926-8114

Email: Todd.King@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: General Purpose

Project Location: Multiple Counties

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: With the departure of Flint and Genesee County from the GLWA system, the water age in the 72-inch transmission main increases to levels where minimum chlorine residuals cannot be maintains. Chlorine booster stations are needed along the 72-inch transmission main to maintain acceptable chlorine residuals.

Project History: The memorandum of understanding executed between the State of Michigan, City of Flint ,GLWA, KWA, and GCDC regarding a new model contract between GLWA and Flint, reciprocal backup water service between GLWA and GCDC, and GLWA’s securing of KWA’s raw water rights have all established the need for this CIP.

Driver: 5 - Public Health & Safety

Challenges: Live tapping and line stops on 72" PCCP required for both projects and is specialized construction. Work requires close coordination with operations to meet pressure requirements required to tap the pipe.

Other Important Info: n/a



Genesee and Lapeer County Transmission System Improvements

New CIP# **116003**

Old CIP# **1355**

Related Project: none



Genesee and Lapeer County Transmission System Improvements

Phase Overview

Phase Title DBW-070 Genesee and Lapeer County Transmission System Improvements

Phase Category: DB

Design and Build

Budget: Water

Contract Number: DBW-070

Phase Status: Active

Start Date: 2/5/2016

End Date: 9/26/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: DBW-070

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Genesee and Lapeer County Transmission System Improvements

Phase Category: D

Design

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Genesee and Lapeer County Transmission System Improvements

New CIP# **116003**

Old CIP# **1355**

Phase Expenses

| | | | | | |
|---------------|--|-----------------|--------------|--------------|---------|
| CURRENT PHASE | Design and Build | BUDGET | Water | Contract No | DBW-070 |
| Phase Title | DBW-070 Genesee and Lapeer County Transmission System Improvements | PPAT CIP Number | | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Genesee and Lapeer County Transmission System Improvements

New CIP# **116003**

Old CIP# **1355**

| | | | | | |
|----------------------|--|---------------|-----------------|--------------|----------------------|
| CURRENT PHASE | Design | BUDGET | Water | Contract No | NA |
| Phase Title | Genesee and Lapeer County Transmission System Improvements | | PPAT CIP Number | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|-------------------|-------------------|-----------------|-----------------|
| Phase Category | D | Design | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | | | |
| | | Procurement | | | |
| | | Project Execution | | | |
| | | Project Closeout | | | |



Genesee and Lapeer County Transmission System Improvements

New CIP# **116003**

Old CIP# **1355**

| | |
|----------------|---------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Active |
| Contract No | DBW-070 |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2017 | 90 | 6/30/2017 |
| Procurement | 7/1/2017 | 365 | 7/1/2018 |
| Project Execution | 7/2/2018 | 361 | 6/28/2019 |
| Project Closeout | 6/29/2019 | 90 | 9/27/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 5 | |
| O&M | 1 | |
| Public Health & Safety | 5 | |
| Public Benefit | 1 | |
| Financial | 0 | |
| Efficiency and Innovation | 0 | |

Project Manager Weighted Score

56.2

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | 0 | |
| Performance (Service Level/Reliabilit | 5 | |
| Regulatory (Environmental/Legal) | 5 | |
| O&M | 0 | |
| Public Health & Safety | 4 | |
| Public Benefit | 5 | |
| Financial | 0 | |
| Efficiency and Innovation | 0 | |

Review Committee Weighted Score

54.6

Describe Here the Changes from the 2018 CIP to 2019 CIP

UPDATED PER DBW-070 CONTRACT STATUS

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|-------|------|------|------|-----------------|-------|
| 2018 | | | 400 | 3,200 | 3,200 | | | | | 6,800 |
| 2019 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

CIP 116004: WTP Right-Sizing Implementation Plan



New CIP# **116004**

Old CIP#

WTP Right-Sizing Implementation Plan

PROJECT SUMMARY

- Innovation
- MP Right Sizing**
- System Reliability

Project Status

Cancelled

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

WTP Right-Sizing Implementation Plan

Project Significance The 2015 WMPU identified the need to align water treatment plant capacity with system water demands. The installed design water treatment capacity is 1720 MGD whereas the system demands have not been greater than 1000 MGD for several years. Moreover, 20-year water demand projections indicate that future demands will not exceed 1000 to 1100 MGD for the next 20 years. The purpose of this project is to retain an expert firm to work closely with GLWA operations and engineering staff to develop a practical and specific plan to reduce the capacity of the 4 water treatment plants to remain after Northeast WTP is decommissioned. Additionally, this planning project will identify a tactical plan to reduce treatment capacity at these 4 plants while Northeast is still in service so that un-necessary capital investments are not made at the remaining 4 plants.

Year Added: 2017

Date Original BCE Prepared: 9/27/2017

Date BCE Last Updated: 9/27/2017

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: General Purpose

Project Location: Multiple Counties

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Engineering study project that will generally involve:

1. project management
2. data analysis, facility & process analysis
3. hydraulic plant profiling
4. operations review
5. staff interviews
6. facility process & operations mapping



WTP Right-Sizing Implementation Plan

New CIP#

Old CIP#

- 7. tactical planning
- 8. implementation planning
- 9. reporting

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



WTP Right-Sizing Implementation Plan

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 0 | 0 | | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 0 | 0 | | | | 0 |



WTP Right-Sizing Implementation Plan

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | 0 | 0 | | | | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | 0 | 0 | | | | 0 | |

Phase Tasks and Dates

| | |
|----------------|-----------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Cancelled |
| Contract No | |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 12/30/2017 | 90 | 3/30/2018 |
| Procurement | 3/31/2018 | 365 | 3/31/2019 |
| Project Execution | 4/1/2019 | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli) | 1 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 1 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 5 | |
| Efficiency and Innovation | 4 | |

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP



WTP Right-Sizing Implementation Plan

New CIP# **116004**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2019 | | | | 0 | 0 | | | | 0 | 0 | |

**CIP 122001: Parallel 42-Inch Main in 24 mile Road from Rochester
Station to Romeo Plan Road**



New CIP# **122001**

Old CIP# **1112**

Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

Project Significance Paralleling original 36" water main that is critical to the supply of three communities and has had history of breaks

Year Added: 2005

CIP Type: Project

Date Original BCE Prepared: 6/2/2005

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-3875

Project Location: Macomb County

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept N/A - Pending Closeo

PROJECT INFORMATION

Scope of Work: This project will provide for the installation of approximately 35,650 feet of parallel 42-inch diameter pre-stressed embedded concrete cylinder pipe (PCCP) and approximately 1,070 linear feet of 36-inch diameter of PCCP in 24 Mile Road from Rochester Station to Romeo Plank Road. The work will also provide for all interconnections and valves.

Project History:

Driver: N/A - Pending Closeout

Challenges: N/A - Pending Closeout

Other Important Info:

Related Project:



Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

New CIP# **122001**

Old CIP# **1112**

Phase Overview

Phase Title WS-681 Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

Phase Category: C

Construction

Budget: Water

Contract Number: WS-681

Phase Status: Pending Close-out

Start Date: 4/7/2014

End Date: 10/9/2016

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: Ric-Man Detroit, Awaiting final change order.

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **WS-681**

Phase Title **WS-681 Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road** PPAT CIP Number Phase Status **Pending Close-out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|-------|------|------|------|------|------|-----------------|
| Construction | 2,813 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

New CIP# **122001**

Old CIP# **1112**

| | | | | | | | |
|----------------------------|-------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2,813 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|-------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2,813 | 0 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | WS-681 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Project Execution | 1/1/2017 | 1 | 1/2/2017 |
| Project Closeout | 1/3/2017 | 90 | 4/3/2017 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

\$500,000 claim negotiation settled out in allowance



Parallel 42-Inch Main in 24 Mile Road from Rochester Station to Romeo Plank Road

New CIP# **122001**

Old CIP# **1112**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|--------|-------|-------|------|------|------|------|------|-----------------|--------|
| 2018 | 26,926 | 2,367 | 715 | | | | | | | 30,008 |
| 2019 | 30,960 | 1,611 | 2,813 | 0 | 0 | 0 | 0 | 0 | 0 | 35,384 |

**CIP 122002: Replacement of Five (5) PRV Pits of Treated Water
Transmission System**



New CIP# 122002

Old CIP# 1216

Replacement of Five (5) PRV Pits of Treated Water Transmission System

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Replacement of Five (5) PRV Pits of Treated Water Transmission System

Project Significance Replacement of the PRVs to enhance operability of the system and improve control of the system to meet customer pressure needs

Year Added: 2010

CIP Type: Project

Date Original BCE Prepared: 3/12/2010

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-3875

Project Location: Multiple Counties

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project will replace five existing pressure reducing valves (PRVs) that are defective and no longer controlling downstream pressures. During the replacement, the PRV pits will be upgraded to improve accessibility, provide new sump pumps as needed, and make other necessary improvements.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project:



Replacement of Five (5) PRV Pits of Treated Water Transmission System

New CIP#

Old CIP#

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 670 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Replacement of Five (5) PRV Pits of Treated Water Transmission System

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 670 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 670 | 0 | 0 | 0 | 0 | 0 | 0 | |

| Phase Tasks and Dates | | | | | | | | | | | | | |
|-----------------------|---|-----------|------------|----------|----------|-------------------|-----------|----|-----------|------------------|----------|----|-----------|
| Phase Category | C | | | | | | | | | | | | |
| Budget | Water | | | | | | | | | | | | |
| Phase Status | Pending Close-out | | | | | | | | | | | | |
| Contract No | DWS-891 | | | | | | | | | | | | |
| Cost Est Class | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Task Name</th> <th>Start Date</th> <th>Duration</th> <th>End Date</th> </tr> </thead> <tbody> <tr> <td>Project Execution</td> <td>1/31/2018</td> <td>59</td> <td>3/31/2018</td> </tr> <tr> <td>Project Closeout</td> <td>4/1/2018</td> <td>90</td> <td>6/30/2018</td> </tr> </tbody> </table> | Task Name | Start Date | Duration | End Date | Project Execution | 1/31/2018 | 59 | 3/31/2018 | Project Closeout | 4/1/2018 | 90 | 6/30/2018 |
| Task Name | Start Date | Duration | End Date | | | | | | | | | | |
| Project Execution | 1/31/2018 | 59 | 3/31/2018 | | | | | | | | | | |
| Project Closeout | 4/1/2018 | 90 | 6/30/2018 | | | | | | | | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

\$770,000 claim negotiation included in project expenses.



Replacement of Five (5) PRV Pits of Treated Water Transmission System

New CIP# **122002**

Old CIP# **1216**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|-------|-------|------|------|------|------|------|------|-----------------|-------|
| 2018 | 1,015 | 1,205 | | | | | | | | 2,220 |
| 2019 | 1,086 | 611 | 670 | 0 | 0 | 0 | 0 | 0 | 0 | 2,367 |

**CIP 122003: Waterworks Park WTP to Northeast WTP Transmission
Main**



New CIP# 122003

Old CIP# 1305

Waterworks Park WTP to Northeast WTP Transmission Main

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Waterworks Park WTP to Northeast WTP Transmission Main

Project Significance New Transmission System needed to convey finish water to re-purposed Northeast WTP.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 9/8/2016

Budget: Water

Date BCE Last Updated: 9/20/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Title: Manager

Project Location: City of Detroit

Phone: (313) 926-8114

Fund: 5519

Email: Timothy.Kuhns@glwater.org

Cost Center: 882111

Manager: Grant Gartrell

Managing Dept: Water Eng

PROJECT INFORMATION

Scope of Work: GLWA system has excess treatment capacity. In order to right-size system capacity and avoid future treatment upgrade, treatment is to be discontinued at the Northeast WTP. In order to discontinue treatment at Northeast, a new finish water supply from Waterworks Park to Northeast is needed.

Project History: n/a

Driver: 8 - Efficiency

Challenges: Route determination, utility conflicts and connections to yard piping at Northeast and Water Works Park WTPs. The large new main will cross I-94 and run through 7 miles of residential/commercial streets.

Other Important Info: n/a

Related Project: Yard Piping Replacement at the Northeast WTP



Waterworks Park WTP to Northeast WTP Transmission Main

Phase Overview

Phase Title New Waterworks Park to Northeast Transmission Main

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 9/11/2017

End Date: 9/10/2018

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-152 New Waterworks Park to Northeast Transmission Main

Phase Category: S

Study

Budget: Water

Contract Number: CS-152

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: CS-152 CH2M Route Study

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Waterworks Park WTP to Northeast WTP Transmission Main

Phase Expenses

| | | | | | |
|---------------|--|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Design and Build | BUDGET | Water | Contract No | NA |
| Phase Title | New Waterworks Park to Northeast Transmission Main | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|--------|--------|--------|-----------------|
| Construction | | | 8,500 | 17,425 | 45,900 | 30,600 | 25,075 |
| Engineering Services | | | | | | | |
| GLWA Salaries | 38 | 84 | 84 | 84 | 84 | 84 | 134 |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 15 | 34 | 34 | 34 | 34 | 34 | 54 |

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2 | 4 | 4 | 4 | 4 | 4 | 7 |

| | | | | | | | |
|----------------------------|------|------|-------|--------|--------|--------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 55 | 122 | 8,622 | 17,547 | 46,022 | 30,722 | 25,270 |



Waterworks Park WTP to Northeast WTP Transmission Main

CURRENT PHASE **Study** BUDGET **Water** Contract No **CS-152**

Phase Title **CS-152 New Waterworks Park to Northeast Transmission Main** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | 1,250 | 1,250 | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1,250 | 1,250 | 0 | 0 | 0 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|-------|-------|-------|--------|--------|--------|-----------------|
| | 1,305 | 1,372 | 8,622 | 17,547 | 46,022 | 30,722 | 25,270 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

| Design and Build | | | |
|-------------------------|------------|----------|------------|
| Task Name | Start Date | Duration | End Date |
| Scope Development | 7/8/2018 | 90 | 10/6/2018 |
| Procurement | 10/7/2018 | 365 | 10/7/2019 |
| Project Execution | 10/8/2019 | 1819 | 9/30/2024 |
| Project Closeout | 10/1/2024 | 90 | 12/30/2024 |



Waterworks Park WTP to Northeast WTP Transmission Main

| | |
|----------------|--------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-152 |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 3 | |
| Performance (Service Level/Reli) | 3 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 3 | |
| Public Health & Safety | 1 | |
| Public Benefit | 5 | |
| Financial | 5 | |
| Efficiency and Innovation | 3 | |

Project Manager Weighted Score

53.2

Review Committee Score

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

Review Committee Weighted Score

62.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated Expenses

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|--------|--------|--------|--------|-----------------|---------|
| 2018 | | | 1,500 | 5,000 | 10,000 | 38,000 | 38,000 | 37,500 | | 130,000 |
| 2019 | | 19 | 1,305 | 1,372 | 8,622 | 17,547 | 46,022 | 30,722 | 25,270 | 130,879 |

**CIP 122004: 96-inch Main Relocation, Isolation Valves Installations,
and New Parallel Main**



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main**

Project Significance Project critical to providing redundancy to Lake Huron WTP supply and protection of water supply from potential contamination. Project includes relocation around existing landfill and addition of a parallel main with interconnection to meters between Romeo and 24 Mile Road.

Year Added: 2016

CIP Type: Project

Date Original BCE Prepared: 1/1/2015

Budget: Water

Date BCE Last Updated: 9/8/2017

Project Classification Level 1: Water

Project Engineer/Manager: Grant Gartrell

Project Classification Level 2: Field Services

Title: Director - Engineering

Project Classification Level 3: Transmission System

Phone: (313) 926-8139

Project Location: Multiple Counties

Email: Grant.Gartrell@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Relocate 2.5 miles of 96-inch transmission main currently located in an EPA NPL landfill, a portion of which is submerged in landfill leachate. Relocation includes crossing the Clinton River, coordination with many various authorities having jurisdiction and easement acquisition. Isolation valve installation portion of the project provides the ability to isolate segments of the 96-inch main between Imlay Station and North Service Center for maintenance while maintaining customer expected level of service.

Project History: n/a

Driver: 2 - Performance

Challenges: Shutdown, isolation and live tapping of the 96" main while maintaining the Lake Huron WTP supply and operations of Rochester Station. Routing and possible property acquisition for both the parallel main and relocation around the landfill.

Other Important Info: n/a



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

Related Project: Emergency Contract Cs-165



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# 122004

Old CIP# 1321

Phase Overview

Phase Title 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 4/3/2017

End Date: 5/22/2023

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CS-165 CH2 Hill???

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

Phase Overview

Phase Title CS-165 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

Phase Category: S

Study

Budget: Water

Contract Number: CS-165

Phase Status: Active

Start Date: 3/28/2017

End Date: 3/28/2018

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: CH2M CS-165

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **NA**

Phase Title **96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|--------|--------|-----------------|
| Construction | | | | | 21,420 | 44,030 | 53,550 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

| | | | | | | | |
|----------------------------|------|------|------|------|--------|--------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 21,420 | 44,030 | 53,550 |

| | | | | | |
|----------------------|--|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Design & Construction Assistance | BUDGET | Water | Contract No | NA |
| Phase Title | 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|-------|------|-------|-------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | 1,667 | 2,583 | 834 | 1,606 | 1,734 | 3,676 |
| GLWA Salaries | 21 | 42 | 42 | 42 | 42 | 42 | 112 |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|-------|-------|------|-------|-------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 8 | 17 | 17 | 17 | 17 | 17 | 45 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 2 | 2 | 2 | 2 | 2 | 6 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 30 | 1,728 | 2,644 | 895 | 1,667 | 1,795 | 3,839 |



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

CURRENT PHASE **Study**

BUDGET **Water**

Contract No **CS-165**

Phase Title **CS-165 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main**

PPAT CIP Number

Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 540 | 69 | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Total

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 540 | 69 | 0 | 0 | 0 | 0 | 0 |

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|-------|-------|------|--------|--------|-----------------|
| 570 | 1,797 | 2,644 | 895 | 23,087 | 45,825 | 57,389 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/19/2020 | 90 | 1/17/2021 |
| Procurement | 1/18/2021 | 188 | 7/25/2021 |
| Project Execution | 7/26/2021 | 1453 | 7/18/2025 |
| Project Closeout | 7/19/2025 | 90 | 10/17/2025 |



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 4/22/2017 | 90 | 7/21/2017 |
| Procurement | 7/22/2017 | 365 | 7/22/2018 |
| Project Execution | 7/23/2018 | 2552 | 7/18/2025 |
| Project Closeout | 7/19/2025 | 90 | 10/17/2025 |

| | |
|----------------|--------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-165 |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | 10/24/2017 | 248 | 6/29/2018 |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

72.6

Review Committee Score

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

Review Committee Weighted Score

65.2

Describe Here the Changes from the 2018 CIP to 2019 CIP



96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main

New CIP# **122004**

Old CIP# **1321**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|--------|--------|--------|--------|-----------------|---------|
| 2018 | | 500 | 1,500 | 6,000 | 35,900 | 31,700 | 31,700 | 31,700 | | 139,000 |
| 2019 | | 460 | 570 | 1,797 | 2,644 | 895 | 23,087 | 45,825 | 57,389 | 132,667 |

**CIP 122005: Transmission System Water Main Work – Replacement
of Schoolcraft Water Main**



New CIP# 122005

Old CIP# 1323

Transmission System Water Main Work - Replacement of Schoolcraft Water Main

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Transmission System Water Main Work - Replacement of Schoolcraft Water Main

Project Significance Improving transmission system reliability and redundancy

Year Added: 2016

Date Original BCE Prepared: 8/17/2015

Date BCE Last Updated: 9/27/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882411

PROJECT INFORMATION

Scope of Work: Design work of 10,800 of new 48-inch transmission main along I-96 under the freeway service drive between Middlebelt and Beech Daly. Due to excessive breaks the Schoolcraft water main in Redford/Livonia will be replaced. The purpose is to improve the transmission system reliability/redundancy.

Project History:

Driver:

Challenges:

Other Important Info: Designed under CS-1488 by SOMAT engineering advisors

Related Project:



Transmission System Water Main Work - Replacement of Schoolcraft Water Main

Phase Overview

Phase Title Transmission System Water Main Work - Replacement of Schoolcraft Water Main

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: project is 95% designed under CS-1488 by SOMAT

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Transmission System Water Main Work - Replacement of Schoolcraft Water Main

New CIP#

Old CIP#

Phase Expenses

| | | | | | | |
|---------------|--|--------|------------------------------------|----------------------|---------------------------------|---|
| CURRENT PHASE | <input type="text" value="Construction"/> | BUDGET | <input type="text" value="Water"/> | Contract No | <input type="text" value="NA"/> | |
| Phase Title | <input type="text" value="Transmission System Water Main Work - Replacement of Schoolcraft Water Main"/> | | PPAT CIP Number | <input type="text"/> | Phase Status | <input type="text" value="Future Planned Start"/> |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|------|------|-----------------|
| Construction | | | 6,146 | 6,789 | 566 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|-------|-------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 6,146 | 6,789 | 566 | 0 | 0 |



Transmission System Water Main Work - Replacement of Schoolcraft Water Main

New CIP# **122005**

Old CIP# **1323**

| CURRENT PHASE | | Design & Construction Assistance | | | | BUDGET | | Water | | Contract No | |
|--|------|---|------|------|------|-----------------|-----------------|-----------------|--|----------------------|--|
| Phase Title | | | | | | PPAT CIP Number | | | | Phase Status | |
| | | | | | | | | | | Future Planned Start | |
| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | | |
| Construction | | | | | | | | | | | |
| Engineering Services | | 20 | 73 | 80 | 7 | | | | | | |
| GLWA Salaries | 11 | 21 | 21 | 21 | 12 | | | | | | |
| Materials | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 4 | 8 | 8 | 8 | 5 | | | | | |
| Current Phase Non-Personnel Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 1 | 1 | 1 | 1 | 1 | | | | | |
| Current Phase Total | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 16 | 50 | 103 | 110 | 25 | | | | | |

| | | | | | | | | |
|-------------------------|------|------|-------|-------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 16 | 50 | 6,249 | 6,899 | 591 | 0 | 0 | |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|------------|----------|------------|
| Phase Category | C | | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| Construction | | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 10/1/2018 | 90 | 12/30/2018 |
| | Procurement | 12/31/2018 | 188 | 7/7/2019 |
| | Project Execution | 7/8/2019 | 725 | 7/2/2021 |
| | Project Closeout | 7/3/2021 | 90 | 10/1/2021 |



Transmission System Water Main Work - Replacement of Schoolcraft Water Main

New CIP# **122005**

Old CIP# **1323**

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/1/2016 | 90 | 12/30/2016 |
| Procurement | 12/31/2016 | 365 | 12/31/2017 |
| Project Execution | 1/1/2018 | 1278 | 7/2/2021 |
| Project Closeout | 7/3/2021 | 90 | 10/1/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 1 | |
| O&M | 4 | |
| Public Health & Safety | 5 | |
| Public Benefit | 1 | |
| Financial | 2 | |
| Efficiency and Innovation | 2 | |

Project Manager Weighted Score

65.6

Review Committee Score

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

Review Committee Weighted Score

42

Describe Here the Changes from the 2018 CIP to 2019 CIP

Added prioritization data and costs; updated schedule to make realistic with status of design completion and information still needed to figure out the sequencing of the project.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|-------|-------|------|------|-----------------|--------|
| 2018 | | | | 7,300 | 7,250 | | | | | 14,550 |
| 2019 | | | 16 | 50 | 6,249 | 6,899 | 591 | 0 | 0 | 13,805 |

**CIP 122006: Transmission System Water Main Work-Wick Road
Parallel Water Main**



New CIP# 122006

Old CIP# 1324

Transmission System Water Main Work-Wick Road Parallel Water Main

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Transmission System Water Main Work-Wick Road Parallel Water Main

Project Significance Placement of parallel water main to minimize service disruptions to customer communities

Year Added: 2016

CIP Type: Project

Date Original BCE Prepared: 8/17/2015

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-3875

Project Location: Wayne County - Outside Detroit

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Construction of the new 48-inch transmission main along a principal roadway in Romulus. Original water main from Wick station to Ypsilanti station has history of excessive breaks. Additionally, the main is the only principal connection between the two facilities with multiple community Master Meters along its length. A break in this line is disruptive to several communities dependent upon this supply line. The purpose is to improve the transmission system reliability/redundancy.

Project History: Original water main from Wick station to Ypsilanti station has history of excessive breaks. Additionally, the main is the only principal connection between the two facilities with multiple community Master Meters along its length. A break in this line is disruptive to several communities dependent upon this supply line. The purpose is to improve the transmission system reliability/redundancy.

Driver: 2 - Performance

Challenges: May require shut down of large transmission mains.

Other Important Info: n/a

Related Project: n/a



Transmission System Water Main Work-Wick Road Parallel Water Main

New CIP# **122006**

Old CIP# **1324**



Transmission System Water Main Work-Wick Road Parallel Water Main

Phase Overview

Phase Title CS-1488 TASK 4, Transmission System Water Main Work-Wick Road Parallel Water Main

Phase Category: C

Construction

Budget: Water

Contract Number: CS-1448

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CS-1488 task 4

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1488 TASK 7, Transmission System Water Main Work-Wick Road Parallel Water Main

Phase Category: CA

Construction Assistance

Budget: Water

Contract Number: CS-1488

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: CS1488 task 7

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Transmission System Water Main Work-Wick Road Parallel Water Main

Phase Overview

Phase Title CS-1488, Transmission System Water Main Work-Wick Road Parallel Water Main

Phase Category: D

Budget: Water

Contract Number: CS-1488

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|--------|--------|------|------|-----------------|
| Construction | | 1,680 | 12,263 | 10,057 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Transmission System Water Main Work-Wick Road Parallel Water Main

| | | | | | | | |
|----------------------------|------|-------|--------|--------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 1,680 | 12,263 | 10,057 | 0 | 0 | 0 |

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | 13 | 80 | 67 | | | |
| GLWA Salaries | 11 | 21 | 21 | 21 | 7 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 4 | 8 | 8 | 8 | 3 | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 1 | 1 | 1 | 0 | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 16 | 43 | 110 | 97 | 10 | | |



Transmission System Water Main Work-Wick Road Parallel Water Main

New CIP# **122006**

Old CIP# **1324**

| | | | | | |
|----------------------|--|---------------|-----------------|--------------|---------|
| CURRENT PHASE | Design | BUDGET | Water | Contract No | CS-1488 |
| Phase Title | CS-1488, Transmission System Water Main Work-Wick Road Parallel Water Main | | PPAT CIP Number | Phase Status | Active |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | | 20 | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | | | | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | | | | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 20 | | | | | |

| | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 16 | 1,743 | 12,373 | 10,154 | 10 | 0 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Future Planned Start | | | |
| Contract No | CS-1448 | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | 7/10/2018 | 90 |
| | | Procurement | 10/9/2018 | 188 |
| | | Project Execution | 4/16/2019 | 727 |
| | | Project Closeout | 4/13/2021 | 90 |
| | | | End Date | |
| | | | 10/8/2018 | |
| | | | 4/15/2019 | |
| | | | 4/12/2021 | |
| | | | 7/12/2021 | |



Transmission System Water Main Work-Wick Road Parallel Water Main

New CIP# **122006**

Old CIP# **1324**

| | |
|----------------|----------------------|
| Phase Category | CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | CS-1488 |
| Cost Est Class | |

Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 7/10/2018 | 90 | 10/8/2018 |
| Procurement | 10/9/2018 | 188 | 4/15/2019 |
| Project Execution | 4/16/2019 | 727 | 4/12/2021 |
| Project Closeout | 4/13/2021 | 90 | 7/12/2021 |

| | |
|----------------|---------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1488 |
| Cost Est Class | |

Design

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/1/2016 | 90 | 12/30/2016 |
| Procurement | 12/31/2016 | 365 | 12/31/2017 |
| Project Execution | 1/1/2018 | 1197 | 4/12/2021 |
| Project Closeout | 4/13/2021 | 90 | 7/12/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

59

Review Committee Score

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

Review Committee Weighted Score

54.2

Describe Here the Changes from the 2018 CIP to 2019 CIP



Transmission System Water Main Work-Wick Road Parallel Water Main

New CIP# **122006**

Old CIP# **1324**

Added prioritization information and project expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|--------|-------|-------|--------|--------|------|------|-----------------|--------|
| 2018 | | 10,000 | 9,350 | | | | | | | 19,350 |
| 2019 | | 23 | 16 | 1,743 | 12,373 | 10,154 | 10 | 0 | 0 | 24,319 |

CIP 122007: Hannan Road Transmission Main



Hannan Road Transmission Main

New CIP# **122007**

Old CIP# **1326**

PROJECT SUMMARY

- Innovation
- MP Right Sizing**
- System Reliability**

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Hannan Road Transmission Main

Project Significance Project identified in the 2015 Water Master Plan Update; improves system reliability, redundancy, and provides operational savings. It was also identified in the 2015 WMPU that this project is a predecessor project to decommissioning the Michigan Avenue Booster Station.

Year Added: 2016

Date Original BCE Prepared: 8/11/2015

Date BCE Last Updated: 9/25/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882411

PROJECT INFORMATION

Scope of Work: This project involves design and construction services associated with the installation of 3 miles of new 24-inch transmission main along Hannan Road.

Project History:

Driver: 2 - Performance

Challenges:

Other Important Info:

Related Project:



Hannan Road Transmission Main

New CIP# **122007**

Old CIP# **1326**

Phase Overview

Phase Title **Hannan Road Transmission Main**

Phase Category: **C**

Budget: **Water**

Contract Number: **NA**

Phase Status: **Future Planned Start**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Hannan Road Transmission Main

New CIP# **122007**

Old CIP# **1326**

Phase Overview

Phase Title **Hannan Road Transmission Main**

Phase Category: **D/CA**

Budget: **Water**

Contract Number: **NA**

Phase Status: **Future Planned Start**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **No**

Comments: **Design and Construction Assistance of a new Newburgh Road 24" Main along Newburgh Road between Cherry Hill and Glenwood Avenue**

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **NA**

Phase Title **Hannan Road Transmission Main** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|------|------|-----------------|
| Construction | | | 1,400 | 1,800 | 800 | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 |



Hannan Road Transmission Main

| | | | | | | | |
|----------------------------|------|------|-------|-------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 1,400 | 1,800 | 800 | 0 | 0 |

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **NA**

Phase Title **Hannan Road Transmission Main** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | 623 | 181 | 246 | 82 | | |
| GLWA Salaries | 4 | 21 | 21 | 21 | 13 | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 2 | 8 | 8 | 8 | 5 | 0 | 0 |

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 1 | 1 | 1 | 1 | 0 | 0 |

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 6 | 653 | 211 | 276 | 101 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|-------|-------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 6 | 653 | 1,611 | 2,076 | 901 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 1/1/2019 | 90 | 4/1/2019 |
| | | Procurement | 4/2/2019 | 188 | 10/7/2019 |
| | | Project Execution | 10/8/2019 | 727 | 10/4/2021 |
| | | Project Closeout | 10/5/2021 | 90 | 1/3/2022 |



Hannan Road Transmission Main

New CIP# **122007**

Old CIP# **1326**

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2017 | 90 | 6/30/2017 |
| Procurement | 7/1/2017 | 365 | 7/1/2018 |
| Project Execution | 7/2/2018 | 1190 | 10/4/2021 |
| Project Closeout | 10/5/2021 | 90 | 1/3/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

58.6

Review Committee Score

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

Review Committee Weighted Score

57

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated prioritization, expenses

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|------|------|-----------------|-------|
| 2018 | | | 1,800 | 2,200 | | | | | | 4,000 |
| 2019 | | | 6 | 653 | 1,611 | 2,076 | 901 | 0 | 0 | 5,247 |

**CIP 122009: Water System Improvements in Joy Road from
Southfield Road to Trinity**



New CIP# 122009

Old CIP# 1350

Water System Improvements in Joy Road from Southfield Road to Trinity

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Water System Improvements in Joy Road from Southfield Road to Trinity

Project Significance Replacement of original piping with excessive break history with new ductile iron main along Wayne County roadway.

Year Added: 2014

Date Original BCE Prepared: 2/28/2014

Date BCE Last Updated: 9/7/2017

Project Engineer/Manager: Khader Hamad

Title: Engineer

Phone: (313) 999-2408

Email: Khader.Hamad@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Project Location: City of Detroit

Fund: 5519

Cost Center: 882411

PROJECT INFORMATION

Scope of Work: The work consists of replacement of existing distribution mains and existing 24-inch transmissions mains, including gate valve, blow offs, air release valves and other appurtenances along Joy Road from Southfield Freeway to Trinity Road in the City of Detroit. A portion of this work is part of the Retail system (not included in this amount) CIP No. 463. Joy Road is also a significant Wayne County roadway within Detroit and a DDOT bus route.

Project History:

Driver: N/A - Pending Closeout

Challenges: N/A - Pending Closeout

Other Important Info:

Related Project:



Water System Improvements in Joy Road from Southfield Road to Trinity

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Water System Improvements in Joy Road from Southfield Road to Trinity

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | WS-693 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Water System Improvements in Joy Road from Southfield Road to Trinity

New CIP# **122009**

Old CIP# **1350**

Change project Manager; This is done by DWSD

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|-------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | 8,323 | 100 | | | | | | | | 8,423 |
| 2019 | 101 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 107 |

**CIP 122010: Water Main Replacement within the City of Detroit –
Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood
to Livernois**



New CIP# **122010**

Old CIP# **1351**

Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

Project Significance Original piping has history of excessive breaks; replacing to minimize disruption in high-traffic area

Year Added: 2014

Date Original BCE Prepared: 8/18/2016

Date BCE Last Updated: 10/2/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Project Location: City of Detroit

Fund: 5519

Cost Center: 882431

PROJECT INFORMATION

Scope of Work: Work includes replacement of approx. 18500 ft. of existing water main with 8", 12", and 16" DI pipe along both Joy Rd and Davison. The scope of work also includes approx. 5300 ft. of 24" DI pipe along Joy Rd. A portion of this work is part of the Retail system (amounts not included) CIP No. 463.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project: WS-693



New CIP# 122010

Old CIP# 1351

Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

Phase Overview

Phase Title WS-693 Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

Phase Category: C

Construction

Budget: Water

Contract Number: WS-693

Phase Status: Pending Close-out

Start Date: 9/6/2016

End Date: 11/5/2018

Phase Cost Allocation: CTA

Phase Financial Source: SRF

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: Shared service with DWSD. 4/28/18
Yes this is a joint project 38%-GLWA 62%-DWSD as of 6/30/17 the project was 29% complete with GLWA portion completed at 15% or \$536,930

Contract Split
38% GLWA - \$3,617,130
62% DWSD - \$5,862,746
Total \$9,479,876

Estimated Spend
2018 \$7,050,000
2019 \$580,000

This will not tie completely because it does not take into account the portion that was for FY2017 but paid in FY2018 and a \$450,000 allowance that the Engineers are not yet sure of the need to spend.

Phase Expenses

CURRENT PHASE Construction

BUDGET Water

Contract No WS-693



Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

| | | | | | |
|-------------|--|-----------------|--|--------------|-------------------|
| Phase Title | WS-693 Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois | PPAT CIP Number | | Phase Status | Pending Close-out |
|-------------|--|-----------------|--|--------------|-------------------|

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 16 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 16 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 16 | 0 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| Phase Category | C | <p>Construction</p> <table border="1"> <thead> <tr> <th>Task Name</th> <th>Start Date</th> <th>Duration</th> <th>End Date</th> </tr> </thead> <tbody> <tr> <td>Project Execution</td> <td>1/1/2017</td> <td>1</td> <td>1/2/2017</td> </tr> <tr> <td>Project Closeout</td> <td>1/3/2017</td> <td>90</td> <td>4/3/2017</td> </tr> </tbody> </table> | Task Name | Start Date | Duration | End Date | Project Execution | 1/1/2017 | 1 | 1/2/2017 | Project Closeout | 1/3/2017 | 90 | 4/3/2017 |
|-------------------|-------------------|--|-----------|------------|----------|----------|-------------------|----------|---|----------|------------------|----------|----|----------|
| Task Name | Start Date | | Duration | End Date | | | | | | | | | | |
| Project Execution | 1/1/2017 | | 1 | 1/2/2017 | | | | | | | | | | |
| Project Closeout | 1/3/2017 | | 90 | 4/3/2017 | | | | | | | | | | |
| Budget | Water | | | | | | | | | | | | | |
| Phase Status | Pending Close-out | | | | | | | | | | | | | |
| Contract No | WS-693 | | | | | | | | | | | | | |
| Cost Est Class | | | | | | | | | | | | | | |

PROJECT PRIORITIZATION SCORING



New CIP#

Old CIP#

Water Main Replacement within the City of Detroit - Joy Rd from Greenfield to Schaefer and Davison Ave from Lindwood to Livernois

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|-------|------|------|------|------|------|-----------------|-------|
| 2018 | | 1,370 | 1,106 | 652 | | | | | | 3,128 |
| 2019 | | | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |

CIP 122011: Park – Merriman Water Main-Final Phase



New CIP# 122011

Old CIP# 1403

Park-Merriman Water Main-Final Phase

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Park-Merriman Water Main-Final Phase

Project Significance Replacement of new water main to convert deduct water meters to direct connection meters

Year Added: 2015

CIP Type: Project

Date Original BCE Prepared: 4/12/2017

Budget: Water

Date BCE Last Updated: 9/27/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-3875

Project Location: Wayne County - Outside Detroit

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This third and final leg of the 24" water main project will convert a handful of GLWA Master Meters from a deduct to direct connection service and retire Master Meter WY-01 in favor of two new Master Meter vaults.

Project History: n/a

Driver: 2 - Performance

Challenges: n/a

Other Important Info: n/a

Related Project: CS-1488 – Design Services.
Two previous construction contracts.



Park-Merriman Water Main-Final Phase

Phase Overview

Phase Title Park-Merriman Water Main-Final Phase

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Park-Merriman Water Main-Final Phase

Phase Expenses

| | | | | | |
|---------------|---|-----------------|------------------------------------|--------------|---|
| CURRENT PHASE | <input type="text" value="Construction"/> | BUDGET | <input type="text" value="Water"/> | Contract No | <input type="text" value="NA"/> |
| Phase Title | <input type="text" value="Park-Merriman Water Main-Final Phase"/> | PPAT CIP Number | <input type="text"/> | Phase Status | <input type="text" value="Future Planned Start"/> |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|------|------|-----------------|
| Construction | | 900 | 3,600 | 1,500 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|-------|-------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 900 | 3,600 | 1,500 | 0 | 0 | 0 |



Park-Merriman Water Main-Final Phase

| | | | | | | | | | | | |
|---------------------------------------|--|---|------|------|------|-----------------|------|-----------------|--|----------------------|--|
| CURRENT PHASE | | Design & Construction Assistance | | | | BUDGET | | Water | | Contract No | |
| Phase Title | | | | | | PPAT CIP Number | | | | Phase Status | |
| | | | | | | | | | | Future Planned Start | |
| Expense Type | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| Construction | | | | | | | | | | | |
| Engineering Services | | 7 | 25 | 46 | 19 | | | | | | |
| GLWA Salaries | | 11 | 21 | 21 | 21 | 4 | | | | | |
| Materials | | | | | | | | | | | |
| Other | | | | | | | | | | | |
| Current Phase Fringe Benefit Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 4 | 8 | 8 | 8 | 2 | | | | | |
| Current Phase Non-Personnel Expenses | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 1 | 1 | 1 | 1 | 0 | | | | | |
| Current Phase Total | | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | | | |
| | | 23 | 55 | 76 | 49 | 6 | | | | | |

| | | | | | | | | |
|-------------------------|------|------|-------|-------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 23 | 955 | 3,676 | 1,549 | 6 | 0 | 0 | |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|------------|----------|------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | NA | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 11/30/2017 | 90 | 2/28/2018 |
| | | Procurement | 3/1/2018 | 259 | 11/15/2018 |
| | | Project Execution | 11/16/2018 | 757 | 12/12/2020 |
| | | Project Closeout | 12/13/2020 | 90 | 3/13/2021 |



Park-Merriman Water Main-Final Phase

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 7/24/2016 | 90 | 10/22/2016 |
| Procurement | 10/23/2016 | 365 | 10/23/2017 |
| Project Execution | 10/24/2017 | 1145 | 12/12/2020 |
| Project Closeout | 12/13/2020 | 90 | 3/13/2021 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

38

Review Committee Score

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

Review Committee Weighted Score

30.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|------|------|-----------------|-------|
| 2018 | | | 1,800 | 2,200 | | | | | | 4,000 |
| 2019 | | | 23 | 955 | 3,676 | 1,549 | 6 | 0 | 0 | 6,209 |

CIP 122012: 36-inch Water Main in Telegraph Road



New CIP# 122012

Old CIP# 1404

36-inch Water Main in Telegraph Road

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

36-inch Water Main in Telegraph Road

Project Significance Excessive joint leaks warrant replacement; new water line to be placed in greenbelt

Year Added: 2012

CIP Type: Project

Date Original BCE Prepared: 8/18/2016

Budget: Water

Date BCE Last Updated: 9/26/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-3875

Project Location: Wayne County - Outside Detroit

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project includes installation of approximately 10,530 feet of 36-inch dia. water main in Telegraph Road from Cherry Hill to Warren Ave.

Project History:

Driver: 1 - Condition

Challenges: N/A - Active

Other Important Info:

Related Project: WS-684



36-inch Water Main in Telegraph Road

Phase Overview

Phase Title WS-684A 36-inch Water Main in Telegraph Road

Phase Category: C

Construction

Budget: Water

Contract Number: WS-684A

Phase Status: Pending Close-out

Start Date: 4/25/2016

End Date: 6/24/2017

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Ric-Man

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title 36-inch Water Main in Telegraph Road

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: Pending Close-out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



36-inch Water Main in Telegraph Road

Phase Expenses

| | | | | | |
|---------------|--|--------|-----------------|--------------|-------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | WS-684A |
| Phase Title | WS-684A 36-inch Water Main in Telegraph Road | | PPAT CIP Number | Phase Status | Pending Close-out |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|-------|------|------|------|------|------|-----------------|
| Construction | 1,973 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---------------------|-------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1,973 | 0 | 0 | 0 | 0 | 0 | 0 |



36-inch Water Main in Telegraph Road

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No

Phase Title **36-inch Water Main in Telegraph Road** PPAT CIP Number Phase Status **Pending Close-out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 268 | | | | | | |
| GLWA Salaries | 11 | 2 | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 4 | 1 | | | | | |
| Current Phase Non-Personnel Expenses | 1 | 0 | | | | | |
| Current Phase Total | 284 | 3 | | | | | |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|-------|------|------|------|------|------|-----------------|
| | 2,257 | 3 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | |
|-----------------------|-------------------|---------------------|--------------------------|
| Phase Category | C | Construction | |
| Budget | Water | | |
| Phase Status | Pending Close-out | | |
| Contract No | WS-684A | | |
| Cost Est Class | | | |
| | | Task Name | Start Date |
| | | Duration | End Date |
| | | Scope Development | |
| | | Scope Development | 7/20/2015 90 10/18/2015 |
| | | Procurement | 10/19/2015 188 4/24/2016 |
| | | Project Execution | 4/25/2016 646 1/31/2018 |
| | | Project Closeout | 2/1/2018 90 5/2/2018 |



36-inch Water Main in Telegraph Road

| | |
|----------------|-------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 7/21/2013 | 90 | 10/19/2013 |
| Procurement | 10/20/2013 | 365 | 10/20/2014 |
| Project Execution | 10/21/2014 | 1198 | 1/31/2018 |
| Project Closeout | 2/1/2018 | 90 | 5/2/2018 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

55

Review Committee Score

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

Review Committee Weighted Score

45.6

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated prioritization, project expenses. Total construction cost ~\$8.9M. Only restoration and retainage remain for estimated amount of \$1.2M.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|-------|------|------|------|------|------|-----------------|--------|
| 2018 | | 2,000 | 5,061 | | | | | | | 7,061 |
| 2019 | 580 | 7,545 | 2,257 | 3 | 0 | 0 | 0 | 0 | 0 | 10,385 |

CIP 122013: 14 Mile Transmission Main Loop



New CIP# 122013

Old CIP# 1405

14 Mile Transmission Main Loop

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

14 Mile Transmission Main Loop

Project Significance The 14 Mile Transmission Main that currently serves West Bloomfield Township, Farmington Hills, Commerce Township, Novi, Walled Lake, and Wixom is a single feed transmission system. If a disruption to service were to occur on this transmission main, many of the users along this main would experience a complete loss of pressure and flow. This project would provide a transmission main loop to the 14 Mile system to increase redundancy on this branch of the system.

Year Added: 2017

Date Original BCE Prepared: 10/28/2016

Date BCE Last Updated: 11/1/2017

Project Engineer/Manager: Timothy Kuhns

Title: Manager

Phone: (313) 926-8114

Email: Timothy.Kuhns@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Facilities

Project Classification Level 3: Transmission System

Project Location: Oakland County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Install approximately 6 Miles of 48-inch transmission main from 8 Mile Road to 14 Mile Road along Haggerty Road. The work will also include connections to the yard piping and reservoir fill line at the Haggerty Booster Station as well as a control valve to regulate flows along the transmission main.

Project History: The 2015 Water Master Plan Update included a recommendation to evaluate options along this branch of the system to increase redundancy. Since that recommendation, GLWA Water Supply Operations Engineering performed a hydraulic analysis of redundancy alternatives for the 14 Mile Transmission System. The results of the hydraulic analysis was presented at the May 15, 2017 and September 19, 2017 Analytical Work Group Meetings and based on the discussion at these meetings, the Haggerty Loop Option described in the scope of work appears to be the preferred alternative.

Driver: 2 - Performance



14 Mile Transmission Main Loop

New CIP# **122013**

Old CIP# **1405**

Challenges: Routing and construction staging for the proposed piping in the vicinity of the Haggerty and 8 Mile Intersection appears to be a significant challenge as this intersection is one of the highest traffic volume intersections in Southeast Michigan.

Other Important Info: GLWA should consider discussing additional connections with the City of Novi as they may desire an additional meter connection along Napier Road.

Related Project: CIP 1336 West Service Center Division Valve Upgrades and Newburgh Active Bypass System



14 Mile Transmission Main Loop

Phase Overview

Phase Title 14 Mile Transmission Main Loop

Phase Category: D/CA

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title 14 Mile Transmission Main Loop

Phase Category: C

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



14 Mile Transmission Main Loop

New CIP# **122013**

Old CIP# **1405**

Phase Expenses

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No

Phase Title **14 Mile Transmission Main Loop** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | 690 | 1,254 | 711 | 619 | 1,726 |
| GLWA Salaries | | | 42 | 42 | 42 | 42 | 126 |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|-------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | | 0 | 17 | 17 | 17 | 17 | 50 |
| Current Phase Non-Personnel Expenses | | 0 | 2 | 2 | 2 | 2 | 6 |
| Current Phase Total | | 0 | 751 | 1,315 | 772 | 680 | 1,908 |



14 Mile Transmission Main Loop

| | | | | | |
|---------------|--------------------------------|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | |
| Phase Title | 14 Mile Transmission Main Loop | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | 735 | 12,740 | 35,525 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 0 | 735 | 12,740 | 35,525 |

| | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 751 | 1,315 | 1,507 | 13,420 | 37,433 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 5/31/2021 | 90 | 8/29/2021 |
| | | Procurement | 8/30/2021 | 188 | 3/6/2022 |
| | | Project Execution | 3/7/2022 | 1453 | 2/27/2026 |
| | | Project Closeout | 2/28/2026 | 90 | 5/29/2026 |



14 Mile Transmission Main Loop

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/2/2018 | 90 | 8/31/2018 |
| Procurement | 9/1/2018 | 365 | 9/1/2019 |
| Project Execution | 9/2/2019 | 2370 | 2/27/2026 |
| Project Closeout | 2/28/2026 | 90 | 5/29/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli) | 5 | |
| Regulatory (Environmental/Lega) | 2 | |
| O&M | 4 | |
| Public Health & Safety | 4 | |
| Public Benefit | 5 | |
| Financial | 1 | |
| Efficiency and Innovation | 2 | |

Project Manager Weighted Score

60.6

Review Committee Score

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

Review Committee Weighted Score

58.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|--------|--------|-------|-------|-------|--------|-----------------|--------|
| 2018 | | 1,300 | 10,500 | 12,000 | 6,000 | | | | | 29,800 |
| 2019 | | | | 0 | 751 | 1,315 | 1,507 | 13,420 | 37,433 | 54,426 |

CIP 122014: Romulus 48-inch Water Main Installation



New CIP# 122014

Old CIP# 1230b

Romulus 48-inch Water Main Installation

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Romulus 48-inch Water Main Installation

Project Significance Placement of a parallel water main to minimize service disruptions to customer communities

Year Added: 2015

CIP Type: Project

Date Original BCE Prepared: 8/18/2016

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Khader Hamad

Project Classification Level 2: Field Services

Title: Engineer

Project Classification Level 3: Transmission System

Phone: (313) 999-2408

Project Location: Wayne County - Outside Detroit

Email: Khader.Hamad@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The City of Romulus notified DWSD of a significant retail development opening in Autumn 2016 at the southeast corner of Vining and Wick Roads. Romulus was also aware that DWSD has a project pending to place a 48" water main along Wick Road. Placement of the new 48" water main would be disruptive to the retail development traffic entrances/exits facing Wick road. Thus, Romulus asked if the 48" water main project could be expedited so it could be in place at the time of the retail development construction in Spring/Summer 2016. The 48" water main will be placed by Romulus as a part of the pavement upgrade work being pursued by Romulus early in 2016.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project:



Romulus 48-inch Water Main Installation

Phase Overview

Phase Title **MOU-4848 Romulus 48-inch Water Main Installation**

Phase Category: **C** **Construction**

Budget: **Water**

Contract Number: **MOU-4848**

Phase Status: **Pending Close-out**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date: **10/30/2017**

Cost Estimation Source: **Engineering**

Cost Estimation Prep By: **Biren Saparia**

Useful Life > 20Yrs **Yes**

Comments: **City of Romulus**

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Construction** BUDGET **Water** Contract No **MOU-4848**

Phase Title **MOU-4848 Romulus 48-inch Water Main Installation** PPAT CIP Number Phase Status **Pending Close-out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 403 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | | | | | | |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | | | | | | |



Romulus 48-inch Water Main Installation

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 403 | | | | | | | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 403 | | | | | | | |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | MOU-4848 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 1/1/2017 | 545 | 6/30/2018 |
| Project Closeout | 7/1/2018 | 90 | 9/29/2018 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Romulus 48-inch Water Main Installation

New CIP# **122014**

Old CIP# **1230b**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|-------|-------|------|------|------|------|------|------|-----------------|-------|--|
| 2018 | 1,021 | 3,514 | | | | | | | | 4,535 | |
| 2019 | 436 | 3,404 | 403 | | | | | | | 4,243 | |

CIP 122015: 30" Water Main Replacement – Water Main
Replacement Under Jefferson & Rouge River



New CIP# 122015

Old CIP# 1230c

30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

Project Significance

Year Added:

Date Original BCE Prepared: 10/21/2016

Date BCE Last Updated: 10/13/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Field Services

Project Classification Level 3: Transmission System

Project Location: City of Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work:

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

Phase Overview

Phase Title CON-105 30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

Phase Category: C

Budget: Water

Contract Number: CON-105

Phase Status: Closed Out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 398 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | | | | | | |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | | | | | | |



30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 398 | | | | | | | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 398 | | | | | | | |

Phase Tasks and Dates

| | |
|----------------|------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | CON-105 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 1/1/2017 | 180 | 6/30/2017 |
| Project Closeout | 7/1/2017 | 90 | 9/29/2017 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



30" Water main Replacement - Water main Replacement Under Jefferson & Rouge River

New CIP#

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|-------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | 2,327 | | | | | | | | 2,327 |
| 2019 | | 2,345 | 398 | | | | | | | 2,743 |

CIP 122016: Downriver Transmission Main Loop



Downriver Transmission Main Loop

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Downriver Transmission Main Loop

Project Significance The Downriver Transmission Main that currently serves Brownstown, Riverview, Woodhaven, Trenton, Flat Rock, Gibraltar, Rockwood, South Rockwood, and Berlin Township is a single feed transmission system. If a disruption to service were to occur on this transmission main, many of the users along this main would experience a complete loss of pressure and flow. This project would provide a transmission main loop to the Downriver system to increase redundancy on this branch of the system.

Year Added: 2017

CIP Type: Project

Date Original BCE Prepared: 10/12/2017

Budget: Water

Date BCE Last Updated: 10/12/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: Facilities

Title: Manager

Project Classification Level 3: Transmission System

Phone: (313) 926-8114

Project Location: Wayne County - Outside Detroit

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882411

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Install approximately 6 Miles of 16-inch transmission main and 3 Miles of 24-inch transmission main from along the Electric Avenue corridor to parallel the existing transmission system in this branch of the system.

Project History: The 2015 Water Master Plan Update included a recommendation to evaluate options along this branch of the system to increase redundancy. Since that recommendation, GLWA Water Supply Operations Engineering performed a hydraulic analysis of redundancy alternatives for the Downriver Transmission System. The results of the hydraulic analysis were presented at the May 15, 2017 and September 19, 2017 Analytical Work Group Meetings and based on the discussion at these meetings, the Electric Avenue Transmission loop option described in the scope of work appears to be the preferred alternative.

Driver: 2 - Performance

Challenges: Assuming ownership of the 24-inch transmission main through the City of Trenton may require condition assessment of this portion of pipeline.



Downriver Transmission Main Loop

New CIP#

Old CIP#

Other Important Info:

Related Project: None



Downriver Transmission Main Loop

Phase Overview

Phase Title Downriver Transmission Main Loop

Phase Category: D/CA

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Downriver Transmission Main Loop

Phase Category: C

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Downriver Transmission Main Loop

New CIP#

Old CIP#

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | 276 | 934 | 301 | 431 | 1,058 |
| GLWA Salaries | | | 14 | 21 | 21 | 21 | 59 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 6 | 8 | 8 | 8 | 24 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 1 | 1 | 1 | 1 | 3 |

| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 297 | 964 | 331 | 461 | 1,144 |



Downriver Transmission Main Loop

New CIP#

Old CIP#

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|-------|--------|-----------------|
| Construction | | | | | 2,720 | 10,302 | 20,978 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|-------|--------|-----------------|
| Current Phase Fringe Benefit Expenses | | | | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | | | | 0 | 0 | 0 | 0 |
| Current Phase Total | | | | 0 | 2,720 | 10,302 | 20,978 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|-------|--------|-----------------|
| | 0 | 0 | 297 | 964 | 3,051 | 10,763 | 22,122 |

| Phase Tasks and Dates | | | | |
|-----------------------|------------------------------------|-------------------|-----------------|-----------------|
| Phase Category | <input type="text" value="C"/> | | | |
| Budget | <input type="text" value="Water"/> | | | |
| Phase Status | <input type="text" value="New"/> | | | |
| Contract No | <input type="text"/> | | | |
| Cost Est Class | <input type="text"/> | | | |
| | Construction | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 2/17/2021 | 90 | 5/18/2021 |
| | Procurement | 5/19/2021 | 188 | 11/23/2021 |
| | Project Execution | 11/24/2021 | 1455 | 11/18/2025 |
| | Project Closeout | 11/19/2025 | 90 | 2/17/2026 |



Downriver Transmission Main Loop

| | |
|----------------|-------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/1/2018 | 90 | 12/30/2018 |
| Procurement | 12/31/2018 | 365 | 12/31/2019 |
| Project Execution | 1/1/2020 | 2148 | 11/18/2025 |
| Project Closeout | 11/19/2025 | 90 | 2/17/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|-------|--------|-----------------|--------|
| 2019 | | | 0 | 0 | 297 | 964 | 3,051 | 10,763 | 22,122 | 37,197 |

CIP 132001: Wick PS - Rehabilitation



Wick PS - Rehabilitation

New CIP# **132001**

Old CIP# **1047**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Wick PS - Rehabilitation

Project Significance Provides improved control on the far-western portion of the transmission system.

Year Added: 2004

Date Original BCE Prepared: 8/8/2016

Date BCE Last Updated: 10/13/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Rehab 3 pumps and added VFDs and related controls system upgrades

Project History:

Driver: 2 - Performance

Challenges: Complicated control programming of VFDs and HVAC system.

Other Important Info:

Related Project:



Wick PS - Rehabilitation

New CIP# **132001**

Old CIP# **1047**

Phase Overview

Phase Title **DWS-858 Wick Road Station Rehabilitation**

Phase Category: **DB**

Design and Build

Budget: **Water**

Contract Number: **DWS-858**

Phase Status: **Pending Close-out**

Start Date: **11/25/2008**

End Date: **6/30/2016**

Phase Cost Allocation: **CTA**

Phase Financial Source: **Bond**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments: **Tooles Contracting: End Date: contract time expired on 6/30/2016. It will have to be extended once the contractor adequately completes the defective work listed in the certificate of substantial completion. At this time a final change order will be executed to extend the contract time and adjust final contract price in order to close out the contract.**

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **DWS-858**

Phase Title **DWS-858 Wick Road Station Rehabilitation** PPAT CIP Number Phase Status **Pending Close-out**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | 147 | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Wick PS - Rehabilitation

| | | | | | | | | |
|---|------|------|------|------|------|------|-----------------|--|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 147 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 147 | 0 | 0 | 0 | 0 | 0 | 0 | |

| Phase Tasks and Dates | | | | | |
|-----------------------|-------------------|-------------------------|-------------------|-----------------|-----------------|
| Phase Category | DB | Design and Build | | | |
| Budget | Water | | | | |
| Phase Status | Pending Close-out | | | | |
| Contract No | DWS-858 | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | | | |
| | | Procurement | | | |
| | | Project Execution | 1/1/2017 | 1 | 1/2/2017 |
| | | Project Closeout | 1/2/2017 | 90 | 4/2/2017 |

PROJECT PRIORITIZATION SCORING

| Project Manager Score | | |
|---------------------------------------|-------|---------------|
| Criteria | Score | Score Comment |
| Condition | 3 | |
| Performance (Service Level/Reli) | 4 | |
| Regulatory (Environmental/Lega) | 2 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 2 | |
| Financial | 1 | |
| Efficiency and Innovation | 4 | |
| Project Manager Weighted Score | | |
| 54.4 | | |

| Review Committee Score | | |
|--|-------|---------------|
| Criteria | Score | Score Comment |
| Condition | | |
| Performance (Service Level/Reliabilit) | | |
| Regulatory (Environmental/Legal) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Review Committee Weighted Score | | |
| | | |



Wick PS - Rehabilitation

New CIP# **132001**

Old CIP# **1047**

Describe Here the Changes from the 2018 CIP to 2019 CIP

Project Manager Eric Kramp/Grant Gartrell

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|--------|------|------|------|------|------|------|------|-----------------|--------|--|
| 2018 | 13,452 | 250 | | | | | | | | 13,702 | |
| 2019 | | | 147 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | |

CIP 132002: Joy PS – Replace Switchgear



Joy PS - Replace Switchgear

New CIP# 132002

Old CIP# 1226

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Joy PS - Replace Switchgear

Project Significance

Year Added:

CIP Type: Project

Date Original BCE Prepared:

Budget: Water

Date BCE Last Updated:

Project Classification Level 1: Water

Project Engineer/Manager:

Project Classification Level 2: SCC

Title:

Project Classification Level 3: Pump Station/Reservoir

Phone:

Project Location: Wayne County - Outside Detroit

Email:

Fund: 5519

Manager:

Cost Center: 882111

Managing Dept

PROJECT INFORMATION

Scope of Work:

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Joy PS - Replace Switchgear

New CIP# 132002

Old CIP# 1226

Phase Overview

Phase Title Joy PS - Replace Switchgear

Phase Category: C

Budget: Water

Contract Number:

Phase Status: Closed Out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source: Contract

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE Construction BUDGET Water Contract No

Phase Title Joy PS - Replace Switchgear PPAT CIP Number Phase Status Closed Out

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |



Joy PS - Replace Switchgear

New CIP# 132002

Old CIP# 1226

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

| Phase Tasks and Dates | |
|-----------------------|--------------------------|
| Phase Category | C Construction |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | |
| Cost Est Class | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Joy PS - Replace Switchgear

New CIP# **132002**

Old CIP# **1226**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | 611 | 1 | | | | | | | | 612 |
| 2019 | 641 | 28 | | | | | | | 0 | 669 |

**CIP 132003: West Service Center PS – Isolation Gate Valves for Line
Pumps**



New CIP# **132003**

Old CIP# **1270**

West Service Center PS - Isolation Gate Valves for Line Pumps

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

West Service Center PS - Isolation Gate Valves for Line Pumps

Project Significance Project needed to provide isolation of the existing pumping units from the distribution and transmission system during pumping unit and discharge flow control valve maintenance. Existing conditions require three pumping units to be taken out of service to

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: SCC

Title: Manager

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 926-8114

Project Location: Oakland County

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Currently there is no means to isolate individual pumping units at the West Service Center. Maintenance on individual units require taking out entire high or intermediate pumping systems without isolation valves.

Project History: n/a

Driver: 2 - Performance

Challenges: Sequence of construction and meeting system demands will need to be coordinated with operations and on-going work to repurpose the Northeast WTP.

Other Important Info: n/a

Related Project: West Service Center Division Valve Replacement, Needs Assessment Study for all Water Booster Stations



West Service Center PS - Isolation Gate Valves for Line Pumps

Phase Overview

Phase Title Isolation Gate Valves for Line Pumps for West Service Center Pumping Station

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date: 2/27/2018

End Date: 8/26/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Isolation Gate Valves for Line Pumps for West Service Center Pumping Station

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Active

Start Date: 10/24/2017

End Date: 8/26/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: HRC - CS-062

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



West Service Center PS - Isolation Gate Valves for Line Pumps

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | 1,056 | 44 | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | | | | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | | | | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 1,056 | 44 | | | | |



West Service Center PS - Isolation Gate Valves for Line Pumps

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **NA**
 Phase Title **Isolation Gate Valves for Line Pumps for West Service Center Pumping Station** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 131 | 143 | 34 | | | | |
| GLWA Salaries | 11 | 21 | 12 | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | 4 | 8 | 5 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| Current Phase Total | 147 | 173 | 52 | 0 | 0 | 0 | 0 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|-------|------|------|------|------|-----------------|
| | 147 | 1,229 | 96 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | | |
|-----------------------|----------------------|---------------------|-------------------|-----------------|-----------------|
| Phase Category | C | Construction | | | |
| Budget | Water | | | | |
| Phase Status | Future Planned Start | | | | |
| Contract No | | | | | |
| Cost Est Class | | | | | |
| | | Task Name | Start Date | Duration | End Date |
| | | Scope Development | 11/28/2017 | 90 | 2/26/2018 |
| | | Procurement | 2/27/2018 | 222 | 10/7/2018 |
| | | Project Execution | 10/7/2018 | 279 | 7/13/2019 |
| | | Project Closeout | 7/13/2019 | 90 | 10/11/2019 |



West Service Center PS - Isolation Gate Valves for Line Pumps

| | |
|----------------|--------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | NA |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 7/24/2016 | 90 | 10/22/2016 |
| Procurement | 10/23/2016 | 365 | 10/23/2017 |
| Project Execution | 10/24/2017 | 626 | 7/12/2019 |
| Project Closeout | 7/12/2019 | 90 | 10/10/2019 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

76.2

Review Committee Score

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

Review Committee Weighted Score

70.8

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated Project Expenses

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|------|------|------|------|-----------------|-------|
| 2018 | | | 521 | 1,000 | | | | | | 1,521 |
| 2019 | | 66 | 147 | 1,229 | 96 | 0 | 0 | 0 | 0 | 1,538 |

CIP 132004: North Service Center PS – Hydraulic Surge Control



New CIP# 132004

Old CIP# 1271

North Service Center PS - Hydraulic Surge Control

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **North Service Center PS - Hydraulic Surge Control**

Project Significance Madison Heights, Troy, and Sterling Heights experience pressure spikes from the suction side of the North Service Center when line pumps trip. Hydraulic transient study is needed to identify the most cost effective solution to mitigate the pressure spikes

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: SCC

Title: Manager

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 926-8114

Project Location: Oakland County

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: In recent years, the North Service Center has experienced power failures resulting in pump trips at the facility. The pump trips have caused high pressure transients along the transmission mains serving Madison Heights, Sterling Heights, Troy, Warren, Fraser, Clinton Township, and Roseville. The proposed project involves the study of control measures to mitigate the hydraulic transients present within the system.

Project History: n/a

Driver: 6 - Public Benefit

Challenges: Coordination with operations and customers necessary to complete the work.

Other Important Info: n/a

Related Project: none



North Service Center PS - Hydraulic Surge Control

Phase Overview

Phase Title Hydraulic Surge Control for North Service Center Pumping Station

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 2/26/2018

End Date: 9/20/2022

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SCP-CS-054 Hydraulic Surge Control for North Service Center Pumping Station

Phase Category: S

Study

Budget: Water

Contract Number: SCP-CS-054

Phase Status: Active

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: Brown & Caldwell

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



North Service Center PS - Hydraulic Surge Control

Phase Overview

Phase Title Hydraulic Surge Control for North Service Center Pumping Station

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: Future Planned Start

Start Date: 1/15/2020

End Date: 9/20/2022

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **NA**

Phase Title Hydraulic Surge Control for North Service Center Pumping Station PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



North Service Center PS - Hydraulic Surge Control

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | |
|--|--|---|
| CURRENT PHASE <input type="text" value="Study"/> | BUDGET <input type="text" value="Water"/> | Contract No <input type="text" value="SCP-CS-054"/> |
| Phase Title <input type="text" value="SCP-CS-054 Hydraulic Surge Control for North Service Center Pumping Station"/> | PPAT CIP Number <input type="text"/> | Phase Status <input type="text" value="Active"/> |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 157 | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 157 | 0 | 0 | 0 | 0 | 0 | 0 |



New CIP# **132004**

Old CIP# **1271**

North Service Center PS - Hydraulic Surge Control

| | | | | | |
|----------------------|--|-----------------|--------------|--------------|----------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | |
| Phase Title | Hydraulic Surge Control for North Service Center Pumping Station | PPAT CIP Number | | Phase Status | Future Planned Start |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 0 | 0 | |

| | | | | | | | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 157 | 0 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | |
|-----------------------|---|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | |
| Cost Est Class | |
| Construction | |
| Task Name | Start Date Duration End Date |
| Scope Development | |
| Procurement | |
| Project Execution | |
| Project Closeout | |



North Service Center PS - Hydraulic Surge Control

| | |
|----------------|----------------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

| | |
|----------------|------------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-054 |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 12/19/2016 | 482 | 4/15/2018 |
| Project Closeout | 4/16/2018 | 90 | 7/15/2018 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

37.2

Review Committee Score

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

Review Committee Weighted Score

28.2

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated cost Allocation



North Service Center PS - Hydraulic Surge Control

New CIP# **132004**

Old CIP# **1271**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|------|------|------|------|-----------------|-------|
| 2018 | | 200 | 500 | 2,000 | 100 | | | | | 2,800 |
| 2019 | | 75 | 157 | 0 | 0 | 0 | 0 | 0 | 0 | 232 |

CIP 132005: Energy Management – Evaluation/Corrective Action



New CIP# 132005

Old CIP# 1288

Energy Management: Evaluation/Corrective Action

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Cancelled

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Energy Management: Evaluation/Corrective Action**

Project Significance Energy management improvements necessary to reduce energy cost associated with penalties charge by power providers during varying demand scenarios. Improvements include electrical improvements likely in the form of power factor correction capacitors.

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Shaker Manns

Project Classification Level 2: SCC

Title: Energy Program Manager

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 910-6156

Project Location: Multiple Counties

Email: shaker.manns@glwater.org

Fund: 5519

Manager: Shaker Manns

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The scope of work for this project is to evaluate the available alternatives to correct the power factor at the selected booster pumping stations and recommend the most cost effective and reliable solution to increase the power factors above 85%.

Project History:

Driver: 8 - Efficiency

Challenges: Impact on electrical system design required and coordination with pump station needs assessment required.

Other Important Info:

Related Project:



Energy Management: Evaluation/Corrective Action

ALL PHASES TOTAL

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Project Manager Weighted Score | | |
| <input type="text"/> | | |

Review Committee Score

| Criteria | Score | Score Comment |
|--|-------|---------------|
| Condition | | |
| Performance (Service Level/Reliabilit | | |
| Regulatory (Environmental/Legal) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Review Committee Weighted Score | | |
| <input type="text"/> | | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | | 125 | 125 | | | | | | 250 |

CIP 132006: Ford Road PS – Pressure and Control Improvements



New CIP# **132006**

Old CIP# **1293**

Ford Road PS - Pressure and Control Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Ford Road PS - Pressure and Control Improvements**

Project Significance Design of pressure and flow control equipment for efficient delivery of consistent pressures to wholesale customers at Ford Road water booster pumping station

Year Added: 2014

CIP Type: Project

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: SCC

Title: Manager

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 926-8114

Project Location: Wayne County - Outside Detroit

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: The work involves designing variable speed pumping equipment and controls on line and reservoir pumping units to better match water demands to efficiently provide consistent pressures and flows to wholesale customers in the service area.

Project History: n/a

Driver: 7 - Financial

Challenges: N/A - Under Procurement

Other Important Info: n/a

Related Project: none



Ford Road PS - Pressure and Control Improvements

Phase Overview

Phase Title CS-1749 Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chicago Water Booster Pumping Stations

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: CS-1749

Phase Status: Active

Start Date: 9/6/2017

End Date: 12/6/2019

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments: Bennesch



Ford Road PS - Pressure and Control Improvements

Phase Overview

Phase Title Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chicago Water Booster Pumping Stations

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design & Construction Assistance** BUDGET **Water** Contract No **CS-1749**

Phase Title **CS-1749 Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chicago Water Booster Pumping Stations** PPAT CIP Number Phase Status **Active**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 74 | 160 | 200 | 67 | | | |
| GLWA Salaries | 22 | 17 | 17 | 12 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 9 | 7 | 7 | 5 | 0 | 0 | 0 |



Ford Road PS - Pressure and Control Improvements

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 106 | 185 | 225 | 85 | 0 | 0 | 0 |

CURRENT PHASE **Construction** **BUDGET** **Water** Contract No **NA**

Phase Title **Pressure and Control Improvements at the Electric, Ford Road, Michigan, and West Chicago Water Booster Pumping Stations** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|------|------|------|-----------------|
| Construction | | 60 | 1,580 | 360 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|-------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 60 | 1,580 | 360 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|-------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 106 | 245 | 1,805 | 445 | 0 | 0 | 0 |

| Phase Tasks and Dates | |
|-----------------------|---|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |
| Construction | |
| Task Name | Start Date Duration End Date |
| Scope Development | 6/6/2018 90 9/4/2018 |
| Procurement | 9/5/2018 260 5/23/2019 |
| Project Execution | 5/24/2019 503 10/8/2020 |



Ford Road PS - Pressure and Control Improvements

| Task Name | Start Date | Duration | End Date |
|------------------|------------|----------|----------|
| Project Closeout | 10/9/2020 | 90 | 1/7/2021 |

| | |
|----------------|---------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1749 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 6/6/2016 | 90 | 9/4/2016 |
| Procurement | 9/5/2018 | 365 | 9/5/2019 |
| Project Execution | 9/6/2017 | 1056 | 7/28/2020 |
| Project Closeout | 7/29/2020 | 90 | 10/27/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

47.4

Review Committee Score

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

Review Committee Weighted Score

43.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated prioritization scores and project expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|-------|------|------|------|------|-----------------|-------|
| 2018 | | | 200 | 2,800 | | | | | | 3,000 |



Ford Road PS - Pressure and Control Improvements

New CIP# **132006**

Old CIP# **1293**

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|-------|------|------|------|-----------------|-------|
| 2019 | | 8 | 106 | 245 | 1,805 | 445 | 0 | 0 | 0 | 2,609 |

**CIP 132007: Imlay PS – Energy Management: Freeze Protection
Pump Installation**



New CIP# 132007

Old CIP# 1294

Imlay PS - Energy Management: Freeze Protection Pump Installation

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Imlay PS - Energy Management: Freeze Protection Pump Installation

Project Significance Project driven by eliminating the application of using existing large pumping units to recirculate and maintain water quality in the existing reservoir during low demand season. Project reduces operating costs, maintains water quality and reduces operating costs, maintains water quality and reduce operating complexity.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/25/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Lapeer County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The purpose of this project is to minimize the electrical peak demand power charges associated with cycling water in the reservoir during low-demand periods. Rather than running a 6,000 HP motor-driven pump for a few minutes daily, a 150 HP motor-driven pump can run for a few hours to do the same work much less expensively.

Project History: n/a

Driver: 8 - Efficiency

Challenges: None.

Other Important Info: n/a

Related Project: none



Imlay PS - Energy Management: Freeze Protection Pump Installation

New CIP# **132007**

Old CIP# **1294**



Imlay PS - Energy Management: Freeze Protection Pump Installation

Phase Overview

Phase Title Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 2/5/2018

End Date: 10/9/2020

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **NA**

Phase Title **Energy Management: Freeze Protection Pump Installation at Imlay Pumping Station** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | 25 | 355 | 120 | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | 9 | 21 | 10 | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 4 | 8 | 4 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 1 | 0 | 0 | 0 | 0 |



Imlay PS - Energy Management: Freeze Protection Pump Installation

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 38 | 385 | 134 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 38 | 385 | 134 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 1/27/2018 | 90 | 4/27/2018 |
| Procurement | 4/28/2018 | 365 | 4/28/2019 |
| Project Execution | 4/29/2019 | 501 | 9/11/2020 |
| Project Closeout | 9/12/2020 | 90 | 12/11/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

44.2

Review Committee Score

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

Review Committee Weighted Score

37.6

Describe Here the Changes from the 2018 CIP to 2019 CIP



Imlay PS - Energy Management: Freeze Protection Pump Installation

Updated project expenses. Moved schedule out one year as this project depends on Flint Genesee County outcome and findings from CS-165 (96" main relocation) study.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | | 200 | 500 | 300 | | | | | 1,000 |
| 2019 | | | 0 | 38 | 385 | 134 | 0 | 0 | 0 | 557 |

CIP 132008: Various PS's – Needs Assessment Study



New CIP# 132008

Old CIP# 1296

Various PS's - Needs Assessment Study

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Various PS's - Needs Assessment Study

Project Significance The work includes a comprehensive needs assessment and hydraulic modeling to determine future station capacities for the nineteen (19) water booster pumping station facilities. Study will include assessment of existing condition and providing list of improvements, upgradign the following items: Facility HVAC and Lighting, Pumping System, Electrical Switch Gear, Instrumentation, Control and Ovation, Fire Protection and Alarms, etc.

Year Added: 2014

Date Original BCE Prepared: 6/26/2014

Date BCE Last Updated: 9/25/2017

Project Engineer/Manager: Erich Klun

Title: Manager

Phone: (313) 926-8151

Email: erich.klun@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Multiple Counties

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: This project includes a comprehensive condition and needs assessment study of all water booster stations, exclusive of reservoirs. System wide modelling will confirm station decommissioning as recommended by the 2015 Water Master Plan Update. The condition assessments will include all engineering disciplines, with a focus on variable speed pumping applications to meet changing station demands, DTE rate incentive identification, station metering, valve and yard piping improvements and station bypasses.

Project History: n/a

Driver: 1 - Condition

Challenges: Shutdown, operation and manpower required to cover the condition assessment inspections to complete the work.

Other Important Info: n/a



Various PS's - Needs Assessment Study

New CIP# **132008**

Old CIP# **1296**

Related Project: none



Various PS's - Needs Assessment Study

Phase Overview

Phase Title SCP-CS-052 Needs Assessment Study for all Water Booster Pumping Stations

Phase Category: S **Study**

Budget: Water

Contract Number: SCP-CS-052

Phase Status: Active

Start Date: 6/5/2016

End Date: 7/1/2017

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: Tetra Tech

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Study** BUDGET **Water** Contract No SCP-CS-052

Phase Title SCP-CS-052 Needs Assessment Study for all Water Booster Pumping Stations PPAT CIP Number Phase Status Active

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|-------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | 722 | 1,178 | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



Various PS's - Needs Assessment Study

| | | | | | | | |
|----------------------------|------|-------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 722 | 1,178 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|-------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 722 | 1,178 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|------------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-052 |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 3/1/2017 | 120 | 6/29/2017 |
| Procurement | 6/29/2017 | 33 | 8/1/2017 |
| Project Execution | 8/3/2017 | 454 | 10/31/2018 |
| Project Closeout | 11/1/2018 | 0 | 11/1/2018 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

46.4

Review Committee Score

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

Review Committee Weighted Score

51.2

Describe Here the Changes from the 2018 CIP to 2019 CIP



Various PS's - Needs Assessment Study

Updated project expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|-------|-------|------|------|------|------|-----------------|-------|--|
| 2018 | | 500 | 1,200 | | | | | | | 1,700 | |
| 2019 | | 33 | 722 | 1,178 | 0 | 0 | 0 | 0 | 0 | 1,933 | |

CIP 132009: Study Phase for East Service Center Pump



New CIP# 132009

Old CIP# 1334

Study Phase for East Service Center Pump

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Closed

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Study Phase for East Service Center Pump

Project Significance Demands from the Rochester Pump Station may exceed the station's firm capacity. A study is needed to evaluate if a new pump station and reservoir is needed at the existing Snover control valve.

Year Added: 2015

Date Original BCE Prepared: 8/11/2015

Date BCE Last Updated: 10/13/2017

Project Engineer/Manager: Timothy Kuhns

Title: Manager

Phone: (313) 926-8114

Email: Timothy.Kuhns@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: City of Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: This study will provide an evaluation of alternatives to improve redundancy and capacity within the 24-Mile Road branch of the transmission system.

Project History: n/a

Driver: 2 - Performance

Challenges: Coordination with the pumping station needs assessment and repurposing of Northeast WTP.

Other Important Info: n/a

Related Project: 71 - Needs Assessment Study for all Water Booster Stations



Study Phase for East Service Center Pump

Phase Overview

Phase Title

Phase Category:

Budget:

Contract Number:

Phase Status:

Start Date:

End Date:

Phase Cost Allocation:

Phase Financial Source:

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | | 0 |



Study Phase for East Service Center Pump

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | | 0 | |

Phase Tasks and Dates

| | | |
|----------------|---|------------------------------------|
| Phase Category | <input type="text" value="S"/> | <input type="text" value="Study"/> |
| Budget | <input type="text" value="Water"/> | |
| Phase Status | <input type="text" value="Closed Out"/> | |
| Contract No | <input type="text"/> | |
| Cost Est Class | <input type="text"/> | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



New CIP# **132009**

Old CIP# **1334**

Study Phase for East Service Center Pump

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | 400 | 100 | | | | | | | 500 |
| 2019 | | 10 | | | | | | | 0 | 10 |

CIP 132010: West Service Center PS – Duval Rd Division Valve
Upgrades



New CIP# **132010**

Old CIP# **1336**

West Service Center PS - Duval Rd Division Valve Upgrades

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

West Service Center PS - Duval Rd Division Valve Upgrades

Project Significance Construction of West Service Center Division Valves is needed to convey Lake Huron flows through the West Service Center to the Springwells high service area while the Springwells raw water tunnel is out of service for repairs. Construction of active bypass around the Newburgh Pump Station.

Year Added: 2017

Date Original BCE Prepared: 10/11/2016

Date BCE Last Updated: 9/25/2017

Project Engineer/Manager: Timothy Kuhns

Title: Manager

Phone: (313) 926-8114

Email: Timothy.Kuhns@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Oakland County

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Lake Huron WTP needs to provide flows to the Springwells high service area while the Springwells raw water tunnel is out of service for repair.

Project History: n/a

Driver: 2 - Performance

Challenges: Coordination with operations critical meet testing of existing valves. Isolation, shutdown and operation of Lake Huron and Springwells WTPs, North Service Center, and other facilities.

Other Important Info: n/a

Related Project: Springwells WTP Reservoir Fill Line



West Service Center PS - Duval Rd Division Valve Upgrades

Phase Overview

Phase Title West Service Center/Duval Rd Division Valve Upgrades

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No **NA**

Phase Title **West Service Center/Duval Rd Division Valve Upgrades** PPAT CIP Number Phase Status **Future Planned Start**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|-------|-------|--------|-------|-----------------|
| Construction | | | 2,590 | 7,400 | 15,540 | 8,880 | 2,590 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | 21 | 21 | 21 | 21 | 11 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 8 | 8 | 8 | 8 | 4 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 1 | 1 | 1 | 1 | 1 |



West Service Center PS - Duval Rd Division Valve Upgrades

| | | | | | | | |
|----------------------------|------|------|-------|-------|--------|-------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 2,620 | 7,430 | 15,570 | 8,910 | 2,606 |

| | | | | | | | |
|-------------------------|------|------|-------|-------|--------|-------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 2,620 | 7,430 | 15,570 | 8,910 | 2,606 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/9/2018 | 90 | 9/7/2018 |
| Procurement | 9/8/2018 | 365 | 9/8/2019 |
| Project Execution | 9/9/2019 | 1453 | 9/1/2023 |
| Project Closeout | 9/2/2023 | 90 | 12/1/2023 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

52.6

Review Committee Score

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

Review Committee Weighted Score

54

Describe Here the Changes from the 2018 CIP to 2019 CIP



West Service Center PS - Duval Rd Division Valve Upgrades

Updated project expenses and phase tasks and dates

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|--------|-------|-----------------|--------|
| 2018 | | | 4,200 | 7,600 | | | | | | 11,800 |
| 2019 | | | 0 | 0 | 2,620 | 7,430 | 15,570 | 8,910 | 2,606 | 37,136 |

**CIP 132011: West Service Center – Energy Management: VFD
Installation**



New CIP# 132011

Old CIP# 1347

West Service Center - Energy Management: VFD Installation

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Cancelled

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

West Service Center - Energy Management: VFD Installation

Project Significance Install Variable Frequency Drives at West Service Center Pump Station to reduce electrical costs

Year Added: 2016

CIP Type: Project

Date Original BCE Prepared: 10/27/2016

Budget: Water

Date BCE Last Updated: 8/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Mini Panicker

Project Classification Level 2: SCC

Title: Engineer

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 267-8996

Project Location: Oakland County

Email: Mini.Panicker@glwater.org

Fund: 5519

Manager: Biren Saparia

Cost Center: 882111

Managing Dept SCC

PROJECT INFORMATION

Scope of Work: To match the non-peak demands the valves are throttled at the station, resulting in loss of energy. This project will install Variable Frequency Drives (VFD) on 700 Hp and 1250 Hp constant speed pumps. VFDs provide better flow and pressure control while providing significant energy savings.

Project History: n/a

Driver:

Challenges: May require shut down of large transmission mains.

Other Important Info: O&M Manuals for the West Service Center

Related Project: n/a



West Service Center - Energy Management: VFD Installation

Phase Overview

Phase Title Energy Management: West Service Center (WSC) VFD Installation

Phase Category: S

Study

Budget: Water

Contract Number: NA

Phase Status: Cancelled

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 8/31/2017

Cost Estimation Source: Engineering

Cost Estimation Prep By: Biren Saparia

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Energy Management: West Service Center (WSC) VFD Installation

Phase Category: D

Design

Budget: Water

Contract Number: NA

Phase Status: Cancelled

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 8/31/2017

Cost Estimation Source: Engineering

Cost Estimation Prep By: Biren Saparia

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



West Service Center - Energy Management: VFD Installation

Phase Overview

Phase Title Energy Management: West Service Center (WSC) VFD Installation

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Pending Close-out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 8/31/2017

Cost Estimation Source: Engineering

Cost Estimation Prep By: Biren Saparia

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE **Study**

BUDGET **Water**

Contract No **NA**

Phase Title **Energy Management: West Service Center (WSC) VFD Installation**

PPAT CIP Number

Phase Status **Cancelled**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |



West Service Center - Energy Management: VFD Installation

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|-----------|
| CURRENT PHASE | Design | BUDGET | Water | Contract No | NA |
| Phase Title | Energy Management: West Service Center (WSC) VFD Installation | PPAT CIP Number | | Phase Status | Cancelled |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



New CIP# **132011**

Old CIP# **1347**

West Service Center - Energy Management: VFD Installation

| | | | | | |
|----------------------|---|-----------------|--------------|--------------|-------------------|
| CURRENT PHASE | Construction | BUDGET | Water | Contract No | NA |
| Phase Title | Energy Management: West Service Center (WSC) VFD Installation | PPAT CIP Number | | Phase Status | Pending Close-out |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Phase Tasks and Dates | | | | |
|-----------------------|-------------------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | Pending Close-out | | | |
| Contract No | NA | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | | |
| | | Procurement | | |
| | | Project Execution | | |
| | | Project Closeout | | |



West Service Center - Energy Management: VFD Installation

| | |
|----------------|-----------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Cancelled |
| Contract No | NA |
| Cost Est Class | |

Design

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

| | |
|----------------|-----------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Cancelled |
| Contract No | NA |
| Cost Est Class | |

Study

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|----------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli) | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



West Service Center - Energy Management: VFD Installation

New CIP# **132011**

Old CIP# **1347**

Please close this one out. Pump Station Needs Assessment Project will identify if there is a need for this project.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|------|------|------|------|-----------------|-------|
| 2018 | | | 1,667 | 1,667 | | | | | | 3,334 |
| 2019 | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

CIP 132012: Ypsilanti PS Improvements



Ypsilanti PS Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Ypsilanti PS Improvements

Project Significance Ypsilanti does not have a generator and needs one in the event of a power outage in order to help maintain pressures. The pumps, motors and electrical system are original to the facility and are past their useful service life. The electrical system requires substantial maintenance to keep it in service. Replacement of the motors and electrical system will improve the reliability of the station. In addition, the station does not have a sewer discharge, which is required in order to enable any underground construction due to dewatering discharges.

Year Added: 2017

Date Original BCE Prepared: 9/28/2017

Date BCE Last Updated: 9/28/2017

Project Engineer/Manager: Eric Kramp

Title: Engineer

Phone: (313) 999-3875

Email: Eric.Kramp@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Wayne County - Outside Detroit

Fund: 5519

Cost Center: 882111

PROJECT INFORMATION

Scope of Work: Replace pumps, motors, drive, switchgear with new. Install a new discharge sewer, backup generator and bypass for the station.

Project History:

Driver: 1 - Condition

Challenges: Contaminated groundwater at the site. No existing sanitary, storm or combined sewer at the site. A NPDES permit will be required to discharge treated groundwater to a surface water of the state for all construction dewatering operations.

Other Important Info:

Related Project: DWS-858 and SCP-DWS-018.



Ypsilanti PS Improvements

New CIP#

Old CIP#



Ypsilanti PS Improvements

Phase Overview

Phase Title Ypsilanti PS Improvements

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: New

Start Date: 9/14/2020

End Date: 11/17/2023

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Phase Overview

Phase Title Ypsilanti PS Improvements

Phase Category: S/D/CA

Study and Design and Construction Assistance

Budget: Water

Contract Number:

Phase Status: New

Start Date: 3/5/2018

End Date: 11/17/2023

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:



Ypsilanti PS Improvements

New CIP#

Old CIP#

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|-------|-------|-----------------|
| Construction | | | | 490 | 2,100 | 3,640 | 770 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 0 | 0 | 0 | 0 | 0 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | 0 | 0 | 0 | 0 | 0 |

Current Phase Total

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|-------|-------|-----------------|
| | | 0 | 490 | 2,100 | 3,640 | 770 |



Ypsilanti PS Improvements

New CIP# **132012**

Old CIP#

CURRENT PHASE **Study and Design and Construction Assistance** BUDGET **Water** Contract No

Phase Title **Ypsilanti PS Improvements** PPAT CIP Number Phase Status **New**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|-------------|-------------|-------------|-------------|-------------|-------------|------------------------|
| Construction | | | | | | | |
| Engineering Services | | 80 | 576 | 300 | 464 | 464 | 116 |
| GLWA Salaries | | 9 | 21 | 21 | 21 | 21 | 10 |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 4 | 8 | 8 | 8 | 8 | 4 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 1 | 1 | 1 | 1 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 93 | 606 | 330 | 494 | 494 | 130 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|-------|-------|-----------------|
| | | 93 | 606 | 820 | 2,594 | 4,134 | 900 |

| Phase Tasks and Dates | | | | |
|-----------------------|-------|---------------------|-------------------|-----------------|
| Phase Category | C | Construction | | |
| Budget | Water | | | |
| Phase Status | New | | | |
| Contract No | | | | |
| Cost Est Class | | | | |
| | | Task Name | Start Date | Duration |
| | | Scope Development | 7/1/2020 | 72 |
| | | Procurement | 9/14/2020 | 186 |
| | | Project Execution | 3/22/2021 | 893 |
| | | Project Closeout | 9/2/2023 | 90 |
| | | | End Date | |
| | | | 9/11/2020 | |
| | | | 3/19/2021 | |
| | | | 9/1/2023 | |
| | | | 12/1/2023 | |



Ypsilanti PS Improvements

New CIP# **132012**

Old CIP#

| | |
|----------------|--------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 1/27/2018 | 90 | 4/27/2018 |
| Procurement | 4/28/2018 | 365 | 4/28/2019 |
| Project Execution | 4/29/2019 | 1586 | 9/1/2023 |
| Project Closeout | 9/2/2023 | 90 | 12/1/2023 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|-------|-------|-----------------|-------|
| 2019 | | | | 93 | 606 | 820 | 2,594 | 4,134 | 900 | 9,147 |

**CIP 132013: Adams Road Pumping Booster VFD & Gate Valves to
Optimize Service Delivery**



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

New CIP# **132013**

Old CIP#

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery**

Project Significance Provide new VFDs to meet variable system demands with respect to pressure (improve customer service) and replace gate valves with new more reliable valves.

Year Added:

CIP Type: Project

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: SCC

Title: Manager

Project Classification Level 3: Pump Station/Reservoir

Phone: (313) 926-8114

Project Location: Oakland County

Email: Timothy.Kuhns@glwater.org

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Install new VFDs and replace existing gate valves.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

New CIP# 132013

Old CIP#

Phase Overview

Phase Title Adams Road Pumping Booster Electrical VFD Design/Construction Replace VFD (LP #1) & add one VFD Optimize Service Delivery

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date: 1/23/2018

End Date: 5/25/2022

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

New CIP#

Old CIP#

Phase Overview

Phase Title Adams Road Pumping Booster Pumping System Isolation Valves Design/Construction Replace isolation valves on 4 line pumps
Transmission and Reservoir Renewal and Reliability (Gate Valves)

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | 59 | 235 | 235 | 147 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | 21 | 42 | 42 | 37 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | 0 | 8 | 17 | 17 | 15 | |



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

| | | | | | | | |
|---|------|------|------|------|------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 1 | 2 | 2 | 2 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 89 | 296 | 296 | 201 | |

| | | | | | |
|----------------------|--|-----------------|----------------------|--------------|----------------------|
| CURRENT PHASE | Design and Build | BUDGET | Water | Contract No | <input type="text"/> |
| Phase Title | Adams Road Pumping Booster Pumping System Isolation Valves Design/Construction Replace isolation valves on 4 line pumps Transmission and Reservoir Renewal and Reliability (Gate Valves) | PPAT CIP Number | <input type="text"/> | Phase Status | New |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | 59 | 235 | 235 | 147 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | 0 | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 0 | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 59 | 235 | 235 | 147 | |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 148 | 531 | 531 | 348 | |

| Phase Tasks and Dates | | | | |
|-----------------------|-------|-------------------------|-------------------|-----------------|
| Phase Category | DB | Design and Build | | |
| Budget | Water | | | |
| Phase Status | New | Task Name | Start Date | Duration |
| Contract No | | Scope Development | 12/23/2018 | 90 |
| Cost Est Class | | | | 3/23/2019 |



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

New CIP# **132013**

Old CIP#

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Procurement | 3/24/2019 | 365 | 3/23/2020 |
| Project Execution | 3/24/2020 | 1035 | 1/23/2023 |
| Project Closeout | 1/24/2023 | 90 | 4/24/2023 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 12/23/2018 | 90 | 3/23/2019 |
| Procurement | 3/24/2019 | 365 | 3/23/2020 |
| Project Execution | 3/24/2020 | 1035 | 1/23/2023 |
| Project Closeout | 1/24/2023 | 90 | 4/24/2023 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 3 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 3 | |
| Public Health & Safety | 1 | |
| Public Benefit | 3 | |
| Financial | 3 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| | | | | | | | | | | |



Adams Road Pumping Booster VFD & Gate Valves to Optimize Service Delivery

New CIP#

Old CIP#

**CIP 132014: Adams Road Pumping Booster Pumping & Switch Gear
Improvements**



New CIP# 132014

Old CIP#

Adams Road Pumping Booster Pumping & Switch Gear Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Adams Road Pumping Booster Pumping & Switch Gear Improvements

Project Significance Existing pumps, motors and electrical gear for station power are beyond useful service life and requires replacement to keep station reliable.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: Timothy Kuhns

Title: Manager

Phone: (313) 926-8114

Email: Timothy.Kuhns@glwater.org

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Oakland County

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Provide new pumps, high-efficiency motors and electrical gear for entire station.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Adams Road Pumping Booster Pumping & Switch Gear Improvements

Phase Overview

Phase Title Adams Road Pumping Booster Pumping System Pump Study/Design/ Construction Analyze the need for a 5th line pump since all 4 existing pumps run in the summer months at times. Add 5th pump if needed.Improve Transmission Redundancy

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date: 3/31/2021

End Date: 9/23/2027

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estmation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Adams Road Pumping Booster Pumping & Switch Gear Improvements

Phase Overview

Phase Title Adams Road Pumping Booster Electrical Switchgear Design/Construction Update Switchgear for potential 5th Pump Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | 454 | 2,046 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | 14 | 84 | 368 |
| Materials | | | | | | | |
| Other | | | | | | | |



Adams Road Pumping Booster Pumping & Switch Gear Improvements

| | | | | | | | | |
|---------------------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 6 | 34 | 147 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 1 | 4 | 18 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 21 | 576 | 2,579 | |

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | 454 | 2,046 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | | |
|---------------------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 454 | 2,046 | |

| | | | | | | | | |
|------------------|------|------|------|------|------|-------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 21 | 1,030 | 4,625 | |

| Phase Tasks and Dates | | | | | |
|-----------------------|------------------------------------|-------------------|-----------------|-----------------|--|
| Phase Category | <input type="text" value="DB"/> | | | | |
| Budget | <input type="text" value="Water"/> | | | | |
| Phase Status | <input type="text" value="New"/> | | | | |
| | Design and Build | | | | |
| | Task Name | Start Date | Duration | End Date | |



Adams Road Pumping Booster Pumping & Switch Gear Improvements

Contract No
 Cost Est Class

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

Phase Category
 Budget
 Phase Status
 Contract No
 Cost Est Class

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 2 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 4 | |
| Financial | 3 | |
| Efficiency and Innovation | 4 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|



Adams Road Pumping Booster Pumping & Switch Gear Improvements

New CIP#

Old CIP#

CIP 132015: Newburgh BPS – Pumping System & Building Upgrades



New CIP# 132015

Old CIP#

Newburgh BPS - Pumping System & Building Upgrades

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Newburgh BPS - Pumping System & Building Upgrades

Project Significance Existing pumps, motors and electrical gear are beyond useful service life. Replacement will provide new equipment that is more reliable, energy efficient and optimally sized for system demands. Other improvements involve building mechanical equipment replacement again because of surpassing useful life.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Wayne County - Outside Detroit

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Replace all existing pumps, motors, VFDs, electrical gear and building mechanical equipment with new.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Newburgh BPS - Pumping System & Building Upgrades

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 7/1/2017

End Date: 12/29/2023

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments:

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|-------|-------|-----------------|
| Construction | | | 591 | 2,366 | 2,366 | 2,366 | 4,311 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | 11 | 21 | 21 | 21 | 44 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| | | 0 | 4 | 8 | 8 | 8 | 18 |

Current Phase Non-Personnel Expenses

| | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| | | 0 | 1 | 1 | 1 | 1 | 2 |



Newburgh BPS - Pumping System & Building Upgrades

| | | | | | | | |
|----------------------------|------|------|------|-------|-------|-------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 607 | 2,396 | 2,396 | 2,396 | 4,375 |

| | | | | | | | |
|-------------------------|------|------|------|-------|-------|-------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | 0 | 607 | 2,396 | 2,396 | 2,396 | 4,375 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 12/23/2018 | 90 | 3/23/2019 |
| Procurement | 3/24/2019 | 365 | 3/23/2020 |
| Project Execution | 3/24/2020 | 1826 | 3/24/2025 |
| Project Closeout | 3/25/2025 | 90 | 6/23/2025 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 2 | |
| Financial | 3 | |
| Efficiency and Innovation | 4 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Newburgh BPS - Pumping System & Building Upgrades

New CIP# **132015**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|-------|-------|-------|-----------------|--------|
| 2019 | | | | 0 | 607 | 2,396 | 2,396 | 2,396 | 4,375 | 12,170 |

CIP 132016: North Service Center BPS Improvements



New CIP# 132016

Old CIP#

North Service Center BPS Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

North Service Center BPS Improvements

Project Significance Recondition line pumps L-2 through L-6, add VFD, replace existing valves and electrical gear with new due to equipment being past useful service life in order to provide more reliable equipment.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Oakland County

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Rehabilitate line pumps L-2 through L-6, replace motors and electrical gear with new. Work involves process mechanical and electrical upgrades.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



North Service Center BPS Improvements

Phase Overview

Phase Title VFDDesign/ConstructionReplace or recondition line pumps L2 - L6,; add VFDsTransmission and Reservoir Renewal and Reliability

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date: 3/21/2021

End Date: 9/23/2027

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



North Service Center BPS Improvements

Phase Overview

Phase Title PumpControl ValvesDesign/ConstructionUpgrade reservoir pump houses, pumps, valves, motors, gearsTransmission and Reservoir
Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estmation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



North Service Center BPS Improvements

New CIP# 132016

Old CIP#

Phase Overview

Phase Title Program Management Provide needed reservoir rehab per recent inspection Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE

Design and Build

BUDGET

Water

Contract No

Phase Title

VFDDesign/Construction Replace or recondition line pumps L2 - L6,; add VFDTs Transmission and Reservoir Renewal and Reliability

PPAT CIP Number

Phase Status

New

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|-------|-----------------|
| Construction | | | | | | 1,225 | 5,525 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 0 |



North Service Center BPS Improvements

| | | | | | | | |
|---|------|------|------|------|------|-------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 1,225 | 5,525 |

CURRENT PHASE **BUDGET** Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|-------|-----------------|
| Construction | | | | | | 1,814 | 8,186 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | |
|--|------|------|------|------|------|-------|-----------------|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 0 | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 0 | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 1,814 | 8,186 |



North Service Center BPS Improvements

CURRENT PHASE

BUDGET

Contract No

Phase Title

PPAT CIP Number

Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|-------|-----------------|
| Construction | | | | | | 1,451 | 6,549 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | 4 | 21 | 92 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 2 | 8 | 37 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 1 | 5 |

| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------|------|------|------|------|------|-------|-----------------|
| | | | | | 6 | 1,481 | 6,683 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|------|-------|-----------------|
| | | | | | 6 | 4,520 | 20,394 |

Phase Tasks and Dates

Phase Category
 Budget
 Phase Status
 Contract No
 Cost Est Class

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |



North Service Center BPS Improvements

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 3 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 2 | |
| Financial | 3 | |
| Efficiency and Innovation | 4 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



North Service Center BPS Improvements

New CIP# **132016**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|-------|-----------------|--------|
| 2019 | | | | | | | 6 | 4,520 | 20,394 | 24,920 |

**CIP 132017: North Service Center BPS – On-Site & Off-Site Yard
Piping & Valve Replacement**



New CIP# 132017

Old CIP#

North Service Center BPS - On-Site & Off-Site Yard Piping & Valve Replacement

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

North Service Center BPS - On-Site & Off-Site Yard Piping & Valve Replacement

Project Significance Yard piping and valves are original to the facility and are beyond useful service life. New valves and yard piping are needed to improve reliable operation; and in order to provide reliable shutoff and water tightness during the subsequent station upgrades to the pumping equipment.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Oakland County

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Replace existing yard valves and yard piping with new.

Project History:

Driver:

Challenges: Maintenance of facility operations during construction.

Other Important Info:

Related Project:



North Service Center BPS - On-Site & Off-Site Yard Piping & Valve Replacement

Phase Overview

Phase Title North Service CenterSiteYard PipingValvesPipingDesign/ConstructionReplace yard valves (BFVs) including those outside fence. Repurpose Northeast Plant

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

PPAT (Phase Program/Allowance Task) Information

Phase Status: New

PPAT CIP Number

Start Date: 4/1/2019

PPAT SOW

End Date: 9/27/2022

Phase Cost Allocation: CTA

Change PPAT PM

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

Phase Expenses

CURRENT PHASE **Design and Build** BUDGET **Water** Contract No

Phase Title North Service CenterSiteYard PipingValvesPipingDesign/ConstructionReplace yard valves (BFVs) including those outside fence. Repurpose Northeast Plant PPAT CIP Number Phase Status **New**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|-------|-------|------|-----------------|
| Construction | | | | 2,270 | 2,476 | 254 | |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | 4 | 21 | 21 | 7 | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | 2 | 8 | 8 | 3 | |



North Service Center BPS - On-Site & Off-Site Yard Piping & Valve Replacement

| | | | | | | | |
|--------------------------------------|------|------|------|-------|-------|------|-----------------|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 0 | 1 | 1 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 6 | 2,300 | 2,506 | 264 | |

| | | | | | | | |
|------------------|------|------|------|-------|-------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | 6 | 2,300 | 2,506 | 264 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Procurement | 7/1/2019 | 365 | 6/30/2020 |
| Procurement | 4/1/2019 | 90 | 6/30/2019 |
| Project Execution | 7/1/2020 | 727 | 6/28/2022 |
| Project Closeout | 6/29/2022 | 90 | 9/27/2022 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 5 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 5 | |
| Public Health & Safety | 1 | |
| Public Benefit | 2 | |
| Financial | 2 | |
| Efficiency and Innovation | 2 | |

Review Committee Score



North Service Center BPS - On-Site & Off-Site Yard Piping & Valve Replacement

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|-------|-------|------|-----------------|-------|--|
| 2019 | | | | | 6 | 2,300 | 2,506 | 264 | | 5,076 | |

**CIP 132018: Schoolcraft BPS – Pumps, Yard Piping, Valves &
Reservoir Pumps & Underdrain System**



New CIP#

Old CIP#

Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

Project Significance Existing pumps, yard piping and station valves are past their useful service life and require replacement to maintain reliable operation. Existing belt drain underdrain system protects reservoir from floating when empty so underdrain system must perform to prevent catastrophic damage to reservoirs.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Wayne County - Outside Detroit

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Replace existing station pumps, yard valves, select yard piping, and rehabilitate reservoir underdrain system.

Project History:

Driver:

Challenges: Maintenance of facility operations during construction.

Other Important Info:

Related Project:



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

Phase Overview

Phase Title Pump MotorDesign/ConstructionReplace LP #3, RP#2 and RP #1Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 3/31/2020

End Date: 9/23/2026

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

Phase Overview

Phase Title ReservoirControl ValvesYard PipingSump PumpsDesign/ConstructionReplace Reservoir Fill valves and vaults, replace cone valves, and control panels. Inspect belt drain system; replace duplex sump pumps.Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

Phase Overview

Phase Title ReservoirTankUnderdrainsSump PumpsStudyInspect submersible pumps and underdrains. Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|-------|-------|-----------------|
| Construction | | | | | 1,225 | 1,336 | 4,190 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 0 | 0 |



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

| | | | | | | | | |
|---|------|------|------|------|-------|-------|-----------------|--|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 1,225 | 1,336 | 4,190 | |

| | | | | | |
|----------------------|--|-----------------|----------------------|--------------|----------------------|
| CURRENT PHASE | Design and Build | BUDGET | Water | Contract No | <input type="text"/> |
| Phase Title | Reservoir Control Valves Yard Piping Sump Pumps Design/Construction Replace Reservoir Fill valves and vaults, replace cone valves, and control panels. Inspect belt drain system; replace duplex sump pumps. Transmission and Reservoir Renewal and Reliability | PPAT CIP Number | <input type="text"/> | Phase Status | New |

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | 612 | 668 | 2,095 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | | |
|--|------|------|------|------|------|------|-----------------|--|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 0 | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 0 | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 612 | 668 | 2,095 | |



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | 18 | 20 | 62 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | 7 | 42 | 42 | 142 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | 3 | 17 | 17 | 57 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 0 | 2 | 2 | 7 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | 10 | 79 | 81 | 268 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|-------|-------|-----------------|
| | | | | 10 | 1,916 | 2,085 | 6,553 |

| Phase Tasks and Dates | | | | |
|-----------------------|------------------------------------|------------|----------|-----------|
| Phase Category | <input type="text" value="DB"/> | | | |
| Budget | <input type="text" value="Water"/> | | | |
| Phase Status | <input type="text" value="New"/> | | | |
| Contract No | <input type="text"/> | | | |
| Cost Est Class | <input type="text"/> | | | |
| | Design and Build | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 3/31/2020 | 90 | 6/29/2020 |
| | Procurement | 7/1/2021 | 1819 | 6/24/2026 |
| | Procurement | 6/30/2020 | 365 | 6/30/2021 |
| | Project Execution | 6/25/2026 | 90 | 9/23/2026 |
| | Project Closeout | | | |



Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2020 | 90 | 6/29/2020 |
| Procurement | 6/30/2020 | 365 | 6/30/2021 |
| Project Execution | 7/1/2021 | 1819 | 6/24/2026 |
| Project Closeout | 6/25/2026 | 90 | 9/23/2026 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2020 | 90 | 6/29/2020 |
| Procurement | 6/30/2020 | 365 | 6/30/2021 |
| Project Execution | 7/1/2021 | 1819 | 6/24/2026 |
| Project Closeout | 6/25/2026 | 90 | 9/23/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 5 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 2 | |
| Efficiency and Innovation | 4 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



New CIP#

Schoolcraft BPS - Pumps, Yard Piping, Valves & Reservoir Pumps & Underdrain System

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|-------|-------|-----------------|--------|
| 2019 | | | | | | 10 | 1,916 | 2,085 | 6,553 | 10,564 |

**CIP 132019: Wick road BPS – Switchgear, Control Valves &
Hydropneumatic Tank Replacement**



New CIP# 132019

Old CIP#

Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

Project Significance Existing switchgear, control valves and hydropneumatic tank at station is beyond useful service life and requires replacement to maintain station reliability

Year Added:

CIP Type: Project

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: SCC

Title:

Project Classification Level 3: Pump Station/Reservoir

Phone:

Project Location: Wayne County - Outside Detroit

Email:

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Replace station electrical switchgear, L-1 control valve and related controls, hydropneumatic tank and related controls for operation of all station control valves

Project History:

Driver:

Challenges: Maintenance of station operations during construction.

Other Important Info:

Related Project:



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

Phase Overview

Phase Title PowerUtility SupplySwitchgearStudy/Design/ ConstructionReplace switchgearTransmission and Reservoir Renewal and Reliability

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date: 3/31/2021

End Date: 9/23/2027

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/27/2017

Cost Estimation Source: 2015 Water Master Plan Update

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

Phase Overview

Phase Title Control Valves Design/Construction Provide new 18" cone valve for L1 with controls. Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

Phase Overview

Phase Title Hydropneumatic Design/Construction Replace hydropneumatic control system for valves Transmission and Reservoir Renewal and Reliability

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | 490 | 2,210 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | | 0 | 0 |



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

| | | | | | | | | |
|---|------|------|------|------|------|------|-----------------|--|
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 490 | 2,210 | |

CURRENT PHASE **BUDGET** Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | 122 | 553 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |

| | | | | | | | | |
|--|------|------|------|------|------|------|-----------------|--|
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 0 | 0 | |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 0 | 0 | |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 122 | 553 | |



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

CURRENT PHASE **Design and Build**

BUDGET **Water**

Contract No

Phase Title **Hydropneumatic Design/Construction Replace hydropneumatic control system for valves Transmission and Reservoir Renewal and Reliability**

PPAT CIP Number

Phase Status **New**

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | 367 | 1,658 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | 4 | 21 | 92 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 2 | 8 | 37 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 1 | 5 |

| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------|------|------|------|------|------|------|-----------------|
| | | | | | 6 | 397 | 1,792 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|------|-------|-----------------|
| | | | | | 6 | 1,009 | 4,555 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |



Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2021 | 90 | 6/29/2021 |
| Procurement | 6/30/2021 | 365 | 6/30/2022 |
| Project Execution | 7/1/2022 | 1819 | 6/24/2027 |
| Project Closeout | 6/25/2027 | 90 | 9/23/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 3 | |
| Financial | 2 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



New CIP#

Wick Road BPS - Switchgear, Control Valves & Hydropneumatic Tank Replacement

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|-------|-----------------|-------|--|
| 2019 | | | | | | | 6 | 1,009 | 4,555 | 5,570 | |

**CIP 132020: Franklin BPS – Isolation Gate Valves & Electrical
Actuator Improvements**



New CIP# 132020

Old CIP#

Franklin BPS - Isolation Gate Valves & Electrical Actuator Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Franklin BPS - Isolation Gate Valves & Electrical Actuator Improvements

Project Significance Existing gate valves, pumps, motors, and valve operators are beyond useful service life and require replacement to maintain reliable station.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Oakland County

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Replace existing station pumps, motors, valves, valve operators, and electrical

Project History:

Driver:

Challenges: Maintenance of station operation during construction.

Other Important Info:

Related Project:



Franklin BPS - Isolation Gate Valves & Electrical Actuator Improvements

Phase Overview

Phase Title

Phase Category: DB
 Budget: Water
 Contract Number:
 Phase Status: New
 Start Date: 10/4/2020
 End Date: 3/29/2027
 Phase Cost Allocation: CTA
 Phase Financial Source: DE
 Lookup Cost Est Class:
 Cost Estimation Date: 1/15/2015
 Cost Estimation Source: 2015 WMPU
 Cost Estimation Prep By: CDM
 Useful Life > 20Yrs Yes

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments:

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|-------|-----------------|
| Construction | | | | | 825 | 1,979 | 7,196 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | 14 | 21 | 82 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | 6 | 8 | 33 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | 1 | 1 | 4 |



Franklin BPS - Isolation Gate Valves & Electrical Actuator Improvements

| | | | | | | | | |
|----------------------------|------|------|------|------|------|-------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 846 | 2,009 | 7,315 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|-------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | 846 | 2,009 | 7,315 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/4/2020 | 90 | 1/2/2021 |
| Procurement | 1/3/2021 | 365 | 1/3/2022 |
| Project Execution | 1/4/2022 | 1819 | 12/28/2026 |
| Project Closeout | 12/29/2026 | 90 | 3/29/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 2 | |
| Public Benefit | 3 | |
| Financial | 3 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Franklin BPS - Isolation Gate Valves & Electrical Actuator Improvements

New CIP#

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|-------|-----------------|--------|--|
| 2019 | | | | | | | 846 | 2,009 | 7,315 | 10,170 | |

**CIP 132021: Imlay BPS – Replace VFD's, Pumps, Motors, and
HVACK**



New CIP# **132021**

Old CIP#

Imlay BPS - Replace VFDs, Pumps, Motors and HVAC

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Imlay BPS - Replace VFDs, Pumps, Motors and HVAC**

Project Significance Existing pumps, motors, VFDs and HVAC system need replacement in order to maintain reliability in the station's operation.

Year Added:

CIP Type:

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: SCC

Title:

Project Classification Level 3: Pump Station/Reservoir

Phone:

Project Location: Lapeer County

Email:

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Replace existing VFDs with new, chiller system VFD cooling, and replace existing station HVAC system.

Project History:

Driver:

Challenges: VFD size is unusual in the marketplace and cooling systems are complex for the VFDs.

Other Important Info:

Related Project:



Imlay BPS - Replace VFDs, Pumps, Motors and HVAC

Phase Overview

Phase Title

Phase Category: DB
 Budget: Water
 Contract Number:
 Phase Status: New
 Start Date: 4/2/2022
 End Date: 9/25/2026
 Phase Cost Allocation: CTA
 Phase Financial Source: DE
 Lookup Cost Est Class:
 Cost Estimation Date: 1/1/2015
 Cost Estimation Source: 2015 WMPU
 Cost Estimation Prep By: CDM
 Useful Life > 20Yrs Yes

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Comments:

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 12,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | 4 | 71 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | 2 | 28 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 4 |



Imlay BPS - Replace VFDs, Pumps, Motors and HVAC

| | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 6 | 12,103 |

| | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | 6 | 12,103 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/2/2022 | 90 | 7/1/2022 |
| Procurement | 7/2/2023 | 365 | 7/1/2024 |
| Project Execution | 7/2/2024 | 1089 | 6/26/2027 |
| Project Closeout | 6/27/2027 | 90 | 9/25/2027 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 3 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 3 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Imlay BPS - Replace VFDs, Pumps, Motors and HVAC

New CIP# 132021

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|--------|--|
| 2019 | | | | | | | | 6 | 12,103 | 12,109 | |

**CIP 132022: Joy Road BPS – Replace Reservoir Pumps, Motors, and
Isolation Valves**



New CIP# 132022

Old CIP#

Joy Road BPS - Replace Reservoir Pumps, Motors and Isolation Valves

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Joy Road BPS - Replace Reservoir Pumps, Motors and Isolation Valves

Project Significance Existing pumps, motors, and valves are past their useful service life and require replacement to maintain reliable station operation. Existing header has suffered corrosion and needs replacement.

Year Added:

CIP Type: Project

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: SCC

Title:

Project Classification Level 3: Pump Station/Reservoir

Phone:

Project Location: Wayne County - Outside Detroit

Email:

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Replace reservoirs pumps, motors, valves, operators, and header with new.

Project History:

Driver:

Challenges: Maintenance of station operations during construction.

Other Important Info:

Related Project:



Joy Road BPS - Replace Reservoir Pumps, Motors and Isolation Valves

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 4/2/2022

End Date: 9/25/2026

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 1/15/2015

Cost Estimation Source: 2015 WMPU

Cost Estimation Prep By: CDM

Useful Life > 20Yrs Yes

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 6,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | 4 | 71 |
| Materials | | | | | | | |
| Other | | | | | | | |

Current Phase Fringe Benefit Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | 2 | 28 |

Current Phase Non-Personnel Expenses

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 4 |



Joy Road BPS - Replace Reservoir Pumps, Motors and Isolation Valves

| | | | | | | | | |
|----------------------------|------|------|------|------|------|------|-----------------|--|
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 6 | 6,103 | |

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | | | | | | 6 | 6,103 | |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/2/2022 | 90 | 7/1/2022 |
| Procurement | 7/2/2022 | 365 | 7/2/2023 |
| Project Execution | 7/3/2023 | 1089 | 6/26/2026 |
| Project Closeout | 6/27/2026 | 90 | 9/25/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 4 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 1 | |
| Public Benefit | 2 | |
| Financial | 3 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



New CIP#

Joy Road BPS - Replace Reservoir Pumps, Motors and Isolation Valves

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|--|
| 2019 | | | | | | | | 6 | 6,103 | 6,109 | |

CIP 132023: Reservoir inspection, Design & Rehabilitation @ Water Works Park and Northeast Water Treatment Plans; and Wick, Schoolcraft, Northwest, North



New CIP#

Old CIP#

Reservoir Inspection, Design & Rehabilitation @ Water Works Park and Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Reservoir Inspection, Design & Rehabilitation @ Water Works Park and Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North Service Center, and Michigan Avenue Pumping Stations

Project Significance Existing reservoirs need to be inspected and any necessary rehabilitation conducted every 5 years according to MDEQ guidelines; and in order to assure that reservoirs are protective of drinking water quality.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Multiple Counties

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Conduct inspections and execute any necessary rehabilitation of the reservoirs that results from the inspection work as directed and approved by GLWA.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Reservoir Inspection, Design & Rehabilitation @ Water Works Park and Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North

Phase Overview

Phase Title

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: New

Start Date: 9/26/2020

End Date: 9/25/2026

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/13/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: Group

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



**Reservoir Inspection, Design & Rehabilitation @ Water Works Park and
Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North**

Phase Expenses

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | 17,000 |
| Engineering Services | | | | | | | |
| GLWA Salaries | | | | | | | |
| Materials | | | | | | | |
| Other | | | | | | | |
| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | | 0 |
| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | | 0 |
| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
| | | | | | | | 17,000 |



**Reservoir Inspection, Design & Rehabilitation @ Water Works Park and
Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North**

CURRENT PHASE BUDGET Contract No

Phase Title PPAT CIP Number Phase Status

| Expense Type | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|----------------------|------|------|------|------|------|------|-----------------|
| Construction | | | | | | | |
| Engineering Services | | | | | 449 | 548 | 1,003 |
| GLWA Salaries | | | | | | 4 | 71 |
| Materials | | | | | | | |
| Other | | | | | | | |

| Current Phase Fringe Benefit Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 2 | 28 |

| Current Phase Non-Personnel Expenses | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|--------------------------------------|------|------|------|------|------|------|-----------------|
| | | | | | 0 | 0 | 4 |

| Current Phase Total | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|---------------------|------|------|------|------|------|------|-----------------|
| | | | | | 449 | 554 | 1,106 |

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|------|------|------|------|------|------|-----------------|
| | | | | | 449 | 554 | 18,106 |

| Phase Tasks and Dates | | | | |
|-----------------------|------------------------------------|-------------------|-----------------|-----------------|
| Phase Category | <input type="text" value="C"/> | | | |
| Budget | <input type="text" value="Water"/> | | | |
| Phase Status | <input type="text" value="New"/> | | | |
| Contract No | <input type="text"/> | | | |
| Cost Est Class | <input type="text"/> | | | |
| | Construction | | | |
| | Task Name | Start Date | Duration | End Date |
| | Scope Development | 9/26/2022 | 90 | 12/25/2022 |
| | Procurement | 12/26/2022 | 188 | 7/2/2023 |
| | Project Execution | 7/3/2023 | 1089 | 6/26/2026 |
| | Project Closeout | 6/27/2026 | 90 | 9/25/2026 |



Reservoir Inspection, Design & Rehabilitation @ Water Works Park and Northeast Water Treatment Plants; and Wick, Schoolcraft, Northwest, North

| | |
|----------------|-------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 9/26/2020 | 90 | 12/25/2020 |
| Procurement | 12/26/2020 | 365 | 12/26/2021 |
| Project Execution | 12/27/2021 | 1642 | 6/26/2026 |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 3 | |
| Regulatory (Environmental/Lega | 5 | |
| O&M | 3 | |
| Public Health & Safety | 4 | |
| Public Benefit | 3 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|--------|
| 2019 | | | | | | | 449 | 554 | 18,106 | 19,109 |

**CIP 132024: Reservoir Inspection, Design and Rehabilitation at
Adams, East-Side, Farmington, Ford Road, Franklin, Haggerty, and
Joy Road**



New CIP# 132024

Old CIP#

Reservoir Inspection, Design and Rehabilitation @ Adams, East-side, Farmington, Ford Road, Franklin, Haggerty and Joy Road

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Reservoir Inspection, Design and Rehabilitation @ Adams, East-side, Farmington, Ford Road, Franklin, Haggerty and Joy Road

Project Significance Existing reservoirs need to be inspected and any necessary rehabilitation conducted every 5 years according to MDEQ guidelines; and in order to assure that reservoirs are protective of drinking water quality.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: SCC

Project Classification Level 3: Pump Station/Reservoir

Project Location: Multiple Counties

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Conduct inspections and execute any necessary rehabilitation of the reservoirs that results from the inspection work as directed and approved by GLWA.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



Reservoir Inspection, Design and Rehabilitation @ Adams, East-side, Farmington, Ford Road, Franklin, Haggerty and Joy Road

Phase Overview

Phase Title

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: New

Start Date: 9/26/2020

End Date: 9/25/2026

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/13/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: Group

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



**Reservoir Inspection, Design and Rehabilitation @ Adams, East-side,
Farmington, Ford Road, Franklin, Haggerty and Joy Road**

New CIP#

Old CIP#



Reservoir Inspection, Design and Rehabilitation @ Adams, East-side, Farmington, Ford Road, Franklin, Haggerty and Joy Road

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | | 449 | 554 | 18,106 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | C |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 9/26/2022 | 90 | 12/25/2022 |
| Procurement | 12/26/2022 | 188 | 7/2/2023 |
| Project Execution | 7/3/2023 | 1089 | 6/26/2026 |
| Project Closeout | 6/27/2026 | 90 | 9/25/2026 |

| | |
|----------------|-------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 9/26/2020 | 90 | 12/25/2020 |
| Procurement | 12/26/2020 | 365 | 12/26/2021 |
| Project Execution | 12/27/2020 | 1642 | 6/26/2025 |
| Project Closeout | 6/27/2025 | 90 | 9/25/2025 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 4 | |
| Performance (Service Level/Reli | 3 | |
| Regulatory (Environmental/Lega | 5 | |
| O&M | 3 | |
| Public Health & Safety | 4 | |
| Public Benefit | 3 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Review Committee Score



**Reservoir Inspection, Design and Rehabilitation @ Adams, East-side,
Farmington, Ford Road, Franklin, Haggerty and Joy Road**

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total | |
|-------------|------|------|------|------|------|------|------|------|-----------------|--------|--|
| 2019 | | | | | | | 449 | 554 | 18,106 | 19,109 | |

CIP 161001: Water Master Plan Update



Water Master Plan Update

New CIP# **161001**

Old CIP# **1233**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Water Master Plan Update

Project Significance Road map to maintain and improve the overall system performance on a cost-efficient basis

Year Added: 2010

CIP Type: Project

Date Original BCE Prepared: 6/18/2010

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Grant Gartrell

Project Classification Level 2: General Purpose

Title: Director - Engineering

Project Classification Level 3: General Purpose

Phone: (313) 926-8139

Project Location: Multiple Counties

Email: Grant.Gartrell@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Systems Planning

PROJECT INFORMATION

Scope of Work: This project consists of the update of the 2004 Water Master Plan including a review of current and ongoing studies, regulatory mandates under the Clean Water Act and State of Michigan, contractual obligations to the customers and Department policies.

Project History:

Driver: N/A - Active

Challenges: N/A - Active

Other Important Info:

Related Project:



Water Master Plan Update

New CIP# **161001**

Old CIP# **1233**

Phase Overview

Phase Title Water Master Plan Update

Phase Category: S

Budget: Water

Contract Number:

Phase Status: Pending Close-out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: SWIPP Grant/ Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

Study

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Water Master Plan Update

New CIP# **161001**

Old CIP# **1233**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
|------|------|------|------|------|------|-----------------|--|
| | | | | | | 0 | |

Phase Tasks and Dates

| | | |
|----------------|-------------------|--------------|
| Phase Category | S | Study |
| Budget | Water | |
| Phase Status | Pending Close-out | |
| Contract No | | |
| Cost Est Class | | |

PROJECT PRIORITIZATION SCORING



Water Master Plan Update

New CIP# **161001**

Old CIP# **1233**

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | 290 | | | | | | | | 290 |
| 2019 | 222 | 108 | | | | | | | 0 | 330 |

CIP 170100: Water Treatment Plan/Pump Station Allowance



New CIP# 170100

Old CIP# 1256

Water Treatment Plant /Pump Station Allowance

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Water Treatment Plant /Pump Station Allowance**

Project Significance This allowance is reserved for unplanned, emergency and critical project needs that need to be addressed quickly.

Year Added: 2012

CIP Type: Allowance

Date Original BCE Prepared: 10/11/2016

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Grant Gartrell

Project Classification Level 2: Programs

Title: Director - Engineering

Project Classification Level 3: Programs

Phone: (313) 926-8139

Project Location: Multiple Counties

Email: Grant.Gartrell@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This project is an allowance for unplanned, critical projects that may occur at the Water Treatment Plants and Booster Pump Stations throughout the system. These projects may include repair, replacement or rehabilitation of key assets as required to allow the Authority to provide sufficient water quality, quantity and pressure to meet customer demands in accordance with federal and state requirements under the Safe Drinking Water Act.

Project History: n/a

Driver: Varies

Challenges: Close coordination with operations and ability to jump on needs.

Other Important Info: n/a

Related Project: none



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title CON-153: Water Works Park WTP Raw Water Sampling Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: CON-153

Phase Status: Active

Start Date: 12/1/2016

End Date: 3/15/2018

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170110

PPAT SOW This project will involve the replacement of the entire raw water sampling system, including chlorine and fluoride analyzers, that are used to sample and analyze the raw water that is conveyed to the Northeast and Springwells water treatment plants. The existing system is cumbersome to operate, maintain and calibrate for accuracy due to its design and location. Additionally, the existing system does not have a sample faucet in the laboratory. This project adds this feature so that the chemists can more readily collect and analyze samples in the lab to verify the on-line chlorine and fluoride analyzer results.

Change PPAT PM Brian Dara

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title SP-009: Weiss: 1958 Sedimentation Basin

Phase Category: C

Construction

Budget: Water

Contract Number: SCP-SP-009

Phase Status: Closed Out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170118

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SCP-CS-1692: OHM Advisors: Phosphoric Acid

Phase Category: DBA

Design Build Assistance

Budget: Water

Contract Number: SCP-CS-1692

Phase Status: Active

Start Date: 10/1/2014

End Date: 6/30/2016

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170120

PPAT SOW Engineering Design and Construction Phase Services for the replacement of the existing phosphoric acid feed system equipment, replacement of chlorine feed system valves, and concrete restoration for the phosphoric acid secondary containment area.

Change PPAT PM Ella Dabao



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title SCP-NE-017: Weiss Construction: Phosphor

Phase Category: C

Construction

Budget: Water

Contract Number: SCP-NE-017

Phase Status: Active

Start Date: 7/27/2015

End Date: 3/27/2017

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170105

PPAT SOW This project involves replacement of the phosphoric acid feed system piping, metering pumps and day tanks, replacement of one heater coil inside an existing steam generator, replacement of steam and hot water heating units in the pumping building, filter building and administration building, and replacement of condensate return pumping units at various locations through the Northeast Water Treatment Plant

Change PPAT PM Zahid Jawadi

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title SCP-LH-398: Phosphoric Acid Tank Fill Lines

Phase Category: C

Construction

Budget: Water

Contract Number: LH-398

Phase Status: Pending Close-out

Start Date: 10/26/2015

End Date: 9/16/2016

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170106

PPAT SOW This project involves the replacement of the phosphoric acid fill lines at the Lake Huron WTP. There are two fill lines and one has failed. The lines are 20 years old and have reached the end of their service life.

Change PPAT PM Todd King

Phase Overview

Phase Title CS-1656: Applied Science: Flow Measurement

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: SCP-CS-1656

Phase Status: Active

Start Date: 5/27/2014

End Date: 6/30/2018

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170102

PPAT SOW The objectives of this project are to design and oversee construction of water production flow meters at Northeast, Southwest, and Springwells Water Treatment Plants.

Change PPAT PM Govind Patel



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title Unallocated Water Treatment Plant /Pump Station Allowance

Phase Category: D/C

Design and Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title CS-1738: Alfred Benesch: Orion & Newberg

Phase Category: D/CA

Design & Construction Assistance

Budget: Water

Contract Number: CS-1738

Phase Status: Active

Start Date: 6/5/2015

End Date: 6/2/2017

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 11/1/2016

Cost Estimation Source: Consultant

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170104

PPAT SOW Design, construction administration, and resident project representative services to increase Orion station pumping capacity and to provide an emergency bypass at the Newburgh pumping station.

Change PPAT PM Jorge Nicolas



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title SCP-DWS-059: CA Hull: Intake Lagoon

Phase Category: C

Construction

Budget: Water

Contract Number: SCP-DWS-059

Phase Status: Active

Start Date: 6/10/2016

End Date: 12/1/2016

Phase Cost Allocation: CTA

Phase Financial Source: Bond

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170107

PPAT SOW Construct structural improvements to the main entrance bridge and intake building that provides access to GLWA's water supply intake and lagoon on Belle Isle. This intake supplies raw water to three of GLWA's water treatment plants: Northeast, Springwells, and Water Works Park.

Change PPAT PM Grant Gartrell

Phase Overview

Phase Title SCP-NE-007: DeCal: Instrument Air Compressor

Phase Category: C

Construction

Budget: Water

Contract Number: SCP-NE-007

Phase Status: Active

Start Date: 7/10/2014

End Date: 4/1/2015

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170117

PPAT SOW This project involves installation of new instrument air compressor system at Northeast Water Treatment Plant

Change PPAT PM Zahid Jawadi



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title DWS-063 Adams Road Water Isolation Gate

Phase Category: C

Construction

Budget: Water

Contract Number: DWS-063

Phase Status: Active

Start Date: 11/1/2017

End Date: 6/30/2019

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170108

PPAT SOW Renovation and Upgrade of Suction and Discharge valves for Adams Road Water Booster Station.

Change PPAT PM Biren Sapia

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Phase Overview

Phase Title CS-1630: Black & Veatch: Master Specs

Phase Category: D

Design

Budget: Water

Contract Number: CS-1630

Phase Status: Closed Out

Start Date:

End Date:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170101

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title GLWA-CS-187: FK Eng: Raw Water Intake

Phase Category: S

Study

Budget: Water

Contract Number: CS-187

Phase Status: Active

Start Date: 3/17/2014

End Date: 12/12/2019

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170109

PPAT SOW This project involves the comprehensive inspection, condition assessment and engineering evaluation of GLWA's three raw water intakes, raw water conveyance tunnels and related raw water facilities (gate structures and tunnel access shafts) by a licensed professional engineering firm with significant experience in geotechnical, tunnel and structural engineering evaluations and condition assesments.

Change PPAT PM Maher Abbasi

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: Was formerly GLWA-SCP-CS-1623, change order added funds and changed contract number to GLWA-CS-187.



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title CS-1674: Testing Engineers: Roof Inspect

Phase Category: D

Budget: Water

Contract Number: CS-1674

Phase Status: Closed Out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

Design

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170116

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title SCP-CON-094: Z Contr: Belle Isle Water Station

Phase Category: C

Budget: Water

Contract Number: SCP-CON-094

Phase Status: Active

Start Date: 2/1/2016

End Date: 8/1/2018

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170103

PPAT SOW Construct the Replacement and Reinforcement of the three 90 ft-long Belle Isle Intake Ice Booms per the design documents prepared by Benesch under CS-1425A Task 45.

Change PPAT PM Todd King



Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title CS-1432A Belle Isle Water Station

Phase Category: D/CA

Budget: Water

Contract Number: CS-1432A

Phase Status: Active

Start Date: 2/1/2016

End Date: 8/1/2018

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170103

PPAT SOW Construct the Replacement and Reinforcement of the three 90 ft-long Belle Isle Intake Ice Booms per the design documents prepared by Benesch under CS-1432A Task 45.

Change PPAT PM Todd King

Phase Overview

Phase Title CON-225 Orion Booster Station

Phase Category: C

Budget: Water

Contract Number: CON-225

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class: 1

Cost Estimation Date: 11/1/2017

Cost Estimation Source: Consultant

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Construction

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170124

PPAT SOW

Change PPAT PM Jorge Nicolas



New CIP# 170100

Old CIP# 1256

Water Treatment Plant /Pump Station Allowance

Phase Overview

Phase Title SW-011, Alfred Benesh: Heating Improvements

Phase Category: C

Construction

Budget: Water

Contract Number: SW-011

Phase Status: Pending Close-out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170111

PPAT SOW

Change PPAT PM



Water Treatment Plant /Pump Station Allowance

| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------------------|-------|-------|-------|-------|-------|-------|-----------------|
| | 1,597 | 4,296 | 3,058 | 3,144 | 3,000 | 3,000 | 15,000 |

Phase Tasks and Dates

| | | |
|----------------|------------|---------------------|
| Phase Category | C | Construction |
| Budget | Water | |
| Phase Status | Active | |
| Contract No | SCP-NE-007 | |
| Cost Est Class | | |

| | | |
|----------------|------------|---------------------|
| Phase Category | C | Construction |
| Budget | Water | |
| Phase Status | Closed Out | |
| Contract No | SCP-SP-009 | |
| Cost Est Class | | |



Water Treatment Plant /Pump Station Allowance

| | |
|----------------|------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-NE-017 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Project Execution | 1/1/2017 | 1 | 1/2/2017 |
| Project Closeout | 1/3/2017 | 90 | 4/3/2017 |

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | LH-398 |
| Cost Est Class | |

Construction

| | |
|----------------|---------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | CON-153 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Project Execution | 1/1/2017 | 1 | 1/2/2017 |
| Project Closeout | 1/2/2017 | 90 | 4/2/2017 |

| | |
|----------------|-------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-DWS-059 |
| Cost Est Class | |

Construction

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | SW-011 |
| Cost Est Class | |

Construction

| | |
|----------------|---------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | DWS-063 |
| Cost Est Class | |

Construction



Water Treatment Plant /Pump Station Allowance

| | |
|----------------|-------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CON-094 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Project Execution | 7/19/2017 | 365 | 7/19/2018 |
| Project Closeout | 7/20/2018 | 83 | 10/11/2018 |

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | CON-225 |
| Cost Est Class | 1 |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 7/2/2018 | 725 | 6/26/2020 |
| Project Closeout | 6/27/2020 | 90 | 9/25/2020 |

| | |
|----------------|------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | CS-1630 |
| Cost Est Class | |

Design

| | |
|----------------|------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Closed Out |
| Contract No | CS-1674 |
| Cost Est Class | |

Design

| | |
|----------------|----------------------|
| Phase Category | D/C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Construction



Water Treatment Plant /Pump Station Allowance

| | |
|----------------|-------------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-1656 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 7/19/2014 | 90 | 10/17/2014 |
| Procurement | 10/18/2014 | 365 | 10/18/2015 |
| Project Execution | 10/19/2015 | 1381 | 7/31/2019 |
| Project Closeout | 8/1/2019 | 90 | 10/30/2019 |

| | |
|----------------|----------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1432A |
| Cost Est Class | |

Design & Construction Assistance

| | |
|----------------|---------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-1738 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 7/2/2018 | 725 | 6/26/2020 |
| Project Closeout | 6/27/2020 | 90 | 9/25/2020 |

| | |
|----------------|--------|
| Phase Category | S |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-187 |
| Cost Est Class | |

Study

| | |
|----------------|-------------|
| Phase Category | DBA |
| Budget | Water |
| Phase Status | Active |
| Contract No | SCP-CS-1692 |
| Cost Est Class | |

Design Build Assistance

PROJECT PRIORITIZATION SCORING



Water Treatment Plant /Pump Station Allowance

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 5 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 5 | |
| Public Health & Safety | 1 | |
| Public Benefit | 5 | |
| Financial | 4 | |
| Efficiency and Innovation | 4 | |

Project Manager Weighted Score

68.2

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reliabilit | 5 | |
| Regulatory (Environmental/Legal) | 2 | |
| O&M | 0 | |
| Public Health & Safety | 4 | |
| Public Benefit | 3 | |
| Financial | 5 | |
| Efficiency and Innovation | 1 | |

Review Committee Weighted Score

64.4

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated project expenses. Continued \$20M into out years FY21 & FY22. (Formerly \$10M per year)

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|-------|--------|--------|--------|--------|--------|--------|-------|-----------------|--------|
| 2018 | | 12,645 | 19,650 | 20,000 | 20,000 | 10,000 | 10,000 | | | 92,295 |
| 2019 | 3,009 | 3,768 | 1,597 | 4,296 | 3,058 | 3,144 | 3,000 | 3,000 | 15,000 | 39,872 |

CIP 170200: Water Treatment Plan/Pump Station Allowance



New CIP# 170200

Old CIP# 1291

As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

Project Significance Provides readily accessible, qualified testing and inspection services for unforeseen and minor projects

Year Added: 2014

CIP Type: Allowance

Date Original BCE Prepared: 6/26/2014

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Eric Kramp

Project Classification Level 2: Programs

Title: Engineer

Project Classification Level 3: Programs

Phone: (313) 999-3875

Project Location: Multiple Counties

Email: Eric.Kramp@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: This engineering/technical services contract involves as-needed engineering and technical services related to geotechnical investigations and related geotechnical engineering, construction materials sampling and testing, environmental media sampling and testing, soils sampling and testing, land surveying, corrosion testing and inspection, computer-aided design, and construction inspection.

Project History: Given the size and age of the system, as-needed services are required to supplement GLWA staff to identify and define problems that arise and must be addressed prior to the next CIP cycle.

Driver: N/A - Under Procurement

Challenges: N/A - Under Procurement

Other Important Info: n/a

Related Project: TBD



As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

New CIP# **170200**

Old CIP# **1291**



New CIP# 170200

Old CIP# 1291

As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

Phase Overview

Phase Title CS-1726 As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

Phase Category: S/D/CA

Budget: Water

Contract Number: CS-1726

Phase Status: Under Procurement

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: Now CS-201

Study and Design and Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

New CIP# **170200**

Old CIP# **1291**

| | | | | | | | | |
|-------------------------|------|------|------|------|------|------|-----------------|--|
| ALL PHASES TOTAL | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | |
| | 172 | 472 | 572 | 572 | 0 | 0 | 0 | |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | S/D/CA |
| Budget | Water |
| Phase Status | Under Procurement |
| Contract No | CS-1726 |
| Cost Est Class | |

Study and Design and Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/1/2017 | 120 | 9/29/2017 |
| Procurement | 9/29/2017 | 120 | 1/27/2018 |
| Project Execution | 1/27/2018 | 1460 | 1/26/2022 |
| Project Closeout | 1/26/2022 | 90 | 4/26/2022 |

PROJECT PRIORITIZATION SCORING



As Needed Construction Materials, Environmental Media and Special Testing Services, Construction Inspection, and Other Technical Services

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 1 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

20

Review Committee Score

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

Review Committee Weighted Score

20

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated prioritization and expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2018 | | | 500 | 500 | 500 | | | | | 1,500 |
| 2019 | | | 172 | 472 | 572 | 572 | 0 | 0 | 0 | 1,788 |

CIP 170300: Water Treatment Plan Automation Program



Water Treatment Plant Automation Program

- PROJECT SUMMARY
- Innovation
 - MP Right Sizing
 - System Reliability

Project Status

Project Status Guide:
 Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Project Significance The automation design and construction project comes from recommendations that identified existing station process data conditions, station needs, GLWA mission critical assets, alternative improvement options to address identified needs, recommended improvements to address the needs, prioritized projects based on the GLWA CIP scoring tool, and scheduling for making the improvements along with associated capital improvement budgets associated with each project established under CS-108.

Year Added: 2017
Date Original BCE Prepared: 4/27/2017
Date BCE Last Updated: 10/13/2017
Project Engineer/Manager: Jeffrey Dorsey
Title: Manager
Phone: (313) 926-8157
Email: jeffrey.dorsey@glwater.org
Manager: Grant Gartrell
Managing Dept: Water Eng

CIP Type: Program
Budget: Water
Project Classification Level 1: Water
Project Classification Level 2: Programs
Project Classification Level 3: Programs
Project Location: Multiple Counties
Fund: 5519
Cost Center: 882111

PROJECT INFORMATION

Scope of Work: The purpose of this project is to implement the recommendations from CS-108 that are prioritized in five (5) year increments with an estimated cost of \$1 million dollars per year over a twenty (20) year span.

Project History: The GLWA Water Operations division is comprised of five water treatment plants. Each plant has process areas ranging from intake, sedimentation, chlorination, filtration and distribution systems. One of the directives from the organizational objectives is to provide the treatment plants with automation. This automation would be one of the main drivers for increased efficiency in data monitoring and regulatory reporting and reduced workload and maintenance cost. The recommendations from this assessment will be the catalyst for automation projects at the pumping stations over the next 20-year planning period. In addition, the recommendations from this assessment are required to be prioritized in 5-year increments with estimated costs.



Water Treatment Plant Automation Program

New CIP# **170300**

Old CIP# **1401**

Driver:

Challenges: Standardization of multiple different data process equipment already installed throughout the 5 plants could be a problem.

Other Important Info: n/a

Related Project: n/a



Water Treatment Plant Automation Program

Phase Overview

Phase Title Unallocated Water Treatment Plant Automation Program

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Water Treatment Plant Automation Program

Phase Overview

Phase Title CS-108, Arcadis, WTP Automation

Phase Category: D

Budget: Water

Contract Number: CS-108

Phase Status: Pending Close-out

Start Date: 1/1/2017

End Date: 5/31/2017

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments: CS-108 Arcadis of Michigan

Design

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170301

PPAT SOW Project was formerly 170113. This project will provide auditing and a condition assessment of process data networks at each water plant. Additionally, it will provide recommendations on the conductivity of each process area within those plants using the model of Ovation as supervisory monitoring and or control and PLC's for process control where applicable.

Change PPAT PM Jeffrey Dorsey



Water Treatment Plant Automation Program

New CIP# **170300**

Old CIP# **1401**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|-------|------|-------|-------|-------|-------|-----------------|
| 1,425 | 61 | 1,561 | 1,561 | 1,561 | 1,514 | 105 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Project Execution | 5/31/2017 | 1825 | 5/30/2022 |
| Project Closeout | 5/31/2022 | 90 | 8/29/2022 |

| | |
|----------------|-------------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | CS-108 |
| Cost Est Class | |

Design



Water Treatment Plant Automation Program

New CIP# **170300**

Old CIP# **1401**

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Project Manager Weighted Score | | |
| <input type="text"/> | | |

Review Committee Score

| Criteria | Score | Score Comment |
|--|-------|---------------|
| Condition | | |
| Performance (Service Level/Reliabilit | | |
| Regulatory (Environmental/Legal) | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |
| Review Committee Weighted Score | | |
| <input type="text"/> | | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

CS-108 Being used in 2018 to perform the needs assessment related to WTP automation.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|-------|
| 2018 | | | 1,500 | 1,500 | 1,500 | 1,500 | 1,500 | | | 7,500 |
| 2019 | | 13 | 1,425 | 61 | 1,561 | 1,561 | 1,561 | 1,514 | 105 | 7,801 |

CIP 170400: Water Transmission Improvement Program



New CIP# 170400

Old CIP# 1230

Water Transmission Improvement Program

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Water Transmission Improvement Program

Project Significance Assessing, rehabilitating or replacing aging transmission mains in the water system

Year Added: 2010

CIP Type: Program

Date Original BCE Prepared: 4/27/2017

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Programs

Project Classification Level 3: Programs

Title: Director - Field Services

Project Location: Multiple Counties

Phone: (313) 926-8114

Fund: 5519

Email: Todd.King@glwater.org

Cost Center: 882111

Manager: Todd King

Managing Dept: Field Services

PROJECT INFORMATION

Scope of Work: This project is a yearly funding allocation for the design and/or construction work for the rehabilitation or replacement/construction of aging water transmission lines and all appurtenances, connections and related structures.

Project History: There are many critical assets that are required to be operated in the transmission system and this yearly allowance is needed to meet the critical needs of these assets.

Driver:

Challenges: May require shut down of large pumps, isolation or shutdown of large mains etc.

Other Important Info: O&M manuals, GIS, Section Maps and Gate Books are available for reference

Related Project: n/a



Water Transmission Improvement Program

Phase Overview

Phase Title Unallocated Water Transmission Improvement Program

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Water Transmission Improvement Program

Phase Category: D

Design

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Water Transmission Improvement Program

Phase Overview

Phase Title SCP-DWS-018: Z Contract: Ypsilanti Pumping Station By-Pass Valve

Phase Category: C

Construction

Budget: Water

Contract Number: SCP-DWS-018

Phase Status: Pending Close-out

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170401

PPAT SOW

Change PPAT PM Eric Kramp

Phase Overview

Phase Title Internal Inspection of GLWA 84" Transmission Main in Troy

Phase Category: C

Construction

Budget: Water

Contract Number:

Phase Status: Pending Close-out

Start Date: 11/21/2016

End Date: 9/30/2017

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170402

PPAT SOW Manned visual, sounding and electromagnetic inspection of 84" water main

Change PPAT PM Biren Saparia



New CIP# **170400**

Old CIP# **1230**

Water Transmission Improvement Program

Phase Overview

Phase Title **DBW-070 Weiss: Lapper County Chlor Booster**

Phase Category: **C**

Construction

Budget: **Water**

Contract Number: **DBW-070**

Phase Status: **Pending Close-out**

Start Date:

End Date:

Phase Cost Allocation: **CTA**

Phase Financial Source: **DE**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number **170403**

PPAT SOW **DBW-070 Weiss: Lapper County Chlor Booster**

Change PPAT PM



Water Transmission Improvement Program

New CIP# **170400**

Old CIP# **1230**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|-------|-------|-------|-------|-------|-----------------|
| 229 | 1,000 | 1,500 | 2,000 | 2,000 | 2,000 | 2,000 |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | DBW-070 |
| Cost Est Class | |

Construction



Water Transmission Improvement Program

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 11/13/2016 | 2 | 11/15/2016 |
| Procurement | 11/16/2016 | 5 | 11/21/2016 |
| Project Execution | 11/22/2016 | 281 | 8/30/2017 |
| Project Closeout | 9/1/2017 | 29 | 9/30/2017 |

| | |
|----------------|-------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | SCP-DWS-018 |
| Cost Est Class | |

Construction

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

| | |
|----------------|----------------------|
| Phase Category | D |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Scope Development | | | |
| Procurement | | | |
| Project Execution | | | |
| Project Closeout | | | |

PROJECT PRIORITIZATION SCORING



Water Transmission Improvement Program

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 3 | |
| Performance (Service Level/Reli | 2 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 4 | |
| Public Health & Safety | 5 | |
| Public Benefit | 5 | |
| Financial | 2 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

56.4

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

Please change PM to Mr. Todd King/Grant Gartrell. Changes to program to include GLWA labor costs.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|--------|--------|--------|--------|--------|-------|-----------------|--------|
| 2018 | | | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | | | 50,000 |
| 2019 | 120 | 955 | 229 | 1,000 | 1,500 | 2,000 | 2,000 | 2,000 | 2,000 | 11,804 |

**CIP 170500: Transmission System Valve Rehabilitation and
Replacement Program**



Transmission System Valve Rehabilitation and Replacement Program

New CIP# **170500**

Old CIP# **1356**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Transmission System Valve Rehabilitation and Replacement Program

Project Significance Replacement/Rehabilitation of GLWA Transmission System Gate Valves will aid in implementing a regular valve exercising program as recommended by AWWA as well as increase the reliability of the transmission system.

Year Added: 2017

CIP Type: Program

Date Original BCE Prepared: 7/29/2016

Budget: Water

Date BCE Last Updated: 8/31/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Programs

Title: Director - Field Services

Project Classification Level 3: Programs

Phone: (313) 926-8114

Project Location: Multiple Counties

Email: Todd.King@glwater.org

Fund: 5519

Manager: Todd King

Cost Center: 882111

Managing Dept: Field Services

PROJECT INFORMATION

Scope of Work: Evaluate the existing conditions, provide the necessary replacement/ rehabilitation option, design and implement them.

Project History: There are critical valves that are required to be closed during a main break or an emergency situation. There has not been a regular valve exercising program in past 15 years in the DWSD/GLWA System.

Driver: 1 - Condition

Challenges: May require shutdown of large transmission mains.

Other Important Info: GIS, Section Maps and Gate Books are available for reference

Related Project: CON-181, Water Transmission Main Assessment Repair



Transmission System Valve Rehabilitation and Replacement Program

New CIP# **170500**

Old CIP# **1356**

Phase Overview

Phase Title **CON-181 Transmission System Valve Replacement/Rehabilitation**

Phase Category: **C**

Construction

Budget: **Water**

Contract Number: **CON-181**

Phase Status: **Active**

Start Date: **8/1/2017**

End Date: **6/30/2019**

Phase Cost Allocation: **CTA**

Phase Financial Source: **DE**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

Comments: **Water Transmission Main Assessment/Repair**

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number **170502**

PPAT SOW This Contract is to perform the as needed evaluation of the existing conditions of the transmission system valves, provide the replacement/rehabilitation options, design and installation.

Change PPAT PM **Todd King**

Phase Overview

Phase Title **Unallocated Transmission System Valve Assessment and Rehabilitation/Replacement**

Phase Category: **DB**

Design and Build

Budget: **Water**

Contract Number: **NA**

Phase Status: **Active**

Start Date: **8/1/2017**

End Date: **7/30/2019**

Phase Cost Allocation: **CTA**

Phase Financial Source: **DE**

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs **Yes**

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Transmission System Valve Rehabilitation and Replacement Program

New CIP# **170500**

Old CIP# **1356**



Transmission System Valve Rehabilitation and Replacement Program

New CIP# **170500**

Old CIP# **1356**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|-------|-------|-------|-------|------|-------|-----------------|
| 2,000 | 4,000 | 4,000 | 3,274 | 726 | 4,000 | 4,000 |

Phase Tasks and Dates

| | |
|----------------|---------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Active |
| Contract No | CON-181 |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 7/1/2018 | 91 | 9/30/2018 |
| Procurement | 9/30/2018 | 880 | 2/26/2021 |
| Project Execution | 2/26/2021 | 1825 | 2/25/2026 |
| Project Closeout | 2/25/2026 | 90 | 5/26/2026 |

| | |
|----------------|--------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Active |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 7/1/2018 | 91 | 9/30/2018 |
| Procurement | 9/30/2018 | 880 | 2/26/2021 |
| Project Execution | 2/26/2021 | 1825 | 2/25/2026 |
| Project Closeout | 2/25/2026 | 90 | 5/26/2026 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Review Committee Score

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



Transmission System Valve Rehabilitation and Replacement Program

New CIP# **170500**

Old CIP# **1356**

Project Manager Weighted Score

69.4

Review Committee Weighted Score

66.8

Describe Here the Changes from the 2018 CIP to 2019 CIP

CON-181 Contractor is selected and is soon to start. Financial group moved funds from the future years to FY2018 and FY2019

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|--------|
| 2018 | | | 2,930 | 3,100 | 3,100 | 3,100 | 3,100 | | | 15,330 |
| 2019 | | | 2,000 | 4,000 | 4,000 | 3,274 | 726 | 4,000 | 4,000 | 22,000 |

CIP 170600: Water Transmission Main Asset Assessment Program



New CIP# **170600**
Old CIP# **1400**

Water Transmission Main Asset Assessment Program

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Water Transmission Main Asset Assessment Program**

Project Significance Many of the water mains serving the GLWA service area were installed in the early part of the 20th century or the later part of the 19th century, and are now reaching the end of their useful life span. This project will pilot and utilize new technologies to accurately identify the condition of these buried assets by constructing access ways for inspection and the installation of sensors and fiber optic cables for real-time monitoring of condition. It's essential for cost-efficient repair and replacement programs which in turn will increase the reliability and performance of the system.

Year Added: 2017

CIP Type: Program

Date Original BCE Prepared: 8/2/2016

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Todd King

Project Classification Level 2: Programs

Title: Director - Field Services

Project Classification Level 3: Programs

Phone: (313) 926-8114

Project Location: Multiple Counties

Email: Todd.King@glwater.org

Fund: 5519

Manager: Todd King

Cost Center: 882111

Managing Dept Field Services

PROJECT INFORMATION

Scope of Work: Construct access structures and utilize new technology to evaluate the existing conditions of the transmission system. Construction of in place sensors and cables may be necessary to adequately access condition. Provide the necessary recommendation for replacement and rehabilitation.

Project History: There are many critical assets that are required to be operated in the transmission main, but the authority doesn't know the existing conditions. For planning purposes, information about the actual condition of pipes is needed and there has not been a regular condition assessment program related to the transmission System (pipes greater than 24").

Driver: 1 - Condition

Challenges: Gaining access to inspect buried pipes is difficult, disruptive and costly. However, there are ways to monitor and test the condition of the piping and methods of performing condition assessment



Water Transmission Main Asset Assessment Program

New CIP# **170600**

Old CIP# **1400**

Other Important Info: *Innovation Note: Consider new techniques for water main assessment.
GIS, Section Maps and Gate Books are available for reference

Related Project: n/a



Water Transmission Main Asset Assessment Program

New CIP# **170600**

Old CIP# **1400**

Phase Overview

Phase Title Unallocated Water Transmission Main Asset Assessment Program

Phase Category: DB

Design and Build

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Water Transmission Main Asset Assessment Program

New CIP# **170600**

Old CIP# **1400**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|-------|-------|-------|-------|-------|-------|-----------------|
| 2,627 | 2,501 | 3,001 | 4,001 | 4,001 | 5,001 | 5,001 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 7/1/2018 | 91 | 9/30/2018 |
| Procurement | 9/30/2018 | 880 | 2/26/2021 |
| Project Execution | 2/26/2021 | 1825 | 2/25/2026 |
| Project Closeout | 2/25/2026 | 90 | 5/26/2026 |

PROJECT PRIORITIZATION SCORING



Water Transmission Main Asset Assessment Program

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

Extended program expenses to 2023.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|--------|
| 2018 | | | 2,626 | 2,000 | 2,000 | 2,000 | 2,000 | | | 10,626 |
| 2019 | | | 2,627 | 2,501 | 3,001 | 4,001 | 4,001 | 5,001 | 5,001 | 26,133 |

**CIP 170700: Reservoirs Inspection, Repair, and Rehabilitation
Program**



New CIP# 170700

Old CIP# 1170

Reservoirs Inspection, Repair and Rehabilitation Program

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Pending Closeout

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Reservoirs Inspection, Repair and Rehabilitation Program

Project Significance Identifying issues that may have a direct impact on water quality due to interior/exterior structural failure

Year Added: 2007

CIP Type: Program

Date Original BCE Prepared: 4/23/2007

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: Programs

Title: Manager

Project Classification Level 3: Programs

Phone: (313) 926-8114

Project Location: Multiple Counties

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept N/A - Pending Closeo

PROJECT INFORMATION

Scope of Work: The work provides for all Pumping Stations, study, design, and construction contract documents for rehabilitation and upgrades, and management services related to construction including award of contract, inspection during construction, and furnishing all construction work through provisional allowance for sub agreements.

Project History:

Driver: N/A - Pending Closeout

Challenges: N/A - Pending Closeout

Other Important Info:

Related Project:



New CIP# 170700

Old CIP# 1170

Reservoirs Inspection, Repair and Rehabilitation Program

Phase Overview

Phase Title DWS-874 Unallocated Booster Stations and Reservoirs Inspection, Rehabilitation and Inspection Repair Program

Phase Category: PM

Budget: Water

Contract Number: DWS-874

Phase Status: Pending Close-out

Start Date: 7/3/2013

End Date: 10/30/2019

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

Project Management

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170701

PPAT SOW

Change PPAT PM



Reservoirs Inspection, Repair and Rehabilitation Program

New CIP# **170700**

Old CIP# **1170**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|-------|------|------|------|------|------|-----------------|
| 1,417 | 0 | 0 | 0 | 0 | 0 | 0 |

Phase Tasks and Dates

| | |
|----------------|-------------------|
| Phase Category | PM |
| Budget | Water |
| Phase Status | Pending Close-out |
| Contract No | DWS-874 |
| Cost Est Class | |

Project Management

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|----------|
| Project Execution | 1/1/2017 | 1 | 1/2/2017 |
| Project Closeout | 1/3/2017 | 90 | 4/3/2017 |

PROJECT PRIORITIZATION SCORING



Reservoirs Inspection, Repair and Rehabilitation Program

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | | |
| Performance (Service Level/Reli | | |
| Regulatory (Environmental/Lega | | |
| O&M | | |
| Public Health & Safety | | |
| Public Benefit | | |
| Financial | | |
| Efficiency and Innovation | | |

Project Manager Weighted Score

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

\$3.4M in remaining costs to be paid out during FY18.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|--------|-------|-------|------|------|------|------|------|-----------------|--------|
| 2018 | 9,571 | 2,316 | 88 | | | | | | | 11,975 |
| 2019 | 11,422 | 1,492 | 1,417 | 0 | 0 | 0 | 0 | 0 | 0 | 14,331 |

CIP 170800: reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP



New CIP# 170800

Old CIP# 1325

Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Active

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

Project Significance Complete the routine inspection, design and rehabilitation of reservoirs to maintain system reliability.

Year Added: 2016

CIP Type: Program

Date Original BCE Prepared: 8/10/2015

Budget: Water

Date BCE Last Updated: 9/25/2017

Project Classification Level 1: Water

Project Engineer/Manager: Timothy Kuhns

Project Classification Level 2: Programs

Title: Manager

Project Classification Level 3: Programs

Phone: (313) 926-8114

Project Location: Multiple Counties

Email: Timothy.Kuhns@glwater.org

Fund: 5519

Manager: Grant Gartrell

Cost Center: 882111

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Complete the routine inspection, design and rehabilitation of reservoirs to maintain system reliability.

Project History: n/a

Driver: 1 - Condition

Challenges: Coordination with operations for shutdowns required to complete the inspection and construction work. System demand dependent.

Other Important Info: n/a

Related Project: Needs Assessment Study for all Water Booster Stations



New CIP# 170800

Old CIP# 1325

Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

Phase Overview

Phase Title 170801 Phase - Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SP-WTP and SW-WTP

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date: 4/1/2019

End Date: 12/15/2023

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170801

PPAT SOW

Change PPAT PM

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:



New CIP# 170800

Old CIP# 1325

Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

Phase Overview

Phase Title CS-151 Phase - Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SP-WTP and SW-WTP 170801

Phase Category: D/CA

Budget: Water

Contract Number: CS-151

Phase Status: Active

Start Date: 10/2/2017

End Date: 10/12/2018

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estmation Prep By:

Useful Life > 20Yrs Yes

Comments:

Design & Construction Assistance

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number 170801

PPAT SOW

Change PPAT PM Tim Kuhns



Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|-------|-------|-------|-----------------|
| 39 | 472 | 753 | 4,510 | 4,340 | 4,340 | 4,645 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

Construction

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 5/30/2019 | 90 | 8/28/2019 |
| Procurement | 8/29/2019 | 188 | 3/4/2020 |
| Project Execution | 3/5/2020 | 1455 | 2/28/2024 |
| Project Closeout | 2/29/2024 | 90 | 5/29/2024 |



Reservoir Inspection, Design and Rehabilitation at Imlay Station, Adams Station, Haggerty Station, LH-WTP, SPW-WTP and SW-WTP

| | |
|----------------|--------|
| Phase Category | D/CA |
| Budget | Water |
| Phase Status | Active |
| Contract No | CS-151 |
| Cost Est Class | |

Design & Construction Assistance

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|------------|
| Scope Development | 10/2/2017 | 79 | 12/20/2017 |
| Procurement | 12/21/2017 | 363 | 12/19/2018 |
| Project Execution | 12/20/2018 | 1896 | 2/28/2024 |
| Project Closeout | 2/29/2024 | 90 | 5/29/2024 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

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

Project Manager Weighted Score

52.8

Review Committee Score

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

Review Committee Weighted Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

Updated prioritization and project expenses.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|--------|
| 2018 | | 50 | 3,300 | 2,550 | 2,550 | 2,550 | | | | 11,000 |
| 2019 | | | 39 | 472 | 753 | 4,510 | 4,340 | 4,340 | 4,645 | 19,099 |

CIP 170900: Suburban Water Meter Pit Rehabilitation and Meter Replacement



Suburban Water Meter Pit Rehabilitation and Meter Replacement

New CIP# **170900**

Old CIP# **1303**

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

Future Planned

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Suburban Water Meter Pit Rehabilitation and Meter Replacement

Project Significance Improving meter data reliability, ensuring accurate billing, improving customer service and allow high quality analysis of the system

Year Added: 2014

CIP Type: Program

Date Original BCE Prepared: 1/26/2016

Budget: Water

Date BCE Last Updated: 10/13/2017

Project Classification Level 1: Water

Project Engineer/Manager: Chandan Sood

Project Classification Level 2: Programs

Title: Manager

Project Classification Level 3: Programs

Phone: (313) 267-9007

Project Location: Multiple Counties

Email: Chandan.Sood@glwater.org

Fund: 5519

Manager: Chandan Sood

Cost Center: 882111

Managing Dept Systems Planning

PROJECT INFORMATION

Scope of Work: The Proposed improvements should include the following; The replacements of meters that have surpassed their life expectancy, and or the current flow rates exceed the mechanical limits of the meter. Installing entrance hatches that allow safer ingress, and egress, and that can be locked for security. Sand blasting and painting of piping and walls. Waterproofing meter vaults to keep the ground water out. Provide a proper floor slope in meter chambers that allow water to settle in puddles. Repairing damage sump pump discharge lines. Repairing any structural deficiencies in the meter chambers, loose concrete, bricks, and ladder rungs. Installing access tunnels for the meter location that require extensive traffic control, or are very dangerous to enter because of the entrance location. Upgrading and repairing damaged electrical fixtures in the meter vaults. Weather proofing the meter control cabinets, chalking, replacing rubber door seals, replacing missing foam insulation, replacing upgrading cabinet heaters, repairing damaged locking mechanisms. Improving, or paving the access roads, and or parking for meter locations that have limited parking or get overgrown with foliage in the summer time.

Project History: Currently GLWA provides water service to 126 communities, and measures flows and volumes by the utilization of 290 wholesale water meters now in service; 17 of these meters are venturi-orifice type meters, 26 of these are dual venturi type meters, 48 of these single venturi type meters, 97 of these are magnetic flow type meters, and 102 of these are turbine or mechanical type meters. Meters were installed between 1945



Suburban Water Meter Pit Rehabilitation and Meter Replacement

New CIP# **170900**

Old CIP# **1303**

through 1975 under various projects and tasks.

Driver: 2 - Performance

Challenges: Requires temporary shutdown of the water supply through the meter

Other Important Info: n/a

Related Project: PC-793 provides mechanical help for in-house meter replacement



Suburban Water Meter Pit Rehabilitation and Meter Replacement

New CIP# **170900**

Old CIP# **1303**

Phase Overview

Phase Title Unallocated Suburban Water Meter Pit Rehabilitation and Meter Replacement

Phase Category: C

Construction

Budget: Water

Contract Number: NA

Phase Status: Future Planned Start

Start Date:

End Date:

Phase Cost Allocation: Suburban Only

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs No

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Suburban Water Meter Pit Rehabilitation and Meter Replacement

New CIP# **170900**

Old CIP# **1303**

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|-------|-------|-------|-------|-------|-----------------|
| 410 | 4,613 | 3,690 | 3,690 | 3,997 | 4,100 | 0 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | C |
| Budget | Water |
| Phase Status | Future Planned Start |
| Contract No | NA |
| Cost Est Class | |

| Construction | | | |
|---------------------|------------|----------|-----------|
| Task Name | Start Date | Duration | End Date |
| Scope Development | | | |
| Procurement | | | |
| Project Execution | 1/1/2018 | 1795 | 12/1/2022 |
| Project Closeout | 12/2/2022 | 90 | 3/2/2023 |

PROJECT PRIORITIZATION SCORING



Suburban Water Meter Pit Rehabilitation and Meter Replacement

New CIP# **170900**

Old CIP# **1303**

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 1 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Project Manager Weighted Score

20

Review Committee Score

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

Review Committee Weighted Score

20

Describe Here the Changes from the 2018 CIP to 2019 CIP

Program was extended into 2023 causing the increase in overall project expense.

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|--------|
| 2018 | | 500 | 4,000 | 4,000 | 4,000 | 4,000 | 4,000 | | | 20,500 |
| 2019 | | | 410 | 4,613 | 3,690 | 3,690 | 3,997 | 4,100 | 0 | 20,500 |

CIP 171000: LH-WTP Sanitary Survey Improvements



New CIP# 171000

Old CIP#

LH - WTP Sanitary Survey Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

LH - WTP Sanitary Survey Improvements

Project Significance Address the sanitary survey needs that are identified by the MDEQ as part of its 3-year rotation of plant sanitary surveys where regulatory needs are identified.

Year Added: 2017

CIP Type: Program

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: Grant Gartrell

Project Classification Level 2: Programs

Title: Director - Engineering

Project Classification Level 3: Programs

Phone: (313) 926-8139

Project Location: Saint Clair County

Email: Grant.Gartrell@glwater.org

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept Water Eng

PROJECT INFORMATION

Scope of Work: Design and construct improvements or modifications to plant process facilities that may be identified by the MDEQ during its 3-year cycle of sanitary surveys.

Project History:

Driver:

Challenges: Possible negotiations with MDEQ on items they identify in sanitary surveys that GLWA may take exception.

Other Important Info:

Related Project:



New CIP# 171000

Old CIP#

LH - WTP Sanitary Survey Improvements

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 4/17/2017

End Date: 6/17/2029

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 12/27/2017

Cost Estimation Source: Educated Guess

Cost Estimation Prep By: G. Gartrell

Useful Life > 20Yrs No

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



LH - WTP Sanitary Survey Improvements

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 45 | 49 | 49 | 49 | 49 | 247 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2017 | 90 | 6/30/2017 |
| Procurement | 7/1/2018 | 365 | 7/1/2019 |
| Project Execution | 7/2/2019 | 3637 | 6/16/2029 |
| Project Closeout | 6/17/2029 | 90 | 9/15/2029 |

PROJECT PRIORITIZATION SCORING



LH - WTP Sanitary Survey Improvements

New CIP# **171000**

Old CIP#

Project Manager Score

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 1 | |
| Public Health & Safety | 3 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2019 | | | | 45 | 49 | 49 | 49 | 49 | 247 | 488 |

CIP 171100: NE-WTP Sanitary Survey Improvements



New CIP# 171100

Old CIP#

NE - WTP Sanitary Survey Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

NE - WTP Sanitary Survey Improvements

Project Significance Address the sanitary survey needs that are identified by the MDEQ as part of its 3-year rotation of plant sanitary surveys where regulatory needs are identified.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: Govind Patel

Title: Engineer

Phone: (313) 245-1603

Email: Govind.Patel@glwater.org

Manager: Grant Gartrell

Managing Dept

CIP Type: Program

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Treatment Plants & Facilities

Project Classification Level 3: Northeast

Project Location: City of Detroit

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Design and construct improvements or modifications to plant process facilities that may be identified by the MDEQ during its 3-year cycle of sanitary surveys.

Project History:

Driver:

Challenges: Possible negotiations with MDEQ on items they identify in sanitary surveys that GLWA may take exception.

Other Important Info:

Related Project:



New CIP#

NE - WTP Sanitary Survey Improvements

Old CIP#

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 4/1/2017

End Date: 9/15/2028

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 12/26/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: G. Gartrell

Useful Life > 20Yrs No

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



NE - WTP Sanitary Survey Improvements

New CIP# 171100

Old CIP#

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| 6 | 75 | 79 | 79 | 79 | 79 | 399 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2017 | 90 | 6/30/2017 |
| Procurement | 7/1/2017 | 365 | 7/1/2018 |
| Project Execution | 7/2/2018 | 3637 | 6/16/2028 |
| Project Closeout | 6/17/2028 | 90 | 9/15/2028 |

PROJECT PRIORITIZATION SCORING



NE - WTP Sanitary Survey Improvements

Project Manager Score

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 1 | |
| Public Health & Safety | 3 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2019 | | | 6 | 75 | 79 | 79 | 79 | 79 | 399 | 796 |

CIP 171200: SW-WTP Sanitary Survey Improvements



New CIP# 171200

Old CIP#

SW-WTP Sanitary Survey Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

SW-WTP Sanitary Survey Improvements

Project Significance Address the sanitary survey needs that are identified by the MDEQ as part of its 3-year rotation of plant sanitary surveys where regulatory needs are identified.

Year Added:

Date Original BCE Prepared: 1/4/2018

Date BCE Last Updated: 1/4/2018

Project Engineer/Manager: Shakil Ahmed

Title: Engineer

Phone: (313) 928-0204

Email: Shakil.Ahmed@glwater.org

Manager: Grant Gartrell

Managing Dept Water Eng

CIP Type: Project

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Programs

Project Classification Level 3: Programs

Project Location: Wayne County - Outside Detroit

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Design and construct improvements or modifications to plant process facilities that may be identified by the MDEQ during its 3-year cycle of sanitary surveys.

Project History:

Driver:

Challenges: Possible negotiations with MDEQ on items they identify in sanitary surveys that GLWA may take exception.

Other Important Info:

Related Project:



New CIP# 171200

Old CIP#

SW-WTP Sanitary Survey Improvements

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 4/1/2018

End Date: 9/17/2029

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 12/26/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: G. Gartrell

Useful Life > 20Yrs No

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



SW-WTP Sanitary Survey Improvements

New CIP# 171200

Old CIP#

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 6 | 75 | 79 | 79 | 79 | 399 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2018 | 90 | 6/30/2018 |
| Procurement | 7/1/2018 | 365 | 7/1/2019 |
| Project Execution | 7/2/2019 | 3639 | 6/18/2029 |
| Project Closeout | 6/19/2029 | 90 | 9/17/2029 |

PROJECT PRIORITIZATION SCORING



SW-WTP Sanitary Survey Improvements

New CIP# **171200**

Old CIP#

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 1 | |
| Public Health & Safety | 3 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2019 | | | | 6 | 75 | 79 | 79 | 79 | 399 | 717 |

CIP 171300: WWP-WTP Sanitary Survey Improvements



New CIP# 171300

Old CIP#

WWP - WTP Sanitary Survey Improvements

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

WWP - WTP Sanitary Survey Improvements

Project Significance Address the sanitary survey needs that are identified by the MDEQ as part of its 3-year rotation of plant sanitary surveys where regulatory needs are identified.

Year Added:

CIP Type: Program

Date Original BCE Prepared: 1/4/2018

Budget: Water

Date BCE Last Updated: 1/4/2018

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Programs

Title:

Project Classification Level 3: Programs

Phone:

Project Location: City of Detroit

Email:

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Design and construct improvements or modifications to plant process facilities that may be identified by the MDEQ during its 3-year cycle of sanitary surveys.

Project History:

Driver:

Challenges: Possible negotiations with MDEQ on items they identify in sanitary surveys that GLWA may take exception.

Other Important Info:

Related Project:



WWP - WTP Sanitary Survey Improvements

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 4/1/2017

End Date: 9/15/2028

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 12/26/2017

Cost Estimation Source: GLWA engineering

Cost Estimation Prep By: G. Gartrell

Useful Life > 20Yrs No

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



WWP - WTP Sanitary Survey Improvements

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | 45 | 49 | 49 | 49 | 49 | 247 |

Phase Tasks and Dates

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/1/2017 | 90 | 6/30/2017 |
| Procurement | 7/1/2017 | 365 | 7/1/2018 |
| Project Execution | 7/2/2018 | 3637 | 6/16/2028 |
| Project Closeout | 6/17/2028 | 90 | 9/15/2028 |

PROJECT PRIORITIZATION SCORING



WWP - WTP Sanitary Survey Improvements

Project Manager Score

Review Committee Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 1 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 3 | |
| O&M | 1 | |
| Public Health & Safety | 3 | |
| Public Benefit | 1 | |
| Financial | 1 | |
| Efficiency and Innovation | 1 | |

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2019 | | | | 45 | 49 | 49 | 49 | 49 | 247 | 488 |

CIP 171400: Energy Management Program at All Water Facilities



New CIP# 171400

Old CIP#

Energy Management Program @ All Water Facilities

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title **Energy Management Program @ All Water Facilities**

Project Significance Existing lighting systems at most facilities are energy inefficient. Replacement with new, modern LED lighting type systems will reduce electrical usage and costs.

Year Added:

Date Original BCE Prepared: 1/5/2018

Date BCE Last Updated: 1/5/2018

Project Engineer/Manager: TBD

Title:

Phone:

Email:

Manager: Grant Gartrell

Managing Dept

CIP Type: Program

Budget: Water

Project Classification Level 1: Water

Project Classification Level 2: Programs

Project Classification Level 3: Programs

Project Location: Multiple Counties

Fund:

Cost Center:

PROJECT INFORMATION

Scope of Work: Replace existing lighting fixtures with new lighting fixtures at the water plants and water booster pumping stations.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project:



New CIP# **171400**

Old CIP#

Energy Management Program @ All Water Facilities

Phase Overview

Phase Title

Phase Category: DB

Budget: Water

Contract Number:

Phase Status: New

Start Date: 6/22/2019

End Date: 12/6/2030

Phase Cost Allocation: CTA

Phase Financial Source: I&E

Lookup Cost Est Class:

Cost Estimation Date: 12/13/2017

Cost Estimation Source: GLWA Engineering

Cost Estimation Prep By: Group

Useful Life > 20Yrs No

Comments:

Design and Build

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Energy Management Program @ All Water Facilities

New CIP# **171400**

Old CIP#

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|------|-----------------|
| | | | 520 | 693 | 693 | 5,094 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 6/22/2019 | 90 | 9/20/2019 |
| Procurement | 9/21/2019 | 365 | 9/20/2020 |
| Project Execution | 9/21/2020 | 3637 | 9/6/2030 |
| Project Closeout | 9/7/2030 | 90 | 12/6/2030 |

PROJECT PRIORITIZATION SCORING



Energy Management Program @ All Water Facilities

New CIP# **171400**

Old CIP#

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 2 | |
| Performance (Service Level/Reli | 1 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 3 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 3 | |
| Efficiency and Innovation | 3 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|------|-----------------|-------|
| 2019 | | | | | | 520 | 693 | 693 | 5,094 | 7,000 |

CIP 171500: Roof Replacement – Various Water Facilities



New CIP# 171500

Old CIP#

Roof Replacement - Various Water Facilities

PROJECT SUMMARY

- Innovation
- MP Right Sizing
- System Reliability

Project Status

New

Project Status Guide:

Active: One or more phases have started, including procurement
 New: First appearance in CIP
 Future Planned: No Phases have Started
 Cancelled-Closed: All Phases Have Officially Closed or Project Cancelled
 Pending Closeout: Project at Substantial Completion but not closed out
 Archived: Project closed or completed for more than one year
 Reclassified: Projects that have been merged with other projects

Project Title

Roof Replacement - Various Water Facilities

Project Significance These existing roofs are leaking and are beyond repair. Replacement is needed to protect building interiors and most importantly sensitive electrical equipment.

Year Added:

CIP Type: Program

Date Original BCE Prepared: 1/5/2018

Budget: Water

Date BCE Last Updated: 1/5/2018

Project Classification Level 1: Water

Project Engineer/Manager: TBD

Project Classification Level 2: Programs

Title:

Project Classification Level 3: Programs

Phone:

Project Location: Multiple Counties

Email:

Fund:

Manager: Grant Gartrell

Cost Center:

Managing Dept

PROJECT INFORMATION

Scope of Work: Replace existing roofs with new built-up roofing systems.

Project History:

Driver:

Challenges:

Other Important Info:

Related Project: CS-1674 ROOFING CONDITION ASSESSMENT CONTRACT.



Roof Replacement - Various Water Facilities

Phase Overview

Phase Title Phase 758522114 - Roof replacement at LH-WTP, SW-WTP, WWP-WTP, Imlay and Franklin Booster Stations

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date: 1/23/2018

End Date: 7/22/2020

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date: 12/9/2016

Cost Estimation Source: CS-1674 roofing CA contract

Cost Estimation Prep By: Testing Engineers & Consultants

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Phase 1252759899 - Roof replacement at LH-WTP, SW-WTP, Orion & North Service Center Booster Stations

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



New CIP# 171500

Old CIP#

Roof Replacement - Various Water Facilities

Phase Overview

Phase Title Phase 464631552 - Roof replacement at LH-WTP, NE-WTP, WWP-WTP, Ford Road, Northwest, EastSide, Newburgh, Rochester, Schoolcraft and Ypsilanti Booster Stations

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Roof Replacement - Various Water Facilities

Phase Overview

Phase Title Phase 1218915073 - Roof replacement at LH-WTP, SW-WTP, WWP-WTP, Imlay Booster Station and Franklin Booster Station (1)

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM

Phase Overview

Phase Title Phase 1900377390 - Roof replacement at LH-WTP, SW-WTP, WWP-WTP, Imlay Booster Station and Franklin Booster Station (2)

Phase Category: DB

Design and Build

Budget: Water

Contract Number:

Phase Status: New

Start Date:

End Date:

Phase Cost Allocation: CTA

Phase Financial Source: DE

Lookup Cost Est Class:

Cost Estimation Date:

Cost Estimation Source:

Cost Estimation Prep By:

Useful Life > 20Yrs Yes

Comments:

PPAT (Phase Program/Allowance Task) Information

PPAT CIP Number

PPAT SOW

Change PPAT PM



Roof Replacement - Various Water Facilities

New CIP#

Old CIP#



Roof Replacement - Various Water Facilities

ALL PHASES TOTAL

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond |
|------|------|------|------|------|-------|-----------------|
| | 111 | 986 | 210 | 24 | 1,159 | 24,756 |

Phase Tasks and Dates

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2030 | 90 | 6/29/2030 |
| Procurement | 6/30/2030 | 365 | 6/30/2031 |
| Project Execution | 7/1/2031 | 1455 | 6/25/2035 |
| Project Closeout | 6/26/2035 | 90 | 9/24/2035 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2026 | 90 | 6/29/2026 |
| Procurement | 6/30/2026 | 365 | 6/30/2027 |
| Project Execution | 7/1/2027 | 1455 | 6/25/2031 |
| Project Closeout | 6/26/2030 | 90 | 9/24/2030 |

| | |
|----------------|-------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | |
| Cost Est Class | |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 4/2/2022 | 90 | 7/1/2022 |
| Procurement | 7/2/2022 | 365 | 7/2/2023 |
| Project Execution | 7/3/2023 | 1453 | 6/25/2027 |
| Project Closeout | 6/26/2027 | 90 | 9/24/2027 |



Roof Replacement - Various Water Facilities

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 3/31/2018 | 90 | 6/29/2018 |
| Procurement | 6/30/2018 | 365 | 6/30/2019 |
| Project Execution | 7/1/2019 | 1453 | 6/23/2023 |
| Project Closeout | 6/24/2023 | 90 | 9/22/2023 |

| | |
|----------------|----------------------|
| Phase Category | DB |
| Budget | Water |
| Phase Status | New |
| Contract No | <input type="text"/> |
| Cost Est Class | <input type="text"/> |

Design and Build

| Task Name | Start Date | Duration | End Date |
|-------------------|------------|----------|-----------|
| Scope Development | 1/23/2018 | 90 | 4/23/2018 |
| Procurement | 4/24/2018 | 365 | 4/24/2019 |
| Project Execution | 4/25/2019 | 363 | 4/22/2020 |
| Project Closeout | 4/23/2020 | 90 | 7/22/2020 |

PROJECT PRIORITIZATION SCORING

Project Manager Score

| Criteria | Score | Score Comment |
|---------------------------------|-------|---------------|
| Condition | 5 | |
| Performance (Service Level/Reli | 3 | |
| Regulatory (Environmental/Lega | 1 | |
| O&M | 3 | |
| Public Health & Safety | 1 | |
| Public Benefit | 1 | |
| Financial | 2 | |
| Efficiency and Innovation | 1 | |

Review Committee Score

Describe Here the Changes from the 2018 CIP to 2019 CIP



Roof Replacement - Various Water Facilities

New CIP# **171500**

Old CIP#

| CIP Version | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 and Beyond | Total |
|-------------|------|------|------|------|------|------|------|-------|-----------------|--------|
| 2019 | | | | 111 | 986 | 210 | 24 | 1,159 | 24,756 | 27,246 |



GLWA
Great Lakes Water Authority

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