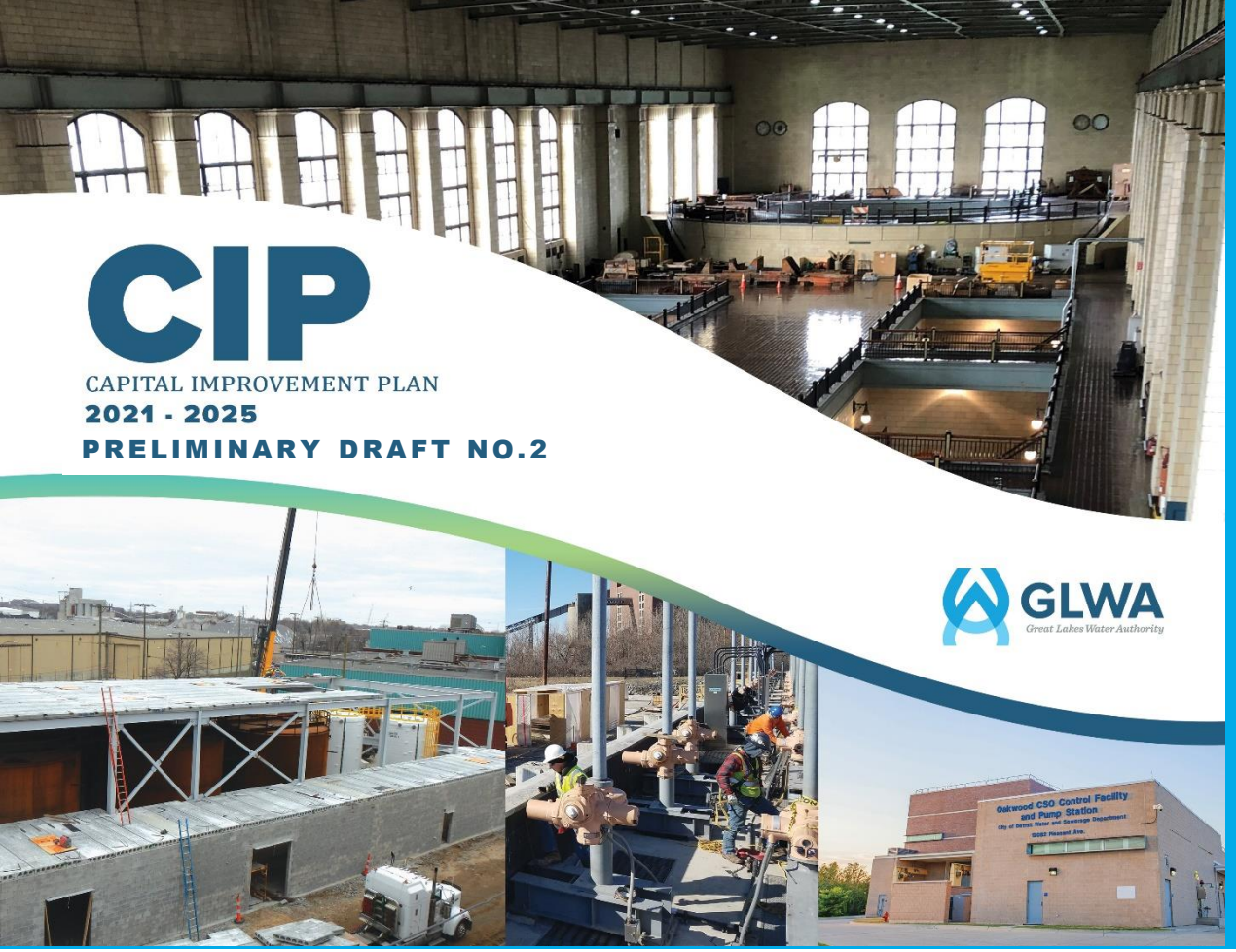



# GLWA's 2021 – 2025 Capital Improvement Plan

*GLWA Board Meeting*

*January 22, 2020, 6:00 p.m.*

GLWA
Great Lakes Water Authority

# OVERVIEW: Capital Improvement Plan?

- Five-year planning document with a 10-year outlook
- Requires alignment with our overall Financial Plan
- Stakeholder Input – Opportunities for Board, Member Partners & vendor community to provide input during development
- Compilation of projects from all areas of the organization
- Increased redundancy, reliability & resiliency of assets

The goal of the plan is to provide regional collaboration & planning to minimize capital expenditures while providing **the best water & sewer services to our member partners.**

GLWA
Great Lakes Water Authority

# CIP Features

# Robust Business Case Evaluation (BCE) for all projects

- Status
- Project score
- Problem Statement
- Description
- Schedule
- Projected expenditures

**CIP Number:** 216008
**Project Title** Rehabilitation of Screened Final Effluent (SFE) Pump Station

| | |
|---|---|
| **Project Status** | Future Planned |
| **Class Lvl 1** | Wastewater |
| **Class Lvl 2** | WRRF |
| **Class Lvl 3** | General Purpose |
| **Location** | City of Detroit |
| **Project Engineer/Manager** | TBD |
| **Director** | Dan Alford |

- [x] Innovation
- [ ] Conc. WW Master Plan
- [ ] Water MP Right Sizing
- [ ] Reliability/Redundancy
- [ ] NEWTP Repurposing
- [ ] **Project New To CIP**

**55.8**
**Project Score**

**Problem Statement** The SFE Pump Station provides SFE water to many of the GLWA WRRF treatment processes and needs to be completely rehabilitated to maintain uninterrupted supply of SFE water to these processes.

**Scope of Work / Project Alternatives** This project will include the study, design, and construction for the needed improvements to the SFE pump station. This includes required capacity, pumps, strainers, piping, controls, building improvements, and electrical supply. This will also include a study to evaluate the potential for replacing the secondary water utilization with SFE utilization where feasible and an alternative analysis to the existing carrier water at chlorination/dechlorination facility, seal water, recovery needs which may include additional SFE treatment such as chemical addition to accommodate process needs.

**Other Important Info** *Innovation note: optimize of a valuable resource recovered for facility needs. Project History: The SFE pump station has eight pumps with a total capacity of approximately 135 MGD. Pumps 1,2,4, and 6 were installed in 1973, pumps 3 and 5 in 1980, and pumps 7 and 8 in 1998. The older pumps were rebuilt in 1998. Strainers have been reconditioned as necessary over time. Due to the critical nature of the SFE pump station and the elapsed time since a major rehabilitation (over 15 years), a significant upgrade/rehabilitation is required. In addition, the two 5 kV transformers that supply power from EB-3 are approximately 40 years old and are in need of replacement.

Challenges: Maintaining the adequate supply of SFE to the plant treatment processes during construction of the SFE improvements.

**Project Expenses Compared to Previous CIP Versions (All figures are in $1,000's)**

| CIP Alias | FY16 | FY17 | FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | Total | 5-Yr Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2021 | 0 | 0 | 0 | 0 | 590 | 1,362 | 1,507 | 15,571 | 5,924 | 0 | 0 | 24,954 | 24,364 |
| 2020 | 0 | 0 | | 51 | 1,091 | 991 | 9,475 | 7,805 | 5,535 | | 0 | 24,948 | 24,897 |



GLWA Great Lakes Water Authority

# Chapter 4 – Multiple types of informative project tables and information

## SECTION 3 5-YEAR CIP SUMMARY TABLES

The Great Lakes Water Authority 2021-2025 Capital Improvement Plan overall summary tables can be seen below. Please note that projected expenses and project categories shown in Table IV-14 (Centralized Services) are also included in Table IV-12. Water CIP Categories and Table IV-13. Wastewater CIP Categories.

**Table IV-12. Water CIP Categories**

Financial figures are in thousands of dollars ($1,000's).

| Category | Category Number | Lifetime Actual Thru FY 2019 (Unaudited) | FY 2020 | FY 2021 | FY 2022 | FY 2023 | FY 2024 | FY 2025 | FY 2026 & Beyond | 2021-2025 CIP Total | Project Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Water | | | | | | | | | | | |
| Treatment Plants & Facilities | | | | | | | | | | | |
| Lake Huron | 111 | $ 11,226 | $ 10,260 | $ 7,160 | $ 5,538 | $ 25,046 | $ 29,525 | $ 23,203 | $ 19,786 | $ 90,472 | $ 131,744 |
| Northeast | 112 | 1,152 | 939 | 3,869 | 3,040 | 889 | 1,228 | 2,383 | 53,914 | 11,409 | 67,414 |
| Southwest | 113 | 3,266 | 2,348 | 1,354 | 2,238 | 2,238 | 17 | 0 | 14,412 | 5,847 | 25,873 |
| Springwells | 114 | 118,841 | 23,861 | 28,653 | 25,132 | 25,403 | 34,174 | 31,213 | 187,652 | 144,575 | 474,929 |
| Water Works Park | 115 | 8,960 | 2,687 | 7,461 | 16,959 | 24,017 | 21,262 | 8,836 | 5,643 | 78,535 | 95,825 |
| General Purpose | 116 | 10,200 | 653 | 14,138 | 21,917 | 8,810 | 5,527 | 0 | 0 | 50,392 | 61,245 |
| **Treatment Plants & Facilities Total** | | **153,645** | **40,748** | **62,635** | **74,824** | **86,403** | **91,733** | **65,635** | **281,407** | **381,230** | **857,030** |
| Field Services | | | | | | | | | | | |
| General Purpose | 121 | - | - | - | - | - | - | - | - | - | - |
| Transmission System | 122 | 52,751 | 23,057 | 48,702 | 67,859 | 75,612 | 75,075 | 78,580 | 213,270 | 345,828 | 634,906 |
| **Field Services Total** | | **52,751** | **23,057** | **48,702** | **67,859** | **75,612** | **75,075** | **78,580** | **213,270** | **345,828** | **634,906** |
| SCC | | | | | | | | | | | |
| General Purpose | 131 | - | - | - | - | - | - | - | - | - | - |
| Pump Station/Reservoir | 132 | 3,150 | 5,792 | 12,018 | 16,185 | 21,196 | 26,958 | 23,841 | 83,244 | 100,198 | 192,384 |
| **SCC Total** | | **3,150** | **5,792** | **12,018** | **16,185** | **21,196** | **26,958** | **23,841** | **83,244** | **100,198** | **192,384** |
| Water Quality | | | | | | | | | | | |
| General Purpose | 141 | - | - | - | - | - | - | - | - | - | - |
| **Water Quality Total** | | - | - | - | - | - | - | - | - | - | - |
| Metering | | | | | | | | | | | |
| General Purpose | 151 | - | - | - | - | - | - | - | - | - | - |
| **Metering Total** | | - | - | - | - | - | - | - | - | - | - |
| General Purpose | | | | | | | | | | | |
| General Purpose | 161 | - | - | - | - | - | - | - | - | - | - |
| **General Purpose Total** | | - | | - | - | - | - | - | - | - | - |
| Programs | | | | | | | | | | | |
| Programs | 170 | 22,037 | 16,085 | 19,426 | 18,199 | 18,429 | 19,001 | 24,683 | 131,276 | 99,738 | 269,136 |

**Table IV-13. Wastewater CIP Categories**

Financial figures are in thousands of dollars ($1,000's).

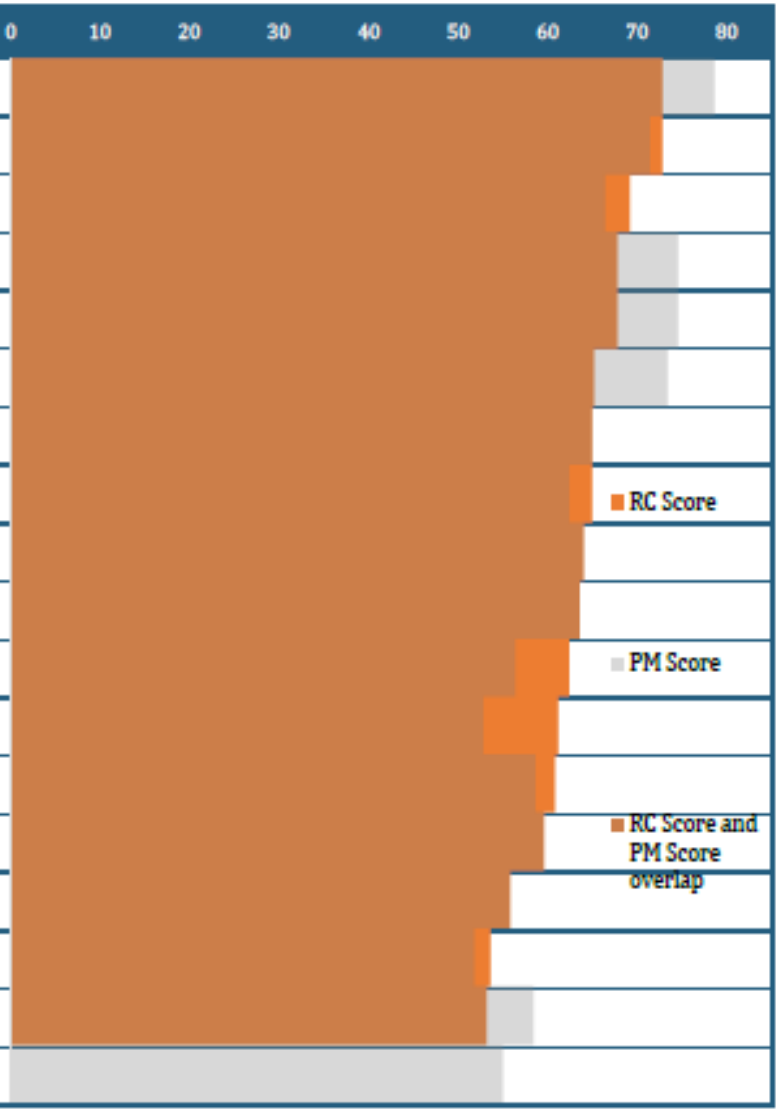
| Category | Category Number | Lifetime Actual Thru FY 2019 (Unaudited) |
|---|---|---|
| Wastewater | | |
| WRRF | | |
| Primary Treatment | 211 | $ 73,669 |
| Secondary Treatment & Disinfection | 212 | 58,238 |
| Residuals Management | 213 | 9,357 |
| IWC | 214 | 2,301 |
| CSO RTB & SDF | 215 | - |
| General Purpose | 216 | 1,556 |
| **WRRF Total** | | **145,121** |
| Field Services | | |
| General Purpose | 221 | - |
| Interceptors | 222 | 10,596 |
| **Field Services Total** | | **10,596** |

GLWA Great Lakes Water Authority

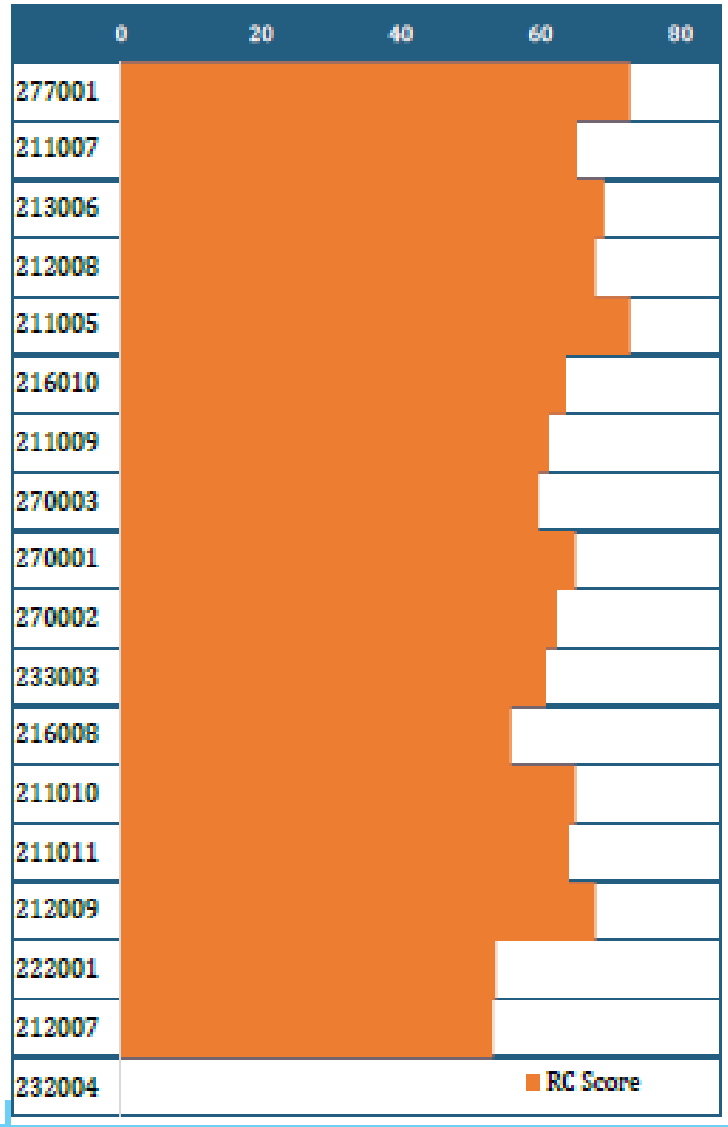
# Chapter 5 – Overall project prioritization/consequence & probability of failure

## SECTION 4 PROJECT MANAGER CRITERIA SCORES: WASTEWATER

| Rank | CIP No. | Title |
|---|---|---|
| 1 | 211005 | WRRF PS No. 2 Improvements Phase II |
| 2 | 277001 | Baby Creek Outfall Improvements Project |
| 3 | 213006 | WRRF Improvements to Sludge Feed Pumps at Dewatering Facilities |
| 4 | 212008 | WRRF Aeration Improvements 1 and 2 |
| 5 | 212009 | WRRF Aeration Improvements 3 and 4 |
| 6 | 211007 | WRRF PS #2 Bar Racks Replacements and Grit Collection System... |
| 7 | 211010 | Rehabilitation of Sludge Processing Complexes A and B |
| 8 | 270001 | Pilot CSO Netting Facility |
| 9 | 211011 | WRRF PS1 Screening and Grit Improvements |
| 10 | 216010 | WRRF Facility Optimization |
| 11 | 270002 | Meldrum Sewer Diversion and VR-15 Improvements |
| 12 | 211009 | WRRF Rehabilitation of the Circular Primary Clarifier Scum Removal... |
| 13 | 233003 | Rouge River In-system Storage Devices |
| 14 | 270003 | Long Term CSO Control Plan |
| 15 | 216008 | Rehabilitation of Screened Final Effluent (SFE) Pump Station |
| 16 | 222001 | Oakwood District Intercommunity Relief Sewer Modification at... |
| 17 | 212007 | WRRF Rehabilitation of the Secondary Clarifiers |
| 18 | 232004 | Condition Assessment at Blue Hill Pump Station |



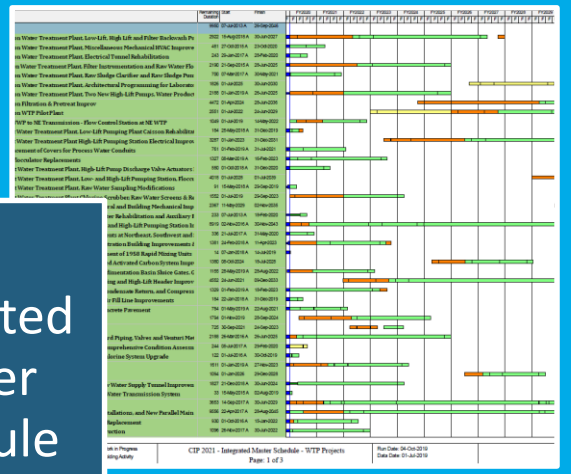

## BCE PRIORITIZATION SCHEDULE ALIGNMENT



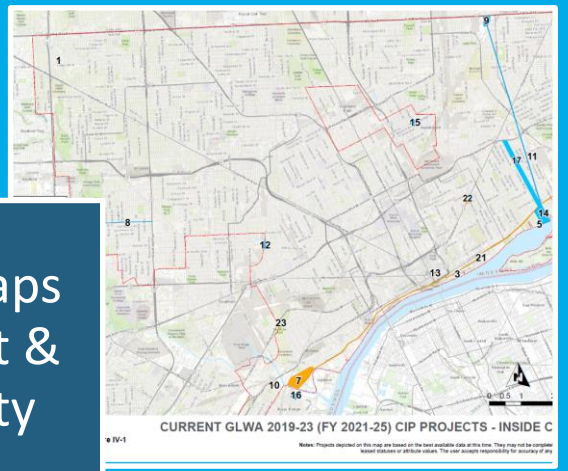
# New CIP Features

GLWA
Great Lakes Water Authority

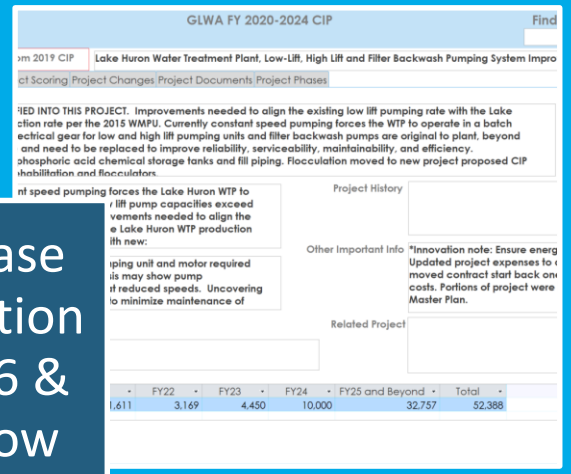
IMS Integrated Master Schedule

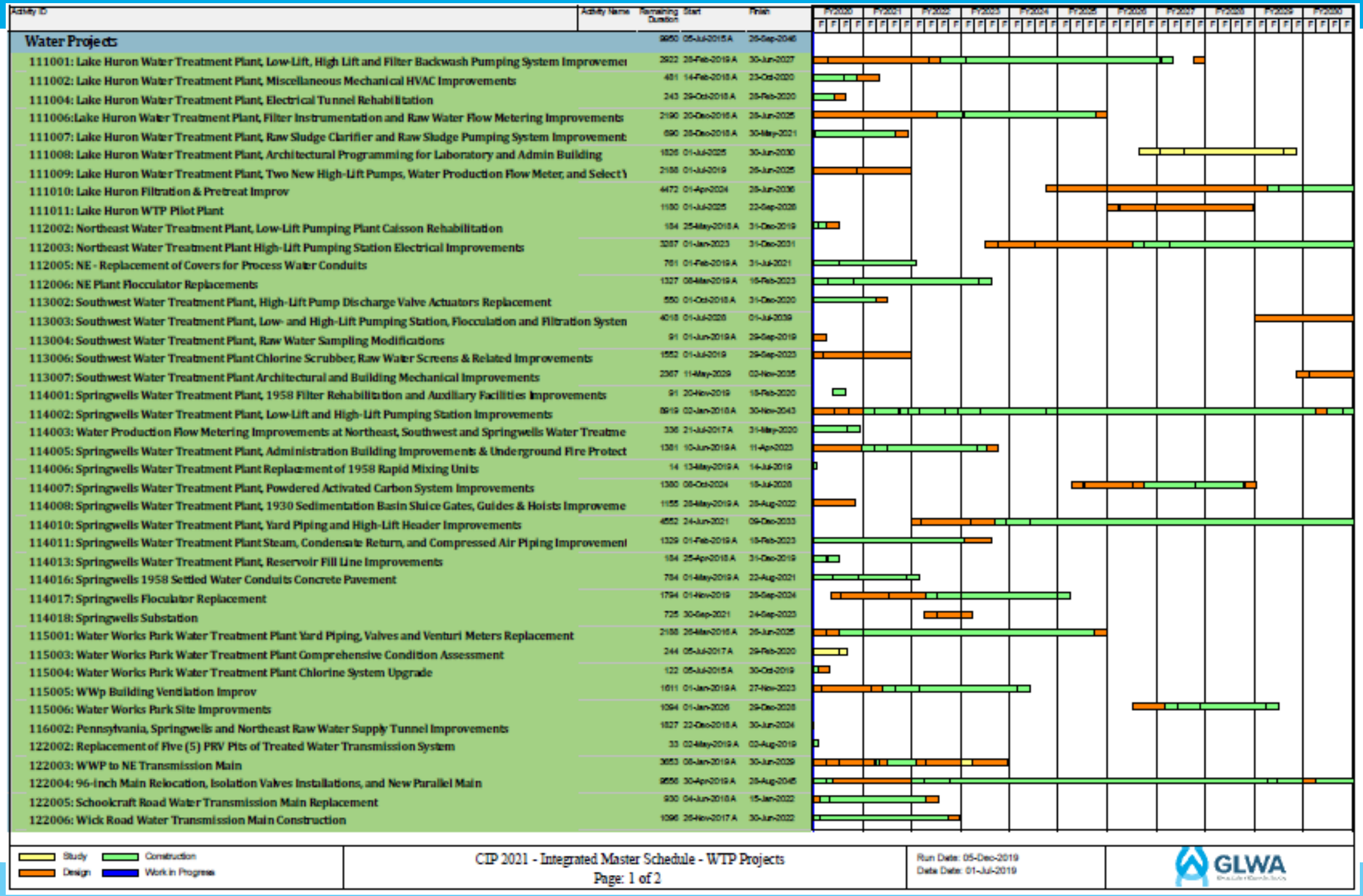


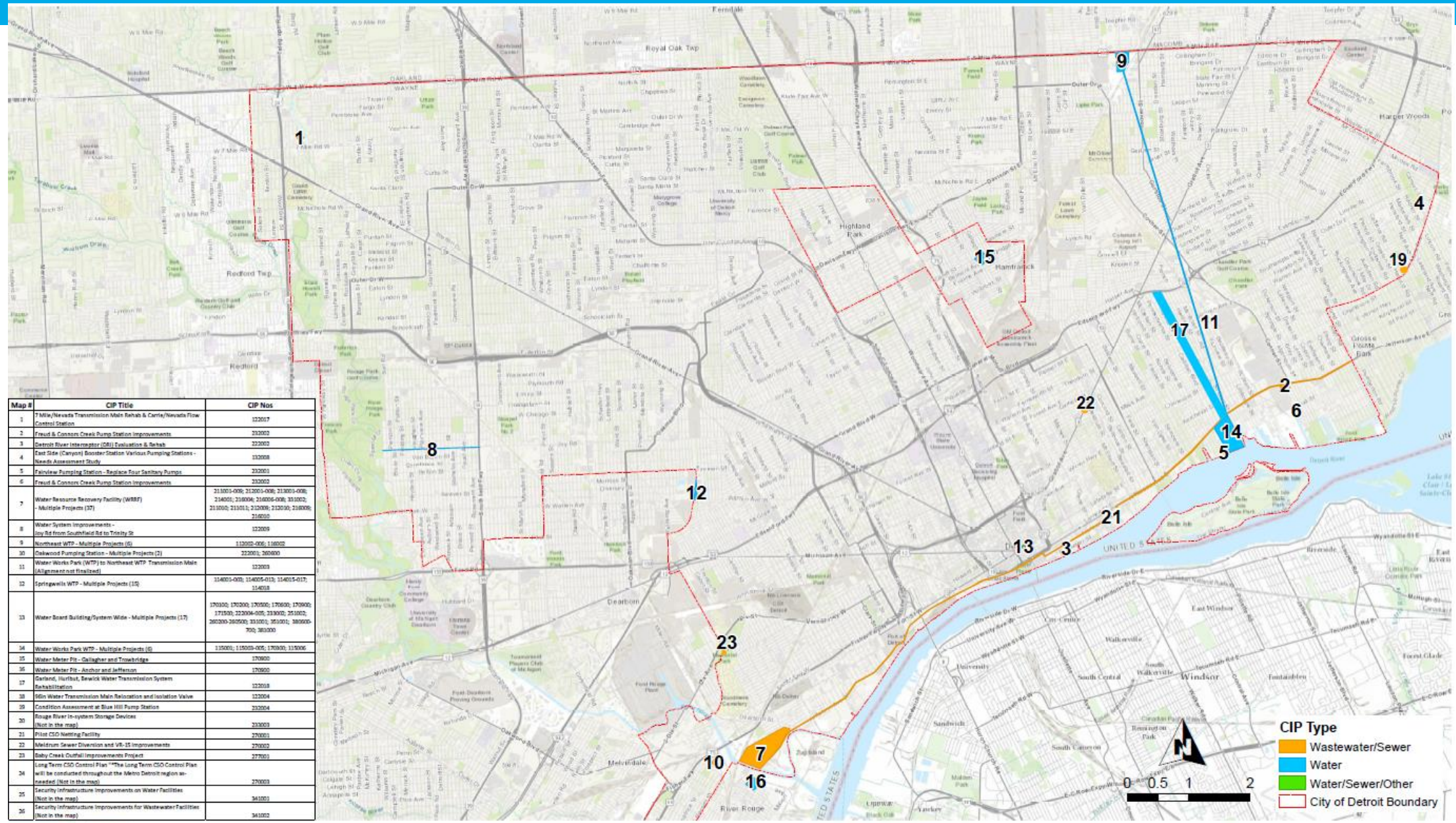
GIS Maps Detroit & County




Database Integration with P6 & cashflow




Activity ID
Activity Name
Remaining Duration
Start
Finish
FY2020
FY2021
FY2022
FY2023
FY2024
FY2025
FY2026
FY2027
FY2028
FY2029
FY2030
Water Projects
111001: Lake Huron Water Treatment Plant, Low-Lift, High Lift and Filter Backwash Pumping System Improveme
111002: Lake Huron Water Treatment Plant, Miscellaneous Mechanical HVAC Improvements
111004: Lake Huron Water Treatment Plant, Electrical Tunnel Rehabilitation
111006:Lake Huron Water Treatment Plant, Filter Instrumentation and Raw Water Flow Metering Improvements
111007: Lake Huron Water Treatment Plant, Raw Sludge Clarifier and Raw Sludge Pumping System Improvement
111008: Lake Huron Water Treatment Plant, Architectural Programming for Laboratory and Admin Building
111009: Lake Huron Water Treatment Plant, Two New High-Lift Pumps, Water Production Flow Meter, and Select \
111010: Lake Huron Filtration & Pretreat Improv
111011: Lake Huron WTP Pilot Plant
112002: Northeast Water Treatment Plant, Low-Lift Pumping Plant Caisson Rehabilitation
112003: Northeast Water Treatment Plant High-Lift Pumping Station Electrical Improvements
112005: NE - Replacement of Covers for Process Water Conduits
112006: NE Plant Flocculator Replacements
113002: Southwest Water Treatment Plant, High-Lift Pump Discharge Valve Actuators Replacement
113003: Southwest Water Treatment Plant, Low- and High-Lift Pumping Station, Flocculation and Filtration Systen
113004: Southwest Water Treatment Plant, Raw Water Sampling Modifications
113006: Southwest Water Treatment Plant Chlorine Scrubber, Raw Water Screens & Related Improvements
113007: Southwest Water Treatment Plant Architectural and Building Mechanical Improvements
114001: Springwells Water Treatment Plant, 1958 Filter Rehabilitation and Auxiliary Facilities Improvements
114002: Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements
114003: Water Production Flow Metering Improvements at Northeast, Southwest and Springwells Water Treatme
114005: Springwells Water Treatment Plant, Administration Building Improvements & Underground Fire Protect
114006: Springwells Water Treatment Plant Replacement of 1958 Rapid Mixing Units
114007: Springwells Water Treatment Plant, Powdered Activated Carbon System Improvements
114008: Springwells Water Treatment Plant, 1930 Sedimentation Basin Sluice Gates, Guides & Hoists Improveme
114010: Springwells Water Treatment Plant, Yard Piping and High-Lift Header Improvements
114011: Springwells Water Treatment Plant Steam, Condensate Return, and Compressed Air Piping Improvement
114013: Springwells Water Treatment Plant, Reservoir Fill Line Improvements
114016: Springwells 1958 Settled Water Conduits Concrete Pavement
114017: Springwells Floculator Replacement
114018: Springwells Substation
115001: Water Works Park Water Treatment Plant Yard Piping, Valves and Venturi Meters Replacement
115003: Water Works Park Water Treatment Plant Comprehensive Condition Assessment
115004: Water Works Park Water Treatment Plant Chlorine System Upgrade
115005: WWp Building Ventilation Improv
115006: Water Works Park Site Improvments
116002: Pennsylvania, Springwells and Northeast Raw Water Supply Tunnel Improvements
122002: Replacement of Five (5) PRV Pits of Treated Water Transmission System
122003: WWP to NE Transmission Main
122004: 96-inch Main Relocation, Isolation Valves Installations, and New Parallel Main
122005: Schoolcraft Road Water Transmission Main Replacement
122006: Wick Road Water Transmission Main Construction
Study
Design
Construction
Work in Progress
CIP 2021 - Integrated Master Schedule - WTP Projects
Page: 1 of 2
Run Date: 05-Dec-2019
Data Date: 01-Jul-2019
GLWA



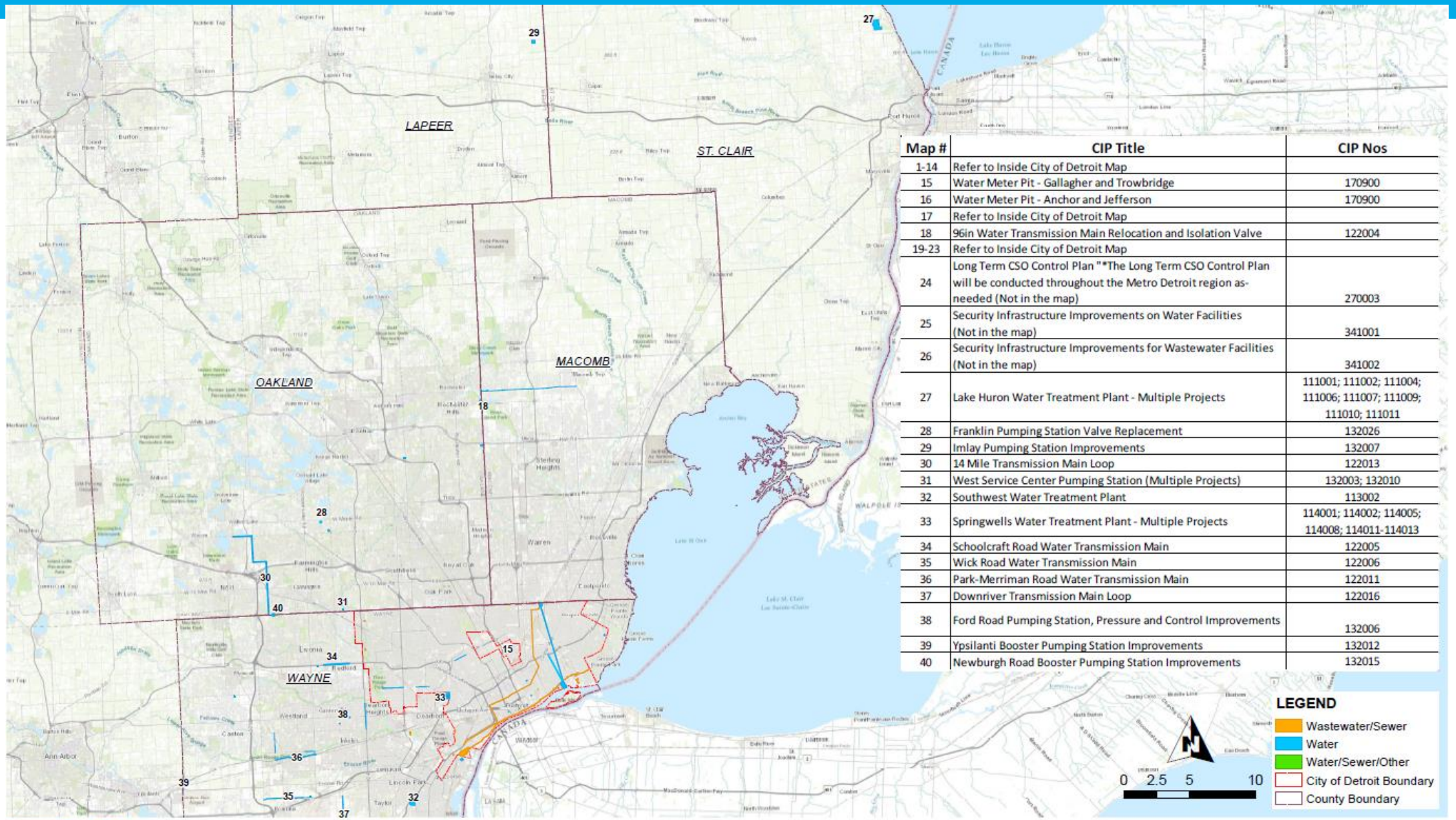

| Map # | CIP Title | CIP Nos |
|---|---|---|
| 1 | 7 Mile/Nevada Transmission Main Rehab & Carrie/Nevada Flow Control Station | 122007 |
| 2 | Freud & Connors Creek Pump Station Improvements | 232002 |
| 3 | Detroit River Interceptor (DRI) Evaluation & Rehab | 222002 |
| 4 | East Side (Canyon) Booster Station Various Pumping Stations - Needs Assessment Study | 132008 |
| 5 | Fairview Pumping Station - Replace Four Sanitary Pumps | 232001 |
| 6 | Freud & Connors Creek Pump Station Improvements | 232002 |
| 7 | Water Resource Recovery Facility (WRRF) - Multiple Projects (37) | 213001-009; 212001-008; 213001-008; 214001; 216004; 216006-008; 351002; 211002; 211011; 212009; 212010; 216009; 216010 |
| 8 | Water System Improvements - Joy Rd from Southfield Rd to Trinity St | 122009 |
| 9 | Northeast WTP - Multiple Projects (6) | 112002-006; 116002 |
| 10 | Oakwood Pumping Station - Multiple Projects (2) | 222001; 260600 |
| 11 | Water Works Park (WTP) to Northeast WTP Transmission Main (Alignment not finalized) | 122003 |
| 12 | Springwells WTP - Multiple Projects (13) | 114001-003; 114005-013; 114015-017; 114018 |
| 13 | Water Board Building/System Wide - Multiple Projects (17) | 170100; 170200; 170500; 170600; 170900; 171500; 232004-005; 233002; 351002; 380200-380500; 331001; 351001; 380000-700; 380300 |
| 14 | Water Works Park WTP - Multiple Projects (6) | 115001; 115003-005; 170300; 115006 |
| 15 | Water Meter Pit - Gallagher and Trowbridge | 170800 |
| 16 | Water Meter Pit - Anchor and Jefferson | 170900 |
| 17 | Garland, Hurlbut, Bewick Water Transmission System Rehabilitation | 122010 |
| 18 | 96in Water Transmission Main Relocation and Isolation Valve | 122004 |
| 19 | Condition Assessment at Blue Hill Pump Station | 232004 |
| 20 | Rouge River In-system Storage Devices (Not in the map) | 233003 |
| 21 | Pilot CSO Netting Facility | 270001 |
| 22 | Meldrum Sewer Diversion and VR-15 Improvements | 270002 |
| 23 | Baby Creek Outfall Improvements Project | 277001 |
| 24 | Long Term CSO Control Plan **The Long Term CSO Control Plan will be conducted throughout the Metro Detroit region as-needed (Not in the map) | 270003 |
| 25 | Security Infrastructure Improvements on Water Facilities (Not in the map) | 341001 |
| 26 | Security Infrastructure Improvements for Wastewater Facilities (Not in the map) | 341002 |

GLWA Great Lakes Water Authority

**Figure IV-1**

## CURRENT GLWA 2019-23 (FY 2021-25) CIP PROJECTS - INSIDE CITY OF DETROIT

**Notes:** Projects depicted on this map are based on the best available data at this time. They may not be completely accurate including spatial representations, leased statuses or attribute values. The user accepts responsibility for accuracy of any referenced information, spatial or otherwise.




| Map # | CIP Title | CIP Nos |
|---|---|---|
| 1-14 | Refer to Inside City of Detroit Map | |
| 15 | Water Meter Pit - Gallagher and Trowbridge | 170900 |
| 16 | Water Meter Pit - Anchor and Jefferson | 170900 |
| 17 | Refer to Inside City of Detroit Map | |
| 18 | 96in Water Transmission Main Relocation and Isolation Valve | 122004 |
| 19-23 | Refer to Inside City of Detroit Map | |
| 24 | Long Term CSO Control Plan "*The Long Term CSO Control Plan will be conducted throughout the Metro Detroit region as-needed (Not in the map) | 270003 |
| 25 | Security Infrastructure Improvements on Water Facilities (Not in the map) | 341001 |
| 26 | Security Infrastructure Improvements for Wastewater Facilities (Not in the map) | 341002 |
| 27 | Lake Huron Water Treatment Plant - Multiple Projects | 111001; 111002; 111004; 111006; 111007; 111009; 111010; 111011 |
| 28 | Franklin Pumping Station Valve Replacement | 132026 |
| 29 | Imlay Pumping Station Improvements | 132007 |
| 30 | 14 Mile Transmission Main Loop | 122013 |
| 31 | West Service Center Pumping Station (Multiple Projects) | 132003; 132010 |
| 32 | Southwest Water Treatment Plant | 113002 |
| 33 | Springwells Water Treatment Plant - Multiple Projects | 114001; 114002; 114005; 114008; 114011-114013 |
| 34 | Schoolcraft Road Water Transmission Main | 122005 |
| 35 | Wick Road Water Transmission Main | 122006 |
| 36 | Park-Merriman Road Water Transmission Main | 122011 |
| 37 | Downriver Transmission Main Loop | 122016 |
| 38 | Ford Road Pumping Station, Pressure and Control Improvements | 132006 |
| 39 | Ypsilanti Booster Pumping Station Improvements | 132012 |
| 40 | Newburgh Road Booster Pumping Station Improvements | 132015 |

GLWA Great Lakes Water Authority

**Figure IV-2**

## CURRENT GLWA 2019-23 (FY 2021-25) CIP PROJECTS - ALL COUNTIES

**Notes:** Projects depicted on this map are based on the best available data at this time. They may not be completely accurate including spatial representations, leased statuses or attribute values. The user accepts responsibility for accuracy of any referenced information, spatial or otherwise.

GLWA
Great Lakes Water Authority

# Statistics

# New Projects

Table IV-1

19 Total: 6 Water, 12 Wastewater, 1 Centralized Services

| CIP# | Title |
|---|---|
| 111010 | Lake Huron Water Treatment Plant -Filtration and Pretreatment Improvements |
| 111011 | Lake Huron WTP Pilot Plant |
| 114018 | Springwells WTP - Service Building Electrical Substation & Misc. Improvements |
| 115006 | Water Works Park Site/Civil Improvements |
| 122018 | Garland, Hurlbut, Bewick Water Transmission System Rehabilitation |
| 132026 | Franklin Pumping Station Valve Replacement |
| 211010 | Rehabilitation of Sludge Processing Complexes A and B |
| 211011 | WRRF PS1 Screening and Grit Improvements |
| 212009 | WRRF Aeration Improvements 3 and 4 |
| 212010 | WRRF Conversion of Disinfection of all Flow to Sodium Hypo & Sodium Bisulfite |
| 216009 | Logistics & Material Facilities Assessment and Rehabilitation/Replacement |
| 216010 | WRRF Facility Optimization |
| 232004 | Condition Assessment at Blue Hill Pumps Station |
| 233003 | Rouge River In-system Storage Devices |
| 270001 | Pilot CSO Netting Facility |
| 270002 | Meldrum Sewer Diversion and VR-15 Improvements |
| 270003 | Long Term CSO Control Plan |
| 277001 | Baby Creek Outfall Improvements Project |
| 341001&2 | Security Infrastructure Improvements on Water & Wastewater Facilities |

# General Project Statistics:

| Table | Projects | Water | Wastewater | Centralized Services |
|---|---|---|---|---|
| IV-1 | New Projects | 6 | 12 | 1 |
| Database | [1]Total Projects | 71 | 41 | 7 |
| I-1 + I-2 | Five-year project totals greater than $30M | 9 | 9 | 0 |
| IV-6A | Water Master Plan right-sizing projects | 14 | 0 | 0 |
| IV-8 | Project necessary for Northeast Water Treatment Plant Repurposing | 7 | 0 | 0 |

**119** Total Projects

[1] *This excludes closed, cancelled and reclassified projects*

GLWA Great Lakes Water Authority

# Chapter 3 Project Phase Status:

**Table III-5. Project Status Analysis: Water**
Financial figures are in thousands of dollars ($1,000's).

| Phase Status | Projected Capital Expenditures FY21 | FY22 | FY23 | FY24 | FY25 | Total FY's 2021-2025 | Percent of Five Year Total |
|---|---|---|---|---|---|---|---|
| **Water** | | | | | | | |
| Active | $ 74,771 | $ 55,818 | $ 23,470 | $ 18,843 | $ 14,593 | $ 187,495 | 20.0% |
| Future Planned Start | 63,143 | 106,041 | 155,409 | 173,098 | 172,803 | 670,494 | 71.7% |
| Under Procurement | 9,650 | 18,059 | 23,013 | 20,912 | 5,788 | 77,422 | 8.3% |
| **Grand Total** | **$ 147,564** | **$ 179,918** | **$ 201,892** | **$ 212,853** | **$ 193,184** | **$ 935,411** | **100.0%** |

**Table III-6. Project Status Analysis: Wastewater**
Financial figures are in thousands of dollars ($1,000's).

| Phase Status | Projected Capital Expenditures FY21 | FY22 | FY23 | FY24 | FY25 | Total FY's 2021-2025 | Percent of Five Year Total |
|---|---|---|---|---|---|---|---|
| **Sewer** | | | | | | | |
| Active | $ 51,023 | $ 13,504 | $ 3,102 | $ 1,360 | $ 1,191 | $ 70,180 | 9.5% |
| Future Planned Start | 52,430 | 98,345 | 136,851 | 201,507 | 170,681 | 659,814 | 89.2% |
| Under Procurement | 7,185 | 908 | 890 | 391 | 67 | 9,441 | 1.3% |
| **Grand Total** | **$ 110,638** | **$ 112,757** | **$ 140,843** | **$ 203,258** | **$ 171,939** | **$ 739,435** | **100.0%** |

# Cost Allocation Summary:

**Table III-1. Cost Allocation: Water**
Financial figures are in thousands of dollars ($1,000's).

| Cost Allocation | Projected Capital Expenditures FY21 | FY22 | FY23 | FY24 | FY25 | Total FY's 2021-2025 | Percent of Five Year Total |
|---|---|---|---|---|---|---|---|
| **Water** | | | | | | | |
| Common-to-all | $ 145,029 | $ 177,383 | $ 200,753 | $ 212,732 | $ 193,064 | $ 928,961 | 99.3% |
| Suburban Only | 2,535 | 2,535 | 1,139 | 121 | 120 | 6,450 | 0.7% |
| **Grand Total** | **$ 147,564** | **$ 179,918** | **$ 201,892** | **$ 212,853** | **$ 193,184** | **$ 935,411** | **100.0%** |

**Table III-2. Cost Allocation: Wastewater**
Financial figures are in thousands of dollars ($1,000's).

| Cost Allocation | Projected Capital Expenditures FY21 | FY22 | FY23 | FY24 | FY25 | Total FY's 2021-2025 | Percent of Five Year Total |
|---|---|---|---|---|---|---|---|
| **Sewer** | | | | | | | |
| Common-to-all | $ 100,330 | $ 100,117 | $ 127,781 | $ 194,221 | $ 145,006 | $ 667,455 | 90.3% |
| CSO 83/17 | 10,308 | 12,640 | 13,062 | 9,037 | 26,933 | 71,980 | 9.7% |
| **Grand Total** | **$ 110,638** | **$ 112,757** | **$ 140,843** | **$ 203,258** | **$ 171,939** | **$ 739,435** | **9.7%** |

# FY2021-2025 WATER Summary

**FY2021-2025 CIP Summary Water** *All Figures are in $1,000's*

| CIP Document | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY 2025 | 5-Year Total | 5-year average | 10-year average |
|---|---|---|---|---|---|---|---|---|---|
| CIP FY2021-2025 Preliminary Draft #2 | NA | 147,564 | 179,918 | 201,892 | 212,853 | 193,184 | **935,411** | 187,082 | 171,687 |
| Approved CIP FY 2020-2024 | 143,247 | 166,599 | 182,595 | 169,006 | 190,866 | NA | **852,313** | 170,463 | 180,444 |
| Difference ($) | NA | (19,035) | (2,677) | 32,886 | 21,987 | NA | **83,098** | 16,620 | (8,757) |
| Difference (%) | NA | -11% | -1% | 19% | 12% | NA | **10%** | 10% | -5% |

GLWA Great Lakes Water Authority

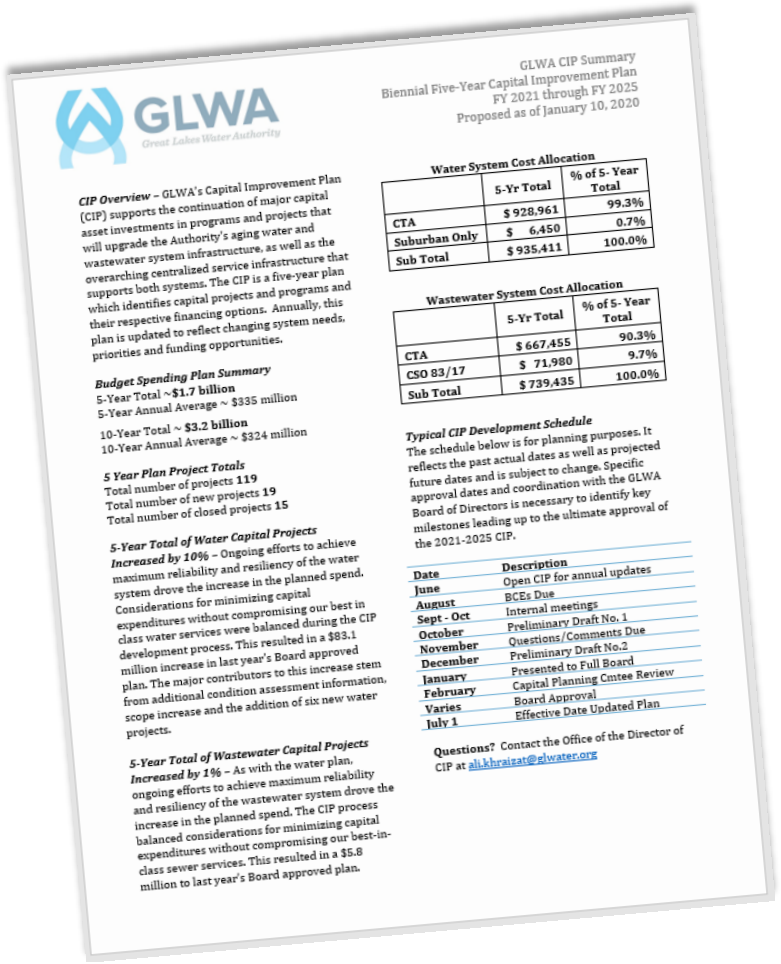
# FY2021-2025 WASTEWATER Summary

**FY2021-2025 CIP Summary Wastewater** *All Figures are in $1,000's*

| CIP Document | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY 2025 | 5-Year Total | 5-year average | 10-year average |
|---|---|---|---|---|---|---|---|---|---|
| CIP FY2021-2025 Preliminary Draft #2 | NA | 110,640 | 112,758 | 140,841 | 203,259 | 171,938 | **739,436** | 147,887 | 152,293 |
| Approved CIP FY 2020-2024 | 161,480 | 132,430 | 150,177 | 159,384 | 130,159 | NA | **733,630** | 146,726 | 152,293 |
| Difference ($) | NA | (21,790) | (37,419) | (18,543) | 73,100 | NA | **5,806** | 1,161 | - |
| Difference (%) | NA | -16% | -25% | -12% | 56% | NA | **1%** | 1% | 0% |

GLWA Great Lakes Water Authority

# New One Page Summary



GLWA
Great Lakes Water Authority

GLWA CIP Summary
Biennial Five-Year Capital Improvement Plan
FY 2021 through FY 2025
Proposed as of January 10, 2020

***CIP Overview*** – GLWA's Capital Improvement Plan (CIP) supports the continuation of major capital asset investments in programs and projects that will upgrade the Authority's aging water and wastewater system infrastructure, as well as the overarching centralized service infrastructure that supports both systems. The CIP is a five-year plan which identifies capital projects and programs and their respective financing options. Annually, this plan is updated to reflect changing system needs, priorities and funding opportunities.

***Budget Spending Plan Summary***
5-Year Total ~ **$1.7 billion**
5-Year Annual Average ~ $335 million

10-Year Total ~ **$3.2 billion**
10-Year Annual Average ~ $324 million

***5 Year Plan Project Totals***
Total number of projects **119**
Total number of new projects **19**
Total number of closed projects **15**

***5-Year Total of Water Capital Projects Increased by 10%*** – Ongoing efforts to achieve maximum reliability and resiliency of the water system drove the increase in the planned spend. Considerations for minimizing capital expenditures without compromising our best in class water services were balanced during the CIP development process. This resulted in a $83.1 million increase in last year's Board approved plan. The major contributors to this increase stem from additional condition assessment information, scope increase and the addition of six new water projects.

***5-Year Total of Wastewater Capital Projects Increased by 1%*** – As with the water plan, ongoing efforts to achieve maximum reliability and resiliency of the wastewater system drove the increase in the planned spend. The CIP process balanced considerations for minimizing capital expenditures without compromising our best-in-class sewer services. This resulted in a $5.8 million to last year's Board approved plan.

**Water System Cost Allocation**

| | 5-Yr Total | % of 5- Year Total |
|---|---|---|
| CTA | $ 928,961 | 99.3% |
| Suburban Only | $ 6,450 | 0.7% |
| Sub Total | $ 935,411 | 100.0% |

**Wastewater System Cost Allocation**

| | 5-Yr Total | % of 5- Year Total |
|---|---|---|
| CTA | $ 667,455 | 90.3% |
| CSO 83/17 | $ 71,980 | 9.7% |
| Sub Total | $ 739,435 | 100.0% |

***Typical CIP Development Schedule***
The schedule below is for planning purposes. It reflects the past actual dates as well as projected future dates and is subject to change. Specific approval dates and coordination with the GLWA Board of Directors is necessary to identify key milestones leading up to the ultimate approval of the 2021-2025 CIP.

| Date | Description |
|---|---|
| June | Open CIP for annual updates |
| August | BCEs Due |
| Sept - Oct | Internal meetings |
| October | Preliminary Draft No. 1 |
| November | Questions/Comments Due |
| December | Preliminary Draft No.2 |
| January | Presented to Full Board |
| February | Capital Planning Cmtee Review |
| Varies | Board Approval |
| July 1 | Effective Date Updated Plan |

**Questions?** Contact the Office of the Director of CIP at ali.khraizat@glwater.org

GLWA
Great Lakes Water Authority

# Questions

GLWA

*Great Lakes Water Authority*

# Have a Great Day!