



Date: January 13/2023

RE: FY24-28 CIP-PUBLIC COMMENTS- Discussion Draft #1 Questions & Answers

Feedback and comments were received on discussion Draft 1 FY 24-28 CIP while GLWA was finalizing Discussion Draft 2. This document compiles a summary of the questions/comments received during the public comments period along with GLWA responses. This document along with material presented on Discussion Draft 2 to the Capital Planning Committee on January 18, 2023, provides basis for Discussion Draft 2 FY 24-28 CIP. Please forward any questions related to the summary below to CIP@GLWATER.org

FY24-28 Discussion Draft #1 & Draft 2 Timelines:

- Discussion Draft #2 Capital Planning Committee Meeting: October 18, 2022
- Discussion Draft #1 Release Date: October 18, 2022
- Public Comments Due Date: November 18, 2022
- Discussion Draft #2 Capital Planning Committee Meeting: January 18, 2023
- Discussion Draft #2 Release Date: January 19, 2023

Questions/Comments Received (Source):

- A. City of Detroit Meeting on October 28, 2022 (6 questions/comments)
- B. CIP workgroup meeting Nov 15, 2022 (2 questions/comments)
- C. City of Detroit letter dated Nov 18, 2022 (1 question/comment)
- D. City of Dearborn letter dated Nov 18, 2022 (4 questions/comments)
- E. Jeff McKeen, SOCWA email dated November 30, 2022 (3 questions/comments)

Major Areas of Concern:

- CIP #222001 Oakwood District Intercommunity Relief Sewer
- CIP #170601 Linear System Integrity Program (LSIP)
- Aging Water Transmission Mains
- Jefferson Chalmers Project
- Springwells Water Treatment Plant (WTP)
- CIP projects prioritization process
- CIP alignment with the Financial Plan and related bonding
- Northeast WTP repurposing

GLWA Response to Questions Summary:

- I. **CIP 222001 Oakwood District Intercommunity Relief Sewer Modification at Oakwood District**

Questions/Comments (Source A and B):

- 1. To advance the Oakwood relief sewer project, do we need a 50% Loan or Loan Forgiveness?**
- 2. In relation to the Oakwood relief sewer project, where did flood risk fit into the analysis?**
- 3. Why was the Meldrum project delayed 2 yrs. while Oakwood 6 yrs.?**
- 4. Oakwood will reduce the Hydraulic Grade Line (HGL) by 7-8 feet, why is it delayed?**

GLWA's Response:

The questions and comments related to the Oakwood Project (CIP#222001) delay reflect this project's importance to impacted Member Partner communities. We understand that this project is also important to the Michigan Department of Environment, Great Lakes, and Energy. GLWA has included this project in the CIP because we consider it an important project as well. It remains in the CIP. However, as a system improvement, this project has been delayed due to the need to address higher priority projects necessary to maintain system operations and its specific financial impact to the CIP. GLWA has done a detailed review and evaluation of the technical aspects and benefits of the Oakwood Project related to hydraulic grade impacts. The primary benefit of the project is water quality with some, albeit limited, flood risk mitigation benefits. Because these benefits are important, the project is a priority for us, however, we are constrained by cost. We are looking for additional financial resources (American Rescue Plan Act, Clean Water State Revolving Fund principal loan forgiveness, etc.) and/or community partner contributions that would enable us to pull the project forward while meeting our Financial Plan commitments. If our efforts to secure significant additional funding are successful, we hope to be able to reconsider the timing of this important project.

Additional comments received were related to reasons why Meldrum was being postponed by two years while Oakwood was postponed by six years. It is important to note the significant difference between Meldrum and Oakwood's estimated budgets (Meldrum ~\$5 Million vs Oakwood ~\$79 M). The Meldrum budget allowed for more flexibility in cost distribution.

CIP Projects Prioritization Process and Criteria:

Questions/Comments (Source A):

- 1. What is the driver behind the CIP project delayed starts (4% promise or bond rating)?**
- 2. How are the projects in the CIP ranked and adjusted?**
- 3. Were any projects adjusted that may be impacted by EGLE requirements?**

GLWA's Response:

Affordability and sustainability were primary concerns in establishing the regional water authority. The mechanism to address those concerns was the "4% Promise" as established in the foundational documents for GLWA. The 4% Promise requires that the annual revenue requirement does not increase by more than 4% in any one year for the first ten years of the Authority's existence. The revenue requirement includes operations and maintenance (O&M) expense, debt service, system lease payments, legacy pension, funding for capital program cash reserves (via the Improvement & Extension Fund contributions, and other legal commitments). The logic was that if the revenue requirement budget was held at a 4% increase ceiling, the system charge adjustment would inherently be less than 4% due to other offsetting revenue such as investment income. With a strong commitment to affordability,

GLWA has stayed well under that promise with an average annual adjustment to water of 1.6% and sewer of 1.1% from FY 2017 through FY 2023.

It should be noted that since the release of Discussion Draft 1 of the FY 2023 – 2017 CIP, the O&M budget has been prepared. The results of economic and supply chain challenges have resulted in extraordinary cost increases, such as 89% in chemical expenses and 24.3% in utility expenses. This will require additional scrutiny before any project in the CIP commences as CIP cost escalation is also a concern. Recently, on November 17, 2022, the GLWA Board of Directors received briefings related to the economic outlook and budget challenges.

As it relates to bond ratings, there is one key measure that identifies the overall financial health of the organization that is often referenced. That measure is Debt Service Coverage (DSC). A higher DSC reflects a better outcome in balancing revenues, expenses, debt, and cash reserves. The feasibility business case forecast for forming regional authority was a DSC of 1.5 for water and 1.6 for sewer to be achieved by FY 2020. Given the rapid economic challenges, an updated draft financial plan forecasts that it will be five years or more before that can be achieved.

In general, projects are scored based on 8 Criteria, then adjusted based on the GLWA Financial plan forecast and feedback from operation and engineering.

It should be noted that none of the projects that were delayed in CIP are impacted by EGLE requirements.

II. CIP 170601 Linear System Integrity Program/ Aging Water Transmission Mains

Questions/Comments (Source A):

- 1. GLWA has a few water programs 170400, 170500, and 170600 and prior to GLWA, DWSD planned new water main projects in The City of Detroit. Does GLWA plan any new water main or water main replacement projects in the City of Detroit?***

GLWA's Response:

Along with the other programmatic water system improvements identified below, including within the FY2024-2033 CIP are four transmission main projects within the City of Detroit.

- a. CIP 122017 7 Mile/Nevada Transmission Main Rehab & Carrie/Nevada Flow Control Station project is planned for completion within FY2024 and consists of the renewal of approximately 7 miles of 48-inch transmission main.
- b. CIP #122003 New Water Main from Northeast WTP (NEWTP) to WWP project provides finished water to the NEWTP and provides for redundancy to existing transmission mains along this route.
- c. CIP #122019 Jefferson Main Replacement Project consists of the replacement of a 48-inch cast iron transmission main along the reconstruction route of Jefferson Avenue and coordinated with the City of Detroit.

In addition to these specific water transmission main projects, the Linear System Integrity Program (LSIP) will evaluate other opportunistic areas within the transmission system to begin

to gather condition data with the use of minimal operational impact assessment technologies (leak detection, soil testing, etc.). In the near term, transmission mains within Detroit will be considered for these types of assessments and renewal.

III. Jefferson Chalmers Project

1. ***Questions/Comments (Source C): The Detroit Water and Sewerage Department (DWSD) respectfully requests that the Great Lakes Water Authority (GLWA) include in its 2024 - 2028 CIP the inclusion of two wastewater projects necessary to improve the resiliency of the Jefferson Chalmers neighborhood. GLWA's consultant suggested that installing grade separation devices between the Jefferson Chalmers local sewer collection system and the Jefferson Relief Sewer, and connecting the Jefferson Chalmers local sewer system to the Fox Creek Relief Sewer, will likely improve the resiliency of this neighborhood***

GLWA's Response:

GLWA recognizes the value of both elements of the described project. The existing connections between the Jefferson Chalmers neighborhood and the regional system provide adequate transportation of the flow from the neighborhood sewers to the regional system for storm events up to and including the design event. The project is a local system improvement and that is why it was not included in GLWA's Capital Improvement Plan. The concept has two elements. One element includes DWSD making new and additional connections to the regional system that would route excessive wet weather flow differently and earlier to the regional system. These new connections would alter the flow regime of the current piping network, creating a scenario whereby DWSD would likely want the second element of the project, which is grade protection structures at the existing connections. Again, while GLWA recognizes the value of this concept because it is a local system improvement, it is not appropriate to be included in GLWA's Capital Improvement Plan.

IV. City of Dearborn Comments

Questions/Comments (Source D):

1. ***The assessment of the GLWA transmission lines that support not only Dearborn residents but also customers in other member communities, including the development of a replacement plan for those lines, continues to be a concern for the City of Dearborn. With some infrastructure reaching 100 years old and carrying significant volumes of water under our streets, any potential failure would have catastrophic flooding impacts for our streets and residents. Absent a full assessment and replacement plan of the transmission lines, the City of Dearborn continues to view the Capital Improvement Plan as incomplete for the full health of the system.***

GLWA's Response:

In 2021, GLWA initiated a long-term Linear System Integrity Program (LSIP) intended to utilize a risk-based approach to systematically evaluate the condition of over 800 miles of water transmission main throughout the GLWA service area. Unlike wastewater interceptor systems, water transmission main is challenging to perform condition assessments due to the

pipe being under pressure, main access is difficult, delivery of water in many cases cannot be interrupted, and requires significant time and funding for planning, design, and implementation.

A tabletop risk assessment was performed based on the Consequence of Failure (CoF) and Probability of Failure (PoF) for each transmission main which drives the priority for GLWA's LSIP program. CoF factors considered in the model relate to social (water outage, business, and traffic disruption), economic (water main replacement, flood damage, lost revenue), and environmental (damage to aquatic life). PoF was determined based on pipe size, age, and type. Both CoF and PoF are used to develop the overall transmission main risk.

GLWA has targeted condition assessment on the five highest-risk transmission mains during this initial six-year period. As the program progresses, GLWA is optimistic to progress to a more comprehensive program where approximately 10% of the water system is assessed annually. This will take many years to reach this goal. However, GLWA is currently evaluating other opportunistic areas within the transmission system to begin to gather condition data with the use of minimal operational impact assessment technologies (leak detection, soil testing, etc.). In the near term, transmission mains within the City of Dearborn will be considered for these types of assessments and renewal.

Finally, performing the condition assessment on transmission mains is not considered a capital expenditure as they do not increase the effective useful life of these assets and therefore does not show up specifically in the CIP. Construction-related activities to allow for main access, permanent monitoring sites, or specific transmission main repairs are included in the CIP. The specific CIP projects related to these activities are included within CIP #170400 and #170601.

It should also be noted that since the inception of GLWA's valve inspection and repair program in 2018, 319 valves have been inspected and 3 have been repaired within the City of Dearborn. This cyclical program will help to ensure that valves are operating properly, identify the exact locations and mitigate the extent of outages when a disruption occurs.

- 2. While the City of Dearborn is pleased to see continued investments into the Springwells Water Treatment Plant, one of the oldest facilities in the system, the Springwells plant and its location in our northeast quadrant continues to be a top priority for the City of Dearborn as well. We look forward to ongoing investments in this facility and look forward to continuing conversations about any improvements that can be made to the facility to prevent any infrastructure failures or flooding in one of our most vulnerable areas, where the most significant impacts were felt in the 2021 flood.***

GLWA's Response:

Investment in the Springwells Water Treatment Plant is important to GLWA as well. It is a major facility within GLWA's potable water treatment system, and we concur that preventing failures with potable water delivery and providing water of unquestionable quality is a paramount goal. Comments related to flooding impacts will be addressed in the comment below.

- 3. The City of Dearborn continues to be significantly concerned with the stormwater and wastewater management approach in certain vital areas. In particular, higher water**

levels in the Rouge River and Baby Creek. along with controlled capacity through GLWA. The City of Dearborn, as a downstream community, is at a disadvantage during times of higher need. We are committed as a city to environmental responsibility and the potential impacts on the rivers' ecosystems when additional runoff and releases are under consideration. However, without more volume being made available in certain key areas, the potential for flooding remains higher than what the City of Dearborn would like. The City of Dearborn notes, with concern, the absence of any capacity improvement investments in the Baby Creek area, where the 2021 flooding impacted not only residents in the City of Dearborn, but also our neighbors in the City of Detroit. The City of Dearborn does not see this simply as an issue of increased allowable flow capacity as part of our contract discussions, but a systemic need that must be addressed with capital investment. Baby Creek is a natural area to expand this access as longer-term studies measure needs in Rouge River.

GLWA's Response:

GLWA is not aware of any capacity issues for the Baby Creek facility to convey the flows received by the Dearborn area. GLWA continues to review and make needed improvements to the Baby Creek facility to ensure reliability when necessary to operate. The cleaning and rehabilitation of the Baby Creek facility outfall and installation of a bypass for Elmer Terns are included under CIP #277001. GLWA is making several improvements to the facility funded through alternative operational funds within GLWA, outside of the CIP schedule. This includes the Bar Screen Mechanical Rehabilitation program. This program includes the reconstruction of one or two bar screen mechanical components each year and going forward. Replacement of the bar screen electrical, control, and instrumentation panels are projects currently under construction.

It is important to note that the Baby Creek facility is a gravity facility, and it is significantly impacted by the water levels in the Rouge River. As the water in the Rouge River rises above the design level, the conveyance capacity of the facility decreases, and the operational water levels for the facility rise. This rise in water level is detrimental to the low-lying areas adjacent to the facility although within acceptable operational tolerance. GLWA has provided alternatives for the City of Dearborn to install a stormwater bypass downstream of the Baby Creek facility into the Baby Creek outfall. Although the levels in the storm system are determined by the river levels, the option of removing the facility from the discharge stream may provide some relief in extreme events. If the City of Dearborn would like to discuss this option further, GLWA is open to meeting to discuss this concept in greater detail.

- 4. With the City of Dearborn's ongoing assessment through OHM, Dearborn is looking to GLWA for willingness to consider any investment requests from the city of Dearborn based on recommendations developed. Dearborn recognizes that it cannot view this assessment in a vacuum, given our integrated infrastructure with GLWA. While we recognize that the GLWA Capital Improvement Plan is set in five-year increments, Dearborn looks for flexibility from GLWA, as a partner to collaborate and consider additional improvements that may arise from this critical study funded entirely by the City (of Dearborn).***

GLWA's Response:

GLWA supports Dearborn's efforts to evaluate and assess its infrastructure for long-term sustainability and agrees that the integrated structure of the assets will require collaboration with GLWA to be done well. Member collaboration is of utmost importance to us, and we certainly will partner with the City of Dearborn to evaluate recommendations for improvements to the regional system. Although our CIP is a five-year plan, GLWA evaluates new projects annually and welcomes thoughts that emerge from the City of Dearborn's assessment efforts.

VI. Jeff McKeen, SOCWA Comments

Questions/Comments (Source E):

- 1. The draft CIP does not seem to be consistent with the GLWA financial plan that was done as part of the recent bond offering, especially in the 2023 fiscal year. The CIP plan is \$247.5 million, and the financial plan is \$209.8 million. The planned spending in 2024 is also \$14 million higher in the CIP than in the financial plan. The level of spending planned for 2023 is also about 50% higher than the actual spending in 2022. I suggest that the planned 2023 spending be reviewed as it is significantly higher than the level that was approved by the Board last March.***

GLWA's Response:

The GLWA team has spent significant time in recent weeks updating the Water CIP for the published Draft #2. With the updated Draft #2, the projected spending rate has been reduced. The accompanying presentation provides more detail regarding the specific numbers.

- 2. The overall level of capital spending continues to produce bond coverage ratios that are too low to result in I&E contributions that are sufficient to fund the planned capital spending levels. The sewer plan does result in sufficient coverage levels that provide a sustainable capital program without new bond offerings. This should be a goal for the waterside to reach the same sustainable financial situation and the current CIP spending plan does not allow that goal to be met.***

GLWA's Response:

Consistent with the response above, this is a shared concern that is a high priority. The long-term financial plan combined with the long-term CIP focuses on returning to more desirable metrics. The accompanying presentation provides more detail regarding the specific numbers.

- 3. We should be examining the various projects for repurposing the Northeast Water Treatment Plant in the light of the recent 120" main failure. Northeast played a critical role in maintaining supply to the GLWA customers in Oakland and Macomb counties during the period of time that Port Huron was unavailable. I am not sure if this level of supply could have been maintained with Northeast being a pumping only facility. I realize that a change in the plans for Northeast would require some incremental CIP work at Northeast, but I think the decision regarding Northeast needs to be***

reviewed. To the extent possible, I would recommend that we pause the Northeast projects currently in progress while a review takes place.

GLWA's Response:

GLWA agrees that that 120" water main failure may change our current plans regarding Northeast Water Treatment Plant Repurposing. GLWA is committed to reevaluating operations and making the appropriate changes concerning Northeast and rightsizing the system. As has been our past practice, our Engineering team will present the updated evaluation in a water Analytical Work Group (AWG) meeting in 2023.