



## City of Mount Clemens Water Service Request May 22, 2024

Jody Caldwell, P.E., Chief Planning Officer Chandan Sood, Water Analytics, Planning & Metering Director

## **Key Take-Aways**

- ◆ Due to significant investment needs within the City of Mount Clemens' existing water treatment facility, it has engaged GLWA to provide water service
- Multiple connection points are planned that will provide redundancy for the City and meet its level of service needs
- Current design requires no GLWA capital investment
- ♠ Reduces impact of revenue requirement increases on GLWA wholesale charges by spreading system-wide costs across a broader user base
- **♦** GLWA's System Optimization Guidelines indicate adding the City as a Member Partner is a favorable prospect



# Background: New GLWA Water Service for the City of Mount Clemens

- ♦ The City identified significant improvements necessary to its water treatment plant
- ♦ The City requested GLWA provide a service proposal in July 2022
- **♦** GLWA presented to the City Council in October 2022
- ♦ Initially, the City decided to rehabilitate its facilities, instead of contracting with GLWA
- In 2023, when the City did not receive a Drinking Water State Revolving Fund loan due to its proximity to the GLWA service area, the City and GLWA began planning and design meetings



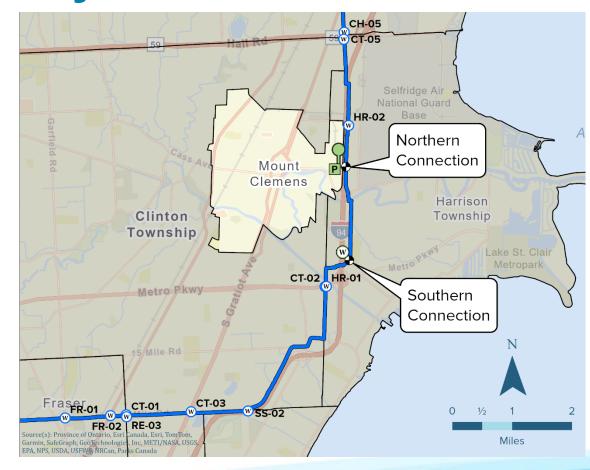
## Mount Clemens Water Infrastructure Needs for Redundancy

#### • Construct:

- Two connections to GLWA's 42inch transmission main
- ♦ 5,100 feet of distribution main
- Storage tank, pump station, meter facilities, pressure reducing valves

#### • Abandon:

- 3.3 miles of City-owned water main
- City-owned water treatment facility and intake pipeline





## **Northern GLWA Connection (Primary)**

- ◆ <u>Purpose</u>: To provide the primary water service feed to the City
- **►** Infrastructure Needs:
  - ♦ Tap to the 42-inch transmission main
  - 4,200 feet of 20-inch water main
  - Pump station with GLWA-owned meter facility
  - ◆ Two-million-gallon ground storage tank





## Southern GLWA Connection (Redundant)

- ♠ Purpose: To provide a redundant feed for the City in the event of a transmission main disruption to the northern connection
- **►** Infrastructure Needs:
  - ♦ Tap to the 42-inch transmission main
  - 900 feet of 16-inch water main
  - Meter chamber and by-pass
  - Pressure reducing valve chamber





### **Mount Clemens Projected Demands & Schedule**

- ◆The City will be required to execute GLWA's model water service contract prior to water service delivery
- ◆Initial contract conversations have occurred, however planning and design were identified as critical path items

| <b>Mount Clemens Demands</b> | 2025 | 2040 |
|------------------------------|------|------|
| Average Day (MGD)            | 2.17 | 2.25 |
| Maximum Day (MGD)            | 4.72 | 4.90 |
| Peak Hour (MGD)              | 7.08 | 7.35 |

| Task Schedule                        | Due Date        |
|--------------------------------------|-----------------|
| Issue Request for Proposals          | April 30, 2024  |
| Proposals Due                        | June 21, 2024   |
| Design-Build Contract Execution      | July 16, 2024   |
| Notice to Proceed                    | October 1, 2024 |
| Design and Permitting                | July 11, 2025   |
| Construction and Performance Testing | August 30, 2028 |



### **GLWA System Optimization Guidelines**

#### **♦** Impact on water quality

- ♦ No water quality impacts are anticipated to the GLWA water system
- ♦ A water quality transition plan and testing is required by EGLE to transition the City and several Harrison Township customers from the current water treatment system to the GLWA water system

#### **♦** Impact on service reliability

None

#### **♦** Impact on existing GLWA member partners

♦ Hydraulic modeling performed with the City's anticipated demands has no impact to other GLWA contract pressures and flows



## **GLWA System Optimization Guidelines (Cont'd)**

#### **♦**Ability to leverage the use of existing system assets

- No new GLWA infrastructure is needed because GLWA's water system runs adjacent to the City for approx. two miles and excess water treatment and pumping capacity exist in the GLWA system
- ◆ Additional member partners (and water use) provides a better alignment of actual demands to rated water treatment/pumping capacity

#### **♦** Interface or concurrence with planning documents

- Goal of water master plan: "Focus on actions that result in cost efficiency, maximizing use of existing assets, and improving reliability, and long-term financial sustainability"
- ♦ The plan also discusses the need for marketing, incentivizing, identifying and facilitating the development of new wholesale customers



## **GLWA System Optimization Guidelines (Cont'd)**

#### **♦** Impact on long-term financial stability of the GLWA system

- ◆ Providing service to a new wholesale water customer with no capital investment and minimal ongoing financial expense (i.e., meter facilities operation & maintenance)
- ◆ Reduces the impact that revenue requirement increases have on wholesale charges by spreading system-wide costs across a broader user base

#### **♦** Benefits to the region

- Utilization of existing resources
- Assists the City with their water challenges
- Spreads GLWA system-wide costs across a broader user base



## **Key Take-Aways**

- ◆ Due to significant investment needs within the City's existing water treatment facility, it has engaged GLWA to provide water service
- Multiple connection points are planned that will provide redundancy for the City and meet its level of service needs
- Current design requires no GLWA capital investment
- ♠ Reduces impact of revenue requirement increases on GLWA wholesale charges by spreading system-wide costs across a broader user base
- **♦** GLWA's System Optimization Guidelines indicate adding the City as a Member Partner is a favorable prospect



