

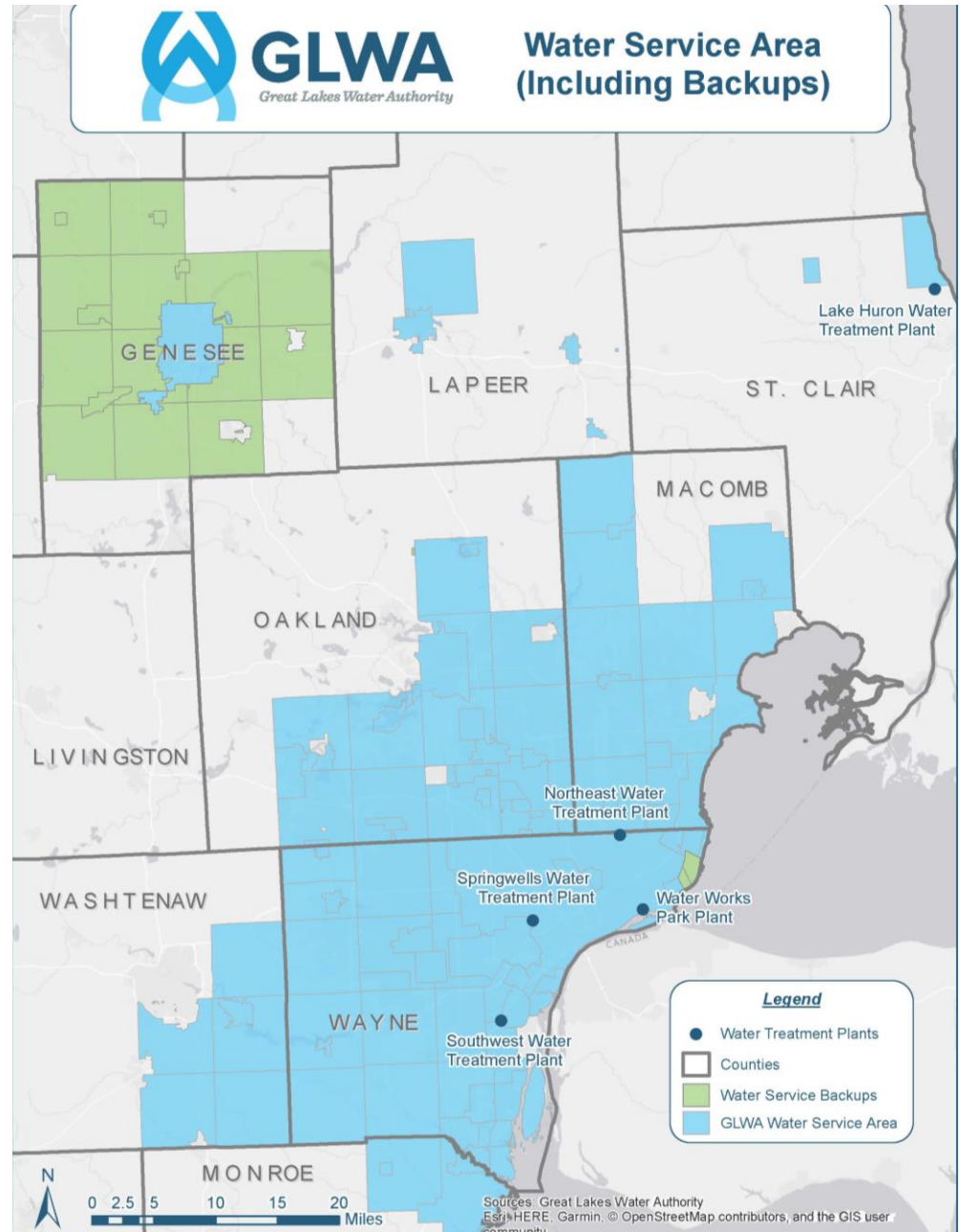


96-inch Diameter Water Transmission Main Relocation

Project Overview

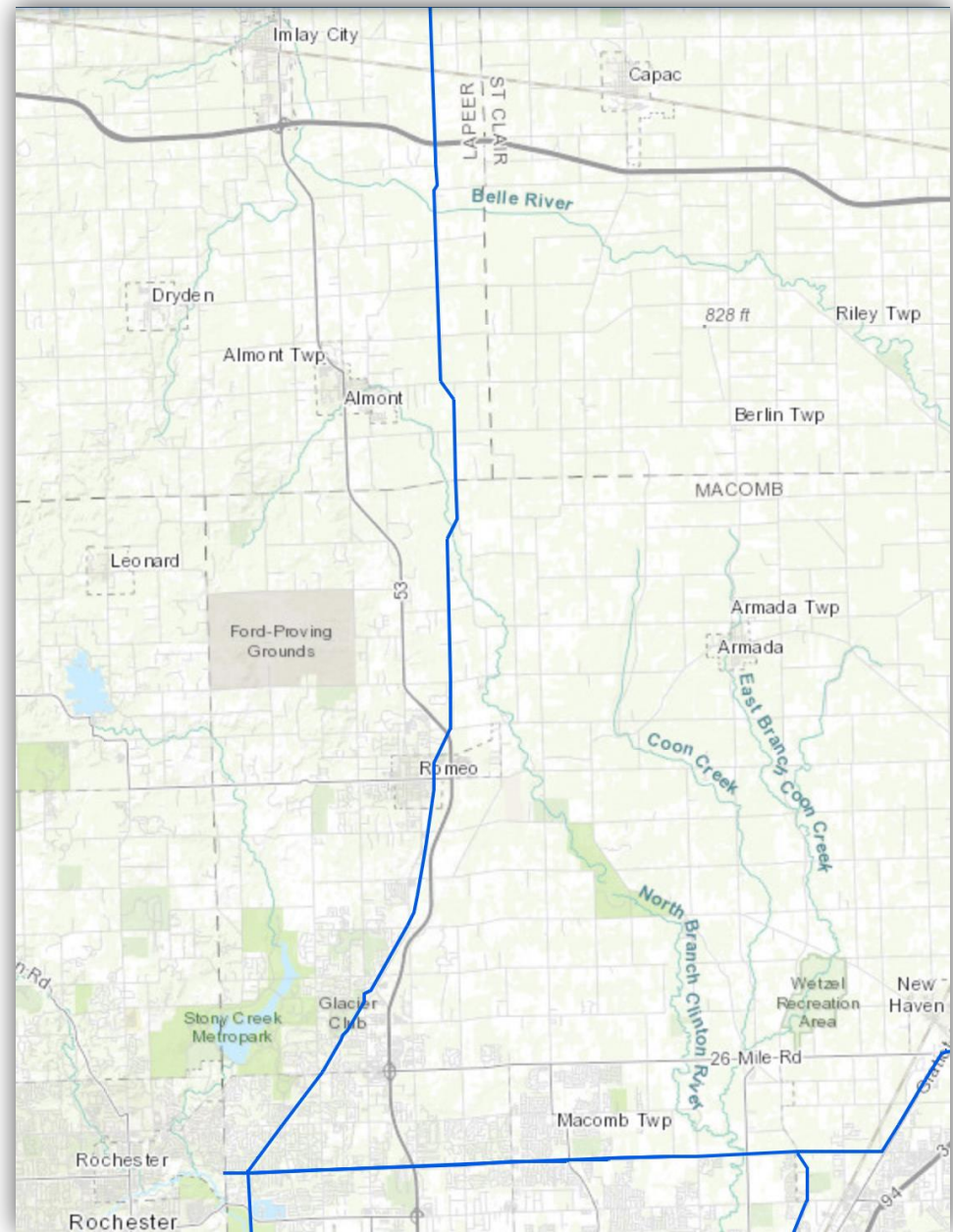
GLWA Overview

- The Great Lakes Water Authority draws water from Lake Huron and the Great Lakes tributary, the Detroit River.
- GLWA provides water to 112 communities in 8 Southeast Michigan counties.
- GLWA operates and maintains 816 miles of water transmission mains.



Project Background

- Design Engineer: Jacobs Consultants, Inc.
- GLWA/Jacobs prepared Implementation Strategy Report dated February 2019
- During construction, the existing 96-inch Diameter Water Transmission Main (WTM) will be temporarily shut down:
 - From Imlay Station to North Service Center (NSC) for up to 8 weeks
 - From Romeo Valve to NSC for up to 6 months
- Maintaining drinking water services to member partner communities during shutdown will require operations of:
 - Proposed project facilities by Construction Manager At Risk (CMAR) Contractor
 - Existing transmission system facilities by GLWA
 - Existing distribution system facilities by communities



Project Objectives

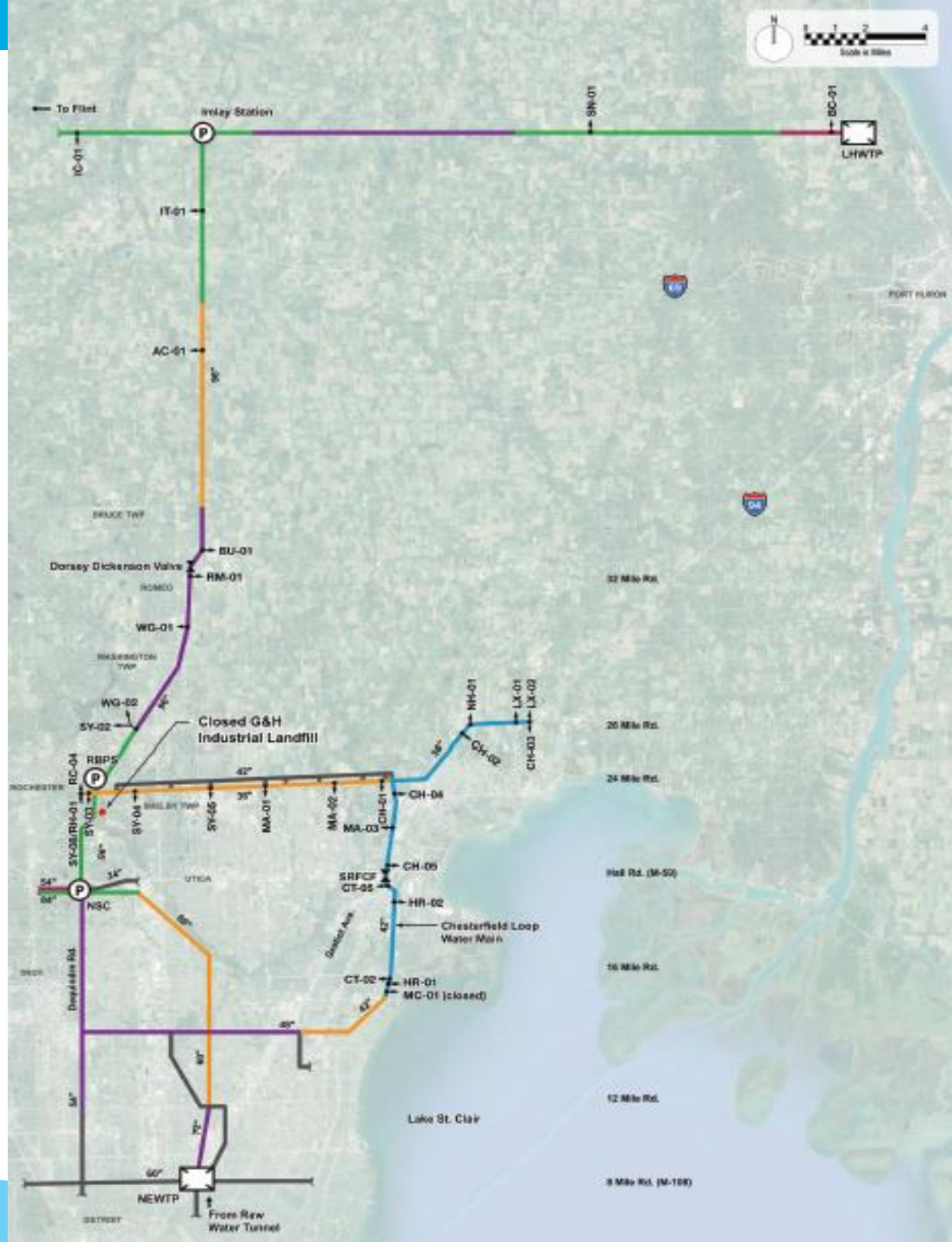
Primary Objective: To continue providing essential, uninterrupted drinking water by relocating the 96-inch water transmission main outside limits of closed G&H Industrial Landfill.

Other Project Objectives Include:

- Improve reliability of 96-inch water main between Romeo and NSC.
- Relocate 96-inch water main outside of Detroit Sportsmen's Congress Gun Club and out of backyards.
- Improve O&M access for 96-inch water main.
- Improve traffic flow and pedestrian safety by making improvements at critical intersections.
- Coordinate with other area infrastructure projects to minimize impacts to communities.

Project Overview

- 96-inch diameter water transmission main (WTM) is critical GLWA infrastructure that serves over 1 million people.
- 96-inch WTM shutdown will occur for up to 6 months during off-peak season: from October 15 through April 15.



Project Overview – Water Transmission Components

- 96-inch WTM Appurtenance Rehabilitation
- Relocated 96-inch WTM (Approximately 13,300 LF)
- (4) 84-inch Isolation Valves: Romeo Valve; 26 Mile Road Valve; 24 Mile Road Valve; NSC Valve
- Chesterfield Loop Temporary Booster Pump Station (CLTBPS)
- East Pond Creek Discharge Facility (EPCDF); Plumbrook Drain Discharge Facility (PDDF)
- Abandon isolated portion of existing 96-inch WTM
- Final design progression could include additional facilities or activities in addition to those currently developed.

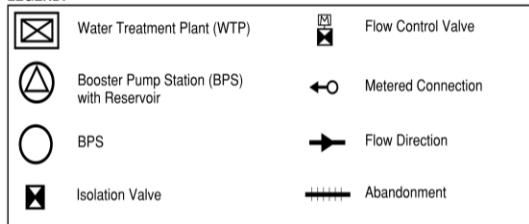
Project Overview – Transportation Components

The following roadway improvements are planned. Other nearby roadway improvements are also planned by the Road Commission for Oakland County.

- Roadway reconstruction along Dequindre Road between Hamlin Road and East Avon Road.
- Roadway widening of Dequindre Road between 23 Mile Road and Macomb Orchard Trail (MOT).
- A new roundabout at 23 Mile Road and Dequindre Road with related pedestrian crossing safety improvements.
- Reconstruction of the Macomb Orchard Trail between Dequindre Road and 24 Mile Road.
- Roadway widening of East Avon Road by adding a center turn lane.
- Intersection improvements at Dequindre Road and School Road by adding a left turn lane.
- Intersection improvements at Dequindre Road at Hamlin Road by upgrading traffic signaling.

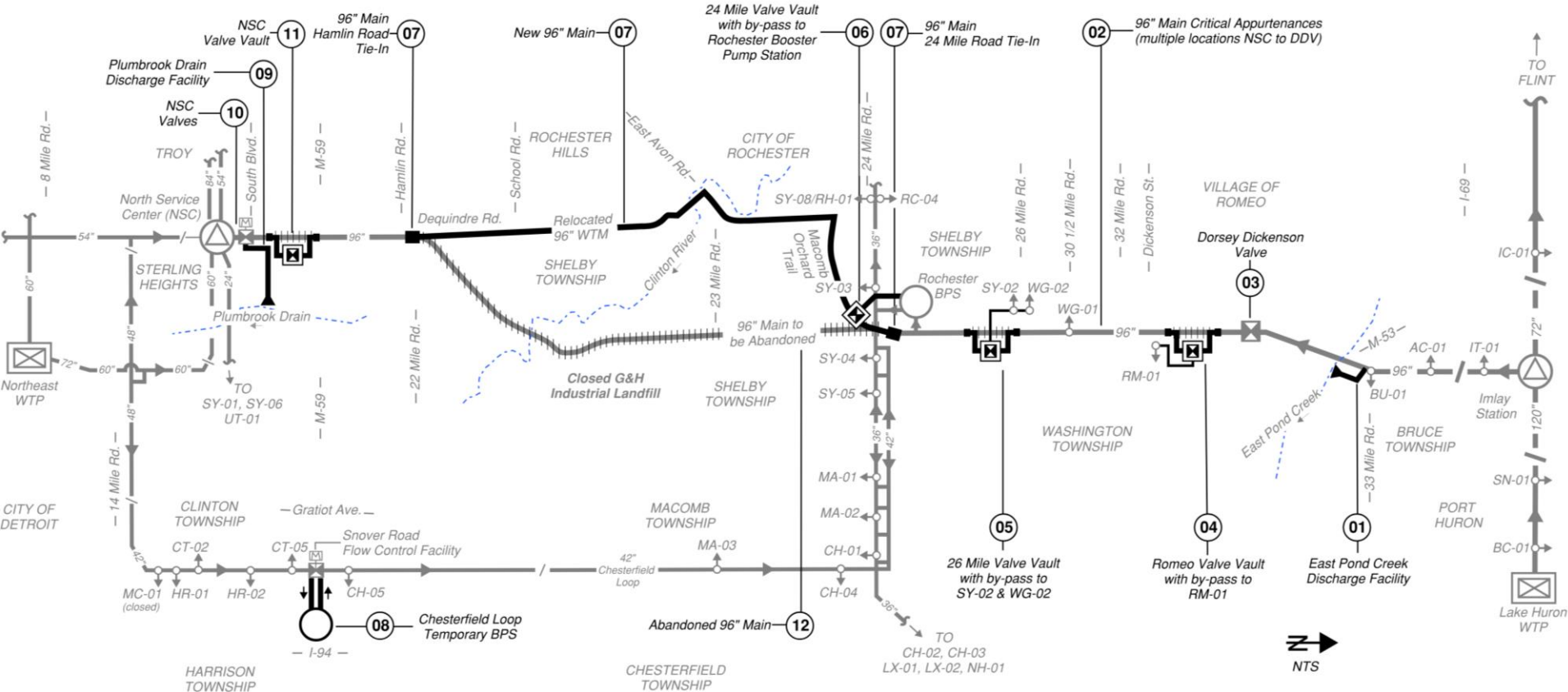
Project Overview Schematic

LEGEND:



ABBREVIATIONS:

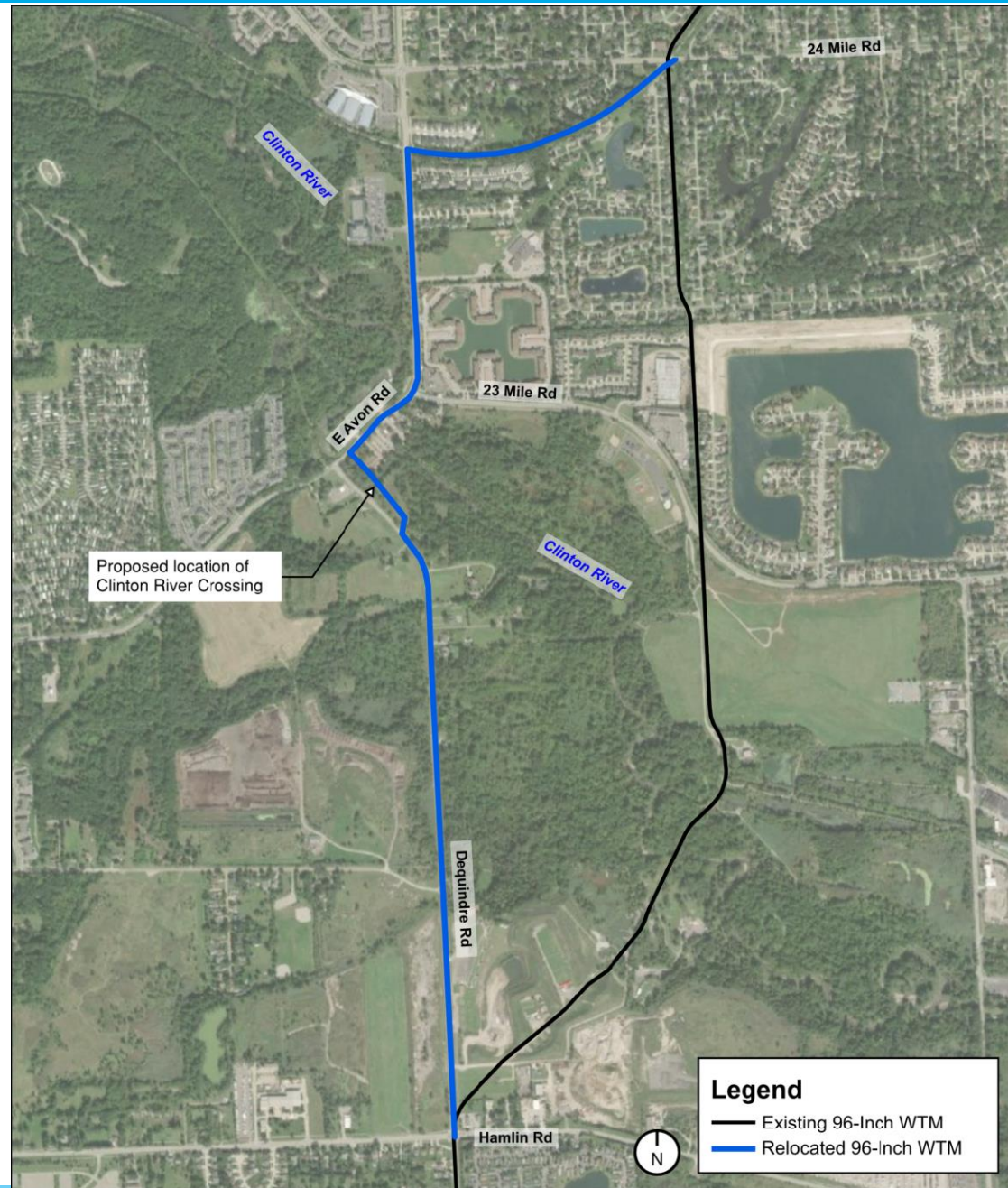
DDV	Dorsey Dickenson Valve (Existing GLWA Facility)
NSC	North Service Center (Existing GLWA Facility)
RBPS	Rochester Booster Pump Station (Existing GLWA Facility)
CLTBPS	Chesterfield Loop Temporary Booster Pump Station
EPCDF	East Pond Creek Discharge Facility
PDDF	Plumbook Drain Discharge Facility
WTP	Water Treatment Plant



Proposed Project Facilities – 96-inch WTM

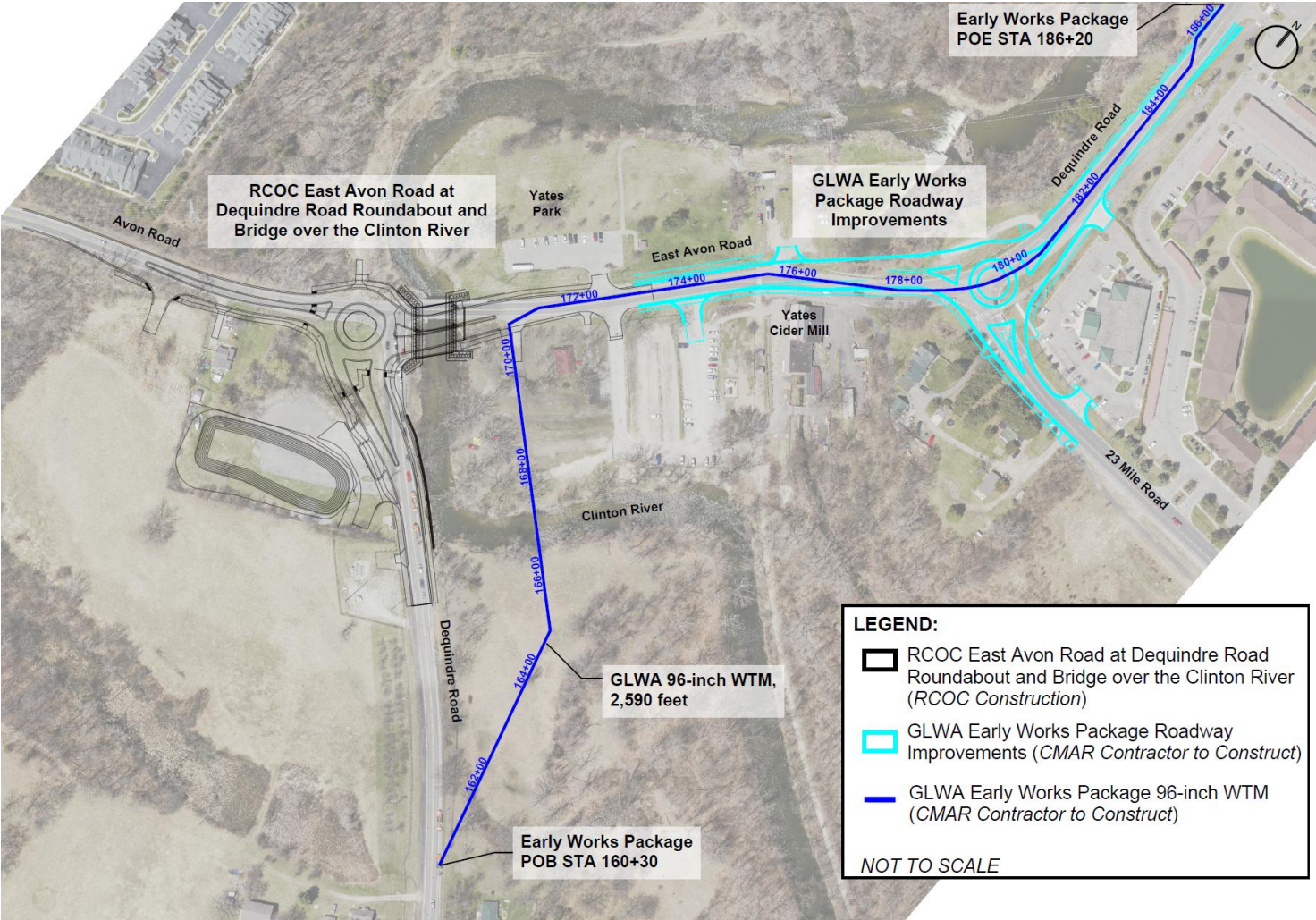
New, Relocated GLWA 96-inch Diameter Drinking Water Main Selected Route

- Approximately 2.5 miles (13,300 linear feet)
- Tie-ins at 24 Mile Road and Hamlin Road
- Mostly in roadway and Macomb Orchard Trail right-of-way
- Open cut crossing of the Clinton River



Key Project Features – Early Works Package

- Approximately 2,590 linear feet of pipe and road reconstruction
- Coordination with RCOC roadway and bridge project
- Road ROW and 2 private parcels (easements)
- Open cut cofferdam crossing of the Clinton River



Project Schedule Key Milestones

Key Milestone	Approximate Completion Deadline
Preliminary (30%) Design <input checked="" type="checkbox"/>	Late March 2021
Start Work (Estimated): CMAR	September 2021
Begin CMAR Construction (East Avon Early Works)	January 2022
Complete Final Design (Full Project)	Summer 2022
Begin First 96-inch Main Shutdown	Oct. 15, 2024
Place Entire New, Relocated 96-inch Main into Full Permanent Service	April 15, 2025
Complete Professional Engineering Services (Close-Out)	Late 2027



GLWA

Great Lakes Water Authority

