GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING

DAN EICHINGER
DIRECTOR

April 3, 2023

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Muskegon, Muskegon County
Wastewater Collection System Upgrades
Clean Water State Revolving Fund (CWSRF) Project No. 5790-01

The purpose of this notice is to seek public input and comment on a preliminary decision by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) that an Environmental Impact Statement (EIS) is not required to implement recommendations discussed in the attached Environmental Assessment of a clean water project plan submitted by the applicant mentioned above.

HOW WERE ENVIRONMENTAL ISSUES CONSIDERED?

Part 53, Clean Water Assistance, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, being Sections 324.5301 to 324.5316 of the Michigan Compiled Laws Annotated, requires EGLE to evaluate all environmental implications of a proposed clean water project. EGLE has done this by incorporating a detailed analysis of the environmental impact of the proposed alternatives in its review and approval process. A project plan was prepared by the applicant and reviewed by the State. EGLE has prepared the attached Environmental Assessment and found that the proposed project does not require the preparation of an EIS.

WHY IS AN EIS NOT REQUIRED?

Our environmental review concluded that no significant environmental impacts would result from the proposed action. Any adverse impacts have either been eliminated by changes in the project plan or will be reduced by the implementation of the mitigative measures discussed in the attached Environmental Assessment.

HOW DO I GET MORE INFORMATION?

A map depicting the location of the proposed project is attached. This information is also available on our website at Michigan.gov/CWSRF under “Related Links.” The Environmental Assessment presents additional information on the project, alternatives that were considered, impacts of the proposed action, and the basis for our decision. Further information can be obtained by calling or writing one of the contact people listed below.

HOW DO I SUBMIT COMMENTS?

Any comments supporting or disagreeing with this preliminary decision should be submitted to me at EGLE, Constitution Hall, P.O. Box 30457, Lansing, Michigan 48909-7957. We will not take any action on this project plan for 30 calendar days from the date of this notice in order to receive and consider any comments.

WHAT HAPPENS NEXT?

In the absence of substantive comments during this period, our preliminary decision will become final. The applicant will then be eligible to receive loan assistance from this Agency to construct the proposed project.

Any information you feel should be considered by EGLE should be brought to our attention. If you have any questions, please contact Mr. David J. Worthington, the senior project manager, at 517-554-1835, by email at Worthingtond@michigan.gov, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,

Dan Beauchamp

Dan Beauchamp, Section Manager
Water Infrastructure Funding and Financing Section
Finance Division
517-388-3380

Attachment

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
CLEAN WATER STATE REVOLVING FUND (CWSRF)
CITY OF MUSKEGON, MUSKEGON COUNTY
WASTEWATER COLLECTION SYSTEM UPGRADES
ENVIRONMENTAL ASSESSMENT
APRIL 2023

I. PROJECT IDENTIFICATION

Applicant:	City of Muskegon
Address:	1350 East Keating Muskegon, Michigan 49442
Authorized Representative:	Mr. Dan VanderHeide, Public Works Director
CWSRF Project Number:	5790-01

The city of Muskegon (Muskegon) is the largest city in Muskegon County, bordered to the west by Lake Michigan with Muskegon Lake and the Muskegon River forming its northern boundary. Muskegon is applying for a low interest CWSRF loan administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to finance the construction of upgrades to its wastewater collection system in various districts throughout the city. Muskegon will also be applying for a Drinking Water State Revolving Fund (DWSRF) to replace water main and lead service lines on the same streets that sanitary sewer replacement will occur. The details and cost estimates related to that portion of the project will be presented in a separate Environmental Assessment associated with loan number 7467-01.

A study area has been delineated that incorporates the entire city limits (See Figure 1).

In 2017, Muskegon completed an asset management plan (AMP) to evaluate the condition and needs of the collection system and prioritize repairs. Over half the system is nearing 100 years of age and is in critical need of upgrades.

As a result, Muskegon proposes the following projects for construction beginning in 2023:

- Wilcox, Thompson, and Morton Avenue Neighborhood Sanitary Sewer Replacement (Figures 2 and 3)
- Glenside Neighborhood Phase II Sanitary Sewer Replacement (Figure 4)
- Upgrade Pumps, Process Piping and Valves at Harbor Towne and Edgewater Lift Stations (locations depicted on Figure 1)

The total project cost associated with the CWSRF portion of the project is estimated to be $3,917,000. As a qualified disadvantaged community, Muskegon is eligible for principal forgiveness of 50 percent of the total CWSRF loan amount. Average monthly user costs for the city residents may rise from a current estimate of $31.67 per month to approximately $32.33 per month because of this project. This is a worst-case scenario, as actual rate changes may be smaller as a result of the principal forgiveness. Muskegon intends to finance the projects with a CWSRF loan at 1.875 percent over 30 years.

II. PROJECT BACKGROUND

A. Existing Facilities

Muskegon wastewater is pumped to the Muskegon County Wastewater Management System Metro Plant at an average flow of 5.24 million gallons per day. The city's wastewater collection system consists of 889,950 linear feet (lft) of gravity sewer ranging in size from 6-inches to 42-inches in diameter, 21,500 lft of force main from 1.5-inches to 12-inches in diameter, and 3,778 manholes. Pipe material consists of vitrified clay installed between the 1910s and 1940s, along with polyvinyl chloride pipe installed in more recent times. Force main material is mostly ductile iron. Manholes are a mix of precast concrete and brick.

There are seven grinder pump stations (PSs) and fifteen lift stations (LSs) throughout the system. Nearly all sewage is pumped by the county-owned PS to the treatment facility.

B. Project Need

Muskegon completed an AMP of its sewer infrastructure in 2017 with assistance from EGLE Stormwater, Asset Management and Wastewater grant funding. Using the National Association of Sewer Service Companies Pipeline Assessment Certification Program ratings, the structural integrity of many segments of pipe were found to be near failure. Furthermore, numerous pipes have inadequate capacity and are subject to backups. Some sewers are too deep, built below or adjacent to private businesses, and are difficult or impossible to access for maintenance and repair. Some were installed at less than appropriate grade, which causes sewage backups. Infiltration from leaky pipe joints and root intrusion exacerbates these problems. Pipe failures will threaten public health and water quality of Muskegon's numerous water bodies.

Described below are the areas targeted for construction start in 2023:

- A sanitary sewer replacement project on Morton Avenue (Morton) in the Lakeside neighborhood is needed to replace structurally deficient 8-inch diameter gravity sewer from Meurer Court and Leon Street. The clay pipe, installed in 1925, has numerous structural defects. The sewer must be rehabilitated or replaced to avoid the risk of sewage backups into homes and/or the environment.
- Gravity sewers in the neighborhood bounded by Wilcox Avenue (Wilcox) and Thompson Avenue (Thompson) are also in poor structural condition. All are very old pipes from 1924 to 1966 vintage and suspected to be leaking into the groundwater table near Muskegon Lake. Replacing these sewers will prevent sewage backups into homes and contamination to Muskegon Lake.
- Most of the sanitary mains in the Glenside Neighborhood were installed in the 1930s in unmaintained alleyways. Many sewers and water utilities have fences, garages, trees, and other structures directly above them, causing routine maintenance and emergency response to be extremely difficult. Many manholes are inaccessible under fences in residential backyards. These are mostly clay sewers with fractures, holes, sags, and breaks. A project is needed to reroute the most structurally deficient and inaccessible sewers from the alleyways to the

city-owned roadways to reduce the risk of sewer backups, regain accessibility, and meet the needs of the 20-year design period.

- Mechanical assets at the Edgewater and Harbor Towne LSs are aging. Discharge piping from the wet wells and valve chambers for both are severely corroded. Moreover, pumps at each station are beyond their design lives and underperforming. These assets should all be replaced to reduce the risk of contamination to waters of the state and meet 20-year design needs.

C. Population

Muskegon's population is approximately 38,500, which is a slight decline from 2000 when it was a little over 40,000. Table I shows the projected population figures provided by the West Michigan Shoreline Regional Development Commission. There is some seasonal summer growth, but not enough to have noticeable impact in the wastewater flows.

Table I. City of Muskegon Population

Year	Population
2000	40,105
2010	38,401
2020	38,529
2030	38,983
2040	39,442

III. PROPOSED ACTION

A. Alternatives

1. Wilcox, Thompson, and Morton Sewers

No-action

Taking no action would ultimately result in sewer backups to homes as well as the environment from poor, aging, and defective infrastructure. Clearly, this is not acceptable.

Rehabilitation

This alternative would involve lining the existing gravity sewers. While lowering the risk of failure, it could not solve joint offset defects in the pipe and would push infiltration to the laterals. Therefore, this alternative is not considered a cost-effective, long-term solution and is rejected.

Replacement of Sewer

This alternative requires replacing the old clay 8-inch diameter sewer with a new 8-inch diameter sewer at minimum recommended slopes on Morton. For the Wilcox/Thompson neighborhood, sewers would be replaced on Thompson, Wilcox, Edgewater, Cherry, and Walnut streets, as well as the alley between Walnut and Cherry. The two sewers on Walnut would be reduced to one 8-inch diameter sewer. Replacements on Wilcox would be 10-inches and 15-inches in diameter, respectively.

2. Glenside Neighborhood Sewers

No-action

No action would likely increase the risk of failures in the old structurally deteriorating pipes, leading to sewage overflows and basement backups. Meanwhile, the problems with accessibility to the pipes would remain to plague the city's staff in attempting any maintenance on the facilities. No action is unacceptable.

Rehabilitation

While lining the pipes lowers the risk of failures and would extend their useful lives, it does not address the O&M and accessibility problems. Thus, the rehabilitation alternative does make for a prudent choice for a 20-year planning period.

Reroute Sewer and Replace

Rerouting the structurally deficient sewers out of unmaintained alleyways and into the road right-of-way (Westwood Street to the west and Cumberland Street to the east) would solve all the issues being experienced in the neighborhood.

3. Harbor Towne and Edgewater LSs

No action

No action at these LSs would mean the mechanical assets would continue to deteriorate, risking failure of the stations. Both are near Muskegon Lake. Failure could mean sewage spills to residents homes and/or the environment and surface water.

Replacement of Outdated Parts

The replacement alternative requires replacing the discharge piping, valves, pumps, and level controls. More energy efficient pumps would be provided. There are no other viable alternatives.

B. Description of Proposed Project

Muskegon selected the following alternatives for 2023 financing and construction:

Morton, Thompson, and Wilcox– Sanitary Sewer Replacement
Glenside Neighborhood – Replace/Relocate Sanitary Sewer
Harbor Towne and Edgewater LSs- Replace pumps and mechanical parts

These projects are depicted on Figures 1-4.

C. Project Cost and Implementation

The estimated cost for the proposed project is $8,032,000, of which approximately $3,917,000 is CWSRF eligible. Actual costs may differ when bids are received, and contracts let (See Table II).

Table II. Project Cost Breakdown	
Description	**Estimated CWSRF Eligible Cost**
Morton Avenue Sewer	$533,000
Glenside Neighborhood Sewers-Phase II	$1,746,000
Wilcox and Thompson Neighborhood Sewers	$1,438,000
Harbor Towne and Edgewater Lift Stations	$200,000
Total Cost	**$3,917,000**

A 30-year CWSRF loan for $3,917,000 with a 1.875 percent interest rate is anticipated to finance the work. The CWSRF program is administrated by EGLE and the Michigan Finance Authority. Muskegon will have a choice of a repayment period of 20 years or 30 years; the interest rate remains 1.875 percent for either term.

Typical metered sewer rates of a residential customer are about $31.67 per month. A rate increase of approximately $0.66 a month would be needed to service the CWSRF debt and pay for operation and maintenance, resulting in an average monthly cost of $32.33 for a typical home. However, Muskegon qualifies as a disadvantaged community, and is expected to receive 50 percent in principal loan forgiveness ($1,958,500 based on current project estimate) that may lower the financial impact of the project. Muskegon raises rates approximately three percent per year to keep up with inflation and needed capital improvements.

Muskegon anticipates starting construction shortly after the CWSRF loan closing on August 28, 2023. Construction is expected to require one to two years to complete, with improvements operational by late 2024 or early 2025.

IV. ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION

A. Description of Affected Environment

Cultural Resources

In a previous phase of the project plan, the State Historic Preservation Office (SHPO) determined that no historic properties would be affected by the proposed project. A new SHPO review is underway and expected to reach the same conclusion. In addition, Tribal Historic Preservation Officers have been notified about the proposed project, and none have expressed any specific concerns. If any new recommendations are made Muskegon will implement those into the construction plan.

Wetlands/Floodplains

All projects are located above the high-water mark. No impacts to wetlands and floodplains are expected.

Endangered Species

United States Fish and Wildlife Service and Michigan Natural Features Inventory reviews of the proposed projects indicate that no threatened or endangered species, critical habitat, or special natural features would be adversely affected.

Major Surface Waters

No harmful effects should occur to surface waters. Surface waters such as Muskegon Lake will benefit from protection against sewage spills that might otherwise occur if no action were taken to replace defective sewers.

Social Impacts

The proposed project will have a small cost impact to residents. The city carefully weighed all alternatives to select the most cost-effective solution for correcting the problems occurring in the areas described. Public health will be protected by eliminating the danger of sewer backups.

B. Mitigation Measures

Impacts of construction activities associated with the project are considered short-term disruptions that for the most part, will not extend beyond the period of construction. Structural and non-structural measures that avoid, eliminate, or mitigate these adverse impacts have been identified. Work will be confined to designated work hours and minimized on weekends or holidays to mitigate noise from construction activities. All equipment will be required to have proper exhaust systems and mufflers. Mitigation measures to minimize the negative effect of dust from construction will be utilized. A soil erosion and sedimentation control permit from Muskegon County will be required.

All areas disturbed by construction will be restored to existing conditions with compacted backfill, sand, gravel, and asphalt or concrete surfacing. Seeding and mulching will be performed promptly following land disturbance. Significant plants, such as trees and shrubs, will be protected from damage or replaced if damage is unavoidable.

V. PUBLIC PARTICIPATION

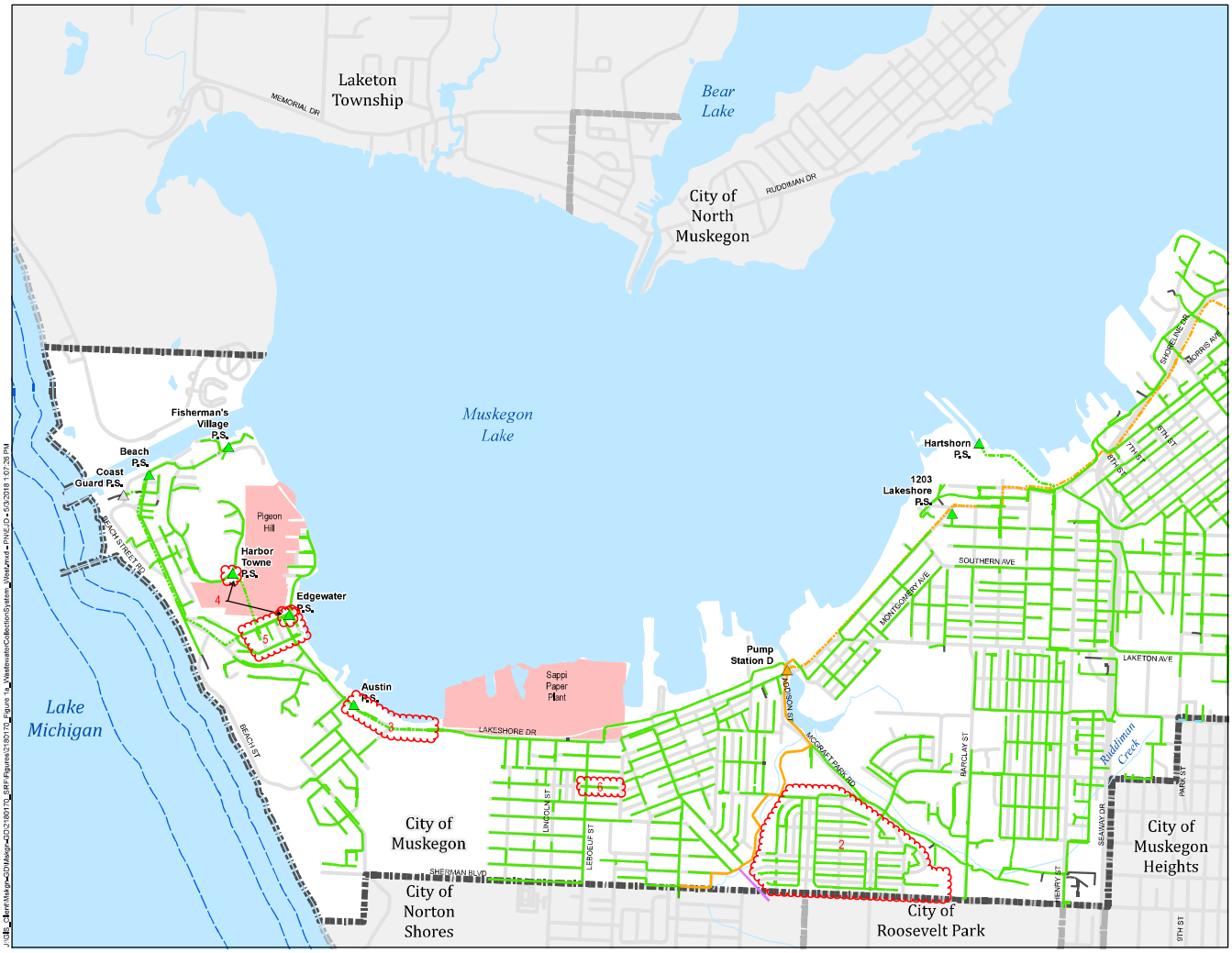
A public hearing on the CWSRF project plan was held on May 25, 2021, via virtual Zoom conference due to the COVID-19 pandemic. The hearing was advertised in the *Muskegon Chronicle* and on the city's web site. A copy of the draft plan was made available for a 30-day period at the Muskegon City Hall, 933 Terrace Street, prior to the hearing. No changes were made to the project because of the hearing. On May 25, 2021, the city commission passed a resolution adopting the final project plan and its selected alternatives.

VI. REASONS FOR CONCLUDING NO SIGNIFICANT IMPACT

Expected adverse impacts from the proposed project appear to be minor and largely temporary in nature. There is a social cost to paying for the collection system upgrades and operating and maintaining the system. However, completing these upgrades results in increased structural integrity and minimizes risks to public health and the environment from sewage backups and overflows. This helps protect water quality in the Muskegon area. It is believed that these beneficial impacts proportionately outweigh the temporary negative impacts.

Any questions or concerns about this Environmental Assessment can be directed to:

Mr. David J. Worthington, Senior Project Manager
Water Infrastructure Funding and Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-7957
Telephone: 517-554-1835
E-Mail: Worthingtond@michigan.gov



CITY OF MUSKEGON
MUSKEGON COUNTY, MI
STATE REVOLVING FUND (SRF) PROJECT PLAN

WASTEWATER COLLECTION SYSTEM

LEGEND

Pump Station Ownership
- City of Muskegon
- Muskegon County
- Private

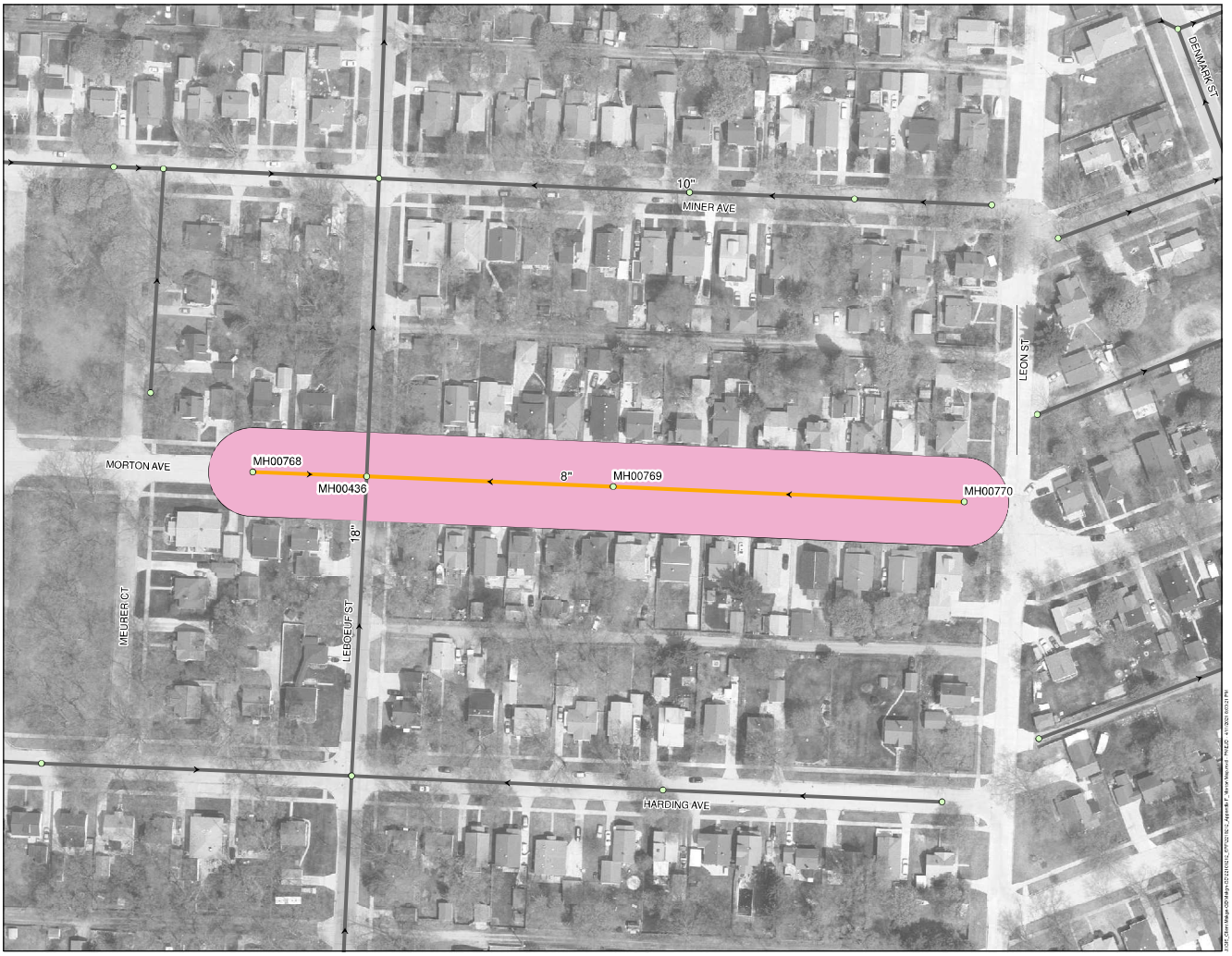
Gravity Sewer Ownership
- City of Muskegon
- Muskegon County
- City of Muskegon Heights
- City of Norton Shores
- City of Roosevelt Park
- Private

Force Main Ownership
- City of Muskegon
- Muskegon County

- Future Service Areas
- City Service Area
- Project Need Areas

0 750 1,500 3,000 Feet

Figure 1



CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN

PROJECT 6:
MORTON AVENUE SEWER
PACP SUMMARY

Peter&Nesbitt
221212

LEGEND

- Manhole
- 4
- 5 - Highest ROF
- Other Sanitary Mains
- Selected Project Location

SCALE: 1 " = 100 '

Figure 2

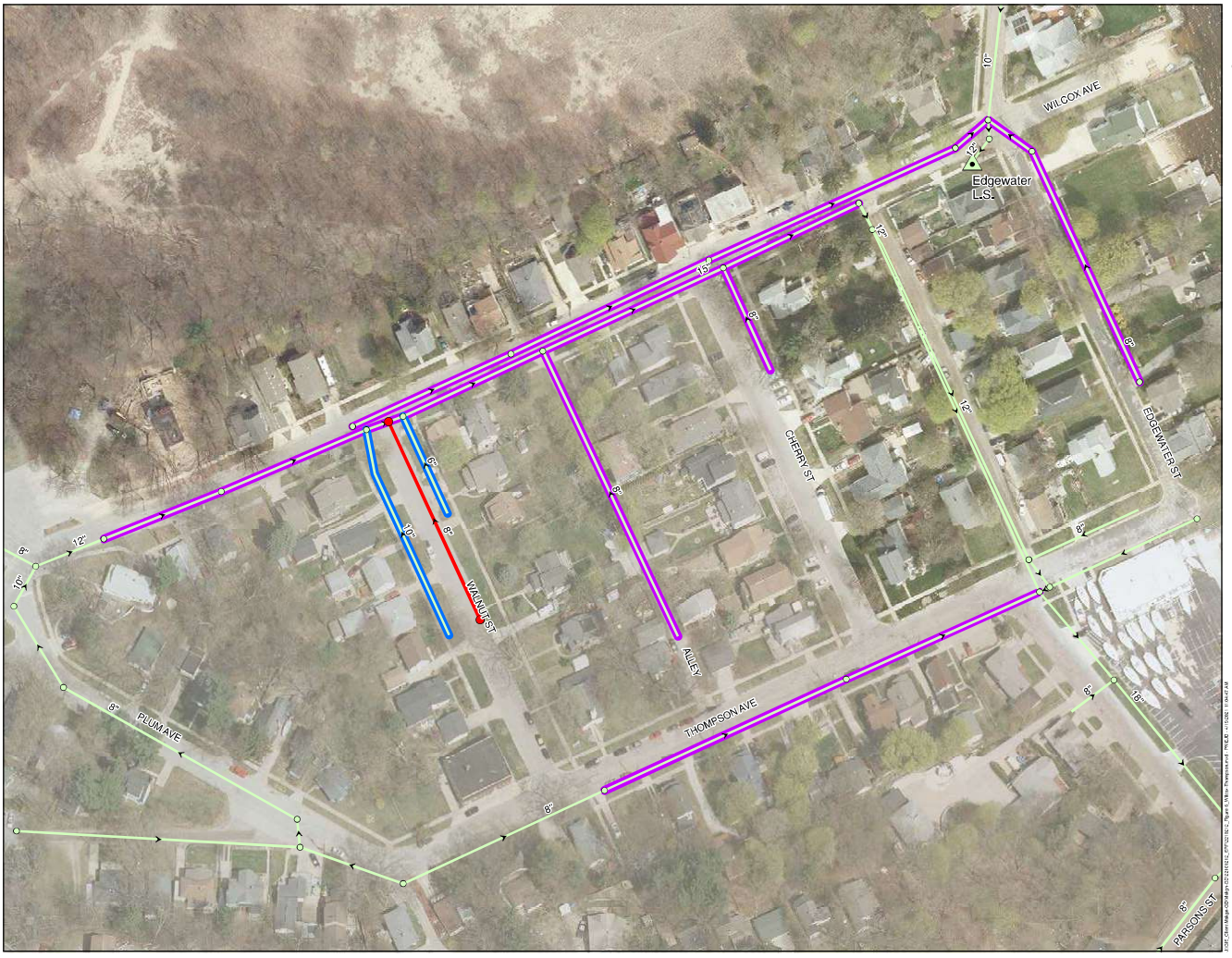

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
WILCOX AVENUE AND
THOMPSON AVENUE AREA SEWERS
CONCEPTUAL DESIGN
LEGEND
Proposed Manhole
Proposed Gravity Main
Existing Lift Station
Existing Manhole
Existing Gravity Main
Existing Gravity Main - To Be Abandoned
Existing Gravity Main - To Be Replaced
WILCOX AVE
Edgewater L.S.
CHERRY ST
EDGEWATER ST
WALNUT ST
ALLEY
THOMPSON AVE
PLUM AVE
PARSONS ST
SCALE: 1 " = 100 '

Figure 3

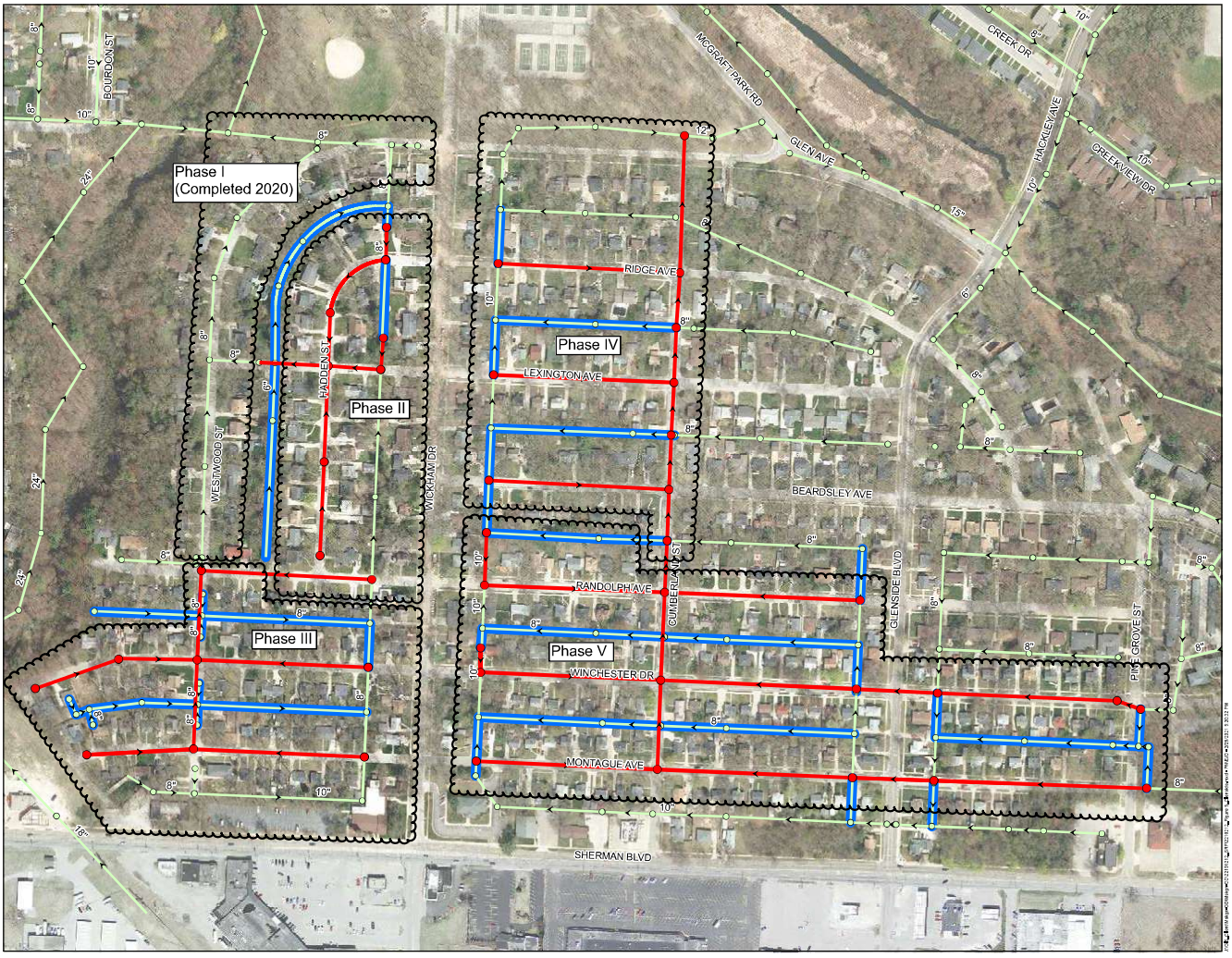

CITY OF MUSKEGON
MUSKEGON COUNTY, MICHIGAN
GLENSIDE NEIGHBORHOOD SEWERS
CONCEPTUAL DESIGN
LEGEND
Proposed Manhole
Proposed Gravity Main
Proposed Forcemain
Existing Manhole
Existing Gravity Main
Existing Gravity Main - To Be Abandoned
Phase I
(Completed 2020)
Phase II
Phase III
Phase IV
Phase V
BOURDON ST
WESTWOOD ST
HADDEN ST
WICKHAM DR
MCGRAFT PARK RD
GLEN AVE
CREEK DR
HACKLEY AVE
CREEKVIEW DR
RIDGE AVE
LEXINGTON AVE
BEARDSLEY AVE
CUMBERLAND ST
GLENSIDE BLVD
RANDOLPH AVE
WINCHESTER DR
MONTAGUE AVE
PINE GROVE ST
SHERMAN BLVD
SCALE: 1 " = 250 '

Figure 4