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GOVERNOR

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

EGLE
DAN EICHINGER
DIRECTOR

April 13, 2023

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of St. Joseph, Berrien County
Upton Drive Sewer Replacement and Force Main Crossing Replacement
Clean Water State Revolving Fund (CWSRF) Project No. 5647-02

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 ST. JOSEPH, BERRIEN COUNTY
SANITARY SEWER AND FORCE MAIN REPLACEMENT
ENVIRONMENTAL ASSESSMENT
April 2023**

I. PROJECT IDENTIFICATION

Applicant: City of St. Joseph

Address: 700 Broad Street
St. Joseph, Michigan 49085

Authorized Representative: Mr. Tim Zebell, City Engineer

CWSRF Project Number: 5647-02

The city of St. Joseph (St. Joseph) is proposing to finance sanitary sewer replacement on Upton Drive (Upton) and a force main replacement crossing the St. Joseph River with a CWSRF loan administered by the Department of Environment, Great Lakes, and Energy (EGLE). St. Joseph is in southwest Michigan's Berrien County on the shore of Lake Michigan at the mouth of the St. Joseph River. The city is bounded by the St. Joseph River and the Paw Paw River on the east side and by Lake Michigan on the west side. The St. Joseph River also flows through the northern portion of the city, creating two distinct sections.

St. Joseph owns and operates a wastewater collection system that has three main branches that transport both sanitary sewage and wet weather flow during storm events. Flow is delivered to the Benton Harbor-St. Joseph Joint Wastewater Treatment Plant (JWWTP) located on Marina Island before eventual discharge to the St. Joseph River.

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

The following projects are targeted for construction in 2023:

- Upton Reconstruction Sewer (related water infrastructure project to be funded via DWSRF project loan number 7488-01)
- St. Joseph River Force Main Crossing from State Street (State) to Upton
- Closure of Combined Sewer Overflow (CSO) Structure No. 3

The total project cost is estimated to be \$3,000,000, which would result in average monthly sewer bills increasing approximately \$4.83 per month to service the debt and operate/maintain the facilities over time. This is a worst-case scenario. Actual rate changes may be smaller since St. Joseph qualifies for a 10 percent American Rescue Plan (ARP) grant (\$300,000 based on current estimate). The remaining eligible cost comes to \$2,700,000, to be financed through a low-interest loan from the CWSRF over a 30-year loan term at 2.125 percent.

II. PROJECT BACKGROUND

A. Existing Facilities

St. Joseph's wastewater is treated at the JWWTP located on Marina Island using an activated sludge process for secondary treatment. Anaerobic digestion stabilizes the sludge and the biosolids are land applied for beneficial reuse on agricultural lands. The plant is designed to process an average wastewater flow of 15.3 million gallons per day (mgd) with a maximum daily wastewater flow of 23.5 mgd. The peak hydraulic capacity of the plant is 28.0 mgd. Currently, the treatment plant has sufficient capacity to service the needs of residents, and future total flow to the plant is expected to be relatively unchanged over the next 20 years. Various improvements have been made in recent years to keep the plant well-maintained. There are two permitted industrial dischargers in the system.

During wet weather events, flows exceeding of JWWTP capacity limit are discharged untreated as a CSO to the St. Joseph River from a location known as CSO-005 under authorization of the city's National Pollutant Discharge Elimination System (NPDES) permit. The cost for construction of a basin to store these overflows and eliminate discharge to the river is approximately \$17.3 million. Due to these high basin construction costs, St. Joseph has been coordinating with EGLE to revise its NPDES permit, as part of the re-issuance process, with the goal of allowing the city to assess the potential for additional wet weather infiltration and inflow (I/I) flow removal and providing additional time to do so. Reductions in I/I from the system could have a corresponding reduction in the required size and cost of the proposed storage basin.

The existing CSO-003 Outfall at State and Water Street formerly discharged to the St. Joseph River during wet weather but has been inactive following recent I/I removal projects in the city.

St. Joseph's wastewater collection system was constructed in the late 1800s through the mid-1900s except for sewers that have been reconstructed during recent CSO projects or other roadway reconstruction projects. The remaining sewers are predominantly made of clay pipe with brick manholes. Some brick manholes and sewers remain in service. Sewers reconstructed as part of the past CSO work or roadway reconstruction were built using precast concrete manholes and polyvinyl chloride pipe.

A major critical asset is a sanitary sewer force main that runs along State, crossing the St. Joseph River to Upton. It is believed that this force main was constructed in the early to mid-1900s.

There are ten lift stations throughout the city. Most of the lift stations are in fair condition, but there are some lift stations that are in very poor condition and at the end of their useful lives such as the Alco, Hawthorne, and North Pier Lift Stations. St. Joseph consistently evaluates their pump stations and performs preventative maintenance to keep them in operation, but repairs and maintenance become more expensive as they continue to age. Future repairs are planned in the city's capital improvement plan, but none are targeted for FY 2023 with the exception of site improvements at the Edgewater Pump Station (PS) along Upton for force main and sewer replacement.

B. Project Need

St. Joseph has conducted an I/I investigation of its system to identify areas with high I/I that can be mitigated to reduce the size and associated cost of constructing a CSO control basin. This I/I investigation was performed using a combination of video inspection data, supplemental field investigations, institutional knowledge of the system, previous flow metering data, and micro-metering of the system. This investigation identified five areas of the system that were suspected of having relatively high I/I. These areas were included in a model analysis that compared the CSO volumes under existing conditions and conditions with I/I mitigation in the selected areas.

St. Joseph is currently performing a pilot project with city funds (not part of the CWSRF) on an area of the sanitary sewer collection system that is believed to have a high amount of I/I. This area of sanitary sewer was televised and determined that the sanitary sewers are in fair condition but are beginning to show some signs of age by the defects that occur throughout the piping network. These defects include minor cracks along the inside of the pipes, roots protruding through existing joints, and other similar defects that introduce I/I as the sewer network continues to age. This project consists of cured-in-place-pipe (CIPP) lining the existing sanitary sewer network to evaluate any reduction of I/I that currently exists along with the cost-effectiveness of this construction method. If found to be cost-effective, St. Joseph may plan on CIPP lining additional areas of the sanitary sewer collection system that are believed to have high amounts of I/I if the existing piping network is in fair condition and allows for such type of construction method.

St. Joseph also has upcoming roadway reconstruction projects such as Upton from the St. Joseph River to Marina Drive (Marina). Since the existing roadway will be removed and all utilities are being replaced, it is planned to remove and reconstruct the existing sanitary sewer along Upton also. When roadway reconstruction projects take place throughout the city, it has proven to be more cost-effective to remove and replace the sanitary sewer rather than CIPP lining because it renews the useful life of that section of sanitary sewer and allows for any improvements that may need to be made in an old sanitary sewer collection system, including replacement of lateral services in the right-of-way. Existing conditions of the sanitary sewer on Upton and other future project areas in the city continue to worsen as they age. For example, sections of sanitary sewer are nearing the end of their useful life and showing signs of failure such as joint separations, cracking within the pipes themselves and other defects. Some joint separation on the sanitary sewer along Upton has been witnessed. The city would also propose a new sanitary service to adjacent industrial users to remove septic tanks and reduce potential of sanitary overflow to the St. Joseph River. These Upton sewers in poor condition require reconstruction to renew their useful lives.

As mentioned, CSO 003 has been rendered unnecessary due to completed I/I removal efforts upstream. A new structure should be installed to replace it, limiting overflows to the St. Joseph River except under extreme weather whereby a manual operation from a city official would be required to allow it to occur.

III. PROPOSED ACTION

The following collection system alternatives were considered:

A. No Action

No action is unacceptable because continuing to operate the system without improvements will result in increased cost and operational issues, as well as continued exposure of the community to health risks. It will also not meet the terms of the NPDES Permit. The Transport and Treat option was not considered because it would involve the construction of a new river crossing under the Morrison Channel that would be too costly and send additional flows to the WWTP that would only result in increased overflows or bypasses.

B. Collection System Improvements

St. Joseph has proposed the following construction for 2023:

1. Upton Sewer Replacement

The sewers in this area are old, cast-iron pipes, installed in the 1950s, beyond their design lives, and showing evidence of failure. Video inspections have identified numerous defects and televising could not be performed in many spots due to the pipe's poor condition whereas other sections were underwater where a camera could not go. Moreover, the area is a source of high I/I. The Upton project consists of placing 642 linear feet (LFT) of 12-inch diameter sanitary sewer and 170 LFT of 15-inch diameter sanitary sewer from Upton to Marina, and 921 LF of 8-inch diameter sanitary sewer from Marina to Momany Drive. This work is planned to be combined with the city's water main replacement project to be financed by Drinking Water State Revolving Fund (DWSRF) project number 7488-01.

2. Force Main Replacement

The force main crossing the St. Joseph River is nearing the end of its useful life because of its age and because of the corrosive soils found throughout the entire city. Its location under the St. Joseph River makes consequences of failure high, prompting the desire to address it now. Bypass pumping would not be possible as the St. Joseph River is a navigable waterway to both commercial and leisure vessels and that nearby bridges are draw bridges to allow the passage of water vessels to Lake Michigan. Pumping and hauling is also not a feasible method of making any force main repairs or replacements because it would be too cumbersome and costly. St. Joseph plans to construct a new force main in the same proximity as the existing force main while keeping the existing force main in operation during construction for the longest amount of time possible.

3. CSO 003 Transfer Structure

This outfall should be closed to all operations with a revised structure that would eliminate CSO discharges except under extreme weather events.

IV. DESCRIPTION OF PROPOSED PROJECT

St. Joseph intends to implement the wastewater system improvements for replacing sewer on Upton and replacing the St. Joseph River force main crossing pipe as described in the previous section (See Figure 2 for a map of the project locations).

A. Project Cost Breakdown

Table I shows the breakdown of the estimated project cost, which totals \$3,000,000 (CWSRF eligible cost displayed only).

Table I.	
Description	Estimated Cost
Upton – Sewer	\$1,409,500
Force Main River Crossing and Upton FM @ Edgewater PS	\$1,464,400
Transfer Structure at CSO 003	\$126,100
Total	\$3,000,000

B. Project Schedule and Implementation

The proposed project is expected to be financed with a 30-year loan at 2.125 percent interest from the CWSRF administered by the Department of Environment, Great Lakes, and Energy and the Michigan Finance Authority. St. Joseph would be awarded a CWSRF loan portion of \$2,700,000 based on the current estimate. This project would also qualify for an estimated ARP Grant of \$300,000.

A rate increase of approximately \$4.83 a month would be needed to service the CWSRF debt and pay for operation and maintenance. However, this is a worst-case scenario that does not account for the grant St. Joseph is eligible to receive.

St. Joseph 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 all improvements likely to be operational by late 2024 or early 2025.

V. ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION

A. Description of Affected Environment

Cultural Resources

In an earlier phase of the CWSRF project plan, the State Historic Preservation Officer (SHPO) determined that no historic properties would be affected by the proposed projects. Tribal Historic Preservation Officers were likewise notified about the proposed project in an earlier phase, and none expressed any specific concerns. There are no changes to the project scope or affected area that would suggest these prior conclusions would no longer be valid.

Wetlands/Floodplains/Surface Waters

The city's entire western area is a coastal zone. Sensitive features in the study area include beaches and wetlands. Vast stretches of sandy beaches form the Lake Michigan shoreline. Wetlands in the city are primarily adjacent to rivers but there are others to the north and south. Floodplain is primarily confined to the areas immediately adjacent to the St. Joseph River, Paw Paw River, and their tributaries. Some excavation and grading in the floodplain is possible for the Upton project. A Joint Permit Application from EGLE and the Army Corps of Engineers (ACoE) is in the final approval stage and required for the force main river crossing. No adverse impacts on wetlands, floodplains or surface waters are anticipated.

Endangered Species

The United States Fish and Wildlife Service and Michigan Natural Features Inventory reviewed the proposed projects and determined that no threatened or endangered species, critical habitat, or special natural features would be adversely affected. Of the 8 federally listed and 7 state listed endangered/threatened species found in Berrien County, none are likely to be encountered by the project. However, any necessary tree trimming/removals will be conducted between October and March to mitigate potential harm to the Indiana and Northern long-eared bats.

Social Impacts

The proposed project will have a relatively small cost impact to sewer customers. St. Joseph 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 threat of SSO from the aging sewer pipes. The creation of jobs during construction phase would be a short-term benefit.

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 construction period. Structural and non-structural measures that avoid, eliminate, or mitigate adverse impacts to the environment have been identified. Work will be confined to designated work hours, minimized on weekends or holidays, and all equipment will be required to have proper exhaust systems and mufflers to mitigate noise impacts. Mitigation measures to minimize the negative effect of dust from construction will be employed. A soil erosion and sedimentation control permit from Berrien 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. Tree removals are expected to be relatively minimal: approximately 10-15 trees of various diameters may be affected.

The existing sanitary force main will remain in service until the new force main is fully installed and able to convey the flow. The proposed force main is offset more than 30 feet from the existing force main under the river and the minimum landward offset exceeds 10 feet on the north side of the river and more than 20 feet on the south side. The proposed force main material is fusible high density polyethylene pipe creating a continuous pipe with no joints that minimizes the potential for leaks. The force

main is also being placed well below the riverbed to reduce the potential for adverse impacts. A joint permit from EGLE/ACoE will be followed to prevent concerns to the river.

VI. PUBLIC PARTICIPATION

A public hearing on the CWSRF project plan was held on June 13, 2022. The hearing was advertised in the *Herald Palladium* and on the city's web site. A copy of the draft plan was made available for a 30-day period at the St. Joseph City Hall, the St. Joseph Public Library, and on the city's web site, prior to the hearing. No changes were made to the project because of the hearing. After closing the hearing, the city commission passed a resolution adopting the final project plan and its selected alternatives.

VII. REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS



Expected adverse impacts from the proposed project appear to be minor or largely temporary in nature. There is a social cost to paying for the wastewater system upgrade and operating and maintaining the system. However, completing this upgrade results in increased reliability and minimizes risk to public health and the environment from sewer collapse or breaks, and protects surface water quality. It is believed that these beneficial impacts significantly outweigh the minor temporary negative impacts.

Questions regarding this Environmental Assessment should 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
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Figure 1: Study Area

Study Area

-  Boundary
-  Public Parks

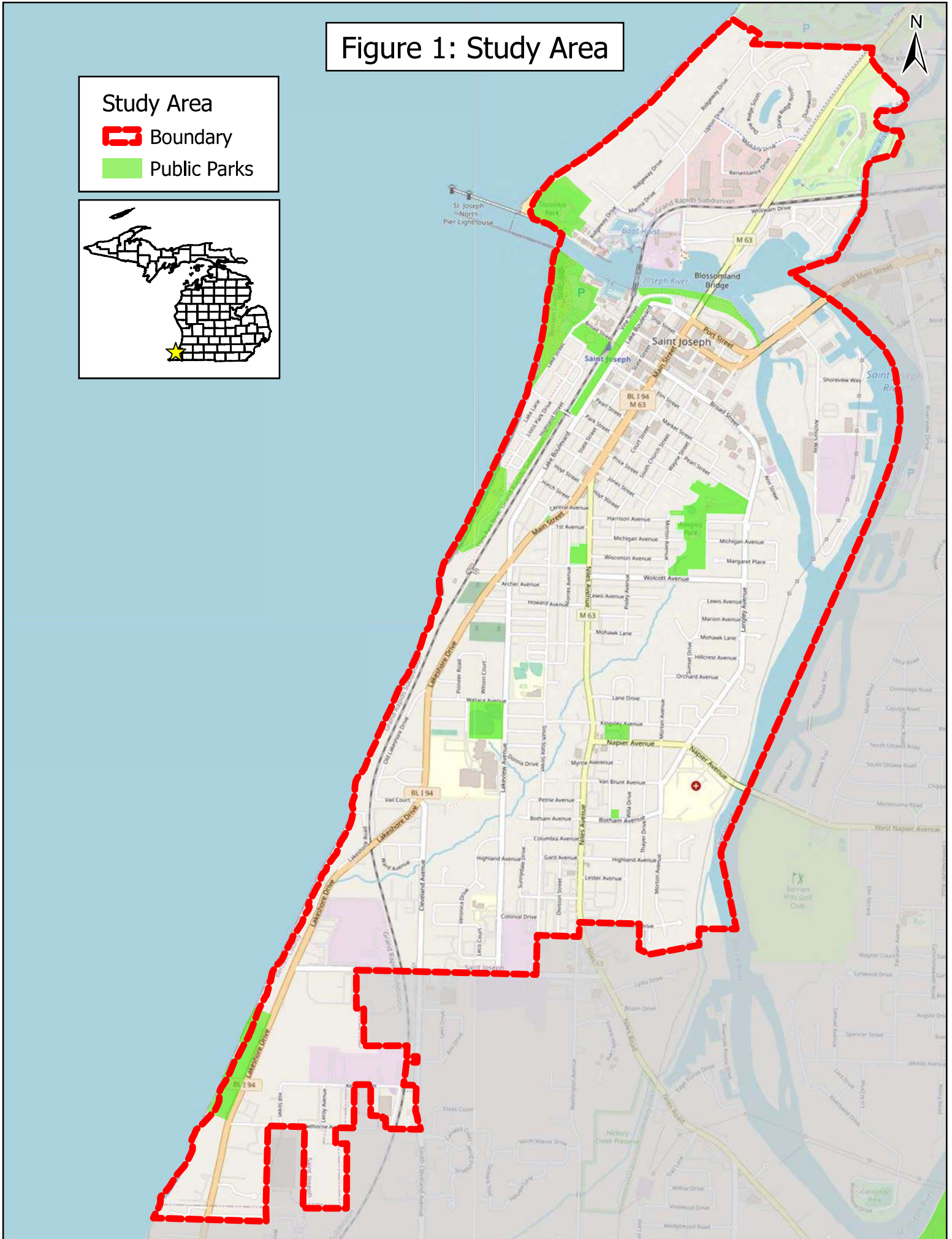
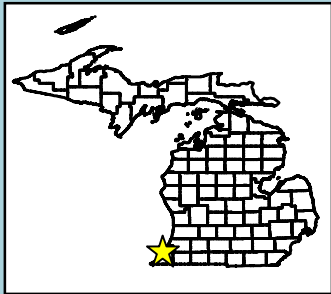


Figure 2: Project Map




Project Locations

 Boundary

 Public Parks

 CSO 3 Transfer Structure

 Forcemain Reconstruction

 Upton Drive

