



GRETCHEN WHITMER
GOVERNOR

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



LIESL EICHLER CLARK
DIRECTOR

February 4, 2021

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
**Macomb Interceptor Drain Drainage District, Macomb County
MIDDD Interceptor Sanitary Sewer Structural Rehabilitation
Clean Water State Revolving Fund Project Number 5693-01**

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 wastewater 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 wastewater project. EGLE has done this by incorporating a detailed analysis of the environmental effects of the proposed alternatives in its review and approval process. A project plan containing information on environmental impacts was prepared by the municipality 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. Jonathan Berman, the project manager, at 517-897-3634, by email at Bermanj@michigan.gov, or you may contact me. Your interest in this process and the environment is appreciated.

Sincerely,



Kelly Green, Administrator
Water Infrastructure Financing Section
Finance Division
517-284-5433

Attachment

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
Clean Water State Revolving Fund
Macomb Interceptor Drain Drainage District, Macomb County
MIDDD Interceptor Sanitary Sewer Structural Rehabilitation
Environmental Assessment
February 2021

PROJECT IDENTIFICATION

Applicant: Macomb Interceptor Drain Drainage District

Address: 21777 Dunham Road
Clinton Township, Michigan 48036

Authorized Representative: Mr. Brian Baker, Chief Deputy
Macomb County Public Works

Project Number 5693-01 (Segment 6)

PROJECT BACKGROUND

The Macomb Interceptor Drain Drainage District (MIDDD) is applying in fiscal year (FY) 2021 for a below market rate (1.875 percent for 20-years) Clean Water State Revolving Fund (CWSRF) loan from the Department of Environment Great Lakes and Energy (EGLE). The loan will finance structural rehabilitation of an estimated 2,120 linear foot section of the 15 Mile Road Interceptor (PCI-15C from MH-1 to MH-4) with improved access via modification of manhole MH-1 and constructing a new access shaft adjacent to manhole MH-4. It will also cover the structural rehabilitation of an estimated 1,400 linear foot portion of the Romeo Arm (PCI-12A from CS-2 to CS-3) as well as Control Structures CS-2 and CS-3. Lastly, it will accomplish the structural rehabilitation of the 15 Mile Road Interceptor manholes (MH-1 to MH-4) and Fraser FR-S-1 (manholes and connection pipe) in addition to the installation of a 36-inch-diameter foul air duct to improve ventilation and address hydrogen sulfide damage and odors. See Figure A for both a study area location map and a project map.

The total estimated project cost is \$28.032 million, while the current anticipated loan amount is \$25.484 million as \$2.548 million represents non-construction costs (e.g. planning, design, construction engineering, etc.) which are anticipated to be paid for by Macomb County outside the CWSRF with 'cash on hand.' User rates for the typical residential customer of the Macomb Interceptor Drain (MID) sanitary sewer system are not expected to be impacted by implementing the project since the loan debt service has already been budgeted. The construction is scheduled to begin in June 2021 and complete by December 2022.

This project is the first of five planned sanitary wastewater capital improvement segments which are necessary in order to bring into reliable function certain portions of the MIDDD system (specifically the 15 Mile Road Interceptor, Lakeshore Interceptor, and Garfield Interceptor) while also addressing structural integrity problems in the Romeo Arm Interceptor. This interceptor experienced three pipe collapses that contributed to massive sinkholes including two major failures in the last 16 years. The MIDDD system conveys approximately 41 million gallons of sewage per day servicing around 500,000 residents, 40,000 businesses, 11 communities, and the Selfridge Air National Guard Base. The 11 communities are the townships of Chesterfield, Clinton, Harrison, Lenox, Macomb, Shelby, and Washington, the cities of Fraser, Sterling Heights, and Utica, and the village of New Haven.

The Clintondale Pump Station collects and discharges flow from the Lakeshore Interceptor into the 15 Mile Road Interceptor, pumping it two miles west where it joins with the Romeo Arm, the Garfield Interceptor, the Sterling Heights Arm, the Shelby Township Sanitary Connector and the Macomb Element from the north, then continuing to the Edison Corridor Interceptor and then combining with the Oakland-Macomb Interceptor Drain. The wastewater then travels to the Northeast Pump Station, south of 8 Mile Road in the city of Detroit, where the flow is lifted to the Great Lakes Water Authority (GLWA) system for treatment.

PROPOSED PROJECT

A. Project Need/Justification

The 15 Mile Road Interceptor and Romeo Arm were both built in the early 1970's. Generally constructed of 5-foot diameter reinforced concrete pipe, the 15 Mile Road Interceptor drains by gravity for 4.5 miles from east to west into the Romeo Arm (also around 4.5 miles long) which consists of 11-foot monolithic unreinforced and 8-foot diameter reinforced concrete pipe.

EGLE recently awarded a grant to Macomb County for asset management plan development which identified critical structural defects in the pipes and manholes of the MIDDD system. Critical structural defects in both the 15 Mile Road Interceptor and Romeo Arm Curve were identified. Pipe and manhole structural integrity problems were documented through the National Association of Sewer Service Companies (NASSCO) Pipe Assessment Certification Program (PACP) and Manhole Assessment Certification Program (MACP). Structural condition grade ratings of either a 4-significant defect or a 5-most significant grade were discovered.

Structural PACP 5's traverse both the 15 Mile Road Interceptor from MH-1 to MH-4 and the Romeo Arm Curve from CS-2 to CS-3. Follow up inspections of the 15 Mile Road Interceptor also revealed visible surface aggregate with some visible steel reinforcement as well as grout from previous rehabilitation work. The most severe portions of microbiologically induced corrosion were generally limited to the area between MH-1 to MH-4. Similarly, investigation of the Romeo Arm Curve's structural integrity uncovered missing aggregate as well as notable tunnel section loss from microbial induced corrosion due to hydrogen sulfide accumulation.

In September 2017, the MIDDD and EGLE entered into an administrative consent order (ACO) containing a schedule in which the MIDDD was to complete its repair work for the MID system. As a result, this project was awarded enforcement points which further prioritized its application for financing through the CWSRF.

B. Alternatives Considered

The CWSRF requires two alternatives be considered: 'No Action' and 'Regional Option.'

No-action Alternative

No action is not feasible. In the absence of action, the documented structural integrity problems within both the 15 Mile Road Interceptor from MH-1 to MH-4 and the Romeo Arm Curve will be compounded over time, elevating the risk of failure or collapse. In addition to being under an ACO to finish the repair work, the MIDDD must also take action to comply with the statutory requirements of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act (NREPA), Act 451 of 1994 by preventing future discharges caused by interceptor sewer failure or collapse.

Regional Alternative

The Regional Option is also not a feasible alternative since the MID system is already regional. Flows from 11 communities combine with some in Oakland County and others in Macomb County to then be treated in Detroit by GLWA.

Macomb County analyzed and compared two principal alternatives for this MIDDD interceptor sewer project: 'Rehabilitation/Repair' and 'Full Replacement.' See table below:

Table 1: Capital Cost Comparison & Present Worth Analysis

Alternative	Total Capital Cost	Present Worth Value
Rehabilitation/Repair	\$28,032,400	\$14,306,470
Full Replacement	\$58,212,000	\$26,484,100

The selected alternative for this MIDDD Interceptor sewer project is 'Rehabilitation/Repair' as it is more cost-effective for Macomb County to implement than the 'Full Replacement' option

C. Description of the Proposed Project

The MID wastewater capital improvements will include structural rehabilitation of an estimated 2,120 linear feet of the 15 Mile Road Interceptor (PCI-15C, MH-1 to MH-4) and 1,400 linear feet of the Romeo Arm Curve (PCI-12A, CS-2 to CS-3). To accomplish this, a glass fiber reinforced polymer mortar pipe (GFRPMP) will be slip-lined within these large interceptors, resulting in a more reliable pipeline with a new estimated useful design life of up to a century if properly maintained. As a result, the 5-foot diameter reinforced concrete pipe of the 15 Mile Road Interceptor will then be reduced to around 4-feet, 6-inches while the 11-foot diameter monolithic unreinforced concrete pipe of the Romeo Arm Curve will likewise be reduced to about 9-feet, 2-inches.

The project also involves modification of manhole MH-1 to improve access as well as construction of a new access shaft adjacent to manhole MH-4 to facilitate the work and aid in future maintenance. The work scope also contains structural rehabilitation of 15 Mile Road Interceptor manholes MH-1 to MH-4, Romeo Arm Curve's CS-2 and CS-3 Control Structures, and Fraser FR-S-1 manholes and connection pipe. Installation of a 36-inch-diameter foul air duct is included to address hydrogen sulfide damage and odors.

D. Project Cost Estimate

Table 2: Total Project Cost Estimate

Project Cost Estimate	5693-01 (Segment 6)
Design, Legal, Financial, and Construction Engineering	\$2.548 Million
Construction	\$25.484 Million
TOTAL	\$28.032 Million

DESCRIPTION OF AFFECTED ENVIRONMENT/IMPACT OF PROJECT

A. Water Quality Impacts

Although the structural rehabilitation will involve crossings of the Harrington Drain, Sweeney Drain, Tesk Drain, and others, all work will occur beneath the waterways with the distance from the stream bed to the top of the interceptor drain pipe ranging between 15 and 30 feet. Isolated excavations and trenchless pipe technologies will be utilized to prevent impacting the drains. While wetlands exist in and around the study area, they are not present within the construction areas. All planned excavation work necessary for the project will occur outside the 100-year floodplain.

B. Construction Impacts

The U.S. Fish and Wildlife Service's section 7 online review process resulted in a "No Effect" determination, meaning that no listed species or designated critical habitat are anticipated to be directly or indirectly affected by the project.

The Michigan Natural Features Inventory determined it is unlikely adverse impacts will occur based on records of species and critical habitat within 1.5 miles of the project site.

The State Historic Preservation Office (SHPO) review is underway and no significant impacts are expected. Prior to construction taking place in the collection system, the SHPO review will be completed.

Federally identified tribal nations for Macomb County were contacted, requesting comments as to any potential impact to tribal historic, religious, or cultural resources. Thus far, no comments have been received.

Short-term construction impacts are expected to be minimal as all work will take place within the existing roadway rights-of-way, adjacent easements, and existing utilities.

A comprehensive dewatering program is not anticipated. The shaft construction will be centered around the 15 Mile Road Interceptor where the soil profile is predominantly cohesive soils and so only some minor sump pumping may be required. Soil erosion and sedimentation control measures are necessary to ensure nearby drains are not impacted. Therefore, permits (Part 91) will be obtained with mitigation procedures in place prior to construction. It is not anticipated that hazardous wastes, liquid industrial byproducts, and/or contaminated solid wastes (including soils) will be encountered in construction.

Contractors will restore all site disruptions to the appropriate jurisdictional requirements (i.e. state, county, or local). Techniques to be utilized for minimizing impacts include standard procedures for cover, vegetation removal, dust reduction, traffic maintenance, and accident prevention. An official point of contact will be delegated by the county to address any questions or concerns from area residents and businesses.

Noise levels during construction will be monitored to ensure they are within acceptable limits. Control for noise on site will be achieved by thoughtfully locating generators, proper equipment maintenance, restricted work times, and staging the work to reduce the need for several loud pieces of machinery to run simultaneously.

Despite traffic control devices and temporary lane (or road) closures being necessary during construction, interference with the normal flow patterns of vehicle traffic will be kept to a

minimum. The work sites will be maintained to minimize aesthetic impacts to the area and litter will be collected daily. Dust control palliative measures may include, but are not limited to, sprinkling, applying calcium chloride, wheel washing, street sweeping, street washing, and load covering.

Although it is not anticipated that construction will create increased odors, contractors will be required to provide an odor control plan, covering the positioning of blowers and ventilation equipment and if/when necessary the use of deodorizing filters. The project is anticipated to reduce operational odors through installation of a 36-inch-diameter foul air duct to improve ventilation in addition to addressing hydrogen sulfide damage.

C. Secondary Impacts

The average daily dry weather flow for the MIDDD system is projected to rise over the next 20 years from 30-50 cubic feet per second (cfs) to 60-80 cfs. This project will reduce the pipeline's total capacity with much less infiltration. As a result, no adverse secondary growth impacts are anticipated from implementing the project.

Despite the smaller post-construction pipe diameter size for both the 15 Mile Road Interceptor and Romeo Arm Curve, recent MID modeling of the resulting downsized capacity does not predict negatively impacted hydraulics. The county does not expect the reduced capacity to be a problem for the functionality of the MIDDD system.

PUBLIC PARTICIPATION

The MIDDD held a public hearing to discuss the CWSRF project plan on May 29, 2019. The public hearing was advertised in the *Macomb Daily* on April 23, 2019. Copies of the project plan were made available for public review 30 days prior to the hearing at the Macomb County Public Works Office. No public comments were received during the public notice period. A resolution approving the project plan and agreeing to implement the selected alternative was adopted by the MIDDD Board on June 10, 2019.

During early design, the project scope was dramatically scaled back and modified to deliver the most critical improvements and upgrades while furthering cost-effectiveness. The project plan had recommended full structural replacement of the 15 Mile Road Interceptor's entire gravity drained portion (from MH-1 to MH-22). But upon evaluation of the latest PACP scoring data as well as the cleaning and televising inspection videos, it was determined that only the portion from MH-1 to MH-4 requires rehabilitation now while the remainder will receive staged inspections (rehabilitation will be done later, if necessary, pending results of such inspections). Meanwhile, structural rehabilitation of the Romeo Arm Curve was added along with manholes MH-1 to MH-4, the CS-2 and CS-3 Control Structures, and Fraser FR-S-1 manholes and connection pipe, in addition to installation of a 36-inch-diameter foul air duct.

Since these are significant changes to the project from the original project plan scope of work, EGLE required the county to issue a public notice in January 2021 for a minimum of two weeks. The notice was posted on the county's public works website and advertised in the *Macomb Daily*. The purpose in issuing the public notice is for the county to solicit comments, concerns, and questions from area residents and businesses in order to provide additional opportunity for public participation given the recent changes.

Prior to EGLE approving the project, both the public notice period will need to have expired and any issues raised during the process will have to be adequately addressed by the county. Note that all cross-cutter agency reviews were based upon project information which included the

recent changes. Additionally, the estimated \$25.484 million CWSRF loan budget represents a substantial reduction in cost from the \$65.03 million dollar amount in the 2019 project plan.

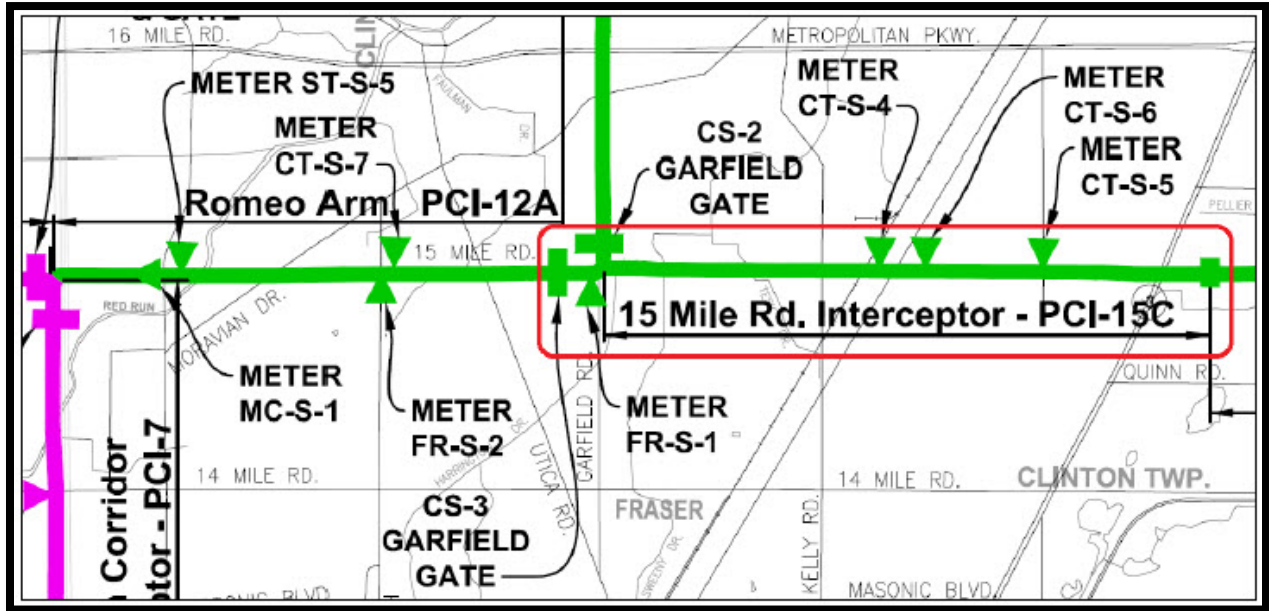
REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project will have no significant adverse direct, indirect, or cumulative impacts upon any socioeconomic, cultural, or environmental factors. Minor construction impacts will be localized to construction zones and temporary. These impacts can be mitigated with sound construction practices and adherence to permit requirements. Except for SHPO, all applicable crosscutter agency review clearances have been obtained. And as stated earlier, this Environmental Assessment is conditioned upon the successful completion of both SHPO's review and the county's January 2021 public notice.

Questions regarding this Environmental Assessment should be directed to:

Mr. Jonathan Berman, Project Manager
Water Infrastructure Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-4957
Telephone: 517-897-3634
E-Mail: Bermanj@michigan.gov

**MID 15 Mile Interceptor and Romeo Arm Curve
Study Area Location Map**



**MID 15 Mile Interceptor (MH-1 to MH-4) and Romeo Arm Curve (CS-2 to CS-3)
Sanitary Sewer Structural Integrity Improvement Project Map**

CWSRF Project Number 5693-01 (Segment 6)



Structural Rehabilitation (GFRPMP slip-lining), New Access Shaft, and Foul Air Duct

FIGURE A