GRETCHEN WHITMER
GOVERNOR

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

LIESL EICHLER CLARK
DIRECTOR

June 1, 2022

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Eaton Rapids, Eaton County
Wastewater Treatment Plant and Sewage Lift Station Improvements
Clean Water State Revolving Fund (CWSRF) Project No. 5765-01

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. 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,

Eric Pocan

Eric Pocan, Unit Supervisor
Water Infrastructure Financing Section
Finance Division
517-284-5433

Attachment

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
Clean Water State Revolving Fund (CWSRF)
City of Eaton Rapids, Eaton County
Wastewater Treatment Plant Capital Improvements
Lift Station Improvements
Environmental Assessment
June 2022

PROJECT IDENTIFICATION

Applicant:	City of Eaton Rapids
Address:	200 South Main Street Eaton Rapids, Michigan 48827
Authorized Representative:	Mr. Robert Pierce, Director of Public Works
CWSRF Project Number	5765-01

PROJECT OVERVIEW

The city of Eaton Rapids (Eaton Rapids) is applying for a CWSRF low-interest loan administered by the Department of Environment, Great Lakes, and Energy (EGLE) in fiscal year 2022 to complete improvements to its wastewater treatment plant (WWTP) and to three of its sewage lift stations (LSs). The project has an estimated cost of $3,350,250 and consists of replacement of the centrifugal blowers with positive displacement blowers; replacement of pneumatic butterfly control valves; installation of oxygen sensors in the aerated process tanks with supervisory control and data acquisition (SCADA) integration; headworks controls including SCADA integration; and structural repairs to process infrastructure for safety, including walkways and stairs to be replaced with aluminum grating and handrails. LS improvements will include new pumps and piping, as well as SCADA integration at the Water Street (Water), Michael's View Lane (Michael's View) and the Industrial Drive (Industrial) Pump Stations (PSs). Since Eaton Rapids qualifies as a disadvantaged community, they are eligible to receive up to 15 percent CWSRF principal loan forgiveness. See Figure 1 for a map of the study area and location of proposed improvements. The estimated impact of this project to the average residential customer is a billing increase of approximately $7.09 per month.

PROJECT BACKGROUND

The Eaton Rapids WWTP is located on a 40-acre site at the end of Market Street on the west bank of the Grand River and provides wastewater treatment for the Eaton Rapids as well as Hamlin and Eaton Rapids Townships. The facility was upgraded in 1977 to provide secondary treatment at a design average daily flow of 1.2 million gallons per day (MGD) and a maximum hydraulic capacity of 2.0 MGD. Treatment processes at the WWTP include mechanical screening, grit removal, primary settling, biological phosphorus removal, activated sludge aeration, flow equalization, aerobic digestion, secondary clarification, and ultraviolet disinfection prior to discharge to the Grand River.

PROPOSED PROJECT

A. Project Need/Justification

The existing headwork's screens, upgraded in 2007, are self-cleaning but operate on a timer. There are occasions where the plant receives high flow rates at times that do not match up with the timed operation of the screens. When this occurs, the flow and associated solids begin to bind the screen increasing the water level in the channel upstream of the screen. If there is a long enough duration before the timer turns on the cleaning feature of the screen, the channel water level exceeds the channel walls and flow begins to bypass the screen completely until the timer turns on the cleaning feature. At these times, the solids continue downstream and impact the treatment capacity of those processes. This timer system needs to have a backup override based on the upstream water level in the channel. Making this improvement would allow for recognition of high upstream levels and initiate the screen cleaning operations before the upstream water level exceeds the height of the channel wall height.

The WWTP centrifugal blowers are in the plant blower building. They supply air to activated sludge processes, aerobic digestion, and sludge equalization for mixing. The blowers discharge air to a common discharge header that is undersized and is a process air bottleneck. As a result, the plant operators have difficulty controlling airflow to the aerated processes and cannot use the full blower capacity during high flow periods. The WWTP does not have oxygen sensors in any of the aerated processes, and therefore limits their ability to control aeration at an optimal oxygen concentration.

The existing WWTP has structural concrete elements for accessing a variety of plant areas. The suspended concrete walkways over the secondary aeration tanks are aged and located in a harsh environment. As such, these walkways are spalling and cracking which causes pieces of concrete to fall into the secondary aeration basins. The WWTP staff spends a significant amount of time patching and repairing these walkways and there are some areas where accessibility prevents any maintenance or patching. Ultimately the patches experience freeze and thaw cycles causing the patches to fall off. In addition to the suspended walkways, many of the service door accesses to the buildings have outside concrete staircases to allow access to the first-floor level. These staircases are also being patched and repaired on a regular basis and suffer from freeze and thaw cycles causing spalling and cracking.

Although the Eaton Rapids asset management plan did not include a complete assessment of the Water, Michael's View/River Drive, and Industrial PSs, these PSs need rehabilitation. The Water and Michael's View PSs are nearly 60 years old and at the end of their service life. While operable, their age (and visual inspection) indicates increased risk of failure. The Industrial Drive PS is nearly 30 years old, and the PSs mechanical components need replacement.

B. Alternatives Considered

<u>No-action Alternative</u>

No-action would result in future equipment failure and/or insufficient treatment processing at the WWTP, possibly leading to sanitary sewer overflows, sewer backups, and permit violations.

WWTP Improvements: Blowers/Headworks/Structural Repairs

Major improvements required in the aeration processes system are from the blower discharge header upstream to the blowers. Minor improvements required include replacement of pneumatic butterfly control valves and installation of oxygen sensors in aerated process tanks with SCADA integration. There is no alternative option to a blower to supply air to the existing in-tank aeration equipment. The proposed project is the replacement of the centrifugal blowers with positive displacement blowers. Positive displacement blowers are common at plants of similar size to Eaton Rapids, and less capital intensive than also-common turbo blowers. At the required air range, there is no meaningful reduction in horsepower between the available options. Positive displacement blowers' offer reduced maintenance time requirements when compared to alternatives due to a reduction in maintenance intensive parts. The improvement to the plant's blowers will necessitate new control panels and integration into plant SCADA. The discharge header will be removed and replaced with three discharge lines with interconnections to improve the management of airflow to the aeration processes.

Existing butterfly control valves are near the end of their lifecycle and will be replaced with the discharge piping. Control valve actuators will be integrated into and controlled by plant SCADA. The control strategy will be managed by oxygen sensors located in the process tanks, allowing the plant to reduce airflow when processes are properly oxygenated and conserve energy. The plant blower room contains two compressors, and it is the operator's preference to continue using pneumatic actuators. There is no alternative to the oxygen sensor technology.

As described in the Project Need section, the headworks needs improved controls. The proposed improvements would add level-based controls to the mechanical screen to alleviate the blinding and flooding issues the plant has experienced in the past. There are several level control instruments available on the market, and since this is a headworks application the operator's preference is for an out-of-the-flow instrument. Thus, the proposed improvements call for installation of an ultrasonic level transmitter to be mounted above the channel upstream of the screens. The transmitter would be integrated into the screen control strategy and plant SCADA. There is no alternative for consideration.

Throughout the WWTP, various structural repairs would be performed to improve WWTP process infrastructure and safety. These include replacing walkways above the activated sludge aeration tanks where spalling is occurring and replacing damaged and failing concrete stairways into buildings. All walkways and stairs would be replaced with aluminum grating and handrails.

LS Improvements

The Water Street, Michael's View, and Industrial Drive PSs need to have all the mechanical equipment (pumps and piping) removed and replaced. In addition to this work, all the PSs (excluding the Hospital PS) need to be integrated into the City's SCADA system. Pump capacity at these stations would remain as existing.

Table I summarizes the alternatives cost:

Table I. Cost Summary of Alternatives.

Headworks Screen Controls	$75,000
Blower Aeration Equipment	$1,500,000
WWTP Structural Repairs	$400,000
LS Improvements	$1,375,250
Total	**$3,350,250**

C. Project Cost and Implementation

Eaton Rapids has selected the alternatives described in the previous section as the most cost-effective long-term solutions to address the needs at the WWTP and the LSs.

Eaton Rapids intends to finance the proposed project with a 20-year loan at 1.875 percent interest from the CWSRF. The CWSRF is co-administered by EGLE and the Michigan Finance Authority. Sewer rates for a typical customer can be expected to increase approximately $7.09 per month from the current rates to pay for the project and service the debt. Eaton Rapids was determined to qualify for disadvantaged status in Fiscal Year 2022 and will receive up to 15 percent loan principal forgiveness.

IMPACT OF PROJECT

A. Water Quality Impacts

A primary goal of the project is to maintain reliable wastewater service and compliance with the facility's National Pollutant Discharge Elimination System discharge permit. The proposed project is not anticipated to cause changes to the quality of nearby surface or groundwater.

B. Construction and Operational Impacts

A minor impact on local traffic may occur during the construction of the proposed improvements. During construction, equipment will increase local noise and dust levels during operations. There will be a short-term adverse impact on air quality during the construction phase due to dust and construction equipment emissions generated during the excavation operations. The contractors will be required to use dust controlling agents to reduce the amount of airborne dust. Construction contract provisions will be enforced for compliance with the Soil, Erosion and Sedimentation Control Act to prevent damage to the surrounding areas from soil erosion, dust, and sedimentation. These measures will minimize siltation into the Grand River.

The project will have no impact on archaeological and historical/cultural resources.

The selected alternative will not impact sensitive natural features, wildlife, or ecosystems. There will be minimal disturbance to the surrounding landscape at the WWTP property and LSs. No tree removals are expected to occur, and there should be no impacts to local flora and fauna.

Some work will occur in the floodplain. If determined to be required, an EGLE floodplain permit will be strictly followed. Current elevations ultimately will not be altered.

C. Socioeconomic Impacts

The main impact would be financial, to pay for the loan debt service. Reliable wastewater treatment for system users would be maintained via the improvements. There will be minimal to no direct physical impact to residents from the project.

PUBLIC PARTICIPATION

A formal public hearing on project alternatives and user costs was held on May 24, 2021. The public hearing was advertised in *The Flashes Advertising & News*, a local newspaper. After the close of the public hearing, the recommended alternative was selected for implementation by resolution of the city council.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project has minimal temporary negative environmental impacts but offers substantial benefits of enabling the WWTP to continue to provide adequate treatment of wastewater that would comply with the NPDES permit, meet capacity, and improve efficiency. These improvements will help the WWTP, and sewage lift stations, to function satisfactorily for years to come.

Questions regarding this Environmental Assessment should be directed to:

Mr. David J. Worthington, Senior Project Manager
Water Infrastructure Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-7957
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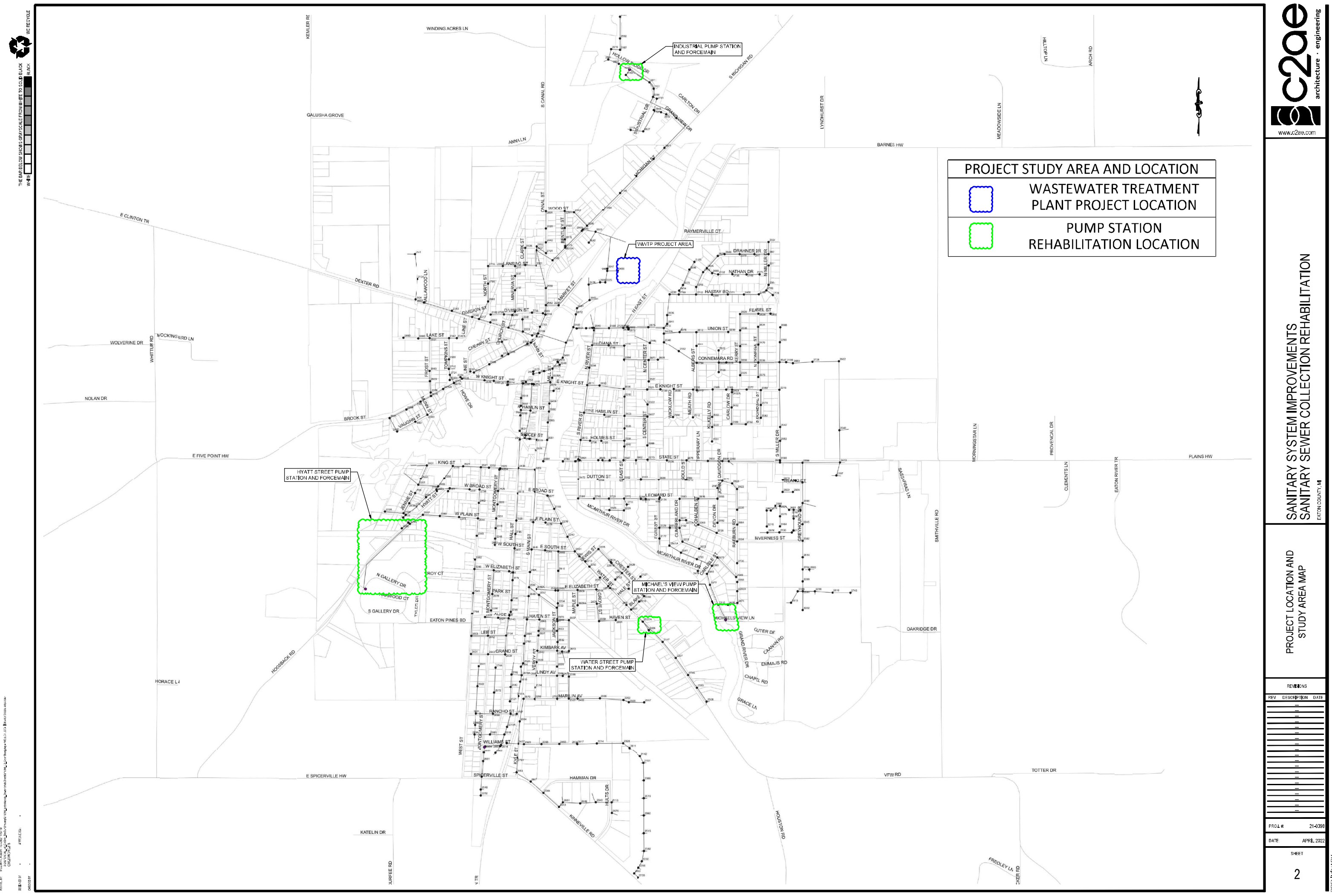
PROJECT STUDY AREA AND LOCATION
WASTEWATER TREATMENT PLANT PROJECT LOCATION
PUMP STATION REHABILITATION LOCATION
INDUSTRIAL PUMP STATION AND FORCEMAIN
WWTP PROJECT AREA
HYATT STREET PUMP STATION AND FORCEMAIN
MICHAEL'S VIEW PUMP STATION AND FORCEMAIN
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PROJECT LOCATION AND STUDY AREA MAP
REVISIONS
SHEET
2
PRELIMINARY

Figure 1