GRETCHEN WHITMER
GOVERNOR

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

DANIEL EICHINGER
ACTING DIRECTOR

April 24, 2023

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Grand Ledge
Wastewater Treatment Plant and Collection System Improvements
CWSRF Fund Project No. 5825-01

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 Valorie White, the project manager, at 517-599-5879, or email at Whitev1@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
517-388-3880

Attachment

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
Clean Water State Revolving Fund
Environmental Assessment
City of Grand Ledge, Eaton County and Clinton County
April 2023

PROJECT IDENTIFICATION

Applicant:	City of Grand Ledge
Address:	310 Greenwood Street Grand Ledge, Michigan 48837
Authorized Representative:	Mr. Adam R. Smith, City Manager
Project Number:	5825-01

PROJECT SUMMARY

The city of Grand Ledge (Grand Ledge) is applying for a 30-year low interest Clean Water State Revolving Fund (CWSRF) loan administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for improvements to the wastewater treatment plant (WWTP), West River Pump Station (PS), and installation of a new force main.

The estimated project cost is approximately $34,995,000. The CWSRF in fiscal year 2023 is offering specialized funding which allows Grand Ledge to receive an American Rescue Plan (ARP) grant for 10 percent of the total eligible CWSRF project cost not to exceed $3,499,500. As a result, the CWSRF loan amount is estimated to be $31,495,500. The financial impact of this project to the average residential customer in Grand Ledge would be a rate increase of up to $40.78 per month.

Project construction is anticipated to begin in summer 2023 and be completed in spring 2026.

PROJECT BACKGROUND

Grand Ledge is located mostly in Eaton County with a small portion of the city to the north extending into Clinton County. Grand Ledge is located west of the city of Lansing (Lansing) in the south-central part of the state. Grand Ledge owns and operates a municipal wastewater system which provides sewers for the city and portions of Oneida Charter Township (Oneida) and Eagle Township (Eagle). Additionally, Grand Ledge anticipates seeing population growth over the next twenty years.

PROPOSED PROJECT

A. Project Need/Justification

Originally, the Grand Ledge collection system was a combined sewer system, which was separated in 1991. The system consists of seven pump stations, over 40 miles of gravity sewer mains, 2 miles of force mains, and three river crossings. The system flows from the West River PS near the Island Park parking lot entrance to the WWTP, which creates a choke point in the system. The interceptor main between them runs along the ledges which are sandstone rock ledges along the Grand River, and therefore can't be increased in size. Additionally, the clay sewer on Green Street (Green) is in poor condition, allowing significant

infiltration and inflow due to the high number of deficiencies. Grand Ledge will complete the Green sewer replacement under a separate project outside of the CWSRF loan.

The WWTP was originally constructed in 1930s and has been updated through the years with the most recent improvements in 2010. This upgrade included the construction of a retainage basin, headworks improvements, and expansion of the chlorine contact tank. The majority of the WWTP process equipment was installed in 1975 and is approaching the end of its useful life. This includes the grit chamber, primary clarifiers, aeration tanks, process blowers, final clarifiers, activated sludge pump, primary sludge pumps, lime system, and chlorination system. These systems are starting to experience failures, and cause problems with the treatment process.

WWTP capacity has been a limiting factor for growth in Grand Ledge. New industrial businesses have been stopped from building in the area due to the sanitary service capacity. Between requested industrial and commercial expansion, and projected population growth, sewer demand is expected to more than double. Currently the WWTP is designed for 1.5 million gallons a day (mgd) design average. In order to provide the required capacity, the plant needs to have 4 mgd design average, and be able to handle a peak flow of at least 14.3 mgd.

Peak wet weather events can result in sanitary sewer overflows (SSOs) at three locations, the retention basin at the WWTP, the West River PS, and the Russell Street overflow. Even though a retention basin was constructed in 2010, the basin is too small for the peak wet weather flows, resulting in continuing SSOs. In March 2021 Grand Ledge received a violation notice from EGLE due to SSOs which requires that the city work to prevent future overflows.

B. Alternatives Considered

No-action Alternative

The no-action alternative would result in continuing overflows, limited WWTP capacity, aging equipment and projected flow and loading increases. This alternative was not considered further.

Regional Alternative

Grand Ledge considered two regional alternatives. The first was connecting to the closest regional WWTP, either the Southern Clinton County Municipal Utilities Authority or the Delta Township WWTP. Connecting to a regional system would make Grand Ledge dependent on their available capacity and could limit growth within the city. Additionally, this option was determined to have higher cost, administrative requirements, and a lengthy governmental process. The second regional alternative considered was to build a second satellite WWTP within the collection system to deal with the potential industrial flow increase. This system would be very dependent on a small number of users and wouldn't help deal with the remaining issues within the system. Therefore, these alternatives were not considered further.

Optimization Alternative

Optimization of existing facilities without replacement of components and sanitary sewer would not prevent SSOs, or failure as components beyond their useful life continue to age. Therefore, it was not considered further.

Replacement and Upgrades Alternatives

Grand Ledge considered several alternatives to expand the WWTP in order to provide the necessary capacity. All alternatives involve the construction of a new retention basin, moving and replacing the grit system, removing chlorine disinfection system and replacing it with ultraviolet (UV) disinfection and installing new solids handling improvements.

Alternative 1 consists of expansion utilizing conventional activated sludge technology that the plant currently uses. The alternative involves the construction of new primary clarifiers, converting the existing primary clarifiers to aeriation tanks, and replacing the final clarifiers with two new ones. This alternative would require 1.3 acres of Fitzgerald Park be added to the WWTP.

Alternative 2 would expand the WWTP by converting it to an extended aeration biological treatment plant. While this method is similar to the existing treatment processes it would also allow for nitrification treatment. Specific to this alternative the primary clarifiers are converted to aeriation, three new aeration tanks are built, as well as one giant new final clarifier. This alternative would require taking 1.4 acres of Fitzgerald Park, as well as disturbing additional areas to lay piping.

Alternative 3 would expand the WWTP by converting it to membrane bioreactor (MBR) treatment. This would involve replacing the primary clarifiers with microscreens and install three trains of MBR membranes in the final clarifiers. MBR technology has a smaller footprint and would require less than an acre of Fitzgerald Park (Figure 1).

The sanitary sewer improvements only had one alternative to provide the needed capacity between the collection system and the WWTP. Since the main size between the West River PS and the WWTP can't be increased, the only option is to install larger pumps at the West River PS and build a new force main along West River Drive, West Jefferson Street, and Fitzgerald Park Drive between the West River PS and the new retention basin. The current main will remain in place, with the new force main providing redundancy and additional capacity (Figure 2).

C. Selected Alternative

After reviewing the alternatives, Grand Ledge determined that their best option was to proceed with the Replacement and Upgrades Alternative 3. The new retention basin will be located in Fitzgerald Park and will be 150-foot-long by 80-foot-wide. A force main will connect the West River PS with the retention basin. A new Vortex grit removal system will be built next to the headworks. A building for the new microscreens will be constructed, and the existing primary clarifiers will be modified to allow for additional aeration capacity and house membrane modules and pumping equipment. The existing final clarifiers will be decommissioned. The existing chlorine disinfection system will be replaced with UV disinfection and discharged through the existing outfall. Rotary drum thickeners and bulk lime storage and lime handling equipment will be added to improve the solids handling process. As work is completed in Fitzgerald Park, the site will be maintained to continue to allow public access after construction is complete.

The selected alternative is expected to cost Grand Ledge $34,995,000 to construct. Additionally, Grand Ledge will receive an ARP grant totaling 10 percent of the project cost not to exceed $3,499,500. As a result, the DWSRF loan amount is expected to be approximately $31,495,500 and will be financed with a 30-year CWSRF loan at 2.125 percent interest. This includes design, construction, contingencies, financial, administrative, legal, and engineering services.

As a result of this total project, the average residential customer in Grand Ledge can expect a rate increase of up to $40.78 per month. Project construction is anticipated to begin in summer 2023 and be completed in spring 2026.

IMPACT OF PROJECT

A. Water Quality Impacts

The proposed project will prevent SSOs, limit surcharging, increase capacity, and allow for efficient wastewater treatment. This project will ensure there is enough capacity in the system to meet peak demand flows for the next twenty years.

B. Primary Impacts

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. Short-term adverse impacts associated with construction include noise, dust, exhaust fumes, removal of groundcover, and increased erosion potential.

Construction associated with the projects will occur in the road right-of ways, the existing WWTP site, and Fitzgerald Park. 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.

The proposed project will involve work within the floodplain and require an EGLE Part 31 Floodplain permit. Additionally, work will impact Fitzgerald Park, and special consideration will need to be taken to minimize impacts to the sandstone ledges. This project will involve the loss of some of the park property near the base of the sledding hill to build the retention basin, however, the intention is to design the basin in such a way as to incorporate it into the park, and allow continued community use, potentially with community features such as bathrooms or other improvements added later.

This project is not expected to cause impacts on historical, archeological, religious, or culturally significant areas. Minimal tree removal is anticipated during this project, and no trees will be cut from April 1 through October 14th during the Indiana bat and Northern long eared bat roosting season.

C. Secondary Impacts

No significant secondary impacts are anticipated as a result of this project. The project was designed to address the need for sewage treatment, provide necessary capacity, remove potential sources of contamination, prevent SSOs, and provide service for years to come. Improvements to the system are associated with the need to address deficiencies, public health threats, and increase the reliability of the system.

PUBLIC PARTICIPATION

A formal public hearing for the proposed project was held in person at the Grand Ledge City Hall on May 9, 2022, after notice was given in the *Grand Ledge Independent* newspaper on March 20, 2022. Presentations were made on the project plan, including alternatives considered, project impact, and estimated costs. Questions and comments were addressed at the public hearing. The City Council passed a resolution approving the project plan and agreeing to implement the selected alternatives on May 23, 2022, during a city council meeting.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project will replace WWTP components at the end of its useful life, install a new retention basin, and install new sewer mains while extending the life of the system. The water quality benefits anticipated from the project are expected to outweigh the short-term adverse impacts. Preventing SSOs and surcharging will provide long-term beneficial impacts.

Questions regarding this Environmental Assessment should be directed to:

Ms. Valorie White, Project Manager
Water Infrastructure Funding and Financing Section
Finance Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30457
Lansing, Michigan 48909-4957
Telephone: 517-284-5433
E-Mail: Whitev1@michigan.gov

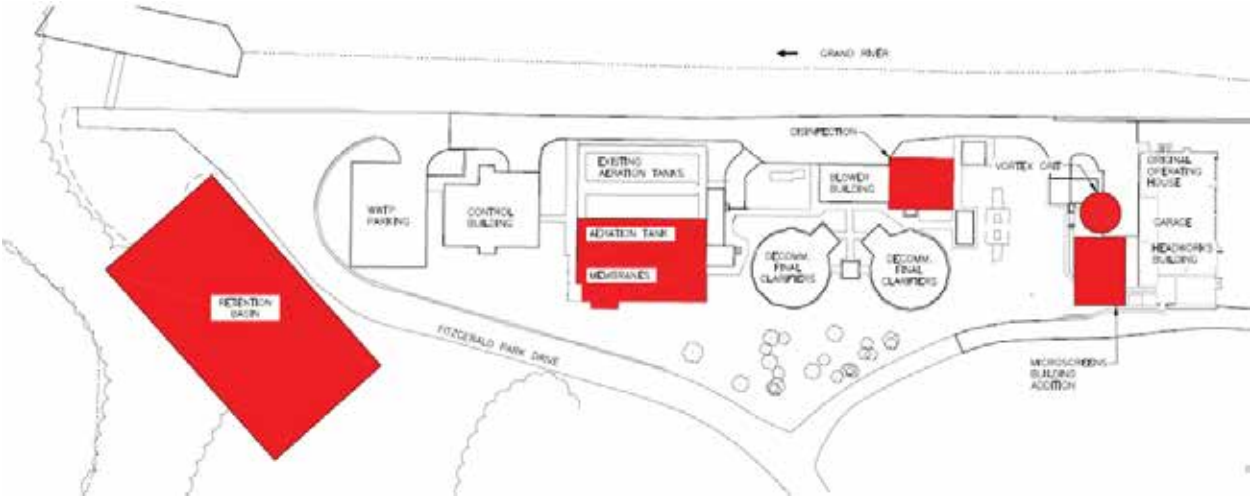

Figure 1: Selected alternative for WWTP improvements.

Figure 2: New force main construction under the selected alternative.