



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
FINANCE DIVISION



PHILLIP D. ROOS
DIRECTOR

February 21, 2025

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Traverse City, Grand Traverse County
Traverse City Wastewater Treatment Plant Improvements
Clean Water State Revolving Fund Project Number 5793-01

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 planning document 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 planning document 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 planning document 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/SRF under "Environmental Project Reviews." 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, FD, P.O. Box 30457, Lansing, Michigan 48909-7957. We will not

take any action on this project planning document 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 Jenna Beverly, the project manager, at 517-331-0463; BeverlyJ3@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 Traverse City, Grand Traverse County
Environmental Assessment
February 2025

PROJECT IDENTIFICATION

Applicant: City of Traverse City

Address: 400 Boardman Avenue
Traverse City, Michigan 49684

Authorized Representative: Elizabeth Vogel, City Manager

Project Number: 5793-01

PROJECT BACKGROUND

The city of Traverse City (Traverse City) is located in Grand Traverse County, on the border of the Grand Traverse Bay, Boardman River, and Boardman Lake. It encompasses a land area of approximately 8.66 square miles and is surrounded by Garfield Township (Garfield), Elmwood Charter Township (Elmwood), East Bay Township (East Bay), and Peninsula Township (Peninsula). According to United States Census Bureau data, the population of Traverse City was 15,678 in 2020.

The Traverse City Regional Wastewater Treatment Plant (WWTP) provides treatment for customers in Traverse City as well as portions of Acme Township (Acme), Blair Township (Blair), East Bay, Elmwood, Garfield, and Peninsula (See Figure 1). The population served by the WWTP is approximately 30,623 and is expected to increase to an estimated 33,279 by 2034.

Traverse City is applying for a low interest CWSRF loan administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) to finance improvements to the WWTP. The proposed project will include improvements to preliminary screening, primary treatment, headworks, and ultraviolet (UV) disinfection processes. Traverse City anticipates financing the project with a 20-year CWSRF loan. Initial cost estimates for the project were estimated by Traverse City at \$31,175,000 as awarded in the Fiscal Year (FY) 2025 CWSRF Intended Use Plan. Since then, Traverse City has revised the cost estimate and expects the project cost to be closer to \$35,800,000. The average residential user served by the system is expected to see a rate increase of approximately \$14.46 per month as a result of the project. Project construction is anticipated to begin in Summer 2025 and conclude in Fall 2028.

PROPOSED PROJECT

A. Project Need/Justification

The regional WWTP was originally constructed in 1932 and has been modified and expanded over time. Existing treatment processes at the WWTP include preliminary screening, grit removal, primary clarification, fine screening, primary effluent pumping, biological treatment, membrane solids separation, and UV disinfection. Treated effluent

is discharged to the Boardman River, in accordance with the facility's National Pollutant Discharge Elimination System (NPDES) permit.

An asset management plan (AMP) for the WWTP was completed in 2016 and concluded that numerous assets at the WWTP are in need of immediate replacement or rehabilitation, largely due to hydraulic limitations and aging equipment. The proposed project will address critical needs as identified by the AMP and subsequent studies and evaluations. Numerous improvements to the WWTP are needed to address aged infrastructure and system deficiencies, improve hydraulics, and increase the reliability of the treatment processes.

The existing preliminary screening system has insufficient hydraulic capacity and lacks system redundancy. The mechanical bar screen is approaching the end of its expected useful life and the manual bar screen used in the bypass channel can quickly become blinded and result in problematic overflows or bypassing.

Grit removal equipment is aged and is operating beyond its expected useful life. The gates from each grit tank are inoperable and the WWTP is unable to isolate flows downstream of each grit chamber. Insufficient grit removal has led to grit settling in the primary sludge and accumulating in the anaerobic digesters.

The primary settling tanks were constructed in the 1930s and 1950s and have limited useful life remaining. The influent piping shows signs of significant corrosion and the clarifier mechanisms and sludge pumps are operating beyond their expected useful life. The clarifier mechanisms require continuous repairs and additional maintenance to remain operational, and sourcing replacement parts has become increasingly difficult due to the age of the equipment. Additionally, the primary effluent pumping system is approaching the end of its expected useful life and is in need of improvements.

The WWTP is currently under an EGLE Administrative Consent Order (ACO) requiring replacement of the UV disinfection system by 2026 due to damage sustained by the UV system during surge flow events in 2016. In addition, the UV equipment has reached the end of its useful life, is inefficient, and has insufficient hydraulic capacity.

B. Alternatives Considered

No-action Alternative

No action is not a feasible alternative for the WWTP. If no action is taken, the existing equipment and structures will continue to degrade to the point that they are unable to adequately treat wastewater and comply with NPDES permit requirements. Therefore, this alternative was not considered further.

Regional Alternative

A regional option is not an alternative available for evaluation as the WWTP is already the regional system for the area, serving customers in Traverse City as well as portions of Acme, Blair, East Bay, Elmwood, Garfield, and Peninsula. Therefore, this alternative was not considered.

Preliminary Screening Alternatives

For preliminary screening, two alternatives were considered. The first would involve the installation of a center flow band screen in the existing channel and keeping the existing bar screen. The second would involve the construction of a new headworks with multi-

rake bar screens, which would be combined with a proposed grit building. Combining these two buildings would provide the added benefit of sharing the footprint and ancillary improvements across both the preliminary screening and grit removal alternatives. Although the first alternative involving reuse of the existing screen channels has a lower estimated capital cost, the second alternative to construct a new headworks has a greater weighted useful life and would provide added process redundancy. The construction of a new headworks was determined to be the most effective solution for long-term facility planning and is therefore the selected alternative for preliminary screening.

Grit Removal Alternatives

The alternatives considered for grit removal included rehabilitation of the existing grit removal system and replacement of the existing grit removal system using a stacked tray system. Both alternatives would involve the construction of a grit building which would be combined with the new headworks. Rehabilitation of the existing system would involve rehabilitating the existing tanks, installing new covers, and the potential replacement or modification of the two existing flumes due to age. However, one concern with this alternative is the lack of adequate flow to the grit removal, as there is currently no means to limit flow to one grit tank versus the other. Rehabilitation of the tanks would also require their eventual complete replacement. Replacement of the existing system with a stacked tray system would enhance grit removal efficiency, resulting in significantly less wear on downstream equipment, and provide a more cost-effective long-term solution. Therefore, this is the selected alternative for grit removal.

Primary Settling Alternatives

Two alternatives were considered for primary settling. The first would involve rehabilitation of the existing rectangular primary settling tanks, including replacement of the existing clarifier mechanisms, scum collectors, effluent weirs, influent piping, sludge and drain piping, and cover system, in addition to concrete repairs. The second would involve the construction of two new circular primary clarifiers in the same location as the existing rectangular tanks. The circular tank mechanisms would be easier to maintain and require fewer mechanisms and moving parts. Although rehabilitation of the existing primary settling tanks has a lower estimated capital cost, given their age, the tanks would likely need to be replaced in the next 40 to 60 years. Replacement of the existing primary settling tanks with two new circular primary clarifiers would provide a greater weighted useful life and is the selected alternative for primary settling.

Primary Effluent Pumping Alternatives

For the primary effluent pumping, alternatives considered included the replacement of existing screw pumps in-kind and the installation of submersible screw pumps with pre-rotation basins. Replacement of the existing screw pumps in-kind would involve the installation of two new screw pumps and the existing third screw pump would remain. This alternative provides the benefit of reuse of existing infrastructure and familiar equipment and is the selected alternative for the primary effluent pumping.

UV Disinfection Alternatives

In accordance with the ACO issued by EGLE, a new UV disinfection system must be constructed and installed. The alternatives evaluated for the replacement UV technology included open-channel UV systems, both horizontally and vertically oriented, and in-vessel systems. The in-vessel alternatives would require the construction of a new building, which would likely not be feasible due to limited space and site limitations, nor

would it be cost-effective. The alternative of replacing the UV system with horizontal UV modules was determined to provide the best benefit-to-cost ratio and is the selected alternative for the UV disinfection system.

C. Selected Alternative

The selected alternative includes the construction of a new headworks with multi-rake bar screens and a stacked tray grit system, construction of two circular primary clarifiers, replacement of two of the existing primary effluent screw pumps, and installation of a new UV system with horizontal UV modules (See Figure 2). The alternatives selected were determined to provide a balance between process performance, cost, equipment maintenance, feasibility, and sustainability. The proposed WWTP improvements are designed to provide long-term solutions to address aging infrastructure and prevent more costly intervention in the future.

D. Project Cost and Implementation

The estimated cost of the proposed project is \$35,800,000. Traverse City anticipates financing the project with a 20-year CWSRF loan at 2.5 percent interest. Currently the CWSRF has \$31,175,000 in loan dollars available to allocate for this project. Once Traverse City receives bids on the construction contract, they can request additional funds from the CWSRF to finance the entire project if any loan dollars remain available for allocation. If CWSRF loan dollars are exhausted for FY 25, Traverse City will need to use alternative funding or pay for the remaining amount out of the sewer fund or with cash on hand. The average residential user served by the system is expected to see a rate increase of approximately \$14.46 per month as a result of the project.

PROJECT IMPACTS

A. Water Quality Impacts

Construction will take place at the existing WWTP site, which is located on the north shoreline of Boardman Lake and adjacent to the Boardman River. The proposed work is not anticipated to impact the river, and appropriate measures will be taken during construction to avoid impacts to the adjacent bodies of water. During the excavation required for the new headworks building and primary clarifiers, groundwater is expected to be encountered and dewatering is anticipated. All applicable permits will be obtained prior to construction. The proposed WWTP improvements will decrease the amount of total suspended solids discharged to the Boardman River during wet weather events, improving the water quality of the effluent to river.

B. Construction Impacts

Short-term construction impacts are expected to be minimal. Typical short-term construction disturbances including dust, noise, soil, and traffic changes will occur. The contractor will control noise, dust, traffic, and surface restoration according to local ordinances and contract specifications. Soil erosion and sedimentation control practices will be followed. There are no expected impacts to historic or cultural resources, nor is the project expected to have any impacts to endangered or threatened species.

C. Secondary Impacts

No significant secondary impacts are anticipated due to this project. The proposed project is designed to address issues due to the age and condition of the WWTP to ensure the reliability of continued operation.

PUBLIC PARTICIPATION

A public hearing on the proposed project plan document was held virtually on May 17, 2021, via Zoom teleconference. Notice of the public hearing was advertised in the *Traverse City Record-Eagle* newspaper beginning on April 15, 2021, and copies of the project plan document were available for public review at the city hall. A presentation was given on the proposed project, including alternatives considered and estimated costs. No questions were raised by the public during the hearing. The Traverse City Commission passed a resolution to adopt the project plan document and selected alternative following the public hearing.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project is anticipated to have no significant adverse direct, indirect, or cumulative impacts on socioeconomic, cultural, or environmental factors. Minor construction impacts will be temporary and can be mitigated with sound construction practices and adherence to permit requirements. The water quality benefits anticipated from the project are expected to outweigh any short-term adverse impacts. Improving the efficiency and reliability of the system will provide long-term beneficial impacts.

Questions regarding this Environmental Assessment should be directed to:

Jenna Beverly, 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: 517-331-0463
Email: BeverlyJ3@Michigan.gov

Figure 1: Sanitary Sewer System Map

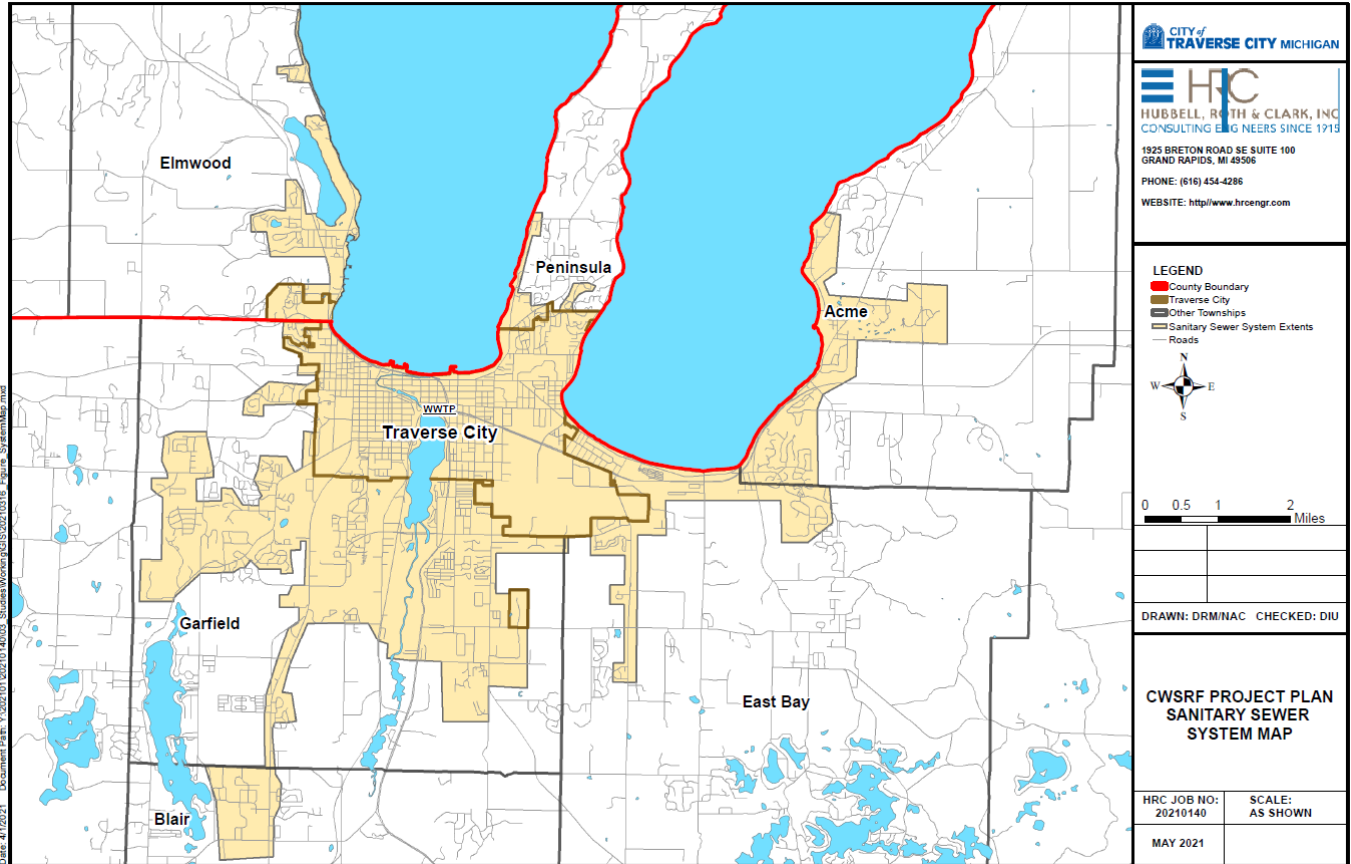
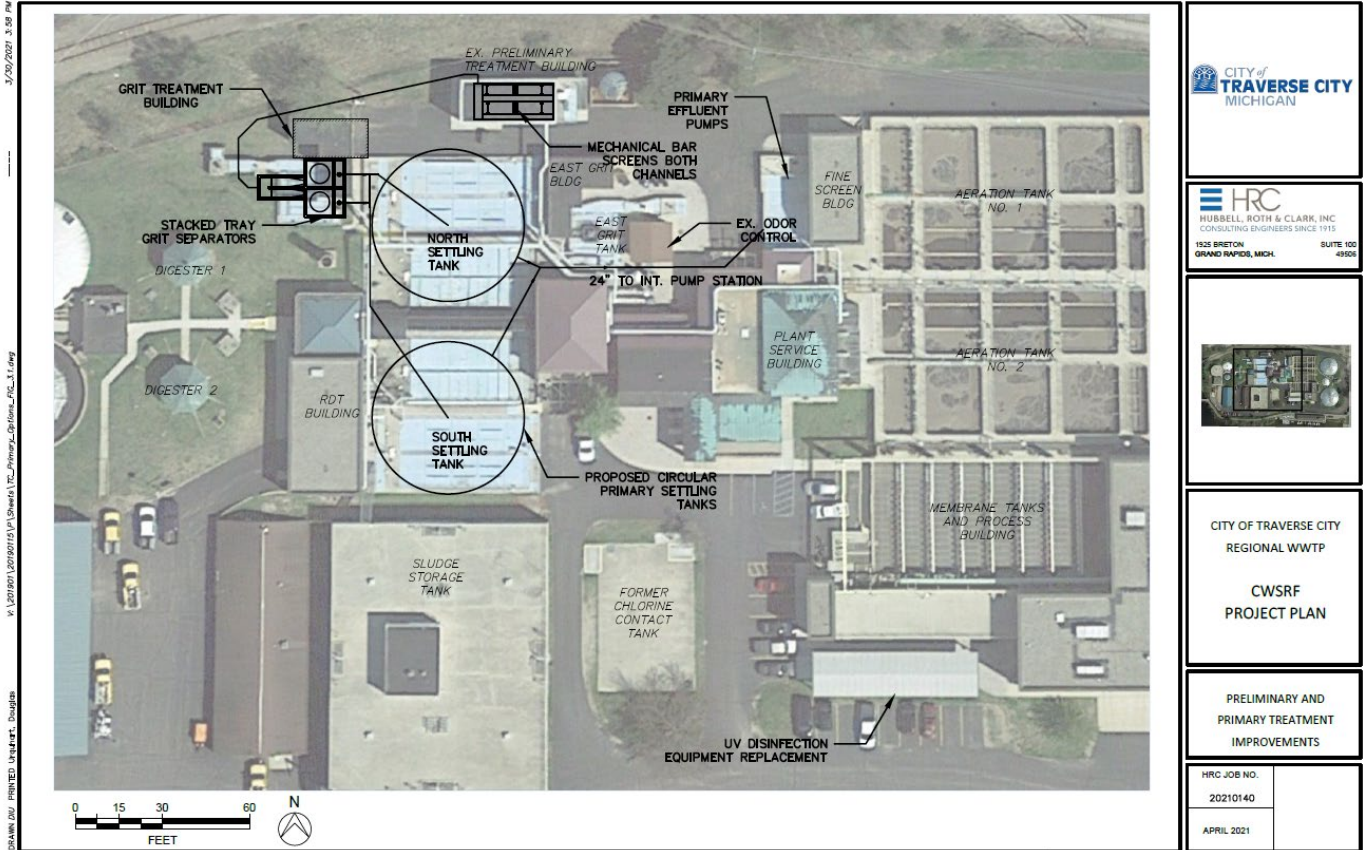


Figure 2: Proposed WWTP Improvements



CITY OF TRAVERSE CITY REGIONAL WWTP CWSRF PROJECT PLAN	
PRELIMINARY AND PRIMARY TREATMENT IMPROVEMENTS	
HRC JOB NO. 20210140	APRIL 2021