



GRETCHEN WHITMER
GOVERNOR

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



LIESL EICHLER CLARK
DIRECTOR

December 22, 2022

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Marquette, Marquette County
Biosolids Handling Improvements
Clean Water State Revolving Fund Project Number 5731-01

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 system 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 www.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 Ms. Angela Yu, Project Manager, by phone at 517-599-5487, by email at YuA@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

Environmental Assessment Update

City of Marquette, Marquette County Biosolids Handling Improvements Clean Water State Revolving Fund Project Number 5731-01

Updated Project Cost Information

The total estimated Clean Water State Revolving Fund (CWSRF) project cost for fiscal year 2023 is \$11,715,000. The cost estimate increased from the 2021 Environmental Assessment (EA), attached below, but the rest of the project remains the same. The City of Marquette (Marquette) anticipates financing the project with a \$4,495,220 CWSRF loan and a Bipartisan Infrastructure Law (BIL) CWSRF general loan in the amount of \$1,362,280. In addition, as a disadvantaged community, Marquette is eligible to receive BIL CWSRF general principal forgiveness (PF) on the loan in the amount of \$5,857,500. Table 1 below shows the financing breakdown. Project construction is expected to begin in spring 2023 and be completed by winter 2025.

Table 1: Marquette CWSRF Project Number 5731-01 Financing

Total Project Cost	CWSRF General Loan	BIL General Loan	BIL General PF
\$11,715,000	\$4,495,220	\$1,362,280	\$5,857,500

Potential User Cost Impact

The typical residential user may see an increase of up to \$2.56 per month, which is the estimate published in the 2021 EA. However, the user cost impact may be reduced due to the BIL principal forgiveness and will be adjusted according to the final loan amount received by Marquette.



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LIESL EICHLER CLARK
DIRECTOR

March 18, 2021

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Marquette
Biosolids Handling Improvements
Clean Water State Revolving Fund Project Number 5731-01

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 Ms. Valorie White, the project manager, at 517-599-5879 , or by email at Whitev1@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
Environmental Assessment
City of Marquette, Marquette County
March 2021

PROJECT IDENTIFICATION

Applicant: City of Marquette

Address: 300 West Baraga
Marquette, Michigan 49855

Authorized Representative: Mr. L. Michael Angeli, City Manager

Project Number 5731-01

PROJECT SUMMARY

The City of Marquette is applying for a 20-year low interest Clean Water State Revolving Fund (CWSRF) loan administered by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for upgrades to the wastewater treatment plant's (WWTP) biosolids handling processes.

The total estimated CWSRF project cost is \$6,700,000. The project has qualified for green project reserve, which provides the city with \$283,500 in loan principal forgiveness. As a result of the CWSRF project, the typical residential customer might see an increase of up to \$2.56 per month.

Project construction is anticipated to begin in fall of 2021 and be completed by the end of 2022.

PROJECT BACKGROUND

Marquette is located in Marquette County, in the Upper Peninsula (U.P.) along Lake Superior. This project consists of modifying the WWTP's biosolids handling system and adding a septage, high strength waste (HSW) and fats, oils, and greases (FOG) receiving station at the plant. Existing land use for the city is not expected to change, and the population is projected to remain stable.

PROPOSED PROJECT

A. Project Need/Justification

The service area for the wastewater system includes the entire city of Marquette, a portion of Marquette Township, and a small portion of Chocolay Township. The city provides wastewater treatment at its municipal plant, located on the southern edge of the city.

The solids handling process at the WWTP is currently handled by two methods. Sludge from the primary clarifiers is routed to the anaerobic digesters. Meanwhile, solids generated by the secondary treatment process are discharged to a waste activated sludge (WAS) holding tank. The WAS is then pumped to a combination gravity belt thickener (GBT) and press for thickening and dewatering. Once the WAS is thickened it goes to the anaerobic digesters for reduction of volatile solids and pathogenic organisms. Finally, the digested biosolids are removed from the digesters and normally land applied to reclaimed mine sites in the

Marquette area. During times when the mine sites are not accessible or cannot be applied due to weather conditions, the biosolids can be dewatered in the belt press and then stored on-site prior to disposal. Currently the storage space at the plant is limited and they do not have the required 180-day storage capacity. The facility produces a “Class B” biosolid suitable for land application.

The WWTP has two 400,000-gallon biosolids storage tanks. These tanks are buried and provide a large area for thickening biosolids to settle prior to disposal. Biosolids are mixed and pumped from the tanks using a portable pumping system which does not allow for the tanks to be completely emptied. Most of the biosolids are used as a soil conditioner and fertilizer as part of a beneficial residual management program on nearby mining property. The WWTP has also applied biosolids to agricultural lands with less success.

The WWTP currently accepts septage from individual recreational vehicles, but not from commercial haulers. This flow goes directly into the standard process.

Recently the city installed two 100 kilowatt generators that utilize biogas in addition to natural gas to generate heat and electricity which is used at the WWTP. Currently, the plant produces enough biogas to run one of the generators completely. The other generator uses natural gas. The proposed septage/HSW/FOG stream will be screened and pumped to the anaerobic digestion for solids stabilization and biogas production. The more biogas that the plant produces, the less they need to purchase and utilize natural gas.

With this project the city has submitted a request that the project be considered under the green project reserve criteria. After reviewing the project and the request, EGLE determined that the proposed improvements are categorically eligible for green project reserve. The proposed project entails construction of receiving facilities for septage, HSW, and FOG to be used as “fuel” in the existing biogas heat and power systems. Currently, there are no wastewater treatment facilities in the north-central U.P. region which have receiving facilities and infrastructure in place to generate beneficial heat and power from these feedstocks. The project would also reduce the length-of-haul for trucking of these wastes for commercial haulers and will fill a regional need.

B. Alternatives Considered

No-action Alternative

The no-action alternative would result in the continuing risk of regulatory non-compliance as well as the limited solids storage capacity, and the risk of the equipment failing or of not being able to land apply the solids for an extended period of time. This alternative was not considered further.

Regional Alternative

In general, the issues facing the city are specific to the WWTP and solids it produces. However, there is a regional component as the septage/HSW/FOG receiving station will provide a resource for the entire area which will benefit more than just Marquette.

Optimization

While various optimizations are included in some of the alternatives, by itself there is no way for the WWTP to improve the solids handling situation through optimization alone.

Project Alternatives

Alternative No. 1 was a new liquids storage tank and new GBT in the existing building, at a projected cost of \$2,565,000. This alternative would provide the necessary thickening and

dewatering redundancy and would exceed the 180-day biosolids storage requirement. However, it provides no flexibility in biosolids disposal and has the highest biosolid disposal cost with a reliance on liquid hauling. Furthermore, finding a market for the liquid biosolids could continue to become more difficult in the future. Therefore, this alternative was not considered further.

Alternative No. 2 provides a new cake storage pad, a new cake loadout system, and new GBT in the existing building, at an estimated cost of \$2,211,000. This alternative has a lot of advantages. It provides thickening redundancy, increases flexibility with cake disposal opportunities, exceeds the 180-day storage requirement, lowers disposal cost and operations time to manage cake, as well as has the lowest capital cost for any of the alternatives. However, there are some disadvantages. While this alternative is great for thickening, dewatering is still an issue. There is no dewatering redundancy, no flexibility for dewatering without additional cake storage, and so liquids hauling would still be required. Also, the city risks stormwater management issues on site with the current plant setup and the need to haul biosolids around.

Alternative No. 3 includes a new cake storage pad and a new dewatering building with two new belt filter presses, at an estimated cost of \$4,006,000. This alternative provides dewatering redundancy, increases biosolids disposal flexibility, exceeds the 180-day storage requirement, and provides lower disposal cost and operations time to manage the cake. Nevertheless, this option has a very high capital cost, the highest lifecycle cost of any of the alternatives, and provides no thickening redundancy.

Alternative No. 4 includes new cake storage, a new dewatering building, and a new septage/HSW/FOG processing area at an estimated cost of \$5,667,000. This alternative provides dewatering redundancy and additional cake storage, while improving solids storage handling flexibility with the ability to pump from liquid storage to dewatering. This option incorporates green components by increasing digester gas and leverages existing combined heat and power infrastructure and digester capacity. With the addition of septage/HSW/FOG disposal at the site, it provides the city with a new revenue stream, and therefore provides the lowest life cycle cost. There are a few risks with this alternative, it has the highest capital cost, it depends on there being a market for septage/HSW/FOG and will result in more challenging operations. However, it also places the plant in the best position for the future, giving the city the most biosolids options.

Selected Alternative

The city has determined that alternative No. 4 is the best option for the plant operations (Figure 1). A new dewatering building and cake storage building will be constructed adjacent to each other on the south end of the site. The cake storage building will be similar to the existing building with concrete walls, a pole shed cover, and multiple bays. A concrete masonry wall building will be constructed for the dewatering equipment. One new dewatering unit will be installed in the building with room for a second unit. The building will be split into three rooms: dewatering room, electrical room, and polymer room. A conveyer, common to both belt filter presses, transfers the dewatered cake to a cake storage pad. From there a front loader moves the cakes to the cake storage building. The storage building holds 700 cubic yards of dewatered biosolids, providing 180 days combined storage time. Also included in this alternative is a booster pump for belt washing.

The new septage/HSW/FOG receiving station will consist of a waste receiving structure, septage receiving equipment, two storage tanks, positive displacement pumps, and assorted electrical components, controls, and heating, ventilation, and air conditioning work (HVAC).

During the project, the city intends to undertake some additional updates to the WWTP that will not be included in the CWSRF loan. These include post aeration work in order to comply with regulations, installation of fire alarm systems in all buildings, HVAC in the electrical room, and improvements to the Vactor pad and decant pump station. The city expects to use cash on hand to fund these improvements at an estimated cost of \$250,000.

C. Project Cost and Implementation

The CWSRF project costs are estimated at \$6,700,000, with an additional \$250,000 in non-CWSRF eligible work being considered by the city. This includes design, construction, contingencies, financial, administrative, legal, and engineering services.

It is anticipated that the project will be financed by a low-interest loan through the CWSRF program administered by EGLE and the Michigan Finance Authority. A portion of this project has been determined to contain green components, which provides the city with \$283,500 in loan principal forgiveness.

As a result of the CWSRF project, the typical residential customer could see an increase of up to \$2.56 per month. The city is currently reviewing their rates to see if existing rate increase schedule is sufficient to cover these costs.

Project construction is anticipated to begin in the fall of 2021 and be completed by the end of 2022.

IMPACT OF PROJECT

A. Water Quality Impacts

The proposed project will provide the necessary redundancy and flexibility for the city to handle their biosolids. It will decrease the dependency on liquid waste hauling and land application. With the new storage capacity, the biosolids can be incorporated as soil conditioners when there is little chance of impacts to waterways. Furthermore, the new septage/HSW/FOG receiving station will reduce how far these substances need to be transported, lessening the likelihood of a spill. They will then become fuel for the generators at the plant providing electricity and heat, lessening the need for natural gas.

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 project will occur at the WWTP. 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 Michigan Natural Features Inventory and United States Fish and Wildlife Service have reviewed the proposed project. Since no endangered/threatened species, or high-quality habitat occurs within the construction area, it has been determined that there will be no impact to endangered, threatened, or species of concern.

The State Historic Preservation Officer and Tribal Historic Officers have reviewed the proposed project for impacts on historical, archeological, religious, or culturally significant

areas. It has been determined that there will be no impact on these resources from the construction of the project.

C. Secondary Impacts

Positive secondary impacts are anticipated associated with this project and the new septage/HSW/FOG receiving station. The project was designed to address biosolid deficiencies and accommodate the expected 20-year needs. The improvements to the system are associated with the need to address deficiencies, prevent failures, and increase reliability of the wastewater treatment system.

PUBLIC PARTICIPATION

The city held two public hearings for this project. The first was held in person as part of a large project plan submittal spanning 5 years of work held at the Marquette City Commission Chambers on April 8, 2019. The city then took a closer look at their biosolids handling options and submitted a project plan amendment in order to add some additional components. This necessitated a second virtual public hearing on May 11, 2020 at the commission chambers. At least 30 days prior to each public hearing a notice was placed in *The Mining Journal*. Presentations were made on the project plan, including alternatives considered, project impact, and estimated costs. Questions and comments were addressed at the public hearing. After the closing of the public hearing, the city commission passed a resolution approving the project plan and agreeing to implement the selected alternative.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project will address current and future issues with disposal of biosolids by the WWTP. This project will reduce the biosolid volume and keep more waste out of the waterways. The water quality benefits anticipated from the project are expected to outweigh the short-term adverse impacts.

Questions regarding this Environmental Assessment should be directed to:

Ms. Valorie White, 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: 517-284-5433
E-Mail: Whitev1@michigan.gov



Figure 1: Aerial Photograph of the Marquette WWTP showing the location of the proposed improvements.