



GRETCHEN WHITMER
GOVERNOR

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



LIESL EICHLER CLARK
DIRECTOR

November 10, 2021

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Owosso
Wastewater Treatment Plant Improvements: Solids Handling System
Clean Water State Revolving Fund Project No. 5710-01

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 treatment plant improvement project plan amendment 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. Kathy Roeder, the project manager, at 517-897-2579, by email at Roederk1@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
City of Owosso, Shiawassee County
Environmental Assessment Amendment
November 2021

PROJECT IDENTIFICATION

Applicant: City of Owosso

Address: 301 West Main Street
Owosso, Michigan 48867

Authorized Representative: Mr. Ryan Suchanek, Director of Public Services

Project No. 5710-01

PROJECT SUMMARY

The City of Owosso (Owosso) is located in north-central Shiawassee County. Owosso contains a land area of 5.29 square miles and is bordered by Owosso Charter Township, Caledonia Township, and the City of Corunna. According to the U.S. Census, Owosso had a residential population of 14,738 in 2019. The U.S. Census Bureau projects Owosso will have a population of 13,588 by the year 2039.

The proposed project will rehabilitate the sludge handling system for the Owosso regional wastewater treatment plant (WWTP). The specific improvements include replacement of the existing centrifuge with two screw presses and a screw conveyor; an additional sludge storage tank; an in-line sludge grinder for system efficiency; a polymer tank with a pump skid and mixing equipment; and a ferric tank with sump pumps. See Figure A for the WWTP facilities map. The proposed project will take approximately one year, beginning in June 2022 and concluding June 2023.

Owosso anticipates financing the project with a low-interest Clean Water State Revolving Fund (CWSRF) loan of an estimated \$3,056,400. The typical Owosso residential customer is expected to see a \$1.03 monthly rate increase from the project (covering 53 percent of the debt service). The three municipal customers of the regional WWTP (Caledonia Township, Owosso Township, and the City of Corunna) will jointly pay the other 47 percent of debt service on the treatment project. These communities will decide the resulting rate impact to the typical residential customer of their collection systems.

This environmental assessment amends the previous version issued for CWSRF Project Numbers 5691-01 and 5699-01. Under the original environmental assessment, the solids handling project only involved the addition of a screw compactor to the existing building. The project plan amendment submitted by Owosso in summer 2021 increased the solids handling project scope to include a full re-work of the solids handling process and building, improving the system's efficiency, storage capacity, and redundancy measures.

EXISTING SYSTEM AND PROJECT NEED

The Owosso WWTP started operating in the 1930s as a primary (single-stage) facility with settling sludge only. There have been many improvements over the years, among them: (1) a new chlorination system in the 1960s; (2) an independent physical-chemical treatment facility and biological treatment added in the 1980s; (3) an expansion of service area to include Owosso Township, Caledonia Township, and the City of Corunna in the 1980s; and (4) a headworks building, screw pump, and grit chamber rehabilitation in 2020.

The regional WWTP facility currently includes a headworks with screw pumps, grit chamber, roughing and nitrification towers, a solids handling unit, primary and intermediate clarifiers, and pressure filters. As of 2019, the WWTP discharged its current capacity of 4.0 million gallons per day (MGD) to the Shiawassee River, operating under National Pollutant Discharge Elimination System (NPDES) permit number MI0023752.

As a part of a Stormwater, Asset Management, and Wastewater grant from the Michigan Department of Environment, Great Lakes, and Energy, Owosso developed a wastewater asset management plan (WWAMP). The Owosso WWAMP identified four major WWTP components for imminent replacement: headworks screw pumps, grit chamber, nitrification and roughing towers, and solids handling. The headworks screw pumps and grit chamber were addressed via a CWSRF loan (Project Number 5691-01), executed in May 2020. The nitrification and roughing towers have been identified for future rehabilitation. The current project targets the replacement and rehabilitation of the solids handling system. The recommended equipment replacements at the WWTP will increase system efficiency and longevity.

The solids handling unit is a centrifuge installed in 1978. The equipment was purchased used at the time and has reached the end of its useful life. Due to the lack of system redundancy, if the existing WWTP sludge handling system failed, the whole WWTP's operation would be impacted. Replacement of the centrifuge will improve operation and energy efficiency while improving solids handling.

PROPOSED PROJECT

A. Alternatives Considered

No-Action Alternative

Taking no action is not a feasible alternative for the Owosso WWTP. The equipment is either nearly inoperable or near/past the end of its useful life. If these issues are not addressed, the WWTP sludge handling system could fail and result in WWTP backups and overflows. As a result, this alternative was not considered.

Regional Alternative

Regionalization is not an option available for evaluation because the Owosso WWTP is already regional; it serves customers in Owosso Township, Caledonia Township, and the city of Corunna. Decommissioning the regional WWTP and routing all flows to a different regional wastewater treatment plant is unrealistic and cost prohibitive. As a result, this alternative was not considered.

Centrifuge Rehabilitation Alternative

The rehabilitation alternative is not an option because the centrifuge equipment is near the end of its useful life and nearly non-functional; therefore, rehabilitating it would not resolve the redundancy issue. Rehabilitation of the centrifuge without addressing other issues with the sludge handling system would not maximize life expectancy and efficiency of the final sludge handling system. As a result, this alternative was not considered.

Replacement Alternative: Screw Compactors

The screw compactor replacement alternative would involve removal of the centrifuge; installation of two screw compactors, for redundancy; a polymer and ferric feed for efficient sludge flocculation; additional sludge pumping and storage; and a roof replacement. The roof replacement must occur, as the roof is the only available access point for large equipment. This alternative would cost an estimated \$3,056,400. Because of the potential benefits of this option, Owosso considered it further in their analysis.

Replacement Alternative: Belt Filter Press

The belt filter press replacement alternative would involve removal of the centrifuge; installation of a belt filter press; a polymer and ferric feed; additional sludge pumping and storage; and a roof replacement. The roof replacement must occur, as the roof is the only available access point for large equipment. Because of the size limitations of the existing sludge building, the belt filter press alternative could only install one belt press; therefore, this alternative fails to solve the redundancy issue. It is possible that minor odor issues could occur during the construction phase of the belt filter press alternative. This alternative would cost an estimated \$2,919,900. Because of the potential benefits of this option, Owosso considered it further in their analysis.

B. Proposed Project

Although the belt filter press replacement option is slightly less expensive, its higher operation and maintenance costs, lower salvage value, and sizing issues made the screw compactor option a better fit for the community. Because two belt filter presses could not fit in the existing sludge building, regardless of configuration, redundancy would not be achieved with the belt press alternative. As a result, Owosso selected the screw compactor replacement alternative. The selected screw compactor replacement project is sufficient to meet the needs of the community, given that flows are not expected to increase over the next 20 years and the project will improve efficiency and redundancy.

C. Project Cost Estimate

Table 1: Project Cost Estimate

Description	Screw Compactor Replacement Project Estimated Cost
Design Engineering, Financial, Legal, and Contingencies	\$494,560
Architectural, Roof, HVAC, Electrical, & General Construction	\$1,236,648
Equipment Costs	\$1,236,110
Adjustment for 2022 Construction Costs (3%)	\$89,082
TOTAL	\$3,056,400

EXISTING ENVIRONMENT AND POTENTIAL PROJECT IMPACTS

A. Water Quality Impacts

The Shiawassee River runs through Owosso and is the discharge point for the WWTP. The WWTP facilities are near, but outside, the 100-year floodplain for the Shiawassee River. None of the work will occur in the state-regulated water resource areas, and no materials will be discharged into any waterways. The nearest recreational facility is Harmon Partridge Park, 0.5 miles north of the WWTP. There are no National Wild and Scenic Rivers in or near the project area. The work has no anticipated impacts to state-regulated water resources of floodplains, inland lakes and streams, or wetlands.

B. Construction Impacts

A Section 7 review through the U.S. Fish and Wildlife Service website resulted in a no-impact determination for the project. The website identified six species that might potentially be affected by the project work: Indiana bat (*Myotis sodalis*), Northern long-eared bat (*Myotis septentrionalis*), piping plover (*Charadrius melodus*), red knot (*Calidris canutus rufa*), and Eastern massasauga rattlesnake (*Sistrurus catenatus*). The Indiana bat and Northern long-eared bat roost in trees from April 1 to September 30 each year. Because the project will take place only on existing infrastructure and is not expected to involve removal of any mature trees, the project is not likely to result in incidental take of any federally-listed species. If mature tree removal becomes necessary, the work will be done between November and March to avoid impacts to the Indiana bat. There are no critical habitats for any federally-listed species in the project area.

Because there were no changes to the project footprint since the 2020 CWSRF environmental assessment, cross-cutter agency reviews from that report are still relevant to this project. The State Historic Preservation Office (SHPO) determined no historic properties will be impacted (File No. ER19-392). Federally identified tribes for Shiawassee County were contacted regarding tribal historic, religious, or cultural resources. The Saginaw Chippewa Indian Tribe of Michigan commented that there is no information identifying the presence of such resources in the area of potential project impact. A Michigan State University Michigan Natural Features Inventory (MNFI) rare species review concluded that negative impacts to rare species are not expected.

There are no historical ground contamination sites in the project area. No work will be impacted by ground contamination. No dewatering is expected as a part of the project.

Short-term construction impacts are expected to be minimal. Typical construction disturbances including noise, dust, and traffic changes will occur. All construction activities will take place within existing facilities. Service will be maintained for residents and businesses during construction. The contractor will control noise, dust, traffic, and surface restoration according to local ordinances and contract specifications. Soil erosion and sedimentation control measures will be required to ensure the Shiawassee River is not impacted. It is not anticipated that any WWTP work will emanate odors during or after construction.

D. Secondary Impacts

No significant secondary impacts are anticipated for this project. The project is designed to address deficiencies in the wastewater treatment sludge handling system and accommodate for the expected 20-year needs. The project will not expand the wastewater system service area. The project will help bring the WWTP to its permitted/rated design capacity of 6.0 MGD.

PUBLIC PARTICIPATION

Owosso held a public hearing on the project plan amendment on May 24, 2021, via Zoom and in the Owosso City Hall Council Chambers at 301 West Main Street, Owosso, Michigan 48867. The public hearing was advertised in The Argus-Press newspaper on April 21, 2021, and copies of the project plan were made available for public review at the Owosso Municipal Offices and on the city website (www.ci.owosso.mi.us) at the same time. No questions were raised by the public or the council during the public hearing. Owosso signed a Resolution adopting the project plan amendment immediately after the hearing.

REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The Owosso WWTP sludge handling project will have no significant adverse direct, indirect, or cumulative impacts on socioeconomic, cultural, or environmental factors. Minor construction impacts will be temporary and localized to construction zones. These impacts can be mitigated with sound construction practices and adherence to permit requirements (for soil erosion, sedimentation control, etc.).

Questions regarding this Environmental Assessment should be directed to:

Ms. Kathy Roeder, 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: 517-897-2579
E-Mail: Roederk1@michigan.gov

Figure A: City of Owosso WWTP Aerial View

