



GRETCHEN WHITMER
GOVERNOR

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



PHILLIP D. ROOS
DIRECTOR

April 8, 2024

TO: All Interested Citizens, Organizations, and Government Agencies

SUBJECT: FINDING OF NO SIGNIFICANT IMPACT
City of Caro, Tuscola County
WWTP & Lift Station Improvements/Asset Management Planning
Clean Water State Revolving Fund Project Number 5881-01

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/CWSRF under "Additional 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, P.O. Box 30457, Lansing, Michigan 48909-4957. 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 Mr. David J. Worthington, the project manager, at 517-554-1835; WorthingtonD@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
Environmental Assessment
City of Caro, Tuscola County
April 2024

PROJECT IDENTIFICATION

Applicant: City of Caro
Address: 317 South State Street, Caro, Michigan 48723
Authorized Representative: Mr. Scott Czasak, City Manager
Project No.: 5881-01

PROJECT OVERVIEW

The city of Caro (Caro) is located in Tuscola County in the Cass River watershed, which discharges to Saginaw Bay on the shore of Lake Huron. A study area has been delineated that includes the Caro city limits as well as portions of Almer Township and Indianfields Township (See Figure 1). The land use in the study area consists primarily of single-family residential, agricultural, commercial, government/institutional, and vacant/fallow land.

According to the United States Census Bureau’s survey, Caro’s population was approximately 4,323 persons in 2020, with a service area population of 5,473. Eastern Michigan Council of Governments projects a small increase in the city’s population from year 2025 to 2045.

Caro is seeking Clean Water State Revolving Fund (CWSRF) loan assistance to finance improvements to its wastewater treatment plant (WWTP) and sanitary lift stations. The total project cost is estimated to be \$11,400,000. Caro qualifies as a financially overburdened community and is eligible for a reduced CWSRF interest rate of 2.0 percent. Construction is scheduled to begin in Fall 2024. System users may see a monthly sewer rate increase of approximately \$12.08 per month based on a 30-year loan term.

EXISTING FACILITIES

Caro owns and operates the Caro Area WWTP, originally constructed in 1957 with primary treatment and a trickling filter for secondary treatment. There are no industrial users requiring a pretreatment program. In 1986, the trickling filter was replaced by a bio-disc system which was itself replaced in 2008 with an oxidation ditch. Other major upgrades made in 2008 included a new grit system, a third secondary clarifier, pump and piping replacements, and electrical and communication improvements. Design flows since 1986 have remained steady at 1.2 million gallons per day (MGD), with a peak hour flow of 3.0 MGD. This level of demand is not expected to change in the foreseeable future. Disinfection is accomplished by use of chlorine gas. An equalization tank is used for storage of peak wet weather flows. Biosolids are hauled away for land application and/or landfilling. Treated discharge from the WWTP meets effluent requirements and flows to the Cass River.

Caro’s sanitary collection is a separated system but does have some wet weather inflow from footing drain connections and infiltration of groundwater. Most of the sewers were built in the

1950s and 1960s. There have been no sanitary sewer overflows or basement backups due to infiltration and inflow. Cleaning and inspection are ongoing. There are 11 lift stations, all but two of which have been mechanically updated. Separate storm sewers provide drainage from roads and other runoff.

PROPOSED PROJECT

A. Project Need

Asset Management Planning condition assessments identified numerous capital improvement needs to equipment and structures at the Caro Area WWTP. Among these items are:

- The existing primary digester cover has failed and needs replacement.
- The existing disinfection system is beyond its useful life and should be converted to ultraviolet (UV) disinfection to reduce the dependence on chlorine gas and its health and safety implications.
- The existing secondary clarifiers need new rotating equipment and baffle/weir improvements, as their useful lives have been exceeded. Covers or a canopy should be provided to reduce algae. New variable frequency drives are needed to improve energy efficiency and performance.
- The existing secondary waste activated sludge pump has holes in the volute and needs to be replaced.
- The septage receiving station should be relocated as several accidents damaging equipment and facilities have occurred at its present location.
- There are doors and windows dating from the 1950s that do not operate properly and should be replaced for better energy efficiency and security.
- Laboratory cabinets have deteriorated and require replacement with chemical resistant units.
- Pavement is failing throughout the WWTP site and needs to be replaced for proper safety and access.
- The existing former primary tanks should be re-purposed for supernatant storage to enhance thickening and improve nutrient removal. This will increase efficiency and the ability to meet permit requirements.
- A greenhouse-style cover is needed over the sludge drying beds to improve solids dewatering and more consistently land apply the solids.
- Existing fine screens should be relocated downstream of the grit system. The grit system has outdated equipment requiring replacement. Again, this will improve efficiency and help meet permit requirements.

At the existing lift stations, electrical services and control panels should be moved above grade to reduce confined space entry and protect controls from flooding damage. Also, the supervisory control and data acquisition (SCADA) system of communication at these stations is outdated and needs an overhaul. Lift Station No.8 is proposed to be demolished above grade with a new below grade submersible station that requires new pumps.

Caro could benefit from additional asset management planning for its wastewater collection system. This would allow televising of key areas that may be suffering from structural defects and/or experiencing high infiltration and inflow, as well as assist with mapping and inventorying.

B. Project Alternatives

The following alternatives were evaluated for the project.

No-action Alternative

Selecting a no-action alternative has the advantage of requiring no immediate capital investment. However, the disadvantage of no-action is that the structures, equipment, and facilities will require increased maintenance, causing operational issues, and will eventually fail, resulting in the inability to meet its National Pollutant Discharge Elimination System (NPDES) discharge permit requirements. There might also be flooding and/or basement backups due to failures. For these reasons, the no action alternative is not considered further and is rejected.

Regional Alternative

Caro WWTP already functions as a regional alternative and there are no neighboring communities to connect to for additional regionalization. As a result, this alternative was not considered.

Analysis of Principal Alternatives

Two principal alternatives were evaluated as described below.

Alternative No. 1 – Rehabilitate and Replace Existing Facilities

This option includes rehabilitation and replacement of the WWTP facilities described under Project Need, electrical/controls replacement/relocation to above grade, and SCADA communication upgrades at the lift stations, and \$100,000 of additional AMP work in the collection system.

Alternative No. 2 – Full Replacement of Existing Facilities

This alternative includes complete replacement of the WWTP facilities described under Project Need, as well as the same lift stations improvements and AMP collection system work included in Alternative 1.

Table 1 compares the present worth of Alternatives 1 & 2.

Table 1

Present Worth Comparison– Alternatives 1 and 2

Component	Alternative 1	Alternative 2
Initial Capital Cost	\$11,400,000	\$22,800,000
Annual O&M Cost*	\$0	\$0
Salvage Value	\$713,000	\$2,259,000
Total Present Worth	\$10,687,000	\$20,541,000

*Annual O&M cost is considered the same for both alternatives and thus listed as \$0.

Selected Alternative

Caro selected Alternative No. 1 – Rehabilitate and Replacement of Existing Facilities due to its overall cost-effectiveness over the 30-year term analyzed. Figure 1 shows the location of the WWTP and lift stations where the work will take place.

Caro plans to finance the project with an estimated \$11,400,000 30-year CWSRF loan at 2.00 percent interest. Caro has been determined by EGLE criteria to be a financially overburdened community which allows them to qualify for a 0.75 percent reduced interest rate from the standard rate of 2.75 percent. Loan closing is targeted for late August 2024 and construction is scheduled to begin in Fall 2024. System users may see a monthly sewer rate increase of approximately \$12.08 per month.

ENVIRONMENTAL IMPACTS AND MITIGATION

A primary goal of the project is to maintain reliable wastewater service and compliance with the facility's NPDES discharge permit. The proposed project is not anticipated to cause changes to the quality of nearby surface or groundwater. A minor impact on local traffic may occur for residents and businesses 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 minimal excavation operations. Work will be contained within small areas, minimizing disturbance to residents. A Soil Erosion and Sedimentation Control permit will be obtained for the UV Building and relocated Lift Station No. 8 through Tuscola County. Technical specifications will be followed concerning noise, dust control, cleaning, and debris removal, along with local city ordinances being followed. Temporary bypass pumping to manage sewage flows may be required during construction but will be minimized to the greatest extent possible.

There are no known hazardous substances anticipated to be found at the proposed work areas, except possibly for lead-based paint on piping systems and the chlorine gas cylinders currently used for disinfection at the WWTP, which is being replaced by the new UV disinfection system. Specifications for construction will require the contractor to test the piping prior to handling, and if lead paint is found, generate an abatement plan. The chlorine gas cylinders will be removed from the WWTP after the new UV disinfection system is online and transported and disposed of in accordance with all applicable regulations.

The proposed project will have no impact on archaeological and historical/cultural resources. The selected alternative will not negatively impact sensitive natural features, wildlife, or ecosystems. There will be minimal disturbance to the surrounding landscape at the WWTP property. No trees are located in any of the work areas and/or are proposed to be removed or cut. The main impact will be financial to pay for the loan debt service. There will be no dislocation of people during the construction. Minimal impact to residents is anticipated as the work will take place on existing city owned property or within the road right-of-way. Employment of some residents by the contractor(s) is a possibility for certain construction operations.

No indirect impact on development, land use, cultural, human, or ecological resources is anticipated.

The various infrastructure improvements will enable NPDES permit compliance, positively reduce system maintenance, and reduce the risk of lift station failures and/or sewage spills.

PUBLIC PARTICIPATION

A formal public meeting on project alternatives and user costs was held on April 3, 2023, at Caro City Hall. The public meeting was advertised on Caro's website beginning on March 17, 2023. A copy of the draft project planning document was made available to the public on the city's website. No written comments from the public were received before, during, or after the

public meeting. Questions and comments received during the meeting were addressed. After the close of the public comment period, the recommended alternative was selected for implementation by Caro City Council.

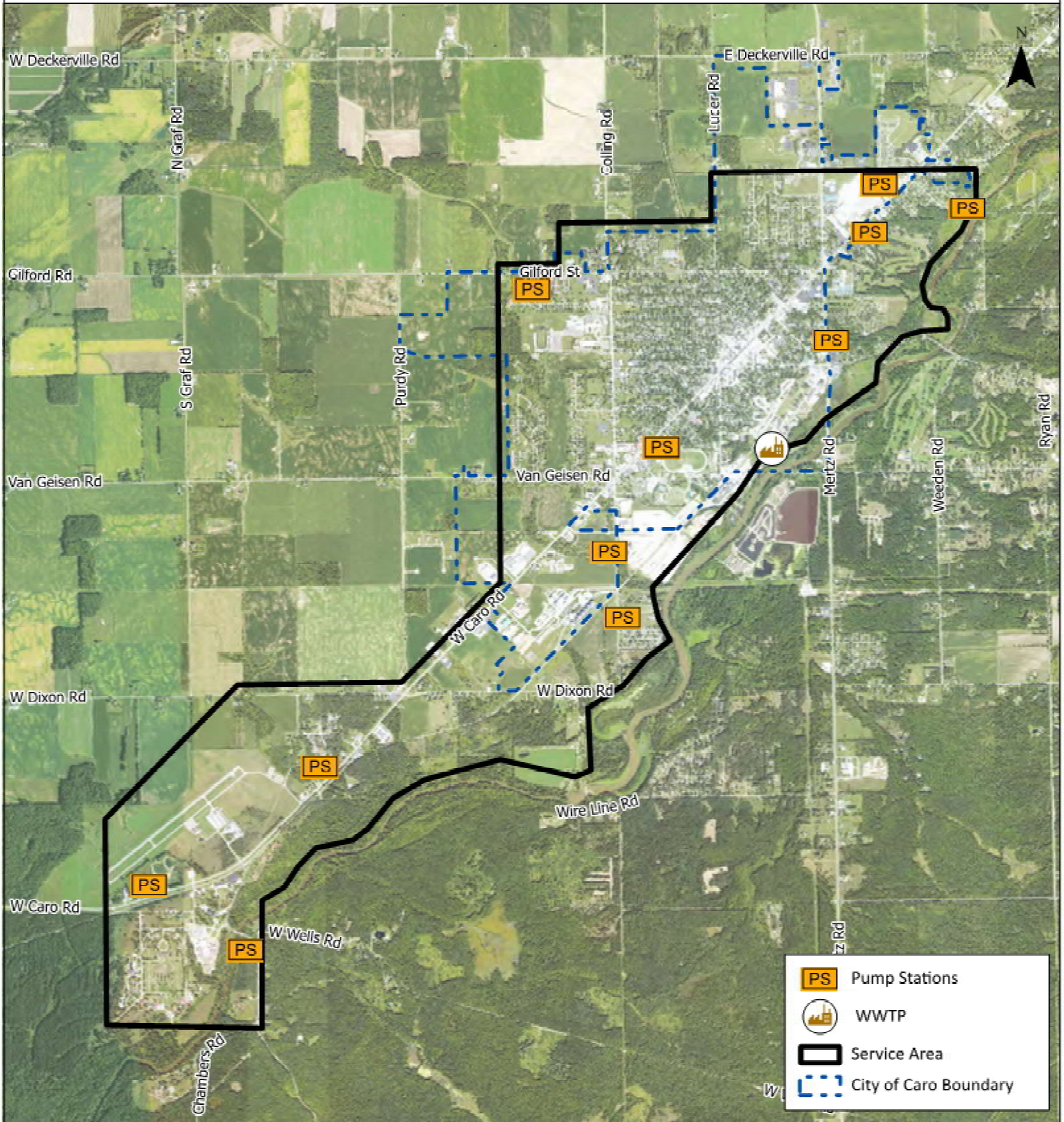
REASONS FOR CONCLUDING NO SIGNIFICANT IMPACTS

The proposed project has minimal temporary negative environmental impacts but offers substantial benefits of upgrading lift stations to transport wastewater safely and enabling the WWTP to provide adequate treatment of wastewater that will comply with the NPDES permit and prevent unauthorized discharges and discharge limit violations. These improvements should enable the WWTP to function efficiently.

Questions regarding this Environmental Assessment should be directed to:

Mr. David J. Worthington, 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: 517-554-1835
E-Mail: Worthingtond@Michigan.gov

City of Caro Sewage Disposal System Improvements



HRC
HUBBELL, ROTH & CLARK, INC
CONSULTING ENGINEERS SINCE 1915

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P.O. Box 824
Bloomfield Hills, MI 48303-0824
(248) 454-6300
<https://www.hrcengr.com>

Date: 2/27/2023	HRC Job #: 20221089
Sheet: Service Area Overview	Scale: 0 1,000 2,000 feet

Figure 1