



Council Report

Report Number: ENG2022-026

Meeting Date: August 23, 2022

Title: **Omeme Water Pollution Control Plant Upgrades
EA Completion**

Description: The results of the EA study documented in the Environmental Study Report (ESR) that examined the operational issues of the plant and identified the recommended upgrades to the system is presented here for council endorsement.

Author and Title: Juan Rojas, Director of Engineering and Corporate Assets
Nafiur Rahman, Supervisor of Environmental Capital
Project Management

Recommendation(s):

That Report ENG2022-026, **Omeme Water Pollution Control Plant Upgrades EA Completion**, be received;

That Council support the preferred solution of combined use of the spray irrigation and Large Sub-Surface Disposal System (LSSDS) discharge with minor upgrades, and

That Staff be authorized to file the ESR report for the legislated 30-day comment period.

Department Head: _____

Financial/Legal/HR/Other: _____

Chief Administrative Officer: _____

Background:

At the June 07, 2022 Committee of the Whole Meeting, Juan Rojas, Director of Engineering and Corporate Assets, Tony Guerrero, of Greer Galloway Consulting Engineers, and Sam Hutton, of Greer Galloway Consulting Engineers, provided an update through a presentation on the study of Schedule C Municipal Class Environmental Assessment (Class EA) for the upgrades to the Omeme wastewater treatment facility. Council adopted the following resolution:

CW2022-140

That the presentation by Juan Rojas, Director of Engineering and Corporate Assets, Tony Guerrero, of Greer Galloway Consulting Engineers, and Sam Hutton, of Greer Galloway Consulting Engineers, **regarding the Omeme Wastewater Treatment Update**, be received; and

That this recommendation be brought forward to Council for consideration at the next Regular Council Meeting.

Carried

The Omeme wastewater treatment facility was originally constructed as a dual lagoon/spray irrigation system in 1976. In order to accommodate the forecasted growth as per 2010 Growth Management Strategy, the facility was subsequently upgraded in 2013 following the Schedule C Class EA study with Large Sub-Surface Disposal System (LSSDS) and considering elimination of the need for the spray irrigation process. However, the LSSDS experienced malfunctions in the pumping chamber and tile bed due to slime buildup and seasonal spikes of suspended solids.

Spray irrigation was expected to phase-out over a two-year period following commissioning of the LSSDS and this was reflected in the facility's Environmental Compliance Approval (ECA) permit. Although the current ECA for the Omeme lagoon site no longer supports spray irrigation, the Ministry of the Environment, Conservation and Parks (MECP) has continued to authorize its use as an emergency measure to minimize the risk of uncontrolled sewage discharge to the environment.

As per extensive consultation and directed by the MECP, the City initiated a Schedule C Class EA planning and consultation process for the Omeme wastewater treatment facility in 2017 and retained Greer Galloway Group (GGG) to examine the ongoing operational issues with the LSSDS, review the required capacity, and recommend upgrades to the system through the EA study.

The Environmental Study Report (ESR) which documents the results of the EA study is complete and ready for Council endorsement. Once received, the consultant of this project will be directed to issue Notice of Completion for publication on the City website and local newspapers, and file the EA for the mandatory 30-day evaluation period. The ESR report is available at the Clerk's office for review.

A Notice of Study Commencement was released on June 29th, 2020, and two Public Information Center (PIC) sessions were held on July 15th, 2021 and May 25th, 2022 respectively. No concerns with the preferred alternative were raised during the PICs.

Subject to Council approval, Staff will initiate the detailed design and construction of the project, already budgeted for within the Water and Wastewater Capital Budget.

Rationale:

Existing issues and the overall status of the system were investigated through the Class EA study. Three alternatives to resolve performance issues were analysed from a technical perspective as well as assessing the potential impacts on the natural, cultural, social and economic environments. A combination of use of the spray irrigation and LSSDS discharge with minor upgrades was selected as the preferred alternative.

The upgraded system would increase retention time by staging flow through both lagoons in series, instead of operating them in parallel. Upgraded and additional filtration is included in the form of a new traveling screen for all effluent, followed by a Dissolved Air Flotation (DAF) unit for influent to the LSSDS.

This solution would make spray irrigation an approved method of effluent discharge under the ECA, in addition to the LSSDS, and sufficiently address existing issues at the lowest capital cost while providing sufficient capacity for growth. Since this solution is essentially a continuation of current operation with minor improvements within the existing wastewater plant site, there is little impact to the natural, social, economic and cultural heritage environments while ensuring ongoing performance, operation, and efficiency of the system. Additionally, the system is modular, so can be expanded in future, if further capacity was needed.

Other Alternatives Considered:

The GGG has evaluated all relevant alternatives and has determined the preferred alternative within the confines of the EA process. No other alternatives have been considered outside of this process.

Alignment to Strategic Priorities

The report aligns with the strategic priorities of creating "A Vibrant and Growing Economy" and "A Healthy Environment" through accommodating growth and reducing the risk of emergency discharge to the Pigeon River, thereby reducing or negating phosphorous loading to the sensitive surface water receiver.

Financial/Operation Impacts:

This report has no financial implications. Design and construction of the preferred alternative will commence in accordance with the purchasing policy requirements.

The estimated construction cost of the preferred solution is approximately \$1,930,000.00, which is the lowest of the two viable alternatives considered. There is a budget balance of \$2,209,942.00 which was allocated under the capital project 9981101. Of the total amount, about 66% is funded by user rates and the remaining 34% is funded by development charges.

Servicing Implications:

The recommendations associated with this report will sufficiently address the existing operational issues and enhance performance and efficiency of the system. The upgrades will also provide sufficient capacity for growth.

Consultations:

Adam Found, Manager of Corporate Assets
Consultant, The Greer Galloway Group Inc., Belleville, ON.

Attachments:



Omeme WPCP ESR
(Draft).pdf

NOTE: The report will be available for review in the Clerk's office.

Department Head email: jrojas@kawarthalakes.ca

Department Head: Juan Rojas, Director Engineering and Corporate Assets