

Municipality of Lakeshore

Regular Council Meeting Addendum



Tuesday, May 20, 2025, 5:00 PM

Council Chambers, 419 Notre Dame Street, Belle River

Pages

21. Addendum

- *1. **Addition Measures for Blower Noise Reduction at the Denis St. Pierre Treatment Plant**

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Recommendation:

Approve the appointment of Stantec Engineers to undertake the design and acoustic modelling of additional noise mitigation measures to be placed on the air intake lines for the blowers at the Denis St. Pierre treatment plant and proceed to RFQ for a specialist contractor to fabricate and install the mitigation measures in accordance with the Stantec design, and, approve funding in the amount of \$100,000.00 (including applicable HST) from the Wastewater reserves, as a maximum upset limit for the design, modelling and installation works, as presented at the May 20, 2025 Council meeting.

Municipality of Lakeshore – Report to Council

Operations

Capital Projects



To: Mayor and Members of Council

From: Wayne Ormshaw P.Eng, Division Leader - Capital Projects

Date: May 14, 2025

Subject: Addition Measures for Blower Noise Reduction at the Denis St. Pierre Treatment Plant

Recommendation

Approve the appointment of Stantec Engineers to undertake the design and acoustic modelling of additional noise mitigation measures to be placed on the air intake lines for the blowers at the Denis St. Pierre treatment plant and proceed to RFQ for a specialist contractor to fabricate and install the mitigation measures in accordance with the Stantec design, and, approve funding in the amount of \$100,000.00 (including applicable HST) from the Wastewater reserves, as a maximum upset limit for the design, modelling and installation works, as presented at the May 20, 2025 Council meeting.

Strategic Objectives

This report does not relate to a Strategic Objective.

Background

As part of the 2021 wastewater treatment expansion at the Denis St. Pierre treatment plant, a new blower building was constructed to accommodate increased aeration demands of the treatment process. During the final stages of construction and commissioning in May 2024, a distinct humming noise was observed during the operation of the blower units, leading to several public complaints from the surrounding area.

The project engineers (Stantec Engineering) and the contractor (NAC) identified the source of the noise and determined that mitigation strategies including acoustic muffling of the blower intake unit and operational limitations to daytime hours (7 am to 7 pm) were implemented. Subsequently, they collaborated with the Municipality of Lakeshore to provide and install a noise reduction system, featuring a silencer and acoustic surround to the intakes, to mitigate the humming noise.

In March 2025, the installation was completed. Noise monitoring conducted before and after the installation demonstrated a significant reduction in noise levels at various distances from the source, including locations near properties to the north and east.

Between May 2024 and March 2025, Administration received and dealt with several complaints from residents in the surrounding areas regarding the humming noise. While the implemented measures have demonstrably reduced the noise, a few complaints have been received since installation.

Furthermore, in September 2024, Stantec Engineering completed an Acoustic Assessment Report, which was submitted to the Ministry of the Environment, Conservation and Parks (MECP). This report presented results and modeling data for the area in and around the plant, indicating that the noise levels were below the level limits established by the MECP.

Comments

Following discussions with Stantec Engineering, it was determined that additional noise mitigation measures could be designed, modeled, and installed to further reduce the noise levels significantly below the MECP requirements.

With the requested additional funding, Stantec Engineering would be willing to commence with the detailed design and modelling of these further enhancements immediately. Subsequently, a specialist contractor will be appointed in accordance with Lakeshore's Procurement By-Law, to execute the installation in strict compliance with Stantec's design specifications to ensure the final installation will perform as modelled by Stantec.

Upon completion of the installation, Stantec Engineering will conduct follow-up sound monitoring, consistent with previous reports, for comparative analysis and future reference.

Financial Impacts

It is recommended that \$100,000.00 including applicable HST, be funded out of the Wastewater Reserve, resulting in a Wastewater reserve of \$2.26M for 2025.

Report Approval Details

Document Title:	Addition Measures for Blower Noise Reduction at the Denis St. Pierre Treatment Plant.docx
Attachments:	
Final Approval Date:	May 15, 2025

This report and all of its attachments were approved and signed as outlined below:

Prepared by Wayne Ormshaw

Approved by the Corporate Leadership Team