



Staff Report

Operations – Sustainability & Solid Waste

Report To: COW-Operations_Planning_and_Development_Services
Meeting Date: November 19, 2024
Report Number: CSOPS.24.065
Title: Contract Renewal for Leachate Pre-treatment
Prepared by: Jeffery Fletcher, Manager of Sustainability & Solid Waste

A. Recommendations

THAT Council receive Staff Report CSOPS.24.065, entitled “Contract Renewal for Leachate Pre-treatment”;

AND THAT Council approve the extension of the leachate pre-treatment system equipment lease agreement with Environmental and Power Solutions Inc., for an additional 5 years at \$109,000 per year;

AND THAT the Director of Operations and Director of Corporate & Financial Services / Treasurer be authorized to execute and sign an agreement with Environmental and Power Solutions Inc. for the 5-year lease and maintenance of the system.

B. Overview

This report seeks Council approval to renew the existing equipment and maintenance lease agreement with Environmental Power Solutions Inc. for the Waste Disposal Site leachate pre-treatment system. This system is critical to ensure the elimination of hydrogen sulfide (H₂S) in the landfill leachate prior to being received at the Town’s Craigleith Sewage Lift Station.

C. Background

The Town of The Blue Mountains installed a leachate pre-treatment system in 2020. The system was designed in collaboration with Environmental and Power Solutions Inc. (EPS), to specifically address dangerously high levels of H₂S. H₂S in the gaseous phase is a dangerous gas and can cause death at high concentrations. The landfill leachate has concentrations of H₂S that could cause severe and acute health impacts and death. The pre-treatment system effectively reduces the concentration of H₂S in the liquid phase from 220 mg/L to <.02mg/L.

This unique and specifically designed system treats the leachate to a non-detectable level of H₂S which allows for safe and odour free delivery to the Craigleith Sewage Lift Station. The

system uses a proprietary advanced oxidation process combined with a treatment tank and process pumps.

Prior to the installation of this system the leachate received at the lift station was generating dangerous levels of H₂S in the lift station and impacting the wastewater treatment plant biota. The leachate was also responsible for causing numerous odour complaints from residents and jeopardizing compliance. Other systems and chemical treatment efforts were attempted, none of which were adequately effective and were an operational challenge.

A permanent version of the current system is being designed into the Phase 2 landfill expansion that is planned to start construction in 2026. The ownership and maintenance plan for this system has not yet been determined.

D. Analysis

The current 5-year lease agreement will end in May of 2025. It is anticipated that by the end of 2027 the phase 2 landfill expansion construction will be complete. An extension to the existing agreement will be required to bridge the period between the end of the existing agreement and construction of a new system.

Staff recommend that the Town negotiate an extended lease agreement with EPS for the maintenance and provision of the equipment required to complete leachate pre-treatment. The agreement will be modified to include an exit clause that will be coordinated with the installation of a permanent pre-treatment system.

E. Strategic Priorities

Although this operational system does not relate specifically to an action in the Town's Strategic Plan, the odour eliminating system does align with priority area 4, "Community". The priority area under community, endeavors to protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

F. Environmental Impacts

Reduction of H₂S protects wastewater staff and the public from potentially toxic gases and noxious odours. High H₂S is corrosive to equipment, lowering concentrations reduces the impact on wastewater equipment and prolongs the useful life.

G. Financial Impacts

The increase to the cost of the extended lease of the system is included in the proposed 2025 Landfill operational budget. The total budget for the annual lease of the pre-treatment system is \$109,000. The current agreement includes a monthly fee of \$7,000 for a total of \$84,000 per year. The new cost would represent almost a 30% increase.

H. In Consultation With

Serena Wilgress, Manager of Purchasing and Risk Management

I. Public Engagement

The topic of this Staff Report has not been the subject of a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. However, any comments regarding this report should be submitted to Jeffery Fletcher, Manager of Sustainability & Solid Waste managersolidwaste@thebluemountains.ca.

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J. Attached

1. Attachment 1. Equipment Lease Agreement (Current)

Respectfully submitted,

Jeffery Fletcher,
Manager of Sustainability & Solid Waste

Alan Pacheco
Director Operations

For more information, please contact:
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Report Approval Details

Document Title:	CSOPS.24.065 Single Source Leachate Pre-treatment.docx
Attachments:	- Attachment 1 Equipment Lease Agreement (Current).pdf
Final Approval Date:	Oct 17, 2024

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

Jeff Fletcher - Oct 16, 2024 - 2:16 PM

Alan Pacheco - Oct 17, 2024 - 10:52 AM