

MANAGEMENT REPORT

Date: June 25, 2025
To: Infrastructure, Transportation and Safety Sub-Committee
From: Sean Beech, Manager of Environmental Services
Report Number: ITS25-013
Attachments: None

Title: Stratford Water Pollution Control Plant – Primary Digester Roof Failure Update

Objective: To update Council regarding the Primary Digester Roof Failure at the Stratford Water Pollution Control Plant and to seek Council approve to proceed with a Request for Proposal (RFP) for Consulting Engineering Services for the design, tendering and inspection of the digester's replacement.

Background: As outlined in previous report ITS24-023, due to the overpressure event in May 2024, the existing roof on the primary digester experienced critically damaging uplift. The City's Water Pollution Control Plan (WPCP) operator, Ontario Clean Water Agency (OCWA), retained engineering consultant CIMA+ to assess the roof and concrete to determine damage and options for repair. Since then, Staff have participated in several meetings with OCWA and their respective insurance providers to discuss root cause of the initial failure, interim operational response planning, insurance justifications and reimbursements.

This report is an update on the current developments regarding the WPCP in Stratford. Specifically, it focuses on the outcomes of the inspection report from CIMA+ and the final decision on funds that are available to OCWA from their insurance provider.

Analysis: OCWA's insurance providers confirmed that coverage would be provided for an estimated amount between \$400,000 and \$500,000. This amount was determined based on the age of the digester roof itself, and the estimated cost for repairs.

A critical point to note is that this settled amount does not guarantee sufficient funds such that the digester would be repaired to the required level of being fully operational.

The digester roof, at 45 years of age, was thoroughly assessed by CIMA+, and concerns regarding its structural integrity and the extensive failure of the roof coating have been identified. The coating failure has accelerated corrosion of the steel roof.

The CIMA+ report outlines two options to proceed, the repair or the replacement of the digester roof. The estimate given for the roof repair was \$1,545,000, while replacement was \$2,676,000. The replacement roof is intended to have a life exceeding 50-years, while the repair is only expected to provide another 15 years of service. As a result, the overall life cycle cost over the next 50 years is much lower if the roof is replaced. As noted in a previous report, the WPCP digester has long been recognized as undersized for handling the current volumes of waste processed, and recommendations for capacity upgrades have been in consideration for several years. Given these findings and the confirmed coverages from the insurance adjustor, Staff recommend a full roof replacement.

As a result, Staff are seeking Council's approval to commence a Request for Proposal (RFP) for Consulting Engineering Services for the design, tendering and inspection of a replacement digester roof. This RFP will initiate the design phase for a complete roof replacement and mixing system, ensuring that the plant continues to operate within legislated parameters and without incurring additional operational costs due to compromised infrastructure.

The proposed full replacement cost of the roof and concrete is estimated at approximately \$2,676,000 as per the CIMA+ Assessment Report. The 2024 Water and Wastewater Rate Study incorporated this cost into the study excluding any insurance recoveries. This \$400,000 to \$500,000 can be used to reduce the net costs. Once the project is designed and tendered, a more precise cost will be known. There are sufficient funds in the capital Wastewater Reserve R-R11-WWTR to cover the proposed scope of this update.

Currently, Staff are pursuing funding under the Municipal Housing Infrastructure Program – Health and Safety Water Stream for this project, a provincial fund intended to support critical infrastructure upgrades. If successful, this fund would cover up to 73% of the costs, requiring the remaining 27% to be funded by the City water reserve funds.

Financial Implications:

Financial impact to current year operating budget:

There is minimal impact anticipated on this year's operational budget. The proposed preliminary RFP and replacement are expected to be fully funded through the Wastewater Reserve, which is supported directly through user rates. Additionally, there are some increased operational costs associated with the digester failure that are expected to be fully recovered through OCWA's insurance claim and therefore expected to have nominal impact.

Financial impact on future year operating budget:

The 2024 Water and Wastewater Rate Study and Financial Plan incorporated this significant project, allowing for appropriate adjustments in user rates to ensure adequate funding.

Link to asset management plan and strategy:

The completion of this project will result in the replacement of the roof, concrete repairs, and a new mixing system for the Primary Digester. Future replacement of these significant components is not expected for many years and enhances the long-term performance and life cycle of this asset. Replacement costs for these (and other components form part of the City's Asset Management Plan and funding strategies.

Alignment with Strategic Priorities:**Enhance our Infrastructure**

CIMA+ recommends the installation of a new digester roof, citing that the lifecycle cost of a new roof would be lower than the ongoing expenses associated with repairing the existing roof. Repairs to the current roof are projected to last no more than 15 years and may incur unforeseen costs. In contrast, a new roof would not only improve the overall reliability and efficiency of the biosolids digestion process for the City, but it would also meet the latest industry standards, further enhancing the reliability and long-term performance of the biosolids management system.

Alignment with One Planet Principles:**Sustainable Water**

Using water efficiently, protecting local water resources and reducing flooding and drought.

Staff Recommendation: THAT the report titled, "Stratford Water Pollution Control Plant – Primary Digester Roof Failure Update" (ITS25-013) be received for information;

AND THAT Council direct Staff to proceed with a Request for Proposal for Consulting Engineering Services for the roof replacement of the Primary Digester at the Stratford Water Pollution Control Plant.

Prepared by:	Sean Beech, Manager of Environmental Services
Recommended by:	Taylor Crinklaw, Director of Infrastructure Services
	Adam Betteridge, Interim Chief Administrative Officer