



Regional Board Report

TO: Regional Board

FROM: David Komaike
Director of Engineering Services

DATE: March 17, 2020

SUBJECT: Westside Regional Wastewater Treatment Plant – TWAS Budget Amendment

Voting Entitlement: *Weighted Stakeholder Vote (West Kelowna & Peachland) – Simple Majority – LGA 209*

Purpose: To update the Regional Board on an amendment to the Thickened Waste Activated Sludge (TWAS) Vault project located at the Westside Regional Waste Water Treatment Plant prior to adoption of the 2020 Capital and Operating Budget for the Westside Sewer System (401).

Executive Summary:

AECOM was retained by the Regional District of Central Okanagan (RDCO) in July 2019 to complete the detailed design and tendering of the Thickened Waste Activated Sludge (TWAS) Vault at the Westside Regional Wastewater Treatment Plant (WRWWTP). It was anticipated that the timing of the design and tendering of the project would be completed early in the budget cycle however unforeseen delays pushed the tender closing date back.

The tender results have now been received by the engineer. Unfortunately, all of the submissions exceed the pretender estimates. In order to proceed with the project without further delay, a budget amendment will be required.

Original Budget:	\$1,400,000
Revised Budget:	\$1,900,000

There are sufficient funds in the Development Cost Charge and Reserve accounts to pay for the increased project costs.

RECOMMENDATION:

THAT the Board receive the report on the Thickened Waste Activated Sludge (TWAS) Vault project at the Westside Regional Waste Water Treatment Plant and approve the revised Budget of \$1,900,000.

Respectfully Submitted:

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David Komaike
Director of Engineering Services

Approved for Board's Consideration

A handwritten signature in black ink, appearing to read "Brian Reardon", is written over a light blue horizontal line.

Brian Reardon, CAO

Implications of Recommendation:

Strategic Plan:	Supports the Regional Board's efforts to reduce our environmental footprint by ensuring the WWTP infrastructure is properly maintained and sized for future growth.
Financial:	Long-term budgeting to ensure stable users fees and adequate reserves to complete needed maintenance, repairs, and upgrades.

Background:

The existing TWAS Vault, constructed in 1989, is a subgrade concrete structure located under the Administration Building. The existing vault has a capacity of 55 m³ which provides approximately 24 hours of storage at current flowrates. The Vault was inspected in early 2019 and the concrete was found to be in "fair" condition due to the corrosion through oxidation of hydrogen sulphide (H₂S) and temperature changes causing freeze/thaw cycles.

Based upon the engineers' report, a decision was made to move forward with the replacement of the existing vault with a new – two cell vault and to abandon the existing. This option had the smallest impact on the wastewater treatment plant operations, builds in system redundancy and added TWAS storage capacity needed to meet the ultimate design capacity of the plant.

The detailed design of the TWAS vault replacement began in August 2019 and was completed in December 2019. The tendering of the project was previously approved by the Regional Board in the Q1 spending report for \$1,400,000 however the project has now been tendered and the actual costs are known. The proposed revised budget, including construction, engineering, permits and fees is now \$1,900,000 and is presented for stakeholder information.

Revised TWAS Budget		
Engineering	Preliminary Design, Detailed Design	\$101,871.83
	Detailed Design, Permits & Programing	\$157,025.00
Construction	Tender Price	\$1,421,257.00
	10% Contingency	\$142,125.70
Overhead	3% Engineering + 1.5% Administrative	\$77,418.35
Total Budget		\$1,899,697.88