

10.8 Putāruru Wastewater Treatment Plant Denitrification Project Update

Report To:	Council
Meeting Date:	Wednesday, 24 September 2025
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Purpose

To provide Council with an update on the Putāruru Wastewater Treatment Plant (WWTP) Denitrification project.

Recommendation

That the Council:

- a. Receives and notes the Putāruru Wastewater Treatment Plant Denitrification Project Update (Resolve # 2025-367).
- b. Approves the cancellation of the Putāruru Wastewater Treatment Plant (WWTP) Denitrification project from the 2025-26 capital programme.
- c. Approves the reallocation of this year's project budget (\$7.8 million) to other Three Waters renewal projects approved within the 2024-34 LTP.
- d. Notes staff will continue to work with the Waikato Waters Establishment team to incorporate this project into their capital programme from 1 July 2026.

Executive Summary

As part of the 2024–34 Long Term Plan, Council approved upgrade works at the Putāruru Wastewater Treatment Plant (WWTP) to meet resource consent requirements for nitrogen removal. The consent mandates effluent quality of less than 5 g/m³ Total Nitrogen by 1 June 2026, compared with current levels of 33.8 g/m³.

A capital budget of \$10.5 million was initially allocated to integrate a targeted treatment process into the existing plant. GWE Consulting Engineers were engaged to develop a concept design; their study concluded that simply adding a nitrogen removal component was not feasible due to both the strict consent parameters and the condition of existing WWTP assets. Consequently, the project scope has shifted to require construction of a new WWTP.

Council is engaging with the Waikato Water Establishment Team to ensure this critical project is included in their capital programme as part of the transition of water supply and wastewater assets and activities from 1 July 2026. Council has also been providing updates to Waikato Regional Council and Raukawa on the project's progress and future direction.

Context

To fulfil the reduction of nitrogen as required under the Waikato Regional Council (WRC) consent condition, Council allocated a budget of \$10.5 million, spread over three (3) financial years, with an

initial concept of simply adding a treatment process component into the whole existing Putāruru WWTP to enhance Stage 2 nitrogen removal.

Discussion

Based on these findings of poor asset condition, outdated infrastructure, seismic vulnerabilities, and limited capacity; it has been concluded that constructing a new WWTP was the only viable solution.

GWE proceeded to identify suitable options for a new plant that would incorporate nitrogen removal capabilities. Three options were shortlisted by GWE to meet Stage 2 nitrogen removal requirements:

- A. Membrane Aerated Biofilm Reactor followed by Membrane Bioreactor (MABR-MBR)
- B. Conventional Activated Sludge Reactors followed by Membrane Bioreactor (Pure MBR)
- C. Moving-Bed Biofilm Reactor followed by Membrane Bioreactor (MBBR-MBR).

GWE provided a comparative analysis of the net present value (NPV) of these options, factoring in capital expenditure and annual operating costs over a 20-year period (Note: capital cost estimates have an accuracy range of -10% to +40%):

Option	Description	Capital Cost (incl. 15% contingency)	Yearly Operating Cost	NPV (20 years)
A	MABR-MBR	\$49,300,000	\$1,700,000	\$70,400,000
B	Pure MBR	\$41,800,000	\$1,780,000	\$64,000,000
C	MBBR-MBR	More expensive than Option A	Not specified	Not specified

To ensure robustness of the findings, GWE's study was peer-reviewed by WSP, an independent third-party consultant engaged by SWDC.

Options

Project Cancellation

Council has the following options:

- A. Approves the cancellation of the Putāruru Wastewater Treatment Plant (WWTP) Denitrification project from the 2025-26 capital programme.
- B. Declines the cancellation of the Putāruru Wastewater Treatment Plant (WWTP) Denitrification project from the 2025-26 capital programme.

The preferred option is Option A.

Reallocation of project budget

Council has the following options:

- A. Approves the reallocation of this year's project budget (\$7.8 million) to other Three Waters renewal projects approved within the 2024-34 LTP
- B. Declines the reallocation of this year's project budget (\$7.8 million) to other Three Waters renewal projects approved within the 2024-34 LTP.

The preferred option is Option A.

Linkage to Strategic Plan Priorities

Environmental sustainability

Economic development

Durable infrastructure

Consultation (Internal and External)

Consultation (both internal and external) took place during the 2024-34 LTP and Annual Plan Processes.

Financial Considerations

Budgets have been discussed and approved during the 2024-34 LTP and Annual Plan processes.

The budget for this project is split across the following financial years:

- 2025-26: \$7,838,300
- 2026-27: \$2,694,810
- **TOTAL: \$10,533,110**

Risks

There is a risk that the significant gap between the allocated budget of \$10.5 million and the forecast expenditure of \$41–\$49 million will require substantial additional borrowing, which could negatively impact Council's overall financial position.

The allocated \$10.5 million budget is insufficient to deliver the required WWTP upgrade. As a result, Council is at risk of breaching its WWTP discharge resource consent conditions from June 2026 onwards if the project is not completed or a consent variation is granted.

Significance & Engagement Policy

The matters and recommendation contained in this report do not trigger Council's Significance and Engagement Policy.

Reference

N/A

Attachments

None