

To: Andrew Maclennan
Otago Regional Council
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From: Vanessa Dally
Stantec
Level 15, 10 Brandon Street
Wellington 6011

Project/File: 310003418.100.300 Date: 22 January 2026

Reference: RM25.091 Mahinerangi Fast Track Application**Introduction**

Stantec NZ has been engaged by Otago Regional Council (ORC) to conduct a technical review of the RM25.091 Fast Track Application Audit: Mahinerangi Wind Farm Stage 2, Otago.

This technical memorandum details our review of the updated Civil Engineering report and draft conditions, with specific focus on effects of the application on groundwater hydrology. This response has been prepared after the site visit undertaken on 15 January 2026.

This review has been undertaken by Vanessa Dally, a Senior Principal Hydrogeologist at Stantec New Zealand. Vanessa holds a Masters of Science in Geology from the University of Auckland and has over 20 years experience in consultancy. A summary of some of the the reviewer's relevant experience is appended.

Response

Stantec's initial review of the groundwater hydrology aspects of the (Civil Engineering and Wetland Ecology) from July 2025 identified that the technical information provided does not include an assessment of groundwater contribution to wetland hydrology. The updated version dated 15 October 2025 provided a brief summary of hydrogeological conditions across the site, but expected flows into excavations and estimate of dewatering rates were not included. Therefore, an assessment of effects from temporary dewatering on adjacent wetlands cannot be assessed.

However, after a high level review of the environmental setting and a site visit, we agree that groundwater contribution to the wetlands is likely not to be significant and flow into excavations will be below 1 L/s.

Additionally, draft condition 5 for the Water Permit - To take groundwater for the purpose of dewatering construction sites states -

Reference: RM25.091 Mahinerangi Fast Track

Any groundwater taken for the purpose of site dewatering is returned to the same waterbody, or waterbodies, from which it is taken in a manner that ensures the amount taken is the same as the amount returned, and there is no significant delay between the taking and return of the water, or waterbodies, from which it is taken in a manner that ensures the amount taken is the same as the amount returned, and there is no significant delay between the taking and return of the water.

Based on the high level review assumptions and the return of groundwater (after treatment) to the wetlands (in a way that will not result in sedimentation or scouring), effects from temporary dewatering within excavations on the adjacent wetlands are likely to be minor to less than minor.

However, it is noted that the assumptions are based on limited information and it is recommended that the risk outstanding is covered off in the Wetland Monitoring and Management Plan. An action response to an exceedance of a monitoring trigger should be included to stop dewatering, and to reassess the treatment and water return period to prevent further drying out of the wetland.

Closure

Stantec's original review of the Civil Engineering documents in July 2025 noted that the technical information provided did not include an assessment of groundwater contribution to wetland hydrology. The updated Civil Engineering document provides a brief description of groundwater hydrology for the site but does not provide sufficient detail to understand groundwater contributions to the wetlands and/or dewatering requirements, and hence an assessment of effects from dewatering has not been completed. However, additional information from a high level assessment of site environmental conditions and site walk over indicates that groundwater inputs into the wetland will be low, and flows into excavations will be less than 1 L/s. This along with the draft condition of returning groundwater during dewatering activities back to the source body will likely result in minor to less than minor effect on the wetlands.

The outstanding risk from unknowns can be managed as an action response to an exceedance of monitoring triggers within the Wetland Monitoring and Management Plan. When monitoring triggers are exceeded it is recommended that dewatering is stopped and the treatment and return of groundwater to the impacted wetland is reassessed.

Yours sincerely



Vanessa Dally
Senior Principal Hydrogeologist

Stantec New Zealand



Vanessa Dally

Senior Principal - Hydrogeology



Vanessa is an Environmental Scientist/Hydrogeologist with over 20 years' experience. Vanessa has carried out numerous hydrogeological and water supply investigations in both Australia and New Zealand ranging from groundwater exploration within remote arid locations to dewatering investigations within low lying coastal areas under development. Vanessa also has experience in contaminated land, carrying out investigations of soil and groundwater, including site remediation, as well as other fields of environmental science and geology.

Vanessa's groundwater experience includes the following:

- water quality monitoring;
- groundwater contaminant transport modelling;
- contaminated groundwater remediation;
- groundwater exploration for potable supply;
- supervision of drilling and groundwater bore installation;
- undertaking pump and step tests and analysis;
- regional groundwater modelling; and
- dewatering investigations for both commercial development and mining projects.

EDUCATION

BA/BSc conjoint

MSc Geology (Hons)

Diploma of Project Management BSB51413

CERTIFICATIONS & TRAINING

Site Safe Passport - Civil exp 18/01/2026

4WD Training Certificate of Achievement

15/07/2024

REGISTRATIONS

EIANZ (Professional Member)

New Zealand Hydrological Society (Member)

WasteMINZ (Member)

PROJECT EXPERIENCE

Project Name, Dewatering Reviews, New South Wales, 2022-2025. Client: Department of Climate Change, Energy, the Environment and Water, NSW Government

Vanessa has been assisting the Client with review of groundwater and dewatering management plans for significant state projects and commercial/residential developments in NSW. The reviews are to assess whether proposed development projects within NSW are likely to impact on groundwater resources.

Vanessa Dally

Principal - Hydrogeology

Project Name : Te Wai Takamori o Te Awa Kairangi - Hydrogeological Services, 2024-Feb 2026, **Client :** Riverlink Alliance
Vanessa provided the Alliance with hydrogeological services and advise for the construction of the new Melling Bridge and interchange in Lower Hutt, Wellington. Vanessa has provided input on the Groundwater Mangement Plan and groundwater monitoring. Vanessa is also assisting the Alliance with the installation of a new bore and resource consent for a groundwater take for the project.

Project Name, Eves Valley Landfill, Hydrogeological Assessment, 2025. **Client:** Nelson Tasman Regional Landfill Buisness Unit
Vanessa provided a hydrogeological assessment for Eves Valley Landfill to support variation of resource consent to dispose of Class 3 Managed Waste at the facility. The assessment involved a desktop review of existing environmental data for the site, updating the conceptual site model, and a hydrogeological Assessment of Environmental Effects (AEE) for the proposed consent variaiton.

Project Name : Fielding Town Supply Hydrogeological Assessment of Effects, 2024
Client : Manawatu District Council
Vanessa was the technical lead for the assessment of effects to support the resource consent application for bore takes for Fielding town supply.

Project Name : Precinct 4 East Stormwater Detention Ponds, Feilding, 2024
Client : Manawatu District Council
Vanessa is assisting the Client with the hydrogeological aspects of the design for new stormwater detention ponds. The assessment includes numerical modelling to understand groundwater seepage rates.

Project Name : Groundwater Permit Renewals, Kāpiti Coast, 2022-2024. **Client :** Kāpiti Coast District Council

Vanessa was the technical lead for this project, which included supervision of bore installation, pumping tests and interpretation of results, preparation of assessment of environmental effects and application for resource consent for numerous council irrigation bores.

Project Name : Te Puna Hāpori - Police Hub and Courthouse. Whanganui, 2022-2024. **Client :** NZ Police and Ministry of Justice

Vanessa was the technical lead for both the contaminated land and hydrogeological aspects of the project. The hydrogeological investigation included installation and testing of bores (permeability tests and water quality), and assessment of environmental effects and numerical modelling for dewatering management during development.

PREVIOUS POSITIONS

- Senior Principal Hydrogeologist – Stantec (Wellington, NZ)
 - March 2022 – present
- Principal Hydrogeologist – Cardno (Wellington, NZ)
 - February 2015 – March 2022
- Senior Environmental Scientist - Cardno (Brisbane, Australia)
 - May 2012 – February 2015
- Environmental Scientist - Pattle Delamore Partners Limited (Wellington, NZ)
 - May 2010 – April 2012
- Environmental Scientist - MWH (Wellington, NZ)
 - May 2005 – April 2010