

Fast-track Approvals Act 2024 – Delmore Substantive Application
Technical Addendum
FTAA-2502-1015 / BUN60444768

1.0 Technical Specialist – Hester Hoogenboezem - Groundwater diversion and dewatering

From: Hester Hoogenboezem

Date: 17 July 2025

2.0 Executive Summary / Principal Issues

The Applicant is seeking consent to take groundwater for dewatering purposes during earthworks for the construction of approximately 1 250 dwellings and in the long-term for ground dewatering after earthworks with associated drainage at the subject site for the proposed Delmore Development.

It is understood that most excavations near the boundaries are proposed to be formed by batter slopes and some excavations will be supported by near boundary retaining walls extending to a maximum height of approximately 3 m. I consider that geotechnical design inputs will be required for specific design of retaining walls and that further investigation may be required to enable specific designs to be completed.

The principal groundwater diversion and dewatering issues identified in the previous documentation were addressed in the updated information. I considered that the proposed dewatering and groundwater diversion could have potential adverse effects on the wetlands, because significant dewatering is proposed and groundwater diversion and dewatering was not assessed at the locations and within the influence zones of the identified wetlands.

3.0 Specialist Assessment – Previous Memo / Comments Overview

Summary of 25/06 Issues identified

- An assessment of effects of groundwater diversion and dewatering on the identified wetlands.
- Inclusion of a full set of Ground Dewatering (Take) and Groundwater Diversion Conditions.

4.0 Specialist Assessment – Material Reviewed

Review of 07/07 Updates

- Appendix 42.2 Memo, “Delmore Fast Track Application – Response to Auckland Council Terrestrial Ecology Queries”, prepared by Viridis, dated 30 June 2025.
- Appendix 42.3 Memo, “Delmore Fast Track Application – Response to Auckland Council Freshwater Ecology Queries”, prepared by Viridis, dated 1 July 2025.

- Appendix 42.4 Letter, Delmore Subdivision – Response to Councils Queries Regarding Wetland Hydrology
- Appendix 42.5 Report, “*Wainui Subdivision Wetland Assessment Hydric Soil & Hydrology Tool Assessments*”, prepared by Williamson Water & Land Advisory, dated 1 July 2025.
- Appendix 43.1, Memo “*Response to Council Groundwater Queries Delmore Residential Development*”, prepared by Riley Consultants, dated 1 July 2025.
- Appendix 43.2, Memo, “*Geotechnical Response to Council Queries Delmore Residential Development*”, prepared by Riley Consultants, dated 1 July 2025.
- Appendix 43.2, Drawings, “*Response (13)23 Sketches SK190-193*”, prepared by Riley Consultants, dated 11 June 2025.
- Appendix 44.5, Memo, “*Retaining Memorandum – Rev B*”, prepared by Terra Studio.
- Appendix 44.5, Drawings, “*Retaining Wall Sections*”, prepared by Terra Studio and dated
- Appendix 49.5, Drawing, “*Earthworks Erosion and Sediment Control Details Sheet 4*”, DWG 3725-2903, prepared by McKenzie & Co.
- Appendix 49.8, Report, “*Delmore Earthworks Report*”, prepared by McKenzie & Co, dated 2 July 2025.
- Appendix 57.0 “*Delmore: Proposed Consent Conditions*”
- Vineways Delmore Fast Tracked AEE Track Change Version, Revision 2

I considered that the proposed dewatering and groundwater diversion could have potential adverse effects on the wetlands, because significant dewatering is proposed and groundwater diversion and dewatering was not assessed at the locations and within the influence zones of the identified wetlands. Riley Consultants and Viridis confirmed that the size of the water catchment is not proposed to be altered, and groundwater is proposed to be discharged into the wetlands at discrete locations via appropriate designed energy dissipation devices ensuring less than minor change to the existing catchment.

5.0 Specialist Assessment – Addendum – Outstanding Issues / Information Gaps

I have identified that there are no outstanding issues or information gaps. I recommend inclusion of definitions in the condition set for clarity during monitoring.

6.0 Proposed Conditions

I sought the inclusion of a full set of Ground Dewatering (Take) and Groundwater Diversion Conditions. These have been included in the proposed condition set with some changes to the wording I offered in my initial memo, dated 24 June 2025. These are represented as conditions 201 to 224 in the draft condition set.

Condition Review

I agree with the draft condition set. However, I noted that the word ‘shall’ was used in some of the conditions and change from ‘shall’ to ‘must’ is required to align with current practice. I recommend that the following definitions be included in the condition set for clarity during monitoring.

Definitions

Words in the ground dewatering (take) and groundwater diversion consent conditions have specific meanings as outlined in the table below.

Alarm Level	Specific levels at which actions are required as described in the relevant conditions.
Alert Level	Specific levels at which actions are required as described in the relevant conditions.
Bulk Excavation	Includes all excavation that affects groundwater excluding minor enabling works and piling less than 1.5 m in diameter.
Commencement of Excavation	Commencement of Bulk Excavation or excavation to create perimeter walls.
Completion of Construction	Means when the Code Compliance Certificate (CCC) is issued by Auckland Council
Completion of Excavation	Means the stage when all Bulk Excavation has been completed and all foundation/footing excavations within 10 meters of the perimeter retaining wall have been completed.
Condition Survey	Means an external visual inspection or a detailed condition survey (as defined in the relevant conditions).
Damage	Includes Aesthetic, Serviceability, Stability, but does not include Negligible Damage. Damage as described in the table below.
External visual inspection	A condition survey undertaken for the purpose of detecting any new external Damage or deterioration of existing external Damage. Includes as a minimum a visual inspection of the exterior and a dated photographic record of all observable exterior Damage.
GSMCP	Means Groundwater and Settlement Monitoring and Contingency Plan
Monitoring Station	Means any monitoring instrument including a ground or building deformation station, inclinometer, groundwater monitoring bore, retaining wall deflection station, or other monitoring device required by this consent.

RL	Means Reduced Level.
Seasonal Low Groundwater Level	Means the annual lowest groundwater level – which typically occurs in summer.
Services	Include fibre optic cables, sanitary drainage, stormwater drainage, gas and water mains, power and telephone installations and infrastructure, road infrastructure assets such as footpaths, kerbs, catch-pits, pavements and street furniture.
SQEP	Means Suitably Qualified Engineering Professional
SQBS	Means Suitably Qualified Building Surveyor

Category of Damage	Normal Degree of Severity	Description of Typical Damage <i>(Building Damage Classification after Burland (1995), and Mair et al (1996))</i>	General Category <i>(after Burland – 1995)</i>
0	Negligible	Hairline cracks.	Aesthetic Damage
1	Very Slight	Fine cracks easily treated during normal redecoration. Perhaps isolated slight fracture in building. Cracks in exterior visible upon close inspection. Typical crack widths up to 1 mm.	
2	Slight	Cracks easily filled. Redecoration probably required. Several slight fractures inside building. Exterior cracks visible, some repainting may be required for weather-tightness. Doors and windows may stick slightly. Typically crack widths up to 5 mm.	
3	Moderate	Cracks may require cutting out and patching. Recurrent cracks can be masked by suitable linings. Brick pointing and possible replacement of a small amount of exterior brickwork may be required. Doors and windows sticking. Utility services may be interrupted. Weather tightness often impaired. Typical crack widths are 5 mm to 15 mm or several greater than 3 mm.	Serviceability Damage

4	Severe	Extensive repair involving removal and replacement of walls especially over door and windows required. Window and door frames distorted. Floor slopes noticeably. Walls lean or bulge noticeably. Some loss of bearing in beams. Utility services disrupted. Typical crack widths are 15 mm to 25 mm but also depend on the number of cracks.	
5	Very Severe	Major repair required involving partial or complete reconstruction. Beams lose bearing, walls lean badly and require shoring. Windows broken by distortion. Danger of instability. Typical crack widths are greater than 25 mm but depend on the number of cracks.	Stability Damage

Table 1: Building Damage Classification

Note: In the table above, the column headed “Description of Typical Damage” applies to masonry buildings only and the column headed “General Category” applies to all buildings.

I recommend that provision for review under section 128 be included.

Provide for a review under section 128

Condition: Under section 128 of the RMA, the conditions of this consent WAT60444827 may be reviewed by the Manager Resource Consents at the Consent Holder’s cost:

Within six (6) months after Completion of Construction Phase Dewatering and subsequently at intervals of not less than five (5) years thereafter, in order:

- To deal with any adverse effects on the environment which may arise or potentially arise from the exercise of this consent and which it is appropriate to deal with at a later stage.
- To vary the monitoring and reporting requirements, and performance standards, in order to take account of information, including the results of previous monitoring and changed environmental knowledge on:
 - 1) ground conditions
 - 2) aquifer parameters
 - 3) groundwater levels; and
 - 4) ground surface movement.

7.0 Recommendation

Based on the inclusion of the recommended conditions outlined in the Groundwater Diversion and Dewatering memo, dated 24 June 2025, which were included in the proposed conditions set provided on 7 July 2025 and addressing dewatering and diversion at the existing wetlands, I am in support of the application.