

Delmore Fast-Track

04/05/2026 – Auckland Council Response

Annexure 8:

Temporary Surface Water Diversion

1.0 APPLICATION DESCRIPTION

Application and property details

Fast-Track project name: Delmore Fast-Track

Fast-Track application number: FTAA-2512-1164

2.0 Technical Specialist Memo - Hydrology

To: Dylan Pope – Lead Planner & Carly Hinde - PPL

From: Nick Hazard, Consultant Hydrogeologist, Coastal and Water Allocation

Qualifications & Relevant Experience: I hold the qualification(s) of: Bachelor of Science in Geology and Economics, a GradDipSc (Groundwater Hydrology), and have 25 years of experience in geology and 17 years in groundwater and surface water hydrology. I am a full member of IAH and NZHS. I have prepared expert evidence and technical assessments for resource consent applications and fast-track applications and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions.

Preparation in Accordance with the Code of Conduct: I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (Code), and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferencing, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified.

Signature:



Date: 26 March 2026

3.0 Executive Summary / Principal Issues

The Applicant is seeking consent to temporarily divert stream flow during the construction of multiple permanent stream crossings which requires consent under discretionary rule E7.4.1 (A13). It is understood that the diversions will comprise temporary channels excavated adjacent to the stream channel, diverting the entire flow for a period ranging from a few days to around 30 days. All of these crossings are located in the immediate vicinity of existing degraded culvert crossings that are mostly planned to be removed and replaced by new culverts in slightly different locations. The crossings are expected to be completed in periods of low flow during dry summer conditions.

The main concern is that the stream bed and associated wetlands are not affected by the short-term diversion more than what could be expected over the long term due to the emplacement of the new culverts. There is potential for erosion upstream and downstream of the temporary diversion due to increased flow rates and a change in the stream bed gradient beyond what is proposed and assessed for the proposed permanent culvert crossings. The construction of new culverts and associated diversion need to be designed so as not to lower water level range in upstream wetlands or the hydrological function of the wetland.

The locations of these culverts in presented in the current AEE remain unchanged from the previous positions. The length of the individual culverts and the invert levels are slightly changed however. I would expect there to be limited effects on flow and nearby wetland levels due to these change. The methodology for the installation of these culverts and temporary diversion is clearly laid out in the memo 'Methodolgy For Culvert Works Within Stream' included as Appendix D of the Earthworks Report (AEE Appendix 36). This methodology is expected to provide sufficient guidance so as to avoid any adverse effects on the stream flow regime, the stability of stream banks and the preservation of existing hydrological function of any adjacent wetlands.

4.0 Documents Reviewed

The following documents have been reviewed in preparing this memorandum:

- Delmore Fast-Track AEE, B&A, Ref025108, rev1, dated 23 December 2025
- Appendix 16, Ecological Impact Assessment, Viridis Limited, Ref 10122-018-1, 18 December 2025
- Appendix 36, Earthworks Report, McKenzie & Co Ltd, dated 15/12/2025
And related Appendix D: Memo: Delmore – Methodology for Culvert Works within a Stream, McKenzie & Co, dated 12 June 2025
- Appendix 10, Stage 1 and 2 Scheme Plans, McKenzie and Co Ltd, dated 12 December 2025
- Appendix 34, Stormwater Management Plan, McKenzie and Co Ltd, dated 18 December 2025
- Appendix 33, Stormwater Drawings Culvert Plans
- Appendix 12, Stormwater Report, McKenzie and Co Ltd, dated 22 December 2025
- Appendix 44, Delmore Proposed conditions, B&A
- Appendix 22, Wetland and Culvert Assessment, Williamson Water and Land Advisory, ref WWLA1147, dated 18 December 2025

5.0 Additional Reasons for Consent Not included in AEE / Incorrect Reasons for Consent

N/A

6.0 Specialist Assessment

Temporary Surface Water Diversion

I have reviewed the above documents to specifically assess whether there have been any significant changes to location or scale of the proposed culvert locations. I consider that the proposed temporary diversions could be constructed so that they will not adversely affect upstream wetlands and water levels beyond what is proposed for the permanent culvert crossings. While no specific effects assessment is provided in the AEE, the specific methodology for the temporary surface water diversion activity is well documented in the Earthworks Report, McKenzie & Co, Appendix D memo dated 12 June 2025, outlining methodology for the construction of temporary diversions for the construction of permanent culverts. It is important this memo is adequately referenced in conditions.

7.0 Section 67 Information Gap

I have identified that there are no section 67 information gaps.

8.0 Recommendation

I recommend that the Appendix 36 Earthworks Report Table of contents be corrected to include the missing reference to Appendix D. In addition the condition 168 (previously 191) refers to the broad earthworks report rather than specifically to the memo “Methodolgy For Culvert Works Within Stream” as was previously the case in Condition 191, in the 7 July 2025 version of Conditions. Based on the recommended conditions associated with the current application and the methodology outlined in the application documents for temporary surface water diversions for culvert construction, I am in support of the application.

9.0 Proposed Conditions

I have reviewed the draft conditions and the inclusion of two conditions I had previously recommended (Conditions 168 and 172) have been included. However as outlined above Condition 168 now refers to Appendix 36, Earthworks Report rather than the more pertinent Appendix D, ‘Methodolgy For Culvert Works Within Stream’.

Preferred wording for condition 168

The methodology for the installation of the short-term surface water diversions must be in general accordance with the memorandum “Delmore – Methodology for Culvert Works within Stream”, Appendix D, Earthworks Report, McKensie & Co dated 15 December 2025.