

Fast-track Approvals Act 2024 – Delmore Substantive Application Technical Addendum

FTAA-2502-1015 / BUN60444768

1.0 Technical Specialist - Aquatic Ecology

From:

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Date:

17/07/2025

2.0 Executive Summary / Principal Issues

This memo follows my initial assessment, dated 25/06/2025 and considers additional information received by the applicant. I conclude that two significant matters remain outstanding. I am therefore not able to support this application. These matters are as follows:

- No clarification is provided on the wetland loss/offset implications of this application in the context of the NoR 6 arterial road works.
- No additional information was provided regarding the potential for stream erosion and consequent negative aquatic effects. Since there is significant overlap with my assessment, and a technical foundation in fluvial geomorphology, I defer to Healthy Waters for their assessment of the erosion risk to streams resulting from this application.

3.0 Specialist Assessment – Previous Memo / Comments Overview

Summary of 25/06 Issues identified

- **Removal of culverts and new proposed culverts:** While I agree that, during construction of culverts, fish passage can be maintained through clean water diversion channels and that fish passage may be ensured during the effective life of the culvert (refer to recommended consent conditions below), I defer to the Design Engineer and Geomorphologist for their assessment of the effect of culverts that fail to span the prescribed 1.3 x the stream width on the regional hydrograph, flood effects and soil stability (particularly erosion).
- **Changes to wetland hydrology:** I consider it important that the ecological assessment correlate with the geotechnical data to confirm if hydrological changes to wetlands can be ruled out. These effects are not currently accounted for.
- **Offsetting for wetland loss:** No motivation is provided for the proposed 3:1 offset ratio as opposed to the more rigorous BOAM offset calculation which is based on site specific

calculations. I further note that delivery of part of the NoR 6 arterial road is specifically relevant to offsetting of freshwater habitats proposed in this application. However, the application documents do not provide any information about how the proposed offsetting is integrated with NOR requirements. Essentially, the assessment of offset provided in this application is not aligned with Appendix 6 of the NPS-FM, principles for aquatic offsetting.

- **Potential Stream Erosion:** I do not consider that the applicant has adequately discussed how stream morphology will be protected from increased erosion pressure. I consider inadequate controls are likely to lead to local and downstream loss of stream value in the receiving tributary of the Orewa River. I consider that erosion will result in mobilisation of sediment beyond the State Highway 1 to the east of the site. Recorded populations of aquatic invertebrates and fish that are particularly sensitive to sediment will be affected. I consider it likely that increased sedimentation and an eroded stream channel will significantly reduce the ability of these migratory fish to utilise this stream network, extending from the estuary approximately 2km downstream of the site, to the upstream reaches, approximately 1.3km to the west.

4.0 Specialist Assessment – Material Reviewed

I have reviewed the following documents in the 07/07 updates. I discuss the implications of the material provided for each 25/06 issues in Section 5 below.

- Response to Council Ecology Comment – Culverts and Hydrological Suitability, prepared by McKenzie & CO., dated 01/07/25.
- Delmore Subdivision: Response to Council’s Questions Regarding Wetland Hydrology, prepared by WWLA, dated 27 June 2025.
- Appendix 42.6 - Updated Culvert and Wetland Removal Plans, prepared by McKenzie & Co
- Response to Geomorphic Risk Assessment Information Gap, prepared by James Kitchen & James Beaumont, dated 2025/07/01.
- Hydric Soil & Hydrology Tool Assessments, prepared by WWLA, dated 1 July 2025
- Response to Council Groundwater Queries Delmore Residential Development, prepared by Riley, dated 1 July 2025
- Delmore Fast Track Application - Response to Auckland Council Freshwater Ecology Queries, prepared by Viridis, dated 1 July 2025.

5.0 Specialist Assessment – Addendum – Outstanding Issues / Information Gaps

At the time of writing this Memo, and having reviewed the 7 July updates from the Applicant, I have identified the following outstanding issues and information gaps:

The key outstanding issues are as follows:

- **Removal of culverts and new proposed culverts:** The applicant provides a discussion on new or replacement culverts close to wetlands, saying that no hydrological changes or loss of

habitat will occur resulting from these culverts. The WWLA memo states that the natural bed will re-establish within the embedded culvert. In the case of proposed culverts 01, 05 and 07, the natural bed supports wetland habitat. I do not consider that it is possible for natural wetland processes to establish inside an embedded circular culvert. In the case of culverts 1, 7 and 10 the report states that there will be no change in flow distribution across the wetland downstream. While I agree with this statement, no mention is made of changes to flow velocity which has the potential to result in scour and erosion in an already eroded landscape. Changed water velocity is likely to result in incision and lowering of the water table, thus draining the wetlands. I defer to Council's Healthy Waters their assessment of the erosion risk to streams resulting from this application. I consider this matter **unresolved**.

- **Changes to wetland hydrology:** The Viridis response refers to additional feedback provided by the applicant's groundwater specialist and concludes that, based on the groundwater assessment, it is not expected that the wetlands will experience complete or partial drainage, nor changes to their water level range or hydrological function. Therefore, NES-F regulations 45(c)(3) and (4) do not apply. I defer to Council's groundwater specialist, Hester Hogenboezem, for her assessment of the groundwater response. I consider this matter **partially resolved**.
- **Offsetting for wetland loss:** I note that WWLA provided a report stating that the areas proposed for wetland offsetting can support wetland hydrology with little intervention. I further note that the ecologist has provided further assessment regarding wetland offsetting calculation. However, no clarification is provided on the wetland loss/offset implications of this application in the context of the NoR 6 arterial road. I therefore consider this matter **partially resolved**.
- **Potential Stream Erosion:** The applicant responded to Council's concern regarding the potential for streams erosion by saying that the proposed mitigation measures were sufficient to mitigate erosion, manage stormwater, and ensure slope stability without the need for further geomorphic investigation. I defer to Healthy Waters for their assessment of this response. I consider this matter **unresolved**.

Outstanding Information Gaps

The key outstanding information gaps are as follows:

- I defer to Healthy Waters for their assessment of the erosion risk to streams resulting from this application.
- No clarification is provided on the wetland loss/offset implications of this application in the context of the NoR 6 arterial road works.
- No additional information was provided regarding the potential for stream erosion and consequent negative aquatic effects. As above, I defer to Healthy Waters for their assessment of the erosion risk to streams resulting from this application.

Information gap	Nature of deficiency	Decision-making impact	Risk / uncertainty created
Assessment against erosion in the streams, particularly where	WWLA does not discuss the effect of increased flow velocity in culverts and how this may erode	The absence of this information precludes my assessment of effects on	Moderate I am unable to assess whether

increased flow velocity is at risk of resulting in wetland loss	wetlands in the case of culverts 1, 7 and 10. Also, the applicant's specialists indicate that no geomorphic risk assessment is required to address general stream erosion risks.	aquatic ecology on site and downstream.	risk of stream erosion and associated wetland loss is adequately mitigated.
Wetland loss and offsetting resulting from the proposed development as correlated with the NoR 6 arterial road	No clarification is provided on the wetland loss/offset implications of this application in the context of the NoR 6 arterial road	The lack of assessment precludes my assessment against Appendix 6 of the NPS-FM – Principles for Aquatic Offsetting, and therefore the effects management hierarchy may not be adhered to. This is a requirement of NES-F regulation 45C(6)(c).	High I am unable to confirm if statutory requirements are met.

6.0 Proposed Conditions

I recommend the following amendments be considered to the proposed consent conditions below.

1.1.5 – Management Plans		Commentary
6	<p>At least 20 working days prior to the commencement of bulk earthworks for any stage or sub-stage of the development, the management plans required under the following conditions must be submitted to Council for certification. Council must respond to the request within 20 working days, or the management plan is deemed to be certified.</p> <ul style="list-style-type: none"> (a) A Construction Management Plan (CMP) – see Condition 14 of land use consent; (b) An Erosion and Sediment Control Plan (ESCP) – see Condition 16 of land use consent; (c) A Construction Traffic Management Plan (CTMP) – see Condition 19 of land use consent; (d) A Construction Noise and Vibration Management Plan (CNVMP) – see Condition 21 of land use consent; (e) A Chemical Treatment Plan (ChTMP) – see Condition 23 of land use consent; (f) A Tree Management Plan (TMP) – see Condition 27 of land use consent; and 	<p>Streamwork Management Plan must be included as a management plan to be completed prior to works</p> <p>It's not acceptable to say that a lack of response means the environmental measures are adequate. There are escalations to management that can be used as a formal process to ensure timely response</p>

	<p>(g) A Fauna Management Plan (FMP) – see Condition 30 of land use consent; and</p> <p>(h) A Settlement Monitoring Plan (SeMP) – see Condition 47 of land use consent.</p> <p>(i) <u>A Streamworks Management Plan - see Condition X of land use consent.</u></p> <p><i>Advice note: Management Plans shall be sent to</i></p> <p>monitoring@aucklandcouncil.govt.nz.</p>	
2.1.12 – Wetland Offset Plan		Commentary
39	<p>A Wetland Offset Plan must be prepared in collaboration with a suitably qualified ecologist, hydrologist and engineer <u>and must be submitted to Council for certification.</u> The Wetland Offset Plan must be in general accordance with the following documents approved under Condition 1:</p> <p>(a) The Landscape Plans prepared by Greenwood Associates, dated 2 July; and</p> <p>(b) ...</p>	Management plans must be certified by Council
4.1.1 – Streamworks Management Plan to be provided		Commentary
188	<p>At least 20 working days prior to the commencement of any works within wetlands or streams, a Stream Works Management Plan (SWMP), must be submitted to Auckland Council for certification. Auckland Council must respond to the request within 20 working days, or the SWMP is deemed to be certified.</p>	It's not acceptable to say that a lack of response means the environmental measures are adequate. There are escalations to management that can be used as a formal process to ensure timely response
Post-Construction Conditions		Commentary
200	Fish passage must be maintained through the culvert structures in perpetuity.	This condition must be replaced with the mandatory condition as required by Regulations 62, 63 of the NES F
X2	<p><u>Culvert Information Requirements</u></p> <p><u>Within twenty (20) working days following completion of works associated with the new road culvert crossings, the Consent Holder must submit to Council the information required by regulations 62 and 63 of the National Environmental Standard for Freshwater (2020).</u></p>	
X4	<u>Within twenty (20) working days following completion of works associated with the new</u>	This condition is required by Regulations 71 of the NES F

	<p><u>road culvert crossings, the Consent Holder must submit a Fish Passage Monitoring and Maintenance Plan (FPMMP) to the Council. The FPMMP must specify the ongoing maintenance measures of the culvert structures to ensure fish passage is maintained and must include the following:</u></p> <p>(a) <u>Fish passage must be maintained through the culvert structure, and monitoring, maintenance and remediation measures must be undertaken in general accordance with the FPMMP;</u></p> <p>(b) <u>If any monitoring or visual inspections identify that provision for fish passage has been reduced, or the culvert structure is damaged, the Consent Holder must undertake maintenance or remediation works as soon as practicable to remedy the issues identified.</u></p> <p>(c) <u>The Consent Holder must maintain a record of all monitoring and maintenance works undertaken on the culvert structure including photos and evidence of any maintenance works undertaken. If requested, the Consent Holder must provide this record to the Council within ten (10) working days of the date of request.</u></p>	
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7.0 Recommendation

I highlight two significant matters which preclude my support for this application:

- Assessment against erosion in the streams, particularly where increased flow velocity is at risk of resulting in wetland loss and sediment pollution has not been provided, and
- No clarification is provided on the wetland loss/offset implications of this application in the context of the NoR 6 arterial road. The lack of assessment precludes my assessment against Appendix 6 of the NPS-FM – Principles for Aquatic Offsetting, and therefore the effects management hierarchy may not be adhered to. This is a requirement of NES-F rule 45C(6)(c).

In light of the above, I am unable to confirm that the application is aligned with Appendix 6 of the NPS-FM where it relates to permanent loss of wetland extent and that the effects management hierarchy is adhered to, a requirement of NES-F rule 45C(6)(c).