

Delmore Fast-Track

04/05/2026 – Auckland Council Response

Annexure 5:

Earthworks

Delmore Fast Track Application

To: Dylan Pope – Lead Planner

From: Matthew Byrne - Erosion & Sediment Control Consultant to Earth, Streams and Trees Team

Date: 21 April 2026

Re: Delmore Fast Track Application

1.0 Technical Specialist Memo – Earthworks & Erosion and Sediment Control

From: Matthew Byrne - Erosion & Sediment Control Consultant to Earth, Streams and Trees Team

Qualifications
& Relevant
Experience:

I hold the qualifications of: Bachelor of Environmental Studies and have over 21 years of experience in the field of earthworks, streamworks and erosion and sediment control assessment, and earthworks and streamworks environmental compliance monitoring.

I am a member of the International Erosion and Sediment Control Association (Australasia). I have prepared expert evidence and technical assessments for resource consent applications, plan changes, notices of requirement for designation 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 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:

23 April 2026

2.0 Original Specialist Review Memo

Based on my assessment of the initial application, I drafted an earthworks memorandum, dated 23 March 2026, which summarised project's earthworks and erosion and sediment control methodology, and related proposed conditions. This initial earthworks memorandum identified the following four information gaps:

1. The applicant had designed 3 of the 25 sediment retention ponds (SRPs) proposed for sediment control during earthworks, based on a 2% criteria rather than a 3% criteria. Based on my review

of the earthworks plans, I considered that all SRPs proposed during preparation of the final ESCP(s) ahead of earthworks commencing, were required to be constructed based on a 3% criteria as per the guidance contained in GD05.

2. The applicant had proposed provision of an Adaptive Management Plan (AMP) ahead of earthworks commencing and implementation of that plan throughout the duration of earthworks at the site. I did not consider that the applicant's proposed AMP condition was sufficient given the nature and type of earthworks proposed. I considered that additional AMP related conditions were required to help ensure the potential earthworks related effects were managed in accordance with industry best practice.
3. The initial application was silent regarding the need for updated ESCPs once bulk earthworks had been completed, i.e., at the subdivision stage of the development. I considered that post-bulk earthworks ESCPs were critical for helping manage the potential effects of ongoing land disturbance on receiving environments.
4. The applicant did not propose a review condition as part of their proposed conditions of consent, and I recommended that due to the proposed 15-year duration for the earthworks permit, I considered it was appropriate to include a review condition which allows for a review of the consent should it be deemed necessary at any point throughout the 15-year duration.

3.0 Updated Response to Applicant's Memo

Based on an Earthworks Response Memorandum by Jordan Chiswell from McKenzie & Co, and Charlotte MacDonald from Barker & Associates, the applicant's agents, all four items noted above have now been addressed.

Regarding bullet point 1, the applicant has confirmed that all SRPs are to be designed and constructed based on a 3% criteria.

Regarding bullet point 2, the applicant accepted the minor amendments to the AMP related condition which I proposed and also accepted the addition of three AMP related conditions. A fourth condition was not accepted and the applicant provided sufficient justification for this. This additional justification included a proposed wording change to main AMP requirement condition (proposed condition 22), to address what I considered were omissions to their draft AMP.

Regarding bullet point 3, the applicant highlighted that a requirement for post-bulk earthworks ESCPs was already included in their proposed condition set and identified that it was nested with the proposed Subdivision related conditions rather than the Earthworks related conditions.

Regarding bullet point 4, I note that whilst the applicant has accepted the inclusion of a review condition in principle, they are currently reviewing the specific wording of such a condition and will provide a separate response to Council on this matter. Provided this condition allows for a review of the consent to address any unforeseen and adverse earthworks and/or erosion and sediment control related effects, I support the applicant's proposal in this regard. I defer to the lead planner to ensure that the review condition is fit for purpose.

4.0 Conclusion

The initial application proposed that best practice erosion and sediment control measures were to be utilised throughout the earthworks operation to ensure the proper management of any potential

sediment related effects, and that any resulting effects would be less than minor. My review of the initial application concluded that provided the applicant adopt the additional conditions I recommended, the potential effects associated with sediment discharge would be appropriately managed.

Based on the Memorandum provided by the applicant and dated 15 April 2026, I support the applicant's proposed earthworks and erosion and sediment control proposal.

5.0 REVIEW

Memo prepared by:

Matthew Byrne



Specialist Advisor – Earth, Streams & Trees Team

Specialist Unit, Resource Consents

Date:

21 April 2026

Technical memo reviewed and approved for release by:

Fiona Harte



Team Leader, Earth, Streams and Trees Team

Specialist Unit, Resource Consents

Date:

21 April 2026

Delmore Fast Track Application

1.1 Introduction

This memorandum responds to the Technical Specialist Memo prepared by Auckland Council (Earthworks) in relation to the above fast-track application (as lodged). This response addresses:

- Further information requests / technical queries; and
- Recommended amendments to consent conditions.

1.2 Response to Further Information Requests / Technical Comments

Information Request from Council on the lodged material	Applicant Response	Council Specialist Response
The applicant has designed 3 of the 25 sediment retention ponds (SRPs) proposed for sediment control during earthworks, based on a 2% criteria rather than a 3% criteria. Based on my review of the earthworks plans, I consider that all SRPs proposed during preparation of the final ESCP(s) ahead of earthworks commencing, are required to be constructed based on a 3% criteria as per the guidance contained in GD05.	Accepted - The ESCP condition has been updated to respond to this request, as per Section 1.3 below.	Resolved and reflected in the updated condition set.
The applicant has proposed provision of an Adaptive Management Plan (AMP) ahead of earthworks commencing and implementation of that plan throughout the duration of earthworks at the site. I do not consider that the applicant's	A draft Adaptive Management Plan (AMP) has been prepared and is attached. The AMP incorporates the key components of the Council's recommended conditions, including baseline monitoring, receiving environment monitoring,	Resolved and reflected in the updated condition set.

proposed AMP condition is sufficient given the nature and type of earthworks proposed. I consider that additional AMP related conditions are required to help ensure the potential earthworks related effects are managed in accordance with industry best practice.	trigger levels, management responses, and reporting. While Council has requested that the AMP specify the number of sediment retention ponds (SRPs) subject to automated monitoring, this level of prescription is not reflected in their recommended conditions. The proposed approach of one instrumented SRP per stage is consistent with established practice on comparable fast-track projects and reflects an effects-based monitoring regime. Approved AMPs (e.g. Milldale) rely primarily on continuous upstream/downstream monitoring to assess environmental effects, with device-level monitoring used as a targeted diagnostic tool. Requiring multiple automated SRPs would not materially improve environmental outcomes, as in-pond monitoring is inherently variable, maintenance-intensive, and of limited additional value compared to receiving environment data, which provides the primary measure of effects. The proposed approach, supported by manual monitoring of remaining devices and a robust adaptive management framework, is therefore considered proportionate and sufficient to verify ESC performance and respond to any issues. Accordingly, one instrumented SRP per stage is appropriate and no further prescription is necessary.	
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The application is silent regarding the need for ESCPs once bulk earthworks have been completed, i.e., at the subdivision stage of the development. I consider that post-bulk earthworks ESCPs are critical for helping manage the potential effects of ongoing land disturbance on receiving environments.	Conditions relating to ESCPs for the subdivision stage were included within the condition set at lodgement (Section 3.1.13 of that document). No further additions are considered necessary.	Resolved and reflected in the updated condition set.
The applicant has not proposed a review condition as part of their proposed conditions of consent. In this case, the proposed duration of the earthworks permit is 15-years, which I consider appropriate, however, I also consider inclusion of a review condition to also be appropriate as it will allow a review of the consent should it be deemed necessary at any point throughout the 15-year duration.	The applicant accepts a review condition in principle, however is reviewing the specific wording and will provide a separate response to Council on this matter.	Resolved, pending appropriateness of applicant's separate response.

1.3 Response to Recommended / Amended Conditions

Condition Request from Council on the lodged condition document (Appendix 44 to the AEE)	Applicant Response	Council Specialist Response
15. At least 20 working days prior to the commencement of bulk earthworks for any stage or sub-stage of the development, the consent holder must prepare and submit to Auckland Council for certification, a final Erosion and Sediment Control Plan (ESCP). The ESCP(s) must be prepared in accordance with the draft ESCP submitted with the application, and in accordance	This is accepted and updated in tracked changes within the condition set.	Resolved and reflected in the updated condition set.

with Auckland Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Incorporating any Amendments to this document (GD05). The ESCP must contain sufficient details to address the following matters: (a) Specific erosion and sediment control measures for the earthworks (location dimensions, capacity), including the location of any sediment retention ponds (SRPs), decanting earth bunds, super silt fences, silt fence clean and dirty water diversion bunds and stabilized construction entrances; (b) Supporting calculations and design drawings as necessary, including confirmation that all SRPs are to be constructed based on a 3% criteria; (c) Details of construction methods; (d) Monitoring, maintenance and inspection requirements; (e) Catchment boundaries and contour information as necessary; (f) Identify location of stabilised construction entrances; and (g) Details relating to the management of exposed areas (e.g. grassing, mulching). Advice note: The above ESCP requirement relates to bulk earthworks stages. Additional ESCPs are required at subdivision stage for civil works.		
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<u>22. No less than 20 working days prior to the commencement of any earthworks at the subject site, an Adaptive Management Plan (AMP) must be prepared in general accordance with Auckland Council’s guideline document “Erosion and Sediment Control Adaptive Management Plan Discussion Document”, July 2020, and provided to the Council for written certification. The AMP must address monitoring requirements and changes to management procedures in response to the results of monitoring, and must include but is not limited to, the following details:</u> <u>(a) Preparation and provision of a Freshwater Baseline Report prepared by a suitably qualified and experienced Ecologist and/or Water Quality Scientist and provided to the Council for written certification, no less than 20 working days prior to any earthworks or streamworks commencing. The purpose of the Freshwater Baseline Report is to confirm pre-construction baseline environmental conditions of the receiving environment and include pre-construction in stream monitoring results.</u> <u>The Freshwater Baseline Report must include as a minimum, information on the following matters:</u> <u>i. sediment quality such as description of sediment inputs, transport, substrate composition and embeddedness.</u>	This condition is not required as a draft AMP has now been provided to Council. We suggest the following condition to replace the existing Condition 22: <i><u>“At least 20 working days prior to the commencement of earthworks for any stage or sub-stage of the development, the consent holder must prepare and submit to Council for certification a final Adaptive Management Plan (AMP) for all earthworks which are to be undertaken throughout the full duration of consent. The AMP must be in general accordance with the draft AMP submitted with the application and referenced under Condition 1, and must be prepared in general accordance with Auckland Council’s guideline document “Erosion and Sediment Control Adaptive Management Plan Discussion Document”, July 2020. The AMP must address monitoring requirements and changes to management procedures in response to the results of monitoring.”</u></i>	Resolved and reflected in the updated condition set.
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<u>j. water quality measurements such as total suspended solids (TSS) and turbidity.</u> <u>k. actual and potential inanga (<i>Galaxias maculatus</i>) spawning habitat.</u> <u>l. identify the pre-construction condition of any Erosion Prone Streams against which to measure construction effects and possible mitigation measures.</u> <u>m. The presence of any threatened aquatic species or habitat, susceptible to sediment discharge.</u> <u>(b) Details of weather forecasting and monitoring, including implementation of an onsite rain gauge with a telemetered system that provides text and email notifications;</u> <u>(d) Trigger levels for water quality and rainfall events (actual and forecasted events);</u> <u>(e) Details of an ongoing monitoring and sampling regime for the receiving environment, including turbidity and / or TSS monitoring downstream within the receiving environment;</u> <u>(f) An automated monitoring regime (inlet and outlet TSS and / or turbidity) on at least one sediment retention pond throughout the duration of earthworks at the site, and a manual sampling regime for all remaining sediment retention ponds and decanting earth bunds;</u>		
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<u>(h) Management responses when a trigger level is exceeded, including the ability to reduce exposed area; and</u> <u>(i) Reporting to Council.</u> <u>Advice Note: Turbidity results can be substituted providing a correlation between TSS and turbidity has been established.</u> <u>Any proposed revisions to the AMP must be submitted to the Council for written certification prior to formalising and implementing the revised Plan.</u>		
<u>22A. An appropriate efficiency of sediment retention ponds and/or decanting earth bunds should be established where efficiency measurements are only activated when inlet samples indicate high sediment loadings. i.e., the efficiency of a pond need not be scrutinised when both inlet and outlet samples show low TSS / NTU.</u> <u>Advice Note: Further guidance on preparation of an Adaptive Management Plan can be found in Auckland Council guidance document - Erosion and Sediment Control Adaptive Management Plan Guidance Document, Report to support preparation of Adaptive Management Plans, RC 3.2.22, July 2020.</u>	This is condition is not clear on what it is trying to achieve and therefore has not been adopted.	Resolved. Condition no longer required.
<u>22B. All monitoring and management procedures as detailed within the certified Adaptive Management Plan required by condition 22, and</u>	This is accepted and updated in tracked changes within the condition set.	Resolved and reflected in the updated condition set.

<u>any subsequent revisions, must be implemented on an ongoing basis throughout the duration of all earthworks activities on site.</u> <u>Advice Note: The AMP is a live document, and updates are expected to address unforeseen circumstances or changes in the earthworks methodology as the site responds through its adaptive monitoring regime, to ensure sediment discharges are minimised and the potential for significant adverse effects are avoided.</u>		
<u>22C. An earthworks area which has been stabilised as a result of a trigger level exceedance or a management response as defined and required by the certified Adaptive Management Plan (required under condition X13) and any subsequent revisions approved by the Council, can only be re-opened for earthworks on the written approval of the Council.</u>	This is accepted and updated in tracked changes within the condition set.	Resolved and reflected in the updated condition set.
<u>22D. As a result of observed inefficiencies upon site inspection or identified within the site reporting, Council may request that the Adaptive Management Plan be updated to address those inefficiencies. If such a request is made by the Council, the revised plan must be submitted to the Council within 5 working days of the request. The updated AMP must not be implemented without the Council's approval.</u>	This is accepted and updated in tracked changes within the condition set.	Resolved and reflected in the updated condition set.

<u>New Condition: Prior to the commencement of any Subdivision or Civil-Construction earthworks at the site, an Erosion and Sediment Control Plan, specific to that stage of subdivision, must be prepared in accordance with Auckland Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Incorporating any Amendments to this document (GD05), and submitted to the Council for written certification. Earthworks activity on that stage of the site must not commence until the Council has certified that that the ESCP satisfactorily meets the requirements of GD05. The plan must contain sufficient details to address the following matters:</u> a. <u>Specific erosion and sediment control measures for the earthworks (location, dimensions, capacity) including the location of any sediment retention ponds, decanting earth bunds, super silt fences, silt fences, clean and dirty water diversion bunds and stabilised construction entrances, in accordance with GD05;</u> b. <u>supporting calculations and design drawings, as necessary;</u> c. <u>details of construction methods;</u> d. <u>monitoring and maintenance requirements;</u> e. <u>catchment boundaries and contour information as necessary; and,</u>	As per comment above, this condition is already included (Section 3.1.13 within the subdivision conditions). No further amendments are considered necessary.	Resolved and reflected in the updated condition set.
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f. <u>details relating to the management of exposed areas (e.g. grassing, mulching).</u> g. <u>Advice Note: In the event that minor amendments to the ESCP are required, any such amendments must be limited to the scope of this consent. Any amendments which affect the performance of the ESCP may require an application to be made in accordance with section 127 of the RMA. Any minor amendments must be provided to the Council prior to implementation to confirm that they are within the scope of this consent.</u>		
<u>New Condition: The conditions of this consent may be reviewed every two years from the date of granting pursuant to section 128 of the RMA, by giving notice pursuant to section 129 of the RMA, for the following purposes:</u> <u>a. To deal with any significant adverse effect on the environment arising or potentially arising from the exercise of the consent and which was not apparent at the time of granting the consent.</u> <u>b. In the case of contamination, to require the consent holder to adopt the best practicable option to remove or reduce any adverse effect on the environment.</u> <u>c. In the case of earthworks, to alter monitoring requirements as a result of previous monitoring</u>	The applicant accepts a review condition in principle, however is reviewing the specific wording and will provide a separate response to Council on this matter.	Resolved, pending appropriateness of applicant's separate response.

<u>outcomes, and/or in response to changes to the environment and/or hydro-geological knowledge.</u> <u>d. To deal with any adverse effect on the environment arising or potentially arising from the exercise of this consent and in particular effects on: water quality; sediment transport; and functioning of natural ecosystems; through altering or providing specific performance standards.</u>		
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