**Fast-track Approvals Act 2024 – Delmore Substantive Application**
**Technical Addendum – Earthworks and Erosion and Sediment Control**
FTAA-2502-1015 / BUN60444768

## 1.0 Technical Specialist – Earthworks & Erosion and Sediment Control

| | |
|---|---|
| From: | Matthew Byrne - Earthworks & Erosion and Sediment Control Consultant - Earth, Streams & Trees Team (Specialist Unit, Resource Consents). |
| Date: | 16 July 2025 |

## 2.0 Executive Summary / Principal Issues

This Addendum to the final version of my Earthworks Memorandum dated June 2025, evaluates the applicants' proposed amendments to their overall earthworks and erosion and sediment control proposal for the Delmore project, by Vineway Limited at Upper Orewa and Russell Roads, Orewa.

In my original memo, I identified two key issues that required further consideration to support the applicant's overall earthworks and erosion and sediment control proposal. The first key issue was the lack of an Adaptive Management Plan (**AMP**) being prepared ahead of earthworks commencing and implemented through the duration of earthworks. The second key issue was the lack of a requirement for "post-bulk earthworks" Erosion and Sediment Control Plans (**ESCPs**) to be prepared ahead of civil earthworks which are typically associated with subdivision.

The additional information provided by the applicant on 7 July 2025 has addressed one of these key issues. The applicant has agreed that finalised "post-bulk earthworks" ESCPs must be provided ahead of any sub-stage of earthworks commencing at the site. They have proposed an amended set of consent conditions with condition 16 addressing this key issue.

The second key issue, being the lack of an AMP, has not been addressed and as such, without the implementation of an AMP throughout the duration of earthworks, I do not support the applicant's earthworks and erosion and sediment control proposal.

## 3.0 Specialist Assessment – Previous Memo / Comments Overview

***Summary of 25/06 Issues identified***

My initial assessment of the applicant's earthworks and Erosion and Sediment Control (**ESC**) proposal identified two key issues that required further consideration.

- AMP
- Lack of "post-bulk earthworks" ESCPs

It concluded that whilst the overall earthworks and erosion and sediment control proposal was generally appropriate, it required provision and implementation of an AMP to ensure the proposal's potential sediment related effects did not exceed the level anticipated by the consent when full compliance was achieved. Further, my recommendation for an AMP considered not only the significance of the earthworks proposal, which requires more than 2.2 million $m^3$ of earthworks over an area of approximately 60ha, it also considered the length of time that land disturbance associated with the project was to occur which for the bulk earthworks is up to 5-years or more, and the sensitivity of the down-gradient receiving environment, identified as a significant marine ecological area.

The second key issue identified was that no "post-bulk earthworks" erosion and sediment control plans (ESCPs) or general ESC methodology had been provided in support of the proposal. I concluded that post-bulk earthworks ESCPs were required due to the dynamic nature of typical civil earthworks, and the ESC requirements during the subdivision phases of a development.

## 4.0 Specialist Assessment – Material Reviewed

***Review of 07/07 Updates***

The following is a list of additional documents reviewed in support of this Earthworks Addendum:

- Amended Assessment of Environmental Effects, 7 July 2025
- Appendix 49.1 – Earthworks Response Memo
- Appendix 49.2 – Earthworks Table Update
- Appendix 49.3 (1) – Typical ES Details
- Appendix 49.3 (2) – WWTP Site Earthworks Drawings
- Appendix 49.3 (5) – Stage 1 ESC
- Appendix 49.3 (8) – Stage 2AB Sediment Erosion
- Appendix 49.3 (8) – Stage 2CDE Sediment Erosion
- Appendix 49.8 - Updated Earthworks Report
- Appendix 55.2 – Draft CMP
- Appendix 57 – Proposed Conditions

The additional information provided on 7 July 2025 confirmed acceptance of a recommendation (consent condition) that requires provision of post-bulk earthworks ESCPs ahead of earthworks associated with these activities occurring. i.e., ahead of any land disturbance associated with civil construction at subdivision stage. The relevant condition proposed by the applicant in their updated information (Appendix 57) is proposed condition No. 16, which is included below with the relevant text underlined for clarity.

*16. At least 20 working days prior to the commencement of earthworks activity for any stage or sub-stage of the development, a finalised Erosion and Sediment Control Plan (ESCP) prepared in accordance with the draft ESCP submitted with the application, and in accordance with Auckland*

*Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Incorporating Amendment 2 (GD05), must be submitted to the Council for written certification. Auckland Council must respond to the request within 20 working days, or the management plan is deemed to be certified.*

I consider that the proposed condition is appropriate with three amendments. The first is to change the existing text from "Incorporating Amendment 2 (GD05)" to **"(GD05) including any amendments to this document"**. The reason for this change is because Amendment 2 of GD05 is now well out-of-date, and rather than referring to a particular amendment, I consider it more appropriate to refer to the latest version of GD05, regardless of how many amendments there may have been.

The second amendment is to delete the wording around deemed certification. In my experience there can be a need for ongoing dialogue with consent holders to resolve a management plan in a way that it meets the requirements for certification. I do not consider that placing an arbitrary 20 working day limit on the certification process to be appropriate.

The third amendment is to include an **advice note** with the condition which helps clarify when a finalised ESCP is required. Proposed condition 16 indicates that a finalised ESCP must be provided ahead of any stage of works commencing, which effectively addresses ESC requirements ahead of bulk earthworks commencing; and it also indicates that a finalised ESCP must be provided ahead of any sub-stage of the development, which is intended to address the requirement for a final ESCP ahead of any post-bulk earthworks phases of the development. I consider that by including an advice note to this effect, it helps reinforce the requirement that a number of finalised ESCPs must be provided throughout the duration of the project.

The following condition includes my proposed amendments (underlined) to the applicant's latest version.

16. At least 20 working days prior to the commencement of earthworks activity for any stage or sub-stage of the development, a finalised Erosion and Sediment Control Plan (ESCP) prepared in accordance with the draft ESCP submitted with the application, and in accordance with Auckland Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016 (GD05), including any amendments to this document, must be submitted to the Council for written certification. ~~Auckland Council must respond to the request within 20 working days, or the management plan is deemed to be certified.~~

*Advice note: The finalised ESCPs required ahead of each "stage" of earthworks are associated with bulk earthworks, while the finalised ESCPs required ahead of each "sub-stage" of earthworks are associated with earthworks subdivision land disturbance.*

The second key concern identified in my initial Earthworks Memorandum, was the lack of an AMP to help reduce the potential effects of erosion and the subsequent generation and discharge of sediment as a result of the proposal's earthworks. This key concern~~s~~ remains, despite the applicant's additional information.

The applicant has responded that an AMP is not required because that whilst the proposal is for 60ha of earthworks, only 30ha of bare earth will be exposed at any one time, and whilst this is true for the

bulk earthworks, it is not necessarily true for the overall development. The proposal includes a number of sub-stages of development, typically associated with subdivision, and these sub-stages often have their entire areas, "re-exposed" to construct roads, berms, and footpaths, to construct retaining walls, for trenching to install civil infrastructure, and in some cases, to complete minor relevelling of building platform areas. The result being that an area greater than 30ha is highly likely to be exposed for the majority of the development.

Further, the exposed area restriction was proposed at 30ha provided an AMP was implemented. Without the implementation of an AMP, an exposed area restriction of 10-15ha is more appropriate. Similar developments, the closest of which is the Ara Hills development which is adjacent to the Delmore project along its eastern boundary, has an open area restriction of 15ha with implementation of an AMP. I note that the Delmore project proposes double that open area, without an AMP. I do not consider that this is appropriate. The next closest development with an AMP requirement is the Milldale development approximately 2kms south of the Delmore project, which has an open area restriction of 30ha. In general, I do not consider it appropriate for any development in Auckland to have 30ha of exposed earth at any one time without an AMP being implemented. This is particularly the case when the two closest developments to the Delmore project are required to implement an AMP, and when considering that the ultimate coastal receiving environment for all three of these projects, is the same and is designated as a significant marine ecological area (SEA_M2_72).

The applicant has also stated in their "Earthworks Response Memo", (Appendix 49.1), that *"Alongside the GD05 compliant ESCP measures that will be used on site, there are adaptive and preventative measures already proposed."* I have re-reviewed the original application material and the additional material provided on 7 July, and do not consider that any "adaptive and preventative measures" over and above what is typically required by GD05 have been proposed. While the applicant has proposed best practice measures in accordance with GD05, they have not extended this best practice to include implementation of an AMP. Further, they have stated that their adjacent development was completed without implementation of an AMP and that to impose one would be unduly onerous. I disagree as the adjacent Ara Hills development is subject to an AMP and is also subject to a much more restrictive open area limit of 15ha instead of 30ha. To allow the Delmore development to proceed without an AMP requirement would be inconsistent with similar earthworks projects being carried out in the Auckland region. Further, given that the Ara Hills and Milldale projects have AMP requirements to help protect the sensitive marine receiving environment, an AMP requirement for the Delmore project is necessary and appropriate as its receiving environment is the same.

Also included in the applicant's Earthworks Response Memo, is a statement that earthworks under the current proposal are restricted to the earthworks season and that during the winter period, when there is a heightened risk of sediment discharge, earthwork activities must be approved through a winter works application, which is correct. However, the applicant's statement then says that if winter works are approved, *"...sediment controls will be further enhanced through increased monitoring requirements, including post-rainfall event reporting and monthly reviews of open areas, in accordance with the specific conditions."* Again, I have re-reviewed the original application documents and the additional information provided on 7 July and the applicant has not proposed any additional ESC measures during the winter period, nor have they proposed any post-rainfall reporting or any monthly reviews of open areas.

I have over 20 years of experience undertaking compliance monitoring in the Auckland Region and have overseen a number of significant earthworks operations during that time, and I can confirm that the environmental outcomes achieved with adherence to an AMP are far greater than those achieved when no AMP is implemented. As I noted in my original Earthworks memorandum, "appropriate monitoring and maintenance of all controls in accordance with GD05" is often touted, but rarely is it undertaken in full accordance with the guidance contained in GD05. An AMP addresses this and in my opinion is necessary to address sedimentation risks to a significant marine ecological area from the scale and duration of earthworks proposed.

## 5.0 Specialist Assessment – Addendum – Outstanding Issues / Information Gaps

At the time of writing this Earthworks Addendum memo, and having reviewed the 7 July updates from the Applicant, I still consider the applicant's position that an AMP is not required, to be inappropriate and inconsistent with similarly significant earthworks projects in the Auckland Region. Without the preparation and implementation of an AMP, as recommended in my original Earthworks memorandum, I do not support the Delmore project's earthworks and erosion and sediment control proposal.

## 6.0 Proposed Conditions

As noted above, I have proposed amendments to the applicant's proposed condition 16, as well as the inclusion of an advice note. I have repeated this below for clarity's sake. I have also repeated the condition I recommended in my original Earthworks Memorandum, which requires the preparation and implementation of an Adaptive Management Plan ahead of earthworks commencing at the site. Conditions 17 and 18 are acceptable.

| Applicant's Proposed Condition 16. | Proposed Amendments based on 7 July Information |
|---|---|
| At least 20 working days prior to the commencement of earthworks activity for any stage or sub-stage of the development, a finalised Erosion and Sediment Control Plan (ESCP) prepared in accordance with the draft ESCP submitted with the application, and in accordance with Auckland Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016, Incorporating Amendment 2 (GD05), must be submitted to the Council for written certification. Auckland Council must respond to the request within 20 working days, or the management plan is deemed to be certified. | At least 20 working days prior to the commencement of earthworks activity for any stage or sub-stage of the development, a finalised Erosion and Sediment Control Plan (ESCP) prepared in accordance with the draft ESCP submitted with the application, and in accordance with Auckland Council Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, June 2016 (GD05), including any amendments to this document, must be submitted to the Council for written certification. ~~Auckland Council must respond to the request within 20 working days,~~ |

| | |
|---|---|
| | ~~or the management plan is deemed to be certified.~~<br><br>*Advice note: The finalised ESCPs required ahead of each "stage" of earthworks are associated with bulk earthworks, while the finalised ESCPs required ahead of each "sub-stage" of earthworks are associated with earthworks subdivision land disturbance.* |

Additional recommended conditions:

| | |
|---|---|
| 16A. | 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:<br><br>(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.<br><br>The Freshwater Baseline Report must include as a minimum, information on the following matters:<br><br>i. sediment quality such as description of sediment inputs, transport, substrate composition and embeddedness.<br><br>ii. water quality measurements such as total suspended solids (TSS) and turbidity.<br><br>iii. actual and potential inanga (Galaxias maculatus) spawning habitat.<br><br>iv. identify the pre-construction condition of any Erosion Prone Streams against which to measure construction effects and possible mitigation measures.<br><br>v. The presence of any threatened aquatic species or habitat, susceptible to sediment discharge.<br><br>(b) Details of weather forecasting and monitoring, including implementation of an onsite rain gauge with a telemetered system that provides text and email notifications;<br><br>(c) Trigger levels for water quality and rainfall events (actual and forecasted events);<br><br>(d) Details of an ongoing monitoring and sampling regime for the receiving environment, including turbidity and / or TSS monitoring downstream within the receiving environment; |

| | |
|---|---|
| | (e) 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;<br><br>(f) Management responses when a trigger level is exceeded, including the ability to reduce exposed area; and<br><br>(g) Reporting to Council.<br><br>Advice Note: Turbidity results can be substituted providing a correlation between TSS and turbidity has been established.<br><br>Any proposed revisions to the AMP must be submitted to the Council for written certification prior to formalising and implementing the revised Plan. |
| 16B. | 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.<br><br>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. |
| 16C. | All monitoring and management procedures as detailed within the certified Adaptive Management Plan required by condition 16A, and any subsequent revisions, must be implemented on an ongoing basis throughout the duration of all earthworks activities on site.<br><br>*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 though its adaptive monitoring regime, to ensure sediment discharges are minimised and the potential for significant adverse effects are avoided.* |
| 16D. | 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 16A) and any subsequent revisions approved by the Council, can only be re-opened for earthworks on the written approval of the Council. |
| 16E. | 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. |

## 7.0 Recommendation

As discussed above, the applicant has addressed one of the two key concerns I had with the Delmore project's earthworks and erosion and sediment control proposal. They have agreed that post-bulk earthworks ESCPs must be provided ahead of any earthworks associated with civil / subdivision works commencing, and subject to the minor wording amendment noted above, I support this aspect of the proposal.

The applicant has not, however, addressed my concerns regarding preparation and implementation of an AMP throughout the proposal's earthworks operation. As such, I do not support the applicant's proposed earthworks and erosion and sediment control proposal.