

Delmore Fast-Track

25/06/2025 – Auckland Council Response

Annexure 8:

Development Engineering – Flooding & OLFPs

Ray Smith

Development Engineering – Stormwater Flooding and Overland Flow Paths.

1. Application Summary

Project Name	Delmore
Applicant	Vineway Limited
Site Address	88, 130, 132 Upper Ōrewa Road and 53A, 53B and 55 Russell Road, Ōrewa, 0992
Fast-track Reference Number	FTAA-2504-1055
Types of approvals sought	Earthworks, subdivision, stream works, groundwater diversion, stream diversion, air quality discharge, stormwater diversion and discharge, wastewater discharge
Council reference numbers	BUN60444768 LUC60444824 SUB60444825 LUS60444826 WAT60444827 WAT60444834 DIS60444829 DIS60444830 DIS60444832 DIS60444833 VCN70025252
Description of Proposal	To construct a comprehensively planned residential development at 88, 130, 132 Upper Ōrewa Road and 53A, 53B and 55 Russell Road, Ōrewa (the 'site'). The development will involve the construction of approximately 1,250 dwellings, one unserviced residential super lot, open space areas, areas of protected vegetation, roads including the NoR 6 road, supporting infrastructure and other associated works. Works will be undertaken in two primary stages. Once completed, the development is intended to be called Delmore.

2. Specialist Response Details

Author: Ray Smith

Specialist Area: Development Engineering - Flooding and Overland Flow Paths

Date: 24/06/2025

3. Specialist Assessment

Overview

In general, the application is on the basis that existing overland flow paths are to be typically maintained in their present location and additional flow paths are to be provided where needed within the proposed roading network. In association with onsite specific stormwater discharge controls, this is proposed by the application to result in reasonable discharges within the site and minimal increases in downstream flooding levels and extent.

From a Development Engineering perspective this approach is supported however I note that I also rely on other specialists within Council and Auckland Transport for completing more detailed assessments of the information submitted and some additional information and further assessment of information is thought to be required as follows.

Council's Healthy Waters team in their memo dated 25 June indicate that they have not yet had sufficient time to review the flood model and to confirm acceptance of the Stormwater Management Plan. Their position will be confirmed once this review is complete as follows:

Flood management: *The proposal does not include attenuation of the 1% AEP event. However, the Applicants flood assessment concludes minimal risk with adequate floor levels and flow paths. HW has not yet been afforded sufficient time to review the flood model*

Additionally, Healthy Waters have raised concern regarding the provision of minimal riparian extents and have requested that a Geomorphic Risk Assessment is necessary to support the application. The overland flow paths and flood plain extent are situated within these areas and the request is as follows:

Riparian margins: *The proposed riparian yards are considered insufficient due to the site's steep terrain and unstable soils. A minimum of 20m, ideally 30-50m, is recommended, determined through a Geomorphic Risk Assessment. The proposed use of multiple T-bar outlets may further compromise streambank stability.*

On stormwater related matters, Auckland Transport similarly state in their 23 June comments that they:

... concur with the major concern raised by NZTA in relation to existing stormwater infrastructure being inadequate to accommodate impacts of the proposed development. A full assessment of the impact has not been provided. Therefore, it is not possible to determine flood hazards impacts, whether stormwater infrastructure is appropriate for the development, or the potential flood depth increases. There are serious flood risks that require further investigation to be undertaken to confirm the degree of safety risk to the public.

Auckland Unitary Plan Matters

E36 Natural Hazards and Flooding – Activities in the 1 per cent (AEP) floodplain and Activities in overland flow paths.

The Activity Table E.36.4.1(A33) – *Construction of other land drainage works, stormwater management devices or flood mitigation works in the 1% AEP floodplain* is considered to be triggered by the proposal and to be assessed as a restricted discretionary activity.

The Activity Table E.36.4.1(A41) - *Diverting the entry or exit point, piping or reducing the capacity of any part of an overland flow path* is also considered to be triggered by the proposal and to be assessed as a restricted discretionary activity.

The Activity Table E.36.4.1(A56) - *All other infrastructure in areas listed in the heading above not otherwise provided for* is also considered to be triggered by the proposal and similarly to be assessed as a restricted discretionary activity.

My original review resulted in a request for further information on the following 5 matters and the applicant's responses (provided 13 June) to those are included below.

Comment	Applicant Response
1. Downstream properties considered affected parties regarding flooding	The residential properties adjacent to the flood plan in Ara Hills are set approximately 10m above the flood plain. This means that the 290mm increased flood depth, identified in the lodged flood model, does not exacerbate the flood risk to these properties. After re-running the model, the flood depth increase is 140mm, which is considered to be generally imperceptible to pre-development levels. This model will be provided June 12 directly to Auckland Council DE, Flooding and OLFP.
2. Matters of discretion and assessment criteria do not appear to be addressed.	These matters were considered in Section 11.5.2 of the lodged AEE, Appendix 29 (Flood Assessment Report) of the lodged application, and in Appendix 33 (Objectives and Policies) - B10 (page 49) and E36 (page 105).
3. It is expected that flow path depths and interactions with velocities may not meet TDM requirements.	<p>More detailed plans have been prepared which demonstrate compliance across the site. This will be provided 12th June. All overland flow paths within the road network have been assessed in accordance with Auckland Transport's TDM criteria, specifically referencing the thresholds for Obvious Danger and No Obvious Danger classifications. These assessments have considered depth x velocity under the relevant design storm events.</p> <p>We confirm that:</p> <p>All assessed flow paths fall within the acceptable DxV thresholds set out in the TDM.</p> <p>Flow path locations have been carefully integrated with road geometry and drainage design to ensure safe conveyance, minimise risk, and avoid exceedances of TDM criteria.</p>
4. OLFPs and flood plains would be expected to be contained to areas subject to restricted covenants	<p>All overland flow paths traversing private lots will be contained within easements in favor of Auckland Council, in accordance with the requirements of the Stormwater Code of Practice (SW CoP).</p> <p>Consent notices will be registered on the relevant titles to nominate minimum finished floor levels for dwellings located adjacent to these overland flow paths. These locations are clearly identified on the Overland Flow Path (OLFP) plans.</p> <p>Please note that final easement extents and alignments will be confirmed following completion of cadastral survey.</p> <p>This has been addressed within the Proposed Consent Conditions Memorandum prepared by Barker and Associates, which will be provided June 19.</p>
5. Consent notices expected which refer to restricting future development	This is already provided for by the existing conditions which seek land use consent for the proposed dwellings in the application which must be provided in accordance with the approved plans.

For item 1, as indicated, the latest modelling is currently being reviewed by Healthy Waters and the NZTA where the increase in depth at the downstream boundary and other downstream properties has more recently been reassessed to be significantly less than was initially presented when the application was first received.

Provided the expected increase in flood level is accurate at a maximum of 140mm at the boundary and 210mm elsewhere at 35 Russell Road and flows are confined to within the existing stream channels as is suggested above, the effects to other properties would be expected to be relatively minimal. However, as indicated by Healthy Waters below, their confirmation of these flood levels is yet to be obtained.

The Applicant's Agent has provided further documentation following preliminary discussion of the Application with Council. Modelling information was provided to Healthy Waters by the Applicant's Stormwater Engineers on 12th June 2025, however there has been insufficient time to complete a review the model at the time of writing.

I also note that I have not viewed the stream channels on site however as a downstream property owner, it is helpful that NZTA have recently provided feedback that they recommend an upgraded inlet is installed to the existing culvert situated under the motorway to help mitigate increased flows and

blockage potential. In the event of approval and subject to confirmation of flood levels downstream of the site, I also support this approach.

For item 2, the overall development including proposed works to be carried out within the flood plain and the existing and proposed overland flow paths is expected to be appropriate from a Development Engineering perspective as long as the further information referred to in the above overview is found to be adequate. An assessment against the objectives and policies of chapter 36 and the Engineers report and assessment required by 36.9 has been provided and while the Engineer's report addresses the majority of the same issues included in the matters for discretion and assessment criteria, the matters in E36.8.1 and E36.8.2 do not appear to have been directly addressed as yet.

For item 3, the applicant indicates that this matter has now been addressed, however I also note that as per the information referred to in the overview above, Auckland Transport still hold concerns in regard to confirming appropriate flood levels and velocities.

For item 4, I understand that subject to Stormwater Management Plan approval, overland flow paths located in private property do not typically need to have easements in favour of Auckland Council but should instead be defined as areas subject to restrictive covenants. As indicated in the response above, further information will be provided on this aspect.

For item 5, Further information will likely be provided on this aspect by the applicant and presently I am not clear on whether the buildings and infrastructure works will be created initially and a subdivision will occur around that, however if bare sites are created through a subdivision and 224c, then I would recommend a consent notice on each site is included to alert future owners of the need to comply with land use conditions for any future development proposed on each site.

4. Comment on Proposed Conditions

Conditions within Appendix 22.

Having reviewed Sections 1 – 3, it appears that subject to several management plans, the conditions required to ensure that all proposed engineering infrastructure will be appropriately constructed, have been included.

As mentioned above in item 1, it is recommended that a specific consent condition is included to require upgrade works to the culvert located under the Northern Motorway to be carried out.

As briefly mentioned for item 4 above, I recommend additional consent notices are included to ensure that future works are not carried out in overland flow paths on private property and that floor levels are set appropriately. These could be as per the following...

Overland Flow/min floor level

1. On any Lots identified to be affected by the 1 in 100-year overland flow path, the means of conveying unobstructed overland flow must be provided and maintained. There must be no obstruction of the overland flow with any fencing, object, impermeable landscaping, building, or structure.
2. On any adjacent Lots situated within 500mm vertical distance of the surface of the 1 in 100-year overland flow, floor levels shall be set to be a minimum of 500mm higher than the predicted flood level as per the schedule to be provided by the applicant at 224c stage.

As per item 5, if thought to be needed, I would also recommend a consent notice on each site is included to alert future owners of the need to comply with required land use conditions for future development.

The above initial comments on conditions are provided to assist the Panel, but are offered without prejudice to the Council's ability to make more comprehensive comments on any draft conditions under section 70 of the Fast-track Approvals Act 2024, should the Panel decide to grant approval.