

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

FTAA-2502-1015 / BUN60444768

**1.0 Technical Specialist - Development Engineering: Overland flow paths and flooding.**

From: Ray Smith

Date: 21 July 2025

**2.0 Executive Summary / Principal Issues**

The proposed Overland Flow Paths and expected 1% AEP flooding within and outside the development have triggered Resource Consents as per Chapter 36 of the Auckland Unitary Plan.

Section 106 of the Resource Management Act, the Auckland Unitary Plan, Council's Stormwater Code of Practice and Auckland Transport's Traffic Design Manual have requirements and recommendations for these matters. Further information (see below) has previously been requested by Council in regard to gaining sufficient confirmation that the design will manage these natural hazards appropriately.

**3.0 Specialist Assessment – Previous Memo / Comments Overview**

**Summary of 25/06 Issues identified**

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 as I also rely on other specialists within Council and Auckland Transport for completing more detailed assessments of the information submitted, additional information and further assessment of information was requested as follows.

1. Whether the flood model provided by the applicant could be accepted by Auckland Council's Healthy Waters Department in order to confirm that the proposed site levels are appropriate and that offsite effects are minimal.
2. Whether the stream riparian margins are wide enough and whether the alignments will remain stable (a Geomorphic Risk Assessment has been requested).
3. Whether the culvert designs and overland flow paths contained within the proposed roads and exiting to streams are likely to meet Auckland Transport's Traffic Design Manual recommendations.

## 4.0 Specialist Assessment – Material Reviewed

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

I have reviewed the following documents that have recently been submitted by the applicant.

1. 42.6 Updated Culvert and Wetland Removal Plans
2. 43.2 Response to AC Geotechnical (1) and (2)
3. 48.1 Site Plans
4. 48.2 Key Changes Memo
5. 49.4 Culvert Methodology
6. 49.6 Culvert and Hydrological Suitability Memo
7. 50 Updated Scheme Plans
8. 51.2 Commute Response
9. 51.4 McKenzie AT Response Memo
10. 52.2 Flood Memo Response
11. 52.3 Healthy Waters Response
12. 52.4 Erosion and Geomorphic Response
13. 54.1 Response to AVJ Hobsonville
14. 54.3 Table Response to Other Neighbours
15. 57 Proposed Conditions
16. 58.2 Detailed SW Drawing, Stage 1 OLFP Plans, Stage 1 Updated SW Plans, Stage 2AB Updated SW Plans, Stage 2CD OLFP Plans, Stage 2 CD Updated SW Plans.

In a similar manner to my last memo, I have again reviewed and relied on the updated memoranda produced by Healthy Waters and Auckland Transport where I note the following key findings:

- Healthy Waters have not received an updated flood model and therefore are unable to confirm whether they are able to accept the applicant's flood model. I have also been party to correspondence where the applicant may consider that they do not need to respond to this matter as additional information was requested after 20 working days.
- The Geomorphic assessment that was requested earlier has not been completed. Although the applicant has provided advice as to why it is not considered to be necessary, Healthy Waters and Councils Geotechnical Specialist consider that this information should be provided.
- Although the applicant has provided further information and plans demonstrating where road overland flow paths will occur and reconfirming that expected depths and velocities of flow will be acceptable in Meeting Auckland Council's Traffic Design Manual recommendations, Auckland Transport has not accepted that sufficient information has been provided to support this. Culvert design information has also not been provided at this stage.

I am therefore not currently in a position to indicate that the matters raised in my earlier memo have been adequately addressed or resolved.

## 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 matters are as follows:

- The requested flood model is yet to be provided and therefore I am awaiting confirmation that the design has been accepted by Healthy Waters to confirm that the designed overland flow paths and expected flood levels can be confirmed as being appropriate.
- In relation to the riparian margin widths, the geomorphic risk assessment that has been requested has not been provided. Therefore, apart from the applicant's further advice on the matter as to why the assessment is not required, the designed overland flow paths, their erosion potential and bank stability cannot be confirmed as being appropriate by Healthy Waters.
- In relation to new Overland Flow Paths and Flooding information, Auckland Transport have indicated that:

*“As the applicant has not provided any quantification on the comments we had raised previously, we are not in a position to support this Fast Track Consent.*

*The items are numbers in relation to the item they call under in the document “Appendix 51.4 – McKenzie AT Response Memo.pdf”:*

- *Stormwater item 38*
  - *We have reviewed the submitted OLFP Memo, and the documents the applicant referred to (i.e., Appendices 12, 12-6, and 29), and our original comment stands as no additional information has been provided. OLFP's and secondary flow paths within the road are not demonstrated to be safely conveyed. There is no assessment of the depth-velocity product provided.*  
*We note that the applicant states that they have modelled the flow paths, and they have noted that: the depth-velocity product at pram crossings don't exceed 0.4m<sup>2</sup>/s, and that there are some isolated areas where the depth-velocity product is greater than 0.6 m<sup>2</sup>/s where there is no obvious danger to pedestrians. However, these assessments are not available in the documents provided. The information the applicant has provided is plan view maps with hatched polygons of the extent of the OLFP's, but they have not quantified the OLFP depth, velocity, or hazard in the road.*
- *Stormwater item 39*
  - *We have reviewed the documents the applicant has provided, and they have not provided any assessment of the culverts. Their response indicates that they have undertaken HY-8 modelling of the culverts, however as no results or model reports have been submitted, there is no evidence demonstrate that the culverts are sized appropriately. While the applicant has provided a summary of the culverts in Appendix B of the Stormwater Infrastructure Report (itself being Appendix 52.6), there is no evidence to support the statements in the table. There is also no demonstration that the culverts can be accessed when maintenance is required.*

- *Stormwater item 40*
  - *We believe this can be deferred to Healthy Waters as they have access to the applicant's model. However, the applicant's focus on safe conveyance through the development has not been demonstrated in the previous items. The applicant has also not demonstrated the downstream effects of this development on the culvert under the State Highway.*
- *Stormwater item 41*  
*The query in question is in relation to the culvert under the State Highway. No assessment has been provided to demonstrate that the culvert is sized appropriately - similar to how no assessment of the culverts has been provided in our response to Stormwater point 39. No demonstration that the downstream culvert has capacity for the increase in flows as a result of this development has been provided."*

Although extensive information has been provided and can be considered by the Panel, based on my consideration of specialist reviews undertaken by others, I do not consider that the matters raised in my earlier memo have been adequately addressed or resolved.

## 6.0 Proposed Conditions

1. Healthy Waters and Auckland Transport have each made recommendations for consent conditions to be included in the event of approval of the application, however in a review of the conditions contained within Appendix 57, I note the following. As mentioned in my previous memo, it is recommended that a specific consent condition is included to require that the applicant complete secondary inlet upgrading of the existing culvert located under the Northern Motorway, including gaining the necessary approvals and confirmation of satisfactory completion from NZTA. This does not appear to have been provided, and I recommend that it is included within the set.

2. In relation to overland flow, Conditions 134 and 153 and 172 currently indicate the following.

*"The survey plan must include easements in favour of Auckland Council for all overland flow paths that traverse private lots, in accordance with the requirements of the Stormwater Code of Practice (SW CoP)."*

As noted in my original memo, Council's current preference is to have overland flow paths which are contained with private property, as being subject to a restrictive covenant to ensure ongoing protection of them by property owners, rather than having them shown as being easements in favour of Auckland Council. Although both options are permitted by the Stormwater Code of Practice, I therefore suggest that these conditions are amended and saved as a S223 condition as follows.

*"Unless otherwise approved by Council, all overland flow path extents that traverse private lots, shall be defined on the survey plan as "areas to be subject to land covenants", in accordance with the requirements of the Stormwater Code of Practice (SWCoP)."*

3. For any Lots affected by overland flow, I also recommended that the following consent notice is appropriate.

*“Overland Flow/min floor level*

*On any Lots identified to be affected by the 1 in 100-year overland flow path extent, 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.”*

This consent condition has not been included in the latest conditions set and I recommend that in the event of approval, that it should be.

## 7.0 Recommendation

### **Overland Flow Path and Flooding matters**

As a Development Engineering overview, the overland flow paths, flooding extents and reported levels and velocities within the road as reported or predicted by the applicant would be expected to be generally satisfactory. However, at this time, Healthy Waters are yet to receive an updated flood model, the requested Geomorphic stream assessment is outstanding and Auckland Transport considers that further information is outstanding in order to demonstrate that culverts and designed overland flow paths within roads are appropriate.

I am therefore not in a position to confirm that these aspects have been adequately dealt with.