

# Property Flood Hazard Assessment

<b>To:</b>	Estelle Bothma
<b>From:</b>	Robert Herring, Principal Engineer, Thomas Consultants Ltd
<b>Date:</b>	07/05/2026
<b>Subject:</b>	Property Flood Hazard Assessment for 21 Jeroboam Loop, Huapai

## 1. Objectives & Scope of Works

Thomas Consultants Limited (TCL) has been engaged by Estelle Bothma (the Client) to prepare a Property Flood Hazard Assessment for 21 Jeroboam Loop, Huapai.

The purpose of this report is for due diligence, to review flood hazard information available on Council Geomaps and provide an assessment of the hazards in relation to the existing dwelling on the property. This report may be provided to prospective purchasers.

This report includes:

- A review of predicted flood hazards such as streams, overland flowpaths, flood plains (for a 1-in-100 year event), and flood prone areas.
- Consideration of climate change impacts.
- Information on coastal flooding risks including sea level rise, if appropriate.
- A review of the hazard risk under Plan Change 120 (PC120).
- Review of the property file and flood report for the underlying subdivision.
- A summary of all findings and how they relate to the current buildings on the property, and implications for future development.

Our assessment is a desktop evaluation and is based on Auckland Council flood data, and open data LiDAR contours available on Council Geomaps and does not include a site visit or site-specific flood model, unless specifically stated below. Our assessment also includes review of the property file for reports and plans related to the underlying subdivision, in particular for flood modelling and design of overland flowpaths.

This report does not include information obtained from Auckland Council's Healthy Waters department, as this has a 2 week lead time, and is generally not available within due diligence timeframes.

## 2. Site Description

The subject site at 21 Jeroboam Loop, Huapai, is legally described as LOT 160 DP 522461. The total area of the site is 525m<sup>2</sup>. There is an existing dwelling on the property. The property was created by a subdivision approved in 2016 under the Special Housing Area legislation.

The site slopes from the southern boundary towards the road frontage along the northern boundary. The rear yard has a reasonably steep slope, but the existing house site is generally flat. There is also approximately 100m<sup>2</sup> of area within the neighbour's property (3 Jeroboam Loop) that slopes towards the southern boundary of 21 Jeroboam Loop.

Auckland Council's GIS (GeoMaps) shows 2 overland flow paths crossing the property, one approximately parallel to the southern boundary and the other crossing from east to west through the centre of the site (refer to Figure 2 below).

There are no predicted 1% AEP (1 in 100 year) flood plains or flood prone areas affecting on the property. The property is not affected coastal flooding risks and no Plan Change 120 flood hazard risks are identified as affecting the property.

Based on the age of the public stormwater pipes the underlying subdivision was completed around 2018 and was designed so that all overland flow paths would be located within roadways and not cross private properties.



Figure 1: Aerial Image, Ground Profile and Catchment & Hydrology Information (source: Auckland Council GeoMaps)

The overland flowpath layer has not been updated to reflect the development, and is based on aerials and contours from 2016. Refer further comments below.

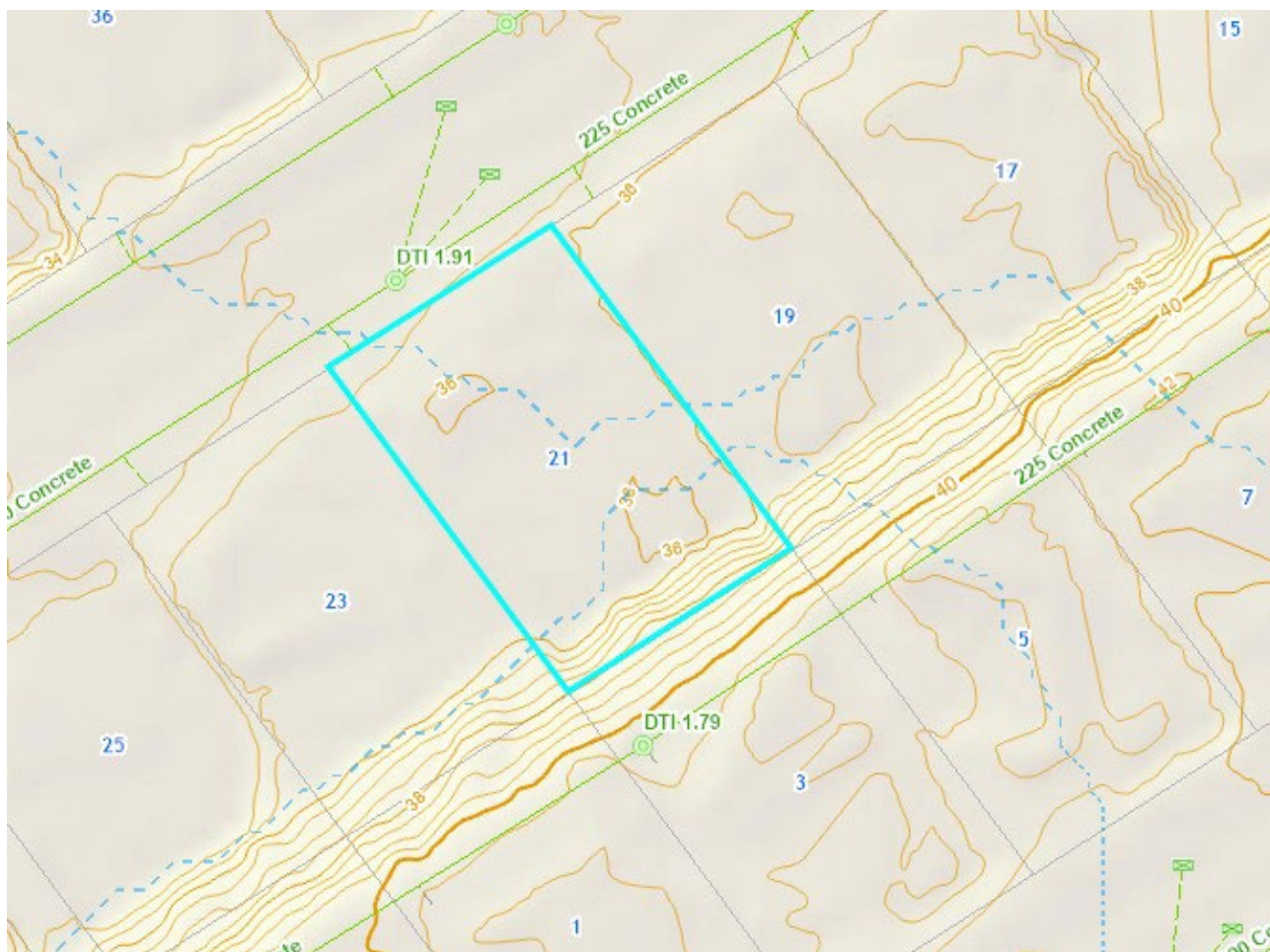


Figure 2: 2024 Terrain, Ground Profile and Catchment & Hydrology Information (source: Auckland Council GeoMaps)

### 3. Assessment of Post-subdivision Flood Hazards and Overland Flow Path

The Auckland Unitary Plan defines an overland flow path as a low point in terrain, (excluding permanent streams) where surface runoff will flow during rainfall events.

The Auckland Council GIS Viewer (GeoMaps) states that “Overland flow paths predict the natural flow of water over the ground when the stormwater network is overloaded. The Overland Flow Paths layer is based on Auckland Council’s most recently captured LiDAR data, which was flown in 2016 and became available after processing in 2018”.

In the case of the subject site and the sub-division development in the vicinity, Council’s overland flow path layer is based on the 2016 ground surface terrain which pre-dates the sub-division development, including major earthworks which has re-directed overland flow paths along roadways and reserves at not through private property. The latest ground surface terrain (2024) is now shown on GeoMaps, but the overland flow path locations have not been updated to reflect new ground contours.

Based on the new (2024) contours and the approved sub-division plans and calculations, it is our professional opinion that there are no overland flow paths through (or affecting) the subject site at 21 Jeroboam Loop. The approved sub-division documentation shows that the overland flow paths will be fully contained within the road corridors, refer to Figures 3 and 4 below, concentrated overland flow shown as solid blue arrows.



Figure 3: Orah Road Subdivision Plans – Stormwater Overland Flow Paths – Jeroboam Loop area

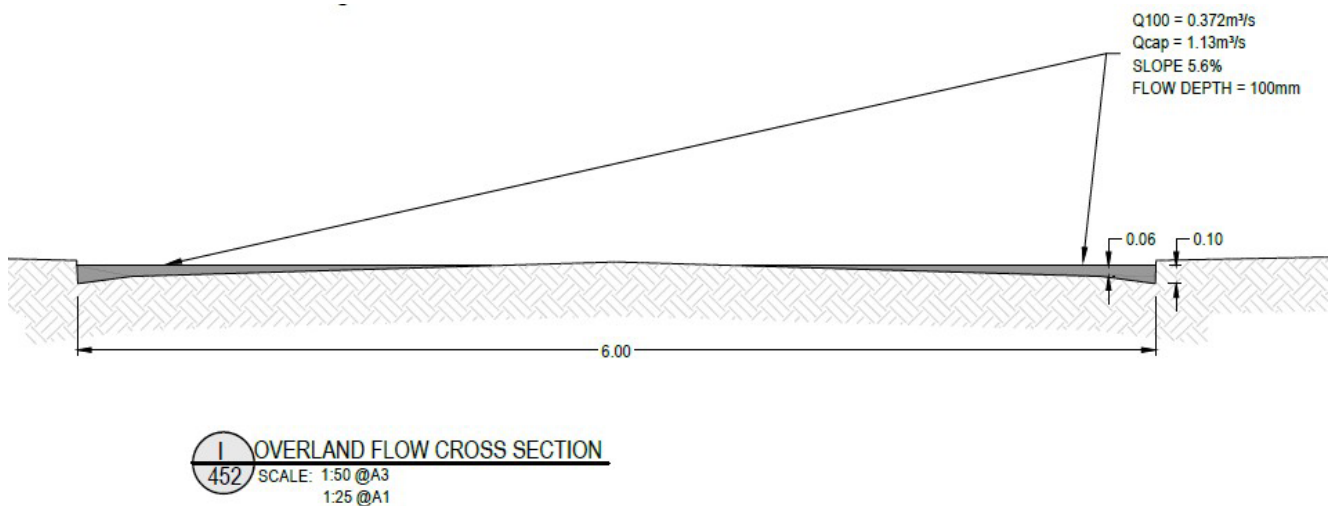


Figure 4: Orah Road Subdivision Plans – Stormwater Overland Flow Paths – Typical Cross-section

There will be normal surface flow within the property from rain runoff, but this will be by means of very shallow sheet flow and not through a defined overland flow path. It is likely that this will be barely noticed. The total catchment area contributing to the surface flow is approximately 200m<sup>2</sup> which includes 100m<sup>2</sup> from the neighbouring property (3 Jeroboam Loop) excluding the existing house roof runoff and driveway runoff which will be discharged to the existing stormwater network. It is noted that the minimum contributing catchment required to be defined as an overland flow path on Council's GeoMaps is 2,000m<sup>2</sup>.

It is our expectation that once Council updates their flood and overland flow path modelling (based on the current ground surface), then the overland flow paths shown on GeoMaps for 21 Jeroboam Loop will be removed. The timeframe for this is unknown, Council are regularly updating information across the city.

## 4. Summary of Findings

A summary of all findings and how they relate to the current buildings on the property, and implications for future development is provided below.

- Auckland Council's GIS (GeoMaps) shows 2 overland flow paths crossing the property, one approximately parallel to the southern boundary and the other crossing from east to west through the centre of the site.
- In the case of the subject site and the sub-division development in the vicinity, Council's overland flow path layer is based on the 2016 ground surface terrain which pre-dates the sub-division development, including major earthworks which has re-directed overland flow paths along roadways and reserves at not through private property. The latest ground surface terrain (2024) is now shown on GeoMaps, but the overland flow path locations have not been updated to reflect new ground contours.
- Based on the new (2024) contours and the approved sub-division plans and calculations, it is our professional opinion that there are no overland flow paths through (or affecting) the subject site at 21 Jeroboam Loop.
- It is our expectation that once Council updates their flood and overland flow path modelling (based on the current ground surface), then the overland flow paths shown on GeoMaps for 21 Jeroboam Loop will be removed.
- There are no predicted 1% AEP (1 in 100 year) flood plains or flood prone areas affecting on the property. The property is not affected coastal flooding risks and no Plan Change 120 flood hazard risks are identified as affecting the property.

In conclusion, in our professional opinion we do not consider that there is any stormwater overland flow path or flood hazard affecting the property.

**Author:** Robert Herring / Principal Engineer / TCL

Signature:-



Date:- 07/05/2026

**Reviewed By:** Rachel Felton / Engineering Manager / TCL

Signature:



Date:- 07/05/2026