

APPENDIX 4:
HORIZONS REGIONAL COUNCIL EMAIL

Grinlinton-Hancock, Michelle

From: Marianne Boekman <Marianne.Boekman@horizons.govt.nz>
Sent: Wednesday, 15 January 2020 1:31 PM
To: Grinlinton-Hancock, Michelle
Subject: Horizons comment on 443 Makino Road, Feilding RAI 0202 F 552740
Attachments: 1 in 200 year (0.5% AEP) Modelled Flood Depths for 443 Makino Road, Feilding.pdf

Hi Michelle

Thank you for your request for Horizons comment on 443 Makino Road, Feilding regarding flood hazards.

Waterways and Flood Risk

There is an unnamed waterway situated through the south western corner of the property. The Makino Stream is situated to the east of the property.

Please find attached a copy of Horizons modelled flood depths for a 1 in 200 year flood event (0.5% Annual Exceedance Probability (AEP)). This means that in any given year, there is a 0.5% chance of an event this size or larger occurring. Horizons uses this 0.5% AEP in our policy framework. The key gives an indication of water depths. Please note that depths less than 50mm are not shown. This is a combined information which includes a 'riverine' model which shows where river water will flow in a 1 in 200 year flood event as well as a 'runoff' model which will show where surface water flows and gathers in a modelled 1 in 200 year (0.5% AEP) rainfall event.

Horizons [One Plan](#) Policy 9-2 generally discourages new habitable buildings or extensions to existing habitable buildings in areas that are likely to be inundated during a 0.5% AEP flood event. Where the flood hazard cannot be avoided, Policy 9-2 states that the risk must be mitigated. Flood mitigation for habitable structures includes having a finished floor level that includes reasonable freeboard of 500mm above the 0.5% AEP flood surface, and ensuring that there is safe access to and from the property during a flood event.

Reasonable freeboard is considered to be 500mm as per New Zealand Standard 4404:2010 – Land Development and Subdivision Infrastructure. This freeboard requirement is to account for factors which cannot be included in the model, such as waves and debris effects. If the water flow paths cannot be avoided then Horizons recommends that the finished floor levels be elevated to be 500mm above the 0.5% AEP surface as well as ensuring that safe egress and access is easily achieved (access between occupied structures and a safe area where an emergency evacuation may be carried out). The finished floor level needs to be based on the original ground level prior to any land disturbance works.

Horizons holds no observed flood information or flood records for this property. This does not mean it has not flooded in the past, it means that Horizons has no records of flooding.

Property Viewer

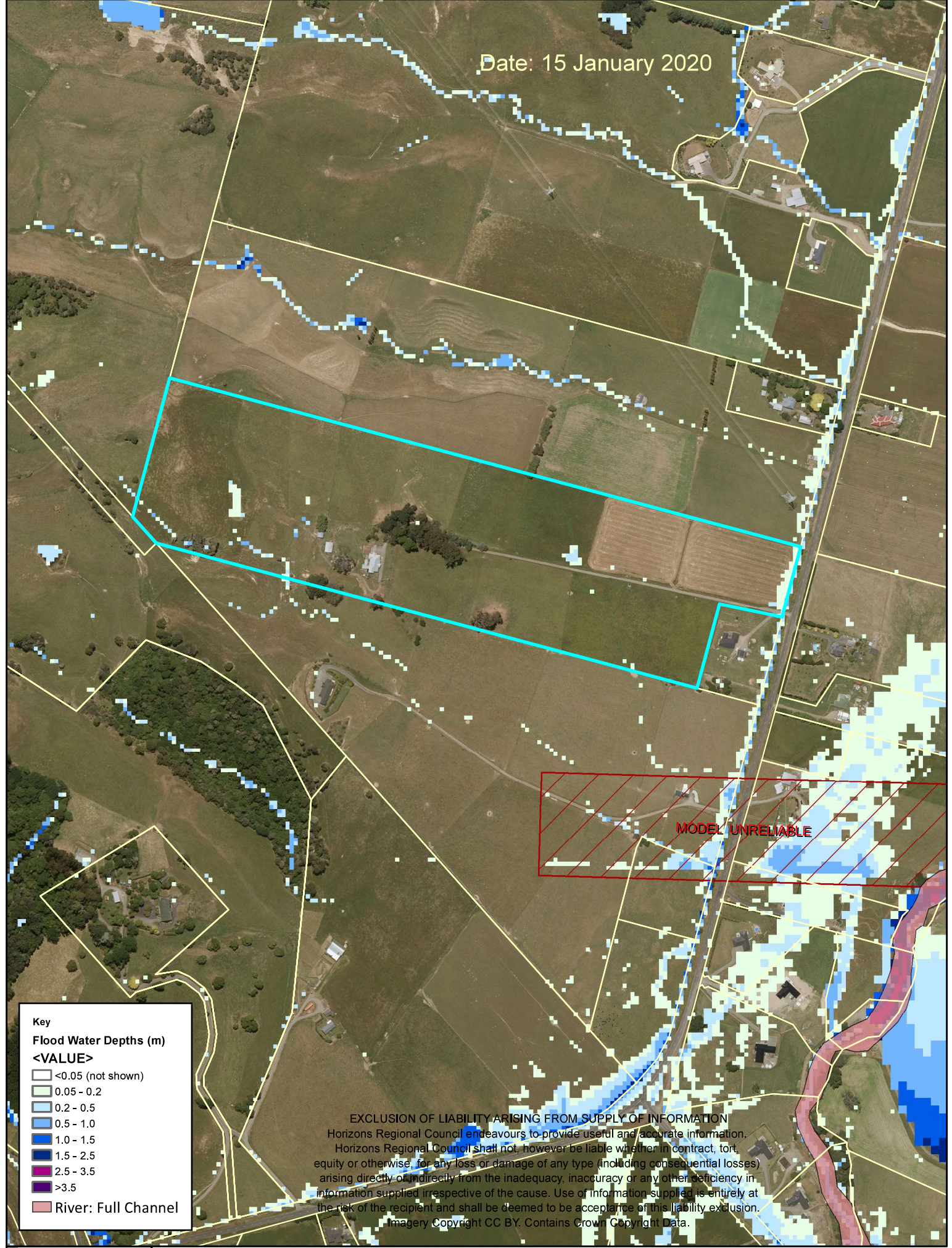
If you would like to find out more information on what Horizons holds e.g. LINZ property information, soils, groundwater bores, LUC (New Zealand Land Resource Inventory (NZLRI)), and other Horizons land/river management information - please visit Horizons Property Viewer on our webpage:

<https://horizonsrc.maps.arcgis.com/apps/webappviewer/index.html?id=98e031eca7e84cb48f0b7f3854249a77>

Ngā mihi | Kind regards

MARIANNE BOEKMAN | District Advice Officer
E help@horizons.govt.nz | 0508 800 800

Date: 15 January 2020



Key
Flood Water Depths (m)
<VALUE>

	<0.05 (not shown)
	0.05 - 0.2
	0.2 - 0.5
	0.5 - 1.0
	1.0 - 1.5
	1.5 - 2.5
	2.5 - 3.5
	>3.5
	River: Full Channel

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1 in 200 year (0.5% AEP) Modelled Flood Depths for
443 Makino Road, Feilding

