

18th July 2024



Graham Brown
116 Richard Street
Ōpōtiki
graham.brown107@gmail.com

Dear Graham,

Re: 116 Richard Street, Ōpōtiki

I have reviewed the information we have available for 116 Richard Street, Ōpōtiki. The location of the area investigated by the desktop study is outlined in the attached maps. The elevation of the land within the property boundary ranges between 3.0 and 3.6 m RL (New Zealand Vertical Datum (NZVD2016) (3.3 and 3.9 m RL Moturiki Datum 1953). The map shows the elevation of the land (from the Digital Elevation Model); with the lower elevation represented by the yellow colour.

The property is protected from the Waioeka and Otara Rivers by stopbanks that are designed and maintained to contain a 1% AEP event. While this does offer protection from the design storm event it must be kept in mind that risks associated with stopbank failure and events that exceed the design capacity still exist.

Flood level

The Ōpōtiki Operative District Plan has the following:

2.6.6 FLOOR LEVELS

2.6.6.1 Floor levels

*Floor levels shall be sufficient to ensure that water does not enter **buildings** in a 1% AEP (Annual Exceedance Probability) event within the **Coastal Environment** or 2% AEP event for areas outside the **Coastal Environment**. **Council** will determine the appropriate freeboard that needs to be added to the flood level to set the required minimum floor level (Sub 17.28).*

The stopbank design levels for the Waioeka River Urban Right bank and the Otara Urban Left bank that protect the Ōpōtiki township are 1% Annual Exceedance Probability (100 year) + freeboard of 450mm. The 3.6m floor level however does give additional protection in the event of a stopbank breach or a larger than design flood. (For more information refer to *Measure II-1: minimum floor level 3.6m for new buildings in the township* in the Waioeka Otara Floodplain Management Strategy). The Waioeka Otara Floodplain Management Strategy September 2001 was adopted following a major investigation and consultation into mitigating flood risks in Ōpōtiki. The strategy gave the commitment of both Ōpōtiki District Council and Bay of Plenty Regional Council to managing the risks. The strategy was formally adopted by both Councils and signed by both the Ōpōtiki District Council Mayor Don Reisterer Mayor and Bay of Plenty Regional Council Chairman J E Keaney. The strategy was reviewed in 2007 with no changes to Measure II-1.

Ōpōtiki District Council (ODC) may have more detailed information on flood levels from local stormwater.

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For 2% AEP flood levels BOPRC recommends to use either the 2% AEP local stormwater flood level identified by ODC or the level of 3.6m (Moturiki Datum), whichever is higher.

Additionally, if an identified house site is located within an overland flow path, the design 2% AEP flood level should be set a minimum of 0.5 m above general ground level and the building should not obstruct any existing flow paths. This level includes freeboard components for estimate imprecision and phenomena not explicitly included in the calculations. This requirement is not applicable to those house sites located on ridges.

This is not a guarantee that any new dwelling will not be affected by flooding. It is also possible that in the future, the flood levels may be superseded by more up-to-date information. The information in this letter is valid for one year from the letter date.

In determining the required minimum building floor level WDC need to consider what additional freeboard components (if any) need to be added for construction tolerances and potential bow waves generated by vehicles traversing water.

Minimum Floor Level

Minimum Floor Levels are set by Territorial Authorities with consideration to the New Zealand Building Code, the Resource Management Act, the applicable District Plan and the latest information available. Please contact Ōpōtiki District Council for the Minimum Floor Level for this property.

Please contact me if you have any further questions.

Yours sincerely



Rachael Medwin
Engineering Hydrologist

