

Maitai River Flood 2013 Model General Information Sheet

Most Nelson residents are aware that the Maitai River is prone to flooding, especially when heavy rain coincides with a big tide. The latest research has been done to update the previous flood models that were based on flooding information from 1986. This new report uses updated data from NIWA and was checked against river levels during the December 2011 storm event. It gives us a model based on current rainfall predictions and current sea level in 2013, and also makes some initial predictions about how sea level rise and increased rainfall (as a result of climate change) might affect the flood path of the Maitai River over the next century.

The report is called Maitai River Flood Hazard Mapping Modelling report, August 2013. It's available to read at the Nelson Public libraries, the Customer Service Centre or on the Council website at nel.so/n/hazards.

- The model was developed by Tonkin and Taylor and has been peer reviewed by Aurecon.
- The flood hazard maps show peak river flows in the urban area coinciding with the peak level of the annual storm tide.
- Compared to the existing Flood Path Overlay this new modelling shows more of the residential and commercial area potentially affected by flooding during a 1 in 100 year storm event in 2013.
- The research shows that the extent of urban flooding is sensitive to tidal influences and peak flow volumes. The model will need to be reviewed after future recorded significant rainfall events to check its accuracy.
- The effects of climate change are shown in the flood hazard maps. This includes sea level rise scenarios of 0.3, 0.5, 0.8, and 1.0m over time, and also an increase of 8% rainfall intensity by 2060 and a 16% increase by 2110. These predicted changes are based on guidance from Ministry for the Environment.
- In the report Tonkin and Taylor have also provided an assessment of the impact of a Maitai dam failure, as required by the Building (Dam Safety) Regulations 2008. However there is an extremely low probability of a dam failure.

What next?

The flood modelling contained in this latest report is intended to be used to update Council planning documents and future Council projects, with the aim of appropriately managing the risk to people and their properties when new building and development is done in the affected areas. However there is more work to be done first. We will be gathering further information during 2014, and community feedback on this will be welcome when the time comes.

Land Information Memorandum (LIM) and Project Information Memorandum (PIM) interim note

Because we've received this new information, we will add an interim note to the property files that we hold. These interim notations will remain while work on finalising this information and ways of building it into our future plans continues throughout 2014.

Maitai River Flood 2013 Model Frequently Asked Questions

Do I need to do anything to the property to stop it from flooding?

You don't have to take any action as a result of receiving this information. The purpose of providing this information is to keep everyone informed and able to be prepared.

What are the main points in the Maitai River Flood Hazard Mapping Modelling Report?

There are five colour maps in Appendix D of the report. These show the likely extent of flooding during:

- a 1 in 100 year flood event, with our present rainfall patterns, a high tide and with current sea level
- a 1 in 100 year flood event, with predicted rainfall patterns in 2060, a high tide and a 0.3m increase in sea level
- a 1 in 100 year flood event, with predicted rainfall patterns in 2060, a high tide and with a 0.5m increase in sea level
- a 1 in 100 year flood event, with predicted rainfall patterns in 2110, a high tide and with a 0.8m increase in sea level
- a 1 in 100 year flood event, with predicted rainfall patterns in 2110, a high tide and with a 1m increase in sea level.

The report explains how the scenarios were developed.

How accurate is the research?

The Council has confidence in the flood model because it has been calibrated against a number of significant historical storm events for which both rainfall and flow records are available. The model has also been validated by flood levels seen during the December 2011 storm event. A good flood level and peak flow match at Avon Terrace has been achieved for that event.

What if I want to sell the property?

The Council has an obligation to make hazard information available to the public, under the Local Government Official Information and Meetings Act 1987 and the Building Act. That means people can access information held by the Council about their property, and about any property they are considering buying. The Council will place an interim note on relevant land and property information files to inform potential buyers about the information in the new Maitai River Flood Hazard Report (see the Information Sheet).

What does an 'interim note' on the property file mean?

The interim note is based on the Council's current information. This "interim status" means that there may be some changes in response to further information.

Can I stop the Council from putting a note on the property file?

The Council could only remove a note from your property file if a flood risk assessment was provided by a suitably qualified person, showing that flooding was not a risk for your property. This information would be assessed by the Council's engineering experts, who would advise the Council whether or not to remove the flood risk information from your property.

I'm currently in the process of selling the property – do I need to tell the new owners?

It is desirable that you tell the prospective owner, but you should check your agreement to see if there is a specific obligation to disclose the information. If you are asked a specific question about it, you must provide the answer. It is important that purchasers do their own due diligence on any property they wish to buy.

How does the Maitai River Flood Hazard report affect property value?

The Council cannot make any comment about what the effect on property value may be because the implications will vary from site to site. If there were to be any impacts on value as a result of the new flood hazard information, this would be determined by sales evidence over a period of time.

What should I do if I am considering building within the Maitai Flood Model Area?

Under sections 71-74 of the Building Act, the flood risk would be classed as a natural hazard. Before undertaking any work, a Project Information Memorandum (PIM) should be obtained. In some cases design can be undertaken that may mitigate the impact of the hazard. That should be considered prior to submitting a building consent.

Can I subdivide the property if it's included in a flood overlay in the NRMP?

For properties in a flood overlay, any subdivision needs resource consent. The purpose of this rule is to ensure that any allotments created are usable, and that the work done on the subdivision doesn't increase the flood hazard or expose additional people or property to risk.

How does the Maitai River Flood Hazard area affect insurance costs?

The Council cannot advise property owners about the effect this flood hazard information may have on their ability to obtain insurance or on insurance premiums. Different insurance providers will have different policies, so they are better able to discuss this. Councils do this kind of work all over New Zealand so it is not a situation unique to Nelson or new to insurance providers.

It has never flooded at this property. Why does the Maitai flood risk look worse in the model for the year 2110?

The Resource Management Act 1991 requires the Council to consider the effects of climate change. These effects are likely to be increased rainfall intensity during storm events, and a rising sea level (up to 1m by 2110). These two effects both have implications for flooding in the lower Maitai catchment. These predicted changes are based on guidance from Ministry for the Environment.

What impact does this new information have on the existing flood overlay in the Nelson Resource Management Plan (NRMP)?

None.

Will the Flood Overlay in the NRMP be changed to reflect the new information?

The NRMP is due for review in 2014. At that time, Council will consider whether engineering solutions and/or any changes to the flood overlay and rules are required. You will have the opportunity to make a submission at this time.

How does this work relate to the existing Flood Path Overlay in the NRMP?

The flood path overlay shown on the planning maps indicates areas where land may be subject to occasional flooding, including the force of moving flood water. This includes some properties beside the Maitai River.

In these areas new building extensions or earthworks are a discretionary activity. That means you'll need a resource consent to do these things. (Subdivision is specifically addressed below)

A similar flood overlay applies in the Rural Zone and the Conservation Zone, on an advisory basis. That means there isn't a specific flood overlay rule, but flood risk is taken into account when assessing resource consents to do earthworks in these areas, and the flood hazard is taken into account when assessing a building consent in these areas.

Why are the Flood Path Overlay and Flood Overlay in the NRMP?

Requiring resource consent for all buildings and above ground structures, as well as earthworks, enables the Council to evaluate the degree of risk to life and property for any particular site in a flood overlay.

This approach is aligned with the following two natural hazards policies in the NRMP.

Policy DO2.1.1: "Development, redevelopment, or intensification of activities should not occur in natural hazard prone areas where the hazard is likely to endanger human health and safety."

Policy DO2.1.2: "Development, redevelopment, or intensification of activities should not occur in natural hazard prone areas where the hazard is likely to endanger property or the environment, unless the hazard can be adequately mitigated."