



Flood and Erosion Hazard Information Sheet 3 Wainuiomata River

NOVEMBER 2010

One of Greater Wellington's key roles is to help communities protect themselves from the effects of natural hazards. To do this, our communities need to understand the risk from natural hazards and have affordable and acceptable management solutions in place. We also want to ensure that inappropriate developments don't create new problems.

Identifying hazards, such as those caused by river flooding and erosion, is the responsibility of local and territorial authorities under the Resource Management Act. This information sheet tells you about the flood and erosion hazard work Greater Wellington has undertaken on the Wainuiomata River, what the risks are, and what you can do to manage them.

The Wainuiomata River catchment

The Wainuiomata River catchment has an area of 133 square kilometres, and a river length of about 22 kilometres (as shown in Figure 1 below). The location and shape of the Wainuiomata catchment makes it more responsive to southerly-based rainstorm events.

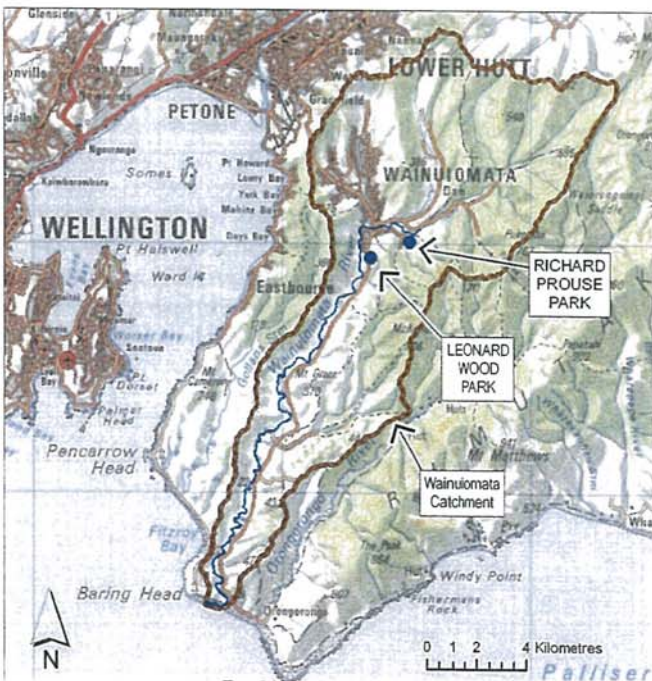


Figure 1: Location of the Wainuiomata River (in blue)

How we measure floods

The amount of water flowing in a river is measured by a unit called a cumec (cubic metre per second), which is a measure of how much water flows past a given point every second.

Flood frequency is measured by how often a flood of a particular size is likely to happen such as a 1 in 5, 1 in 50 or 1 in 100 year return period flood event. A 100 year return period flood event has a 1% chance of being equalled or exceeded in any year. On average, one of these events will occur every 100 years based on past records.

But don't be misled into thinking that a 100 year return period flood can only happen once in a hundred years – two big floods could happen soon after each other!

Floods on the Wainuiomata River

The low-lying nature of the floodplain means that the river valley has been subject to frequent surface flooding. The six largest historic flood events measured at Leonard Wood Park since 1977 are:

Date	Maximum flow (cumecs)	Return period (years)
21 May 81	121	15
10 Jun 03	132	20
16 Feb 04	173	50-100
18 Aug 04	116	10
7 Jul 06	136	25
24 Oct 06	114	10



Figure 2: The lower Wainuiomata Valley on 16 Feb 04

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Wainuiomata River

Why this information is useful

The hazards associated with flooding and the natural evolution of the floodplain should be considered when new development is being considered on the floodplain. This approach is useful as it helps to:

- minimise the future damage from flood events to property;
- identify any potential threat to life;
- allow evaluation of any impact on the river environment; and
- alert people to any potential flood and erosion risk.

What it means

The hazard assessment shows areas along the Wainuiomata River and floodplain that could be affected by flood and erosion.

A typical map is shown in Figure 3. The maps cover the main channel of the Wainuiomata River from upstream of the township to the mouth. Only minor flooding occurs in the residential areas of Wainuiomata.

Flood Depth: is shown as three levels of floodwater over the extent of flooding for a 100 year return period event.

Erosion Hazard Area: is the area where the lower Wainuiomata River channel could continue to migrate naturally. No development should take place in this area unless specific features could be identified that would mitigate the erosion threat.

Structural Damage Area: is the area where any proposed development (structures) could be subject to potential damage from either the velocity or depth effects of floodwaters. Any proposed development in this area needs specific consideration to be given to the design of a building and its foundations, including fill platforms.

How does Greater Wellington manage the Wainuiomata River?

The Wainuiomata River is administered by Greater Wellington. In some areas along the river Greater Wellington also manages flood protection and erosion; however the approach depends on where you are along the river:

- **Upper catchment** – much of the upper catchment is designated for water supply and managed by Greater Wellington. The public is excluded from the water supply area for health reasons.
- Maintenance of the watercourses above Richard Prouse Park is the landowner's responsibility.
- **Richard Prouse Park to Leonard Wood Park** – from Richard Prouse Park the river flows through the Wainuiomata Township to Leonard Wood Park. The floodplain is largely developed with two stopbanks (at Parenga Street and from Peel Place to Wood Street).

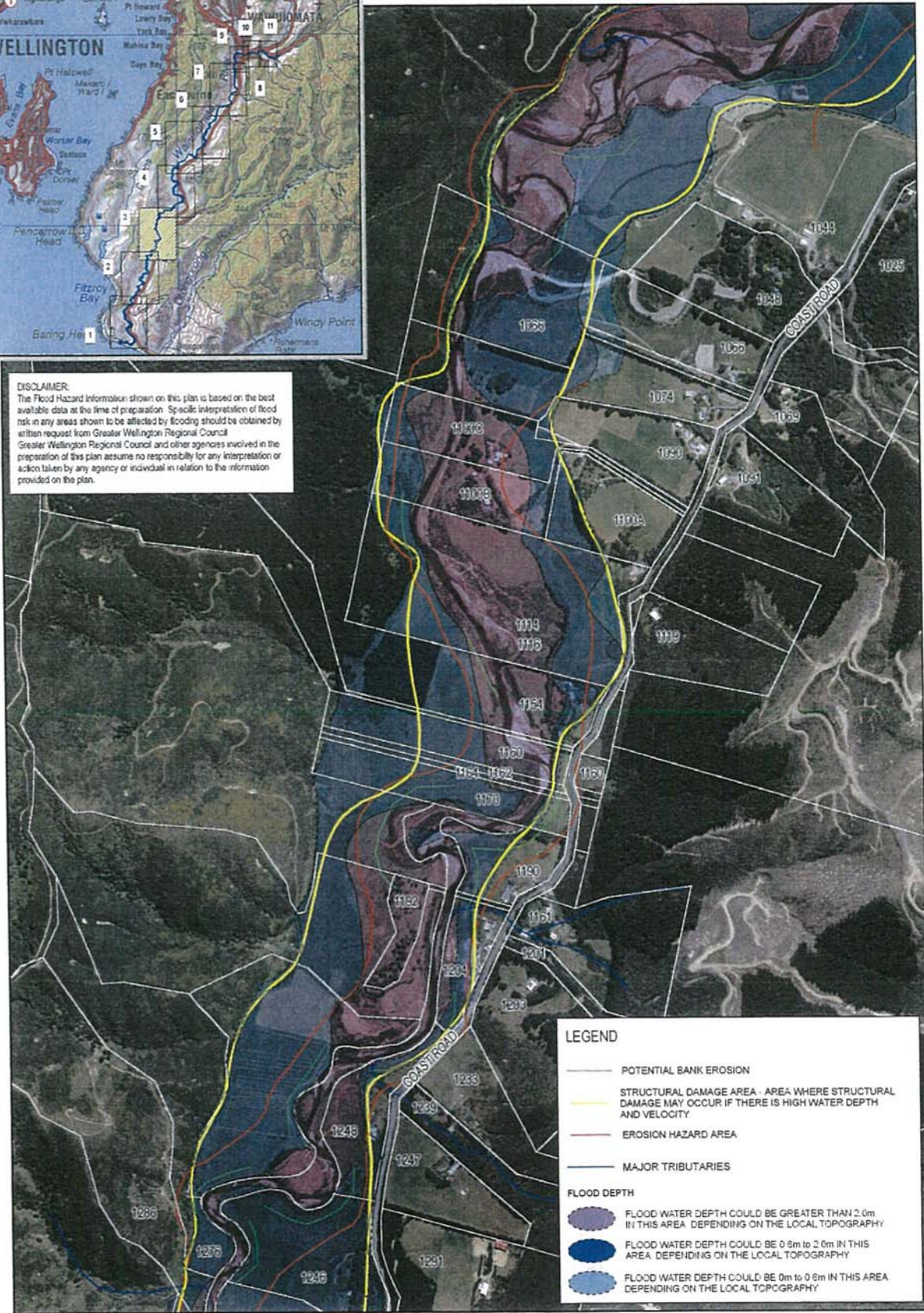
The river channel is managed to maintain its current alignment by bank protection works. Greater Wellington maintains the channel from Richard Prouse Park to Leonard Wood Park, and has a cost-share arrangement in place with the Hutt City Council for maintenance work. No further structural works are proposed for the Wainuiomata River in this reach.

Possible future upgrading or replacement of the Coast Road Bridge could remove a constriction to floodwaters which causes flooding in the Gibbs Crescent area in a greater than 100 year return period event.

- **Leonard Wood Park to the sea** – the river flows through rural land and the river channel is free to move within the wider floodplain. There are no river control works, other than isolated protection works where Coast Road is threatened by erosion. In this rural section of the river Greater Wellington provides advice but does not carry out any physical works; protecting private property or assets from erosion is the responsibility of the landowner.



DISCLAIMER:
 The Flood Hazard Information shown on this plan is based on the best available data at the time of preparation. Specific interpretation of flood risk in any areas shown to be affected by flooding should be obtained by written request from Greater Wellington Regional Council. Greater Wellington Regional Council and other agencies involved in the preparation of this plan assume no responsibility for any interpretation or action taken by any agency or individual in relation to the information provided on the plan.



LEGEND

- POTENTIAL BANK EROSION
- STRUCTURAL DAMAGE AREA - AREA WHERE STRUCTURAL DAMAGE MAY OCCUR IF THERE IS HIGH WATER DEPTH AND VELOCITY
- EROSION HAZARD AREA
- MAJOR TRIBUTARIES

FLOOD DEPTH

- FLOOD WATER DEPTH COULD BE GREATER THAN 2.0m IN THIS AREA DEPENDING ON THE LOCAL TOPOGRAPHY
- FLOOD WATER DEPTH COULD BE 0.6m TO 2.0m IN THIS AREA DEPENDING ON THE LOCAL TOPOGRAPHY
- FLOOD WATER DEPTH COULD BE 0m TO 0.6m IN THIS AREA DEPENDING ON THE LOCAL TOPOGRAPHY



Will this information affect my property value or insurance?

We have been advised by Quotable Value that valuations follow the market rather than set the market. They would not expect to discount a valuation without there being market data to support that approach, and this was not the case from their observations of the market at the time of their valuations. This advice was based on work they have recently undertaken in the Mangaroa Valley which is in a similar situation.

Many areas in the Wellington Region are subject to flood risk. We advise that any known facts relating to the physical risk to a property should be disclosed to an insurer. This includes whether the property is exposed to any particular hazard by virtue of its location (e.g. flood). An insurer requires these facts when evaluating whether or not to underwrite the risk and, if so, on what terms.

What you can do if you intend to develop, build or renovate?

Consider the following actions if you are building or renovating in a flood or erosion-prone area:

- Speak to Hutt City Council (Tel. (04) 570 6666 – ask for Environmental Consents) before you start building.
- Avoid the area affected by flood or erosion. No new development should occur in the identified Erosion Hazard Area (refer to Figure 3). Greater Wellington also advises that development avoids flood hazard areas, but if this is not possible, such as for an existing dwelling, we can provide you with site-specific advice.
- Raise your building platform or floor levels, or build to two storeys. The underside of the floor joists or concrete slab should be clear of the 1 in 100 year return period flood level. Remember that the design flood event could be exceeded.
- Consider access issues and provide flood-free evacuation routes. No one wants to be caught in a flood event with no safe escape routes. Elevating access routes is not recommended as these may act as barriers to flood waters. Ideally, new dwellings should be positioned on the Coast Road side of the river unless appropriate flood-free access can be provided.
- Avoid filling within the Structural Damage area identified in Figure 3 unless the fill is structurally suitable and able to withstand a 1 in 100 year return period flood event.
- Know your risk. Find your property on the flood and erosion hazard map and find out what the predicted depth of water will be. Work out how flooding may affect your access routes, and where you can go to escape the flood water in an emergency or whether you would be better staying put. Greater Wellington, Hutt City Council and Civil Defence can help you with this.
- Be prepared. Make yourself an emergency kit that will last you for at least 3 days (water, canned food, torch, first-aid and spare medication, camp-stove and fuel, battery or wind-up radio, dry blankets/sleeping bag and warm clothing). For more information, check the Yellow Pages or contact a Civil Defence emergency management advisor at your local council.

Greater Wellington is always available to provide advice, site-specific information and recommendations for individual properties, whether they are for specific development proposals or simply in regard to enquiries from residents or interested parties. So please do not hesitate to contact us on the numbers below.

For more information, contact

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