



If you live and/or work in Waitara, The Valley in New Plymouth, Ōkato, Opunake or Waitōtara, your property/workplace is within one of the Taranaki Regional Council's flood control schemes. This leaflet explains what's involved in these schemes, what they're designed to withstand, and what flood risks may remain.

## Waitara



Part of Waitara's current flood defences.

Long-term Waitara residents will recall floods in the township, the most recent in 1971. Another flood in 1990 did not inundate the township thanks to new defences, but as a result of this event, major flood control work was carried out in 1993, including realignment of the river channel.

The scheme was upgraded again in a three-year project that finished in 2017, and it now offers protection against a 'one in 100-year' flood (that is, a flood that has a 1% chance of occurring in any one year). This calculation takes into account the expected effects of climate change.



1965 flooding in Waitara

The scheme consists of:

- Floodwalls and stopbanks to contain floodwater in the Waitara River channel.
- Rock lining and rock groynes on the riverbanks, to help prevent erosion that might damage the floodwalls and stopbanks.
- Floodgates to prevent floodwater travelling up stormwater pipes into the township.
- Temporary barriers for use when there is a risk of flooding.

The Waitara scheme is now very resilient. But there remains a small risk that damage could occur during a very large flood, which might compromise the level of protection afforded to the township. We keep a careful eye on the scheme's performance during very heavy rainfall and occupants can expect a timely warning if we do see greater risks emerging.

However, the risk factor today is extremely low compared with other risks to property, such as damage from high winds.

## Lower Waiwhakaiho River ('The Valley')



Part of Lower Waiwhakaiho River's current flood defences.

This scheme is designed to reduce the risk of flooding at what has become a popular shopping precinct, and the surrounding industrial area. It was originally built in 1996 and 1997 as a result of 'the big wet' in 1995 and subsequent large flood in the Mangaone Stream, and involves defences along this stream as well as the Waiwhakaiho River itself. It was upgraded in a three-year project that ended in 2013, and now offers protection against a 'one in 100-year' flood (that is, a flood that has a 1% chance of occurring in any one year). This calculation takes into account the expected effects of climate change.

The scheme consists of:

- Floodwalls and stopbanks to contain floodwater in the Waiwhakaiho River and Mangaone Stream.
- Rock lining of the river and stream banks to protect them from erosion that might damage the floodwalls and stopbanks.
- Floodgates to prevent floodwater travelling up stormwater pipes into the protected area.

But there remains a small risk that damage could occur during a very large flood, which might compromise the level of protection afforded to The Valley. The scheme's performance is monitored carefully during very heavy rainfall with a view to providing timely warnings should unacceptable risks develop.

However, the risk factor today is extremely low compared with other risks to property, such as damage from high winds.

## Opunake

This scheme protects Opunake from flooding from the Hihiwera Stream and its tributaries, and was designed and built after properties in the township were flooded in June 2015. It was completed in May 2018 and offers protection against a 'one in 100-year' flood (that is, a flood that has a 1% chance of occurring in any one year). This calculation takes into account the expected effects of climate change.

The scheme consists of diversion channels that direct flood water from the Hihiwera Stream into larger rivers either side of the township.

Because the scheme does not rely on stopbanks, there is now virtually no risk to Opunake from flooding of the sort that occurred in 2015.

## Ōkato

The Scheme is designed to prevent the Stony River flooding farmland and SH45, prevent erosion along the Kaihihi Stream, and protect the Ōkato public swimming pool from flooding from the Kaihihi Stream. The work has its origins in flood control measures taken from the early 1990s along both the Stony River and Kaihihi Stream.

The scheme consists of guide banks and minor stopbanks, and rock lining of the riverbanks.

No formal level of protection has been calculated for the Ōkato Scheme. The assets are maintained and instream works continue to prevent more frequent flooding.

A very large flood in either the Stony River or Kaihihi Stream does have the potential to cause localised flooding and bank erosion.

## Waitōtara

The Scheme is maintained to reduce the flood risk to Waitōtara township and floodplain farmland in the lower Waitōtara Valley.

There are no stopbanks or diversion channels. Trees along the river are sprayed and removed to maintain the flood-carrying capacity of the river, and planting is undertaken on riverbanks vulnerable to erosion.

Waitōtara township and farmland along the valley have flooded many times over the past 100 years, most recently in 2015. Sustained heavy rainfall will inevitably cause flooding again.

## Other areas

The New Plymouth District Council maintains flood detention works on the Huatoki, Waimea and Mangaotuku streams to protect central New Plymouth. For details, go to [www.newplymouthnz.com](http://www.newplymouthnz.com) and type 'Flood Protection' in the search box, or see <http://www.newplymouthnz.com/Residents/Your-Property/Stormwater-and-Flood-Protection/Flood-Protection>