

# Coastal Inundation Fact Sheet



**NAPIER**  
CITY COUNCIL  
*Te Kaunihira o Ahuriri*

## **Where can I view the coastal inundation maps?**

At the Hawke's Bay Hazard Portal - [gis.hbrc.govt.nz/Hazards](https://gis.hbrc.govt.nz/Hazards)

## **What is coastal inundation?**

Coastal inundation is the flooding of low-lying coastal land with seawater during tidal storms. This can happen when extreme weather events lead to storm surges, causing elevated wave crest height. Coastal inundation is likely to increase through future sea level rise caused by climate change.

## **Why have coastal inundation maps been produced for Napier?**

The maps were produced as part of the Coastal Inundation: Tangoio to Clifton report commissioned jointly by Napier City Council, Hastings District Council and Hawke's Bay Regional Council to better inform the setting of building floor heights in areas at risk of coastal inundation.

Councils are required to manage natural hazard risks under different pieces of legislation, including the Resource Management Act 1991, Building Act 2004, Local Government Act 2002, and Civil Defence and Emergency Management Act 2002.

Under the New Zealand Coastal Policy Statement 2010, councils are also required to help prepare communities for the impacts of climate change, including ongoing changes to weather patterns and rising sea levels.

## **What do the coastal inundation maps show?**

The maps show areas within our city, over the next 75 years and beyond, that could potentially flood from seawater during an unlikely extreme weather event.

The maps are modelled on what could happen in year 2100 with 'worst case scenario' sea level rise during a 2% annual exceedance probability (AEP) or a 1% annual exceedance probability (AEP) storm surge event, where the sea overtops the shoreline and floods the land.

It is very important to understand the maps do not account for current mechanical mitigations such as pumps.

## **What is Annual Exceedance Probability (AEP)?**

Annual Exceedance Probability (AEP) describes the likelihood of reaching or exceeding a flooding level in any calendar year, usually expressed as a percentage. For example, a flood level with a 1% AEP has a 1% chance (or 1 in 100 chance) of occurring in any year and a 2% AEP has a 2% chance (or 1 in 50 chance) of occurring in any year.

## **Who developed the maps and how accurate are they?**

The maps were developed as part of the Coastal Inundation: Tangoio to Clifton report (dated 29 November 2023). This was prepared by Tonkin & Taylor Ltd. and peer reviewed by NIWA.

The coastal inundation maps have been produced in line with best practice using current techniques. Coastal mapping is a complex and detailed process that relies on the best available data as well as various assumptions made by specialists in the area, so it can never be completely accurate. The maps are projections that could change over time.

## **Will this information go onto my property file?**

Councils have an obligation to make hazard information they hold available under the Local Government and Official Information and Meetings Act 1987. In the future, for a property potentially affected by coastal inundation, Land Information Memorandum (LIM) will note this. This statement will direct any reader to the Council website for more information.



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**For more information please visit [napier.govt.nz/coastal-inundation](https://napier.govt.nz/coastal-inundation)**

## How will this information be used when considering a building consent application?

The Building Act 2004 requires consideration of whether the land is likely to be subject to one or more natural hazards. When a proposed building or property falls fully or partly within the inundation zones, building consent applications will be subject to an assessment under sections 71 and 72 of the Building Act 2004.

Please contact Napier City Council's Building Department at [dutybuilder@napier.govt.nz](mailto:dutybuilder@napier.govt.nz) to determine the required process and scenarios to be used in any building consent application.

## How is this new information going to affect floor level requirements?

Councils set minimum floor levels to protect buildings from the risk of flooding. If you are building, rebuilding or extending within the coastal inundation zones identified in the mapping, your building may need to be built to the new floor level requirement.

## What does this mean for new buildings or extensions to existing buildings that fall within a coastal inundation zone?

The implications will differ from property to property, depending on things like elevation. Anyone looking to build or renovate should be aware of the natural hazard provisions in sections 71-73 of the Building Act 2004.

In accordance with the Building Act, the modelling and data provided in the report will inform decisions made by councils on consent applications for properties within coastal inundation zones.

## What does this mean for floor levels in existing residential properties within coastal inundation zones?

New floor height levels will only apply to new builds and renovations/extensions.

## Will this information affect my property value or insurance?

Councils are unable to advise on any effect this information may have on property values or insurance. It is important to seek professional advice from a property valuation or insurance professional with any questions regarding these matters.

## How will Council use information provided in the maps?

The modelling and data presented in the report will inform the following activities:

- Consideration of building consent applications under the Building Act 2004

- Consideration of subdivision consent applications under the Resource Management Act 1991
- Future land use planning
- Infrastructure planning
- Producing Land Information Memoranda (LIM)

## What is Council doing to protect properties from coastal inundation?

The modelling and data provided in the report will help councils plan, prepare and inform future investments in infrastructure along the coastline and within coastal communities.

There are already significant mitigations in place protecting Napier's coastal communities from storm surge events, including:

- Raised gravel barriers along our beaches designed to stop seawater overtopping. Raising these gravel barriers is an effective way of managing coastal inundation in the future.
- Stormwater systems including pump stations with supporting generators intended to drain ponded water. This applies to some areas such as Te Awa.

By adopting a combination of approaches, councils enhance the resilience of coastal areas against inundation and better protect communities and infrastructure from the impacts of rising sea levels and other coastal hazards. Some examples of possible approaches are:

- Construction of seawalls, levees, and barriers to protect vulnerable areas from flooding and storm surges;
- Nature-based approaches such as restoring wetlands to act as natural buffers;
- Renourishment of beaches to maintain and enhance natural defences;
- Raise critical infrastructure, roads, and buildings in vulnerable areas to reduce flood risk.

## How can I find out more about the maps and what they mean?

Visit our website [napier.govt.nz/coastal-inundation](http://napier.govt.nz/coastal-inundation)

Email us at [coastalinundation@napier.govt.nz](mailto:coastalinundation@napier.govt.nz)

Attend one of our drop-in sessions:

- **Monday, 18 December, 3.30-6.30pm**  
Chapman Pavillion, McLean Park
- **Tuesday 19 December, 3.30-6.30pm**  
East Pier Motel