



Community Guide:
Draft Ingleside, Elanora and Warriewood
Overland Flow Flood Study

March 2019



Northern Beaches Council is responsible for the identification of flood prone land in the local government area. As part of this process, we've prepared the Draft Ingleside, Elanora and Warriewood Overland Flow Flood Study.

This project outlines the existing and future flood behaviour in the study area. It considers current ground conditions in the catchment and the potential impacts of climate change. It uses the most up to date information and modelling techniques to determine overland flow flooding in the catchment.

Overland flow flooding is caused by intense rainfall events, which result in flow paths forming on sloped areas or floodwater pooling in low-lying flatter areas. Water naturally flows to the lowest point, generally ending up in a creek or a drain. Overland flow paths are the routes taken by rainfall runoff and are not always obvious until they flood.

The study area is located completely within the Narrabeen Lagoon catchment, and includes parts of Ingleside, Elanora Heights, Warriewood and North Narrabeen. It covers only the upper part of the northern catchment for Narrabeen Lagoon (i.e. the area affected by overland flow flooding without any impact from flooding in Narrabeen Lagoon).

The results of the study will update the flood information currently used by Council for planning. Overall, there is a slight reduction in the number of properties identified as flood affected in the catchment.

The draft study is on public exhibition from 2 March to 1 April, 2019

Floodplain Risk Management Process

Under the NSW Government's Flood Prone Land Policy, councils have the primary responsibility for managing flood prone areas, with financial and technical support provided by the State Government.

How am I affected?

The Flood Study Map shows the extent of flood prone land, which is defined as the area affected by the Probable Maximum Flood (i.e. the largest flood that could conceivably occur). Properties affected by the Flood Planning Level (i.e. the 1% AEP or 1 in 100 year flood plus freeboard) are shaded on the map.

Certain flood related development controls may apply to flood prone properties. For instance, new development on residential property affected by the Flood Planning Level may be subject to minimum floor level requirements.

Where can I learn more?

The Ingleside, Elanora and Warriewood Overland Flow Flood Study report can be found on Council's Your Say page at northernbeaches.nsw.gov.au/council/have-your-say and is also available for viewing in hard copy at Council's Customer Service Centres and Libraries.

You may book a 15 minute, one-on-one information session with a flooding specialist to discuss what the draft study means for you. Sessions will be held in the Angophora Room at the Nelson Heather Centre on the following days:

Monday 11 March, 3 - 6pm Monday 18 March, 1 - 4pm Tuesday 9 March, 1 - 4pm Saturday 23 March, 1 - 4pm

Bookings are essential. To make a booking, please contact Valerie Tulk on **9942 2915** or email

floodplain@northernbeaches.nsw.gov.au

How can I make a comment?

Community input is important, particularly for identifying local concerns and values, to help improve the decision making process.

You are invited to participate by providing comment:

Online northernbeaches.nsw.gov.au/council/have-your-say

Email council@northernbeaches.nsw.gov.au

Mail Northern Beaches Council

PO Box 82, MANLY NSW, 1655 Marked 'Submission – Draft Ingleside, Elanora

and Warriewood Overland Flow Flood Study'

Submissions close 1 April 2019.

What happens next?

Following completion of the public exhibition, the study will be updated based on community feedback and presented to Council for adoption. This will include a description of community consultation activities, including the topics and issues raised during the exhibition period as well as how they were addressed.



Frequently Asked Questions

Why does Council study flooding?

NSW Local Governments have responsibility for identifying and then managing the risk to life and property from flooding and have a duty of care to disclose this information to the community. Local Governments must act in accordance with the NSW Flood Prone Land Policy, which aims to reduce the impact of flooding and flood liability on individual owners and occupiers of flood prone property. One of the most important steps in this process is increasing our community's awareness of flooding so that people are better able to understand and plan for the flood risks they face.

What areas are included in the draft Ingleside, Elanora and Warriewood Overland Flow Flood Study?

The study includes parts of Ingleside, Elanora Heights, Warriewood and a small part of North Narrabeen. The draft Ingleside, Elanora and Warriewood Overland Flow Flood Study Map shows land that would be affected by the Probable Maximum Flood and by the Flood Planning Level (i.e. the 1% AEP flood level plus 'freeboard').

What is the Probable Maximum Flood?

The Probable Maximum Flood (PMF) is the largest flood that can occur. It is very rare.

What is a 1% AEP flood event?

A 1% Annual Exceedance Probability flood event is equivalent to a 1 in 100 year flood, which is a major rain event that occurs on average once every 100 years (i.e. there is a 1% chance of a flood this size or larger occurring at a particular location in any given year).

What is the Flood Planning Level?

The Flood Planning Level (FPL) is the height used to set floor levels for houses in flood prone areas. It is defined as the "1% AEP flood level" plus an appropriate freeboard (see explanation of 'freeboard' below). It is used for planning purposes, and land below the FPL is considered to be flood affected and therefore subject to flood related development controls. The FPL can be calculated as: FPL = 1% AEP flood level + freeboard (typically 0.5m)

What is Freeboard?

Freeboard is included in the Flood Planning Level as a buffer, to account for factors such as unforeseen blockages, waves from vehicles (such as SES rescue trucks), other localised hydraulic effects and uncertainties in the modelling and determination of flood levels.

Freeboard is typically 0.5m above a flood level, or for some areas of shallow flood depths a reduced freeboard of 0.3m may apply.

What does this mean for property owners?

For most people, there is nothing to do in response to this flood study as there is no immediate change to the situation. However, property owners who are planning redevelopment of their property may need to take some additional steps as part of the consent process because flood related development controls may apply. This could include the requirement to have the floor levels of new residential development set at or above the Flood Planning Level.

My home is on a hill so why am I affected?

If there is significant rain at the top of the hill, the rain will run downhill through low lying gullies, channels and surface depressions. The speed and depth of floodwaters may be less at the top of the catchment than further down the hill, but still be significant enough to pose a risk.

What are Councils doing to manage flood risk?

Councils prepare Flood Studies and Plans according to the NSW Government's Floodplain Development Manual (2005) and implement associated recommendations with the financial and technical assistance of the NSW Government through its Flood Prone Land Policy. Land use planning through development controls is one of the most effective means of managing flood risk in the catchment. Council has implemented the Northern Beaches Flood Information Network which includes live rain gauges and lagoon water level gauges, which are used by government agencies during flood events and are publicly available at: www.mhl.nsw.gov.au/users/NBFloodInfo. Council has also undertaken a range of targeted flood and coastal storm awareness programs for aged-care and childcare facilities.

Specifically in the Narrabeen Lagoon Catchment Area, Council has recently undertaken the Narrabeen Lagoon Floodplain Risk Management Study and Plan which identified and assessed potential structural and non-structural options for reducing flood risk, and is about to undertake an Entrance Management Strategy for Narrabeen Lagoon.

Will this affect property values?

The results from this study will update flood information obtained from previous studies. Almost all properties identified in this study as flood affected have previously been identified as flood affected. Overall, there is a slight reduction in the number of properties identified. Studies show that an actual flood event, rather than a flood planning notation on a Planning Certificate, is more likely to have an effect on property values.

Will this affect my insurance premiums?

Individual insurance companies typically identify
Flood Prone Land and assess risk through their own
flood studies, analysis and flood mapping exercises,
irrespective of whether Council has undertaken a flood
study. These calculations are outside Council's control.
The information is then used to set policies and premiums.

What should I do in the event of a flood?

If it is a life threatening situation call **000**. In the event of floods, storms or tsunamis, please contact the State Emergency Service (SES) on **132 500** or visit their website at **ses.nsw.gov.au**.

What can I do to prepare in case of a flood?

The State Emergency Service has a useful website providing advice on how to manage flood risk. Visit www.floodsafe.com.au for more information.

Where can I get information about flood levels on my property?

To talk with someone at Council about flooding, you can email Council at floodplain@northernbeaches.nsw.gov. au or phone 1300 434 434.

If you need specific information on flooding for a particular property, you can request a Flood Information Report.

The Flood Information Report will help you to prepare information that is needed for any future Development Application.

Where can I find out about Council's flood related development controls?

Flood related development controls can be found on Council's website, in Clauses B3.11, B3.12 and B3.13 of the Pittwater 21 Development Control Plan, and Clauses 7.3 and 7.4 of the Pittwater Local Environment Plan.

