Shoalhaven City Council

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COUNCIL REFERENCE: 28112E (D23/75616)
CONTACT PERSON: Kate Britton
DATE: 01 Mar 2023

Thank you for your recent inquiry in relation to flood data held by Shoalhaven City Council.

Please find below some general information on flooding as well as the requested property specific Flood Certificate.

GENERAL FLOOD INFORMATION

Shoalhaven City Council in conjunction with the NSW State Emergency Service has produced site specific flood brochures for Shoalhaven Heads, Nowra / Bomaderry / Terara, Greenwell Point/Orient Point, St Georges Basin and Sussex Inlet.

These site-specific FloodSafe brochures, as well as general FloodSafe brochures, can be access at the below link:

https://www.ses.nsw.gov.au/local-region-information/isr/flood-storm-and-tsunami-guides/

General Flood Information, such as “What to do before, during & after a flood” prepared by Emergency Management Australia is also available online at the below link:

http://www.bom.gov.au/water/floods/document/What_todo_floods.pdf

FLOOD CERTIFICATE

According to the *Lower Shoalhaven River Floodplain Risk Management Plan – Climate Change Assessment (2011),* the *Lower Shoalhaven River Flood Study (2022)* and the *Lake Wollumboola Flood Study (2015)* this property, Culburra Rd, CULBURRA BEACH – LOT 2 DP 1279350, UPN – 1002539, comprises Flood Prone Land. This property is located below the Flood Planning Level and is affected by the 1% AEP flood event**.**

FLOOD INFORMATION

Year	Existing	Projected 2050	Projected 2100
Flood Planning Level (m AHD)	Not Applicable	4.0**	4.1**
Hazard and Hydraulic Category	High Hazard Flood Storage	High Hazard Flood Storage	High Hazard Flood Storage
Probable Max Flood Level (m AHD)	5.9	5.9	5.9
0.2% AEP Flood Level (m AHD)	3.8	3.9	3.9
1% AEP Flood Level (m AHD)	2.8	2.9	3.0
2% AEP Flood Level (m AHD)	2.4	2.4	2.4
5% AEP Flood Level (m AHD)	2.1	2.2	2.2
10% AEP Flood Level (m AHD)	1.6	1.7	1.8
Velocity (0.2% AEP flood event) (m/s)	0.2	0.2	0.2
Velocity (1% AEP flood event) (m/s)	0.2	0.2	0.2

* Refer to Standard Considerations in this Flood Certificate for further details.

** Flood Planning Levels obtained from the *Lower Shoalhaven River Floodplain Risk Management Plan – Climate Change Assessment (2011)* in accordance with the *Flood Planning Level for the Lower Shoalhaven River Floodplain Policy (2023)*. The hazard and hydraulic category, flood levels and flood velocities have been obtained from the *Lower Shoalhaven River Flood Study (2022).*

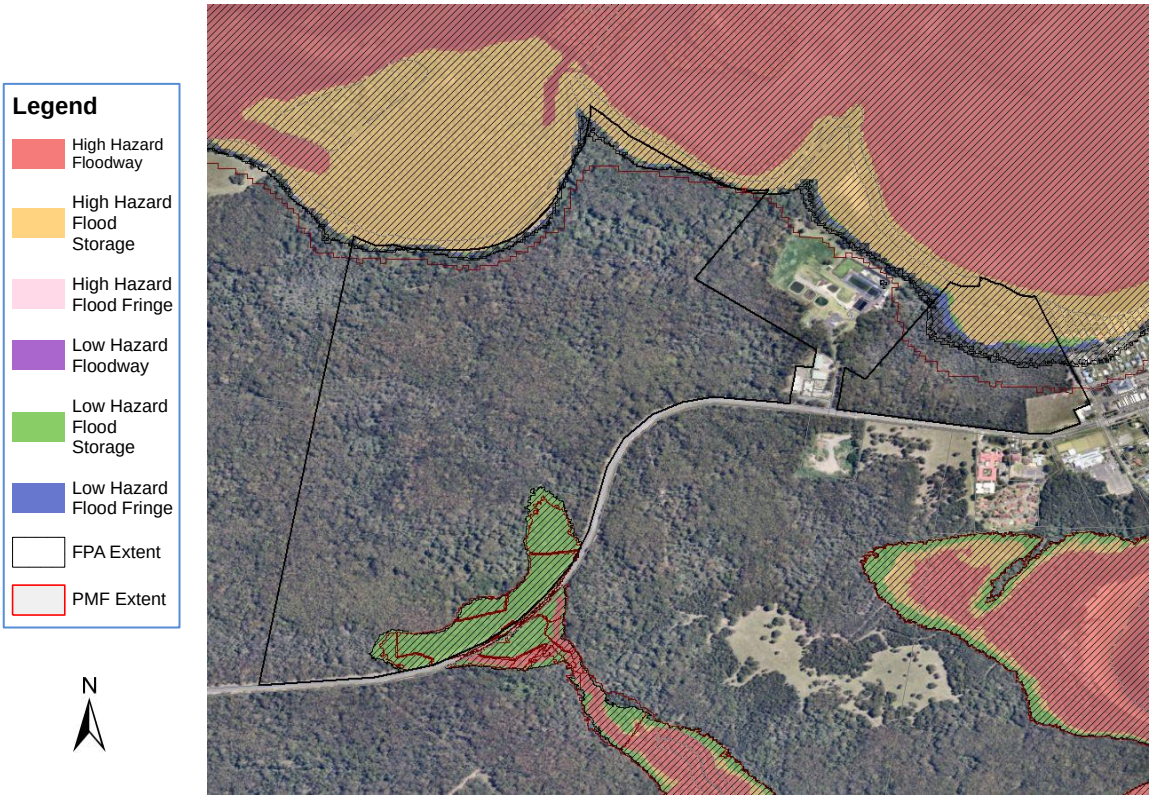
SITE SPECIFIC CONSIDERATIONS

1. Current NSW Government legislation requires climate change to be considered as part of this Floodplain Risk Management Study and Plan. Climate change related information evolves with time and it is expected that existing flood behaviour and levels may change in the future.

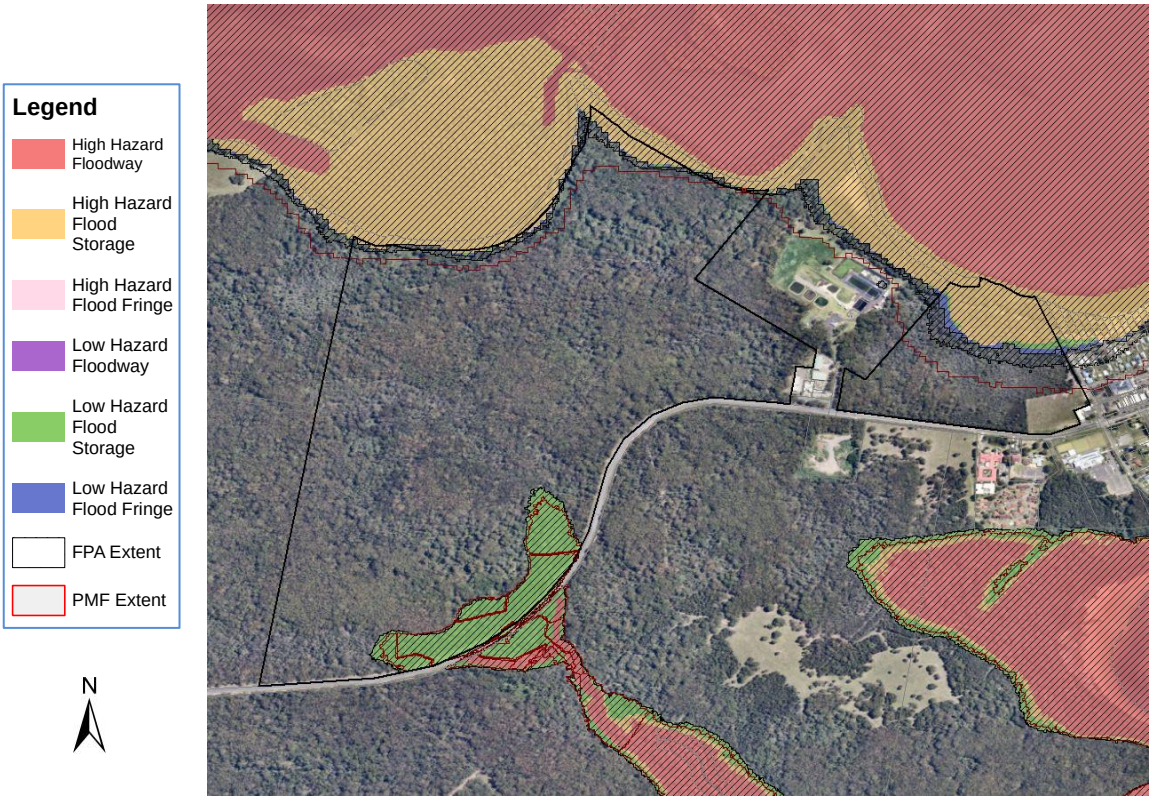
2. All applications for buildings, and the like, must take into account the projected 2050 flood information. All subdivision and other long-term planning must take into account the projected 2100 flood information.

3. Provided flood information is based on the *Lower Shoalhaven River Flood Study (2022)* and the *Lower Shoalhaven River Floodplain Risk Management Plan – Climate Change Assessment (2011)*. This information is not representative for the southern part of the property experiencing flooding from the Lake Wollumboola catchment. Any development within the Lake Wollumboola catchment would require a separate flood certificate (refer to Map 1 and Map 2 below).

4. Other hazard and hydraulic categories may affect the property. For more specific information regarding the different hazard and hydraulic categorisations affecting this property please refer to Map 1 and Map 2 below or contact Council's Floodplain Management Team on (02) 4429 3392.



Map 1: Hazard and Hydraulic Categories for the Projected 2050 Scenario



Map 2: Hazard and Hydraulic Categories for the Projected 2100 Scenario

STANDARD CONSIDERATIONS

Properties below the Flood Planning Level:

Council considers the land in question to be below the Flood Planning Level and therefore subject to flood related development controls. The conditions as set out below will reduce flood risk in flood events up to the Flood Planning Level, however the property may still be subject to flooding at higher levels during rare flood events.

Development controls apply to flood affected properties.

Development conditions will vary depending on flood hazard, hydraulic category as well as the type of development that is proposed. Please refer to the following documents for information on Council's flood related development controls and the NSW State Government's Flood Prone Land Policy. For properties that comprise multiple hazard and hydraulic categories, the development conditions will apply for the highest category that exists within the development footprint.

- Shoalhaven Development Control Plan – Chapter 9: Development on Flood Prone Land http://dcp2014.shoalhaven.nsw.gov.au/main-category/whole-document
- NSW Floodplain Development Manual 2005: http://www.environment.nsw.gov.au/floodplains/manual.htm

DISCLAIMER

Your enquiry relating to the likelihood of the land specified in the application being flooded has been referred to the Council's Floodplain Engineer.

In responding to your application, the Council seeks to bring to your attention the fact that pursuant to s.733 of the Local Government Act a council does not incur liability in respect of the giving of any advice furnished in good faith by the Council relating to the likelihood of any land being flooded or the nature or extent of any such flooding.

The Council does not have a legal obligation to provide advice to you and to the extent that this reply is giving advice, the Council provides that advice in good faith with the intention of preserving, so far as is legally possible, the Council's immunity from liability pursuant to s.733 of the Local Government Act.

While all reasonable care has been taken to ensure the accuracy of the information given in this reply, its purpose is to provide a general indication of flood risk in the area. Flood lines shown on Council maps indicate the approximate extent of flooding only in relation to the abovementioned land.

The information provided may contain errors or omissions and the accuracy may not suit the purposes of all users. A site survey and further investigation are strongly recommended before commencement of any project based on this data.

The information given is the most current information at the time of the request. It is to be noted, however, that flood information is constantly reviewed and updated and as such, the information contained in this regard is current only on the day of issue.

Before acting upon the information provided in this reply, the Council urges you to obtain separate and independent advice as Council, in giving this information, does not intend it to be relied upon in such a fashion as to impose liability upon the Council.

Should you not be prepared to accept the information contained in this reply upon that basis then you should immediately notify Council.

GLOSSARY

AEP (Annual Exceedance Probability) means the chance of a flood of a given or larger size occurring in any one year, usually expressed as a percentage – for example a 1% AEP flood event has a 1% chance of occurring in any one calendar year.

AHD (Australian Height Datum) is a common national surface level datum corresponding approximately to mean sea level.

Flood Fringe is the part of the floodplain remaining after the floodway and flood storage areas have been defined.

Flood Planning Area is any land identified as being flood affected in the 1% AEP flood event plus freeboard.

Flood Planning Level (FPL) is the 1% AEP flood level plus freeboard. The FPL is used for planning purposes, as determined in Floodplain Risk Management Studies and incorporated in Floodplain Risk Management Plans.

Flood Prone Land means any land susceptible to flooding up to the Probable Maximum Flood event (that is, land within the floodplain) as identified in an adopted Council Flood Study or Floodplain Risk Management Study and Plan.

Flood Storage areas are those parts of the floodplain that are important for the temporary storage of floodwaters during the passage of a flood.

Flood Study is a technical investigation of flood behaviour. It defines the nature of flood risk by establishing the extent, level and velocity of floodwaters. The study also provides information on the distribution of flood flows across various sections of the flood plain for the full range of flood events up to and including the PMF.

Floodplain Risk Management Plan is a plan developed in accordance with the principles and guidelines contained in the NSW Government Floodplain Management Manual. Usually includes both written and diagrammatic information describing how particular areas of flood prone land are to be used and managed to achieve defined objectives.

Floodplain Risk Management Study is a study that identifies and compares various risk management options. This includes an assessment of their social, economic, ecological and cultural impacts, together with opportunities to maintain and enhance river and floodplain environments.

Floodway means those parts of the floodplain where a significant discharge of water occurs during floods. They are often aligned with natural defined channels. Floodways are areas that, even if only partially blocked, would cause a significant redistribution of flood flow, or a significant increase in flood levels.

Freeboard is currently 0.5m for riverine flooding for all catchments in the Shoalhaven LGA. Freeboard is a factor of safety used to set the FPL (i.e. FPL = 1% AEP flood level plus freeboard (0.5m)). Freeboard takes into account uncertainties in flood modelling and climate change predictions, local factors that cannot be included in the flood model or wave action caused by wind, boats or vehicles driving through flood waters.

Hazard Category represents the risk or danger to personal safety, evacuation movements and buildings and structures within the Flood Planning Area during the 1% AEP flood. There are only two possible hazard categories – high or low.

Hydraulic Category describes the function of a specific part of the Flood Planning Area in conveying flood waters during a 1% AEP flood. There are three possible hydraulic categories – floodway, flood storage or flood fringe.

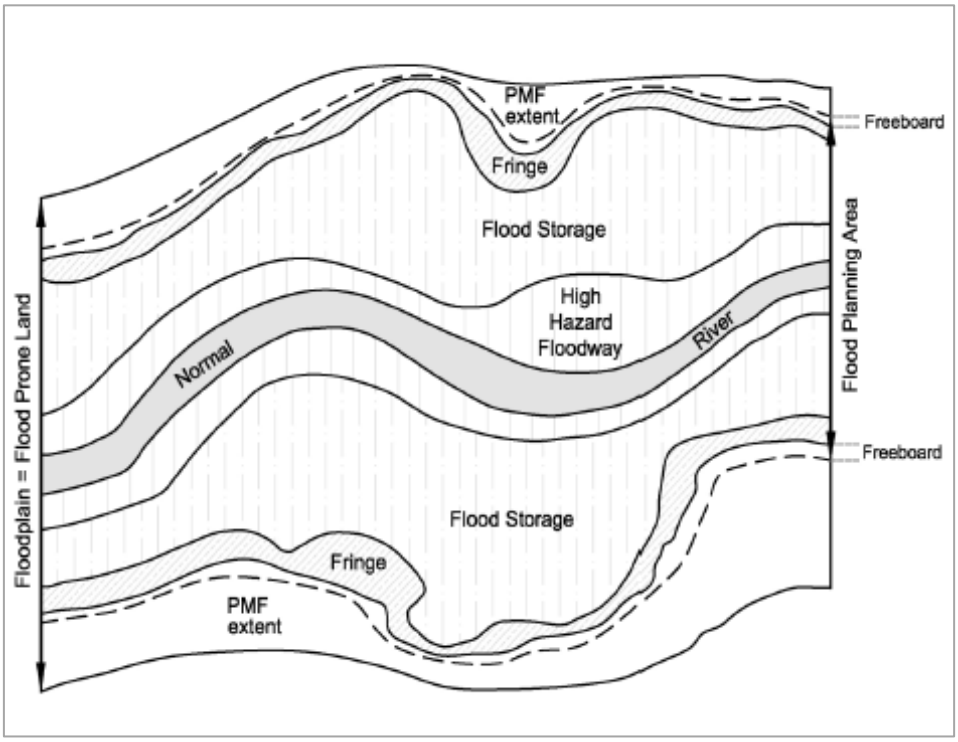


Figure: Floodplain Aerial View

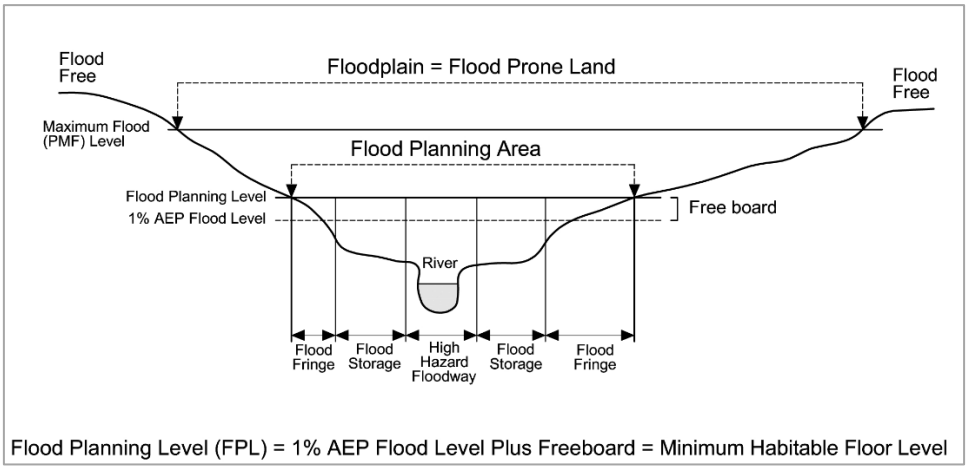


Figure: Cross Section through Floodplain

Probable Maximum Flood (PMF) is the largest flood that could conceivably occur at a particular location, usually estimated from Probable Maximum Precipitation. Generally, it is not physically or economically possible to provide complete protection against this event. The PMF defines the extent of flood prone land, that is, the floodplain.

Provisional is used for hazard categories that have been determined in a Flood Study. Hazard categories are provisional until the Floodplain Risk Management Study and Plan has been completed and adopted by Council, as this document considers additions risks, not considered during the Flood Study.