Flood Policy

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1. Policy Objectives

1.1. The objective of this Policy is to:

1.1.1. Clarify Central Coast Council's (Council's) flood risk management responsibilities.

1.1.2. Provide a consistent, risk-based framework for deciding when "shelter-in-place" is an appropriate and safe emergency response option.

1.1.3. Adopt a greenhouse gas emissions scenario to consider the impacts of climate change.

2. Policy Scope

2.1. This Policy applies to:

2.1.1. Activities or development carried out on flood prone land, including land use planning, development control, infrastructure planning and capital works.

2.1.2. Advice about flood prone land provided by any Council Official to any internal or external customer.

2.1.3. Various types of flooding: riverine flooding, local overland flooding, coastal inundation, groundwater-influenced flooding, compound flooding and flash flooding.

3. Flood emergency response

3.1. Council's responsibilities in a flood emergency are listed in Appendix B of the SES Central Coast Local Flood Emergency Sub Plan (Sept 2021).

3.2. In addition, Council will:

3.2.1. Provide flood intelligence, mapping and local knowledge to assist the SES with operations during a flood emergency, and

3.2.2. Monitor water levels in Tuggerah Lakes and the coastal lagoons and carry out preparedness and emergency work at each ocean entrance according to each entrance management procedure.

4. Commitment to consultation

4.1. Council will consult the community as part of the preparation and public exhibition of Flood Studies and Flood Risk Management Plans.

4.2. Council will establish and maintain effective flood risk management governance and consultation through the Coastal, Estuary and Floodplain Risk Management Sub-Committee. The sub-committee will include independent community representatives and will consider, monitor, and advise Council on flood risk management issues across the Local Government Area.

5. Flood risk management of communities

5.1. Council acknowledges that:

5.1.1. Flooding will displace individuals, require people to relocate or disrupt essential services to communities for hours, days or weeks.

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5.1.2. The key flood risk considerations for communities are safe occupation and efficient evacuation. The risk depends on both the level of flood hazard and the consequences to people affected by the hazard.

5.1.3. Self-evacuation off-site remains the NSW State Emergency Service (SES) primary emergency management strategy for all communities affected by flooding.

5.1.4. Council supports the SES position that motorists must never cross a flooded road. If you encounter a flooded road, the safest action is to stop, turn around and find an alternative, safer route.

5.1.5. Flooded roads are unsafe for vehicles and pedestrians. They can hide hidden dangers, such as the actual depth, the actual road alignment or washed-out road surfaces.

5.1.6. Where evacuation off-site is unsafe then some existing communities become isolated during flooding. In partnership with the SES and the NSW Reconstruction Authority, Council shall help educate these communities to be able to safely shelter-in-place such that the risk does not increase for each of these communities. The intent is for no increased risk or burden to be placed on the SES during flood emergencies.

6. Land use planning and development control

6.1. Any land use proposal must be consistent with adopted Flood Risk Management Plans.

6.2. Council shall consider flood risk across a full range of flooding, up to the Probable Maximum Flood for any higher risk proposals, including any sensitive land uses (such as hospitals), any critical infrastructure (such as water treatment plants) and any other development that would create a particular risk to life, including development that becomes isolated during flooding.

6.3. Council must assess planning proposals in accordance with NSW Local Planning Directions issued by the Minister for Planning under section 9.1(2) of the Environmental Planning and Assessment Act 1979. However, a planning proposal may be inconsistent with the direction if it is considered by Council to be of minor significance (under clause 5(d) of Ministerial Direction 4.1 Flooding). In determining what is of "minor significance" Council shall consider the amount and type of human interaction with flooding in the context of the rest of the Direction; noting that it is only human interaction with flooding that creates flood risk.

6.4. Council will update the property database as soon as practicable after each flood study is adopted to indicate whether each land parcel is subject to flood-related development controls. This will enable Planning Certificates to be issued with the most up-to-date information, under section 10.7(2) of the Environmental Planning and Assessment Act 1979.

7. Shelter-in-place guidelines

7.1. Communities that become isolated during flooding are subject to increased flood risk because self-evacuation becomes unsafe. To facilitate the management of the increased risk, this land shall be included within the residential flood planning area to trigger consideration of shelter-in-place controls for any development proposal.

7.2. Where efficient evacuation is not feasible then Council will adopt a risk-based approach to consider the merits of shelter-in-place to provide safe occupation on land that becomes isolated during flooding, including three types of flooding:

7.2.1. **Long duration flooding:** such as river valleys and foreshores of Tuggerah Lakes.

7.2.2. **Flash flooding:** short warning time and often rapid changes in flood hazard.

7.2.3. **Tidal flooding:** foreshore tidal land, such as Brisbane Water and Hawkesbury River.

7.3. Intensification of development on land that becomes isolated during flooding:

7.3.1. Is not appropriate for land that becomes isolated by long duration flooding or tidal flooding.

7.3.2. May be considered on its merits for land that becomes isolated only by flash flooding.

7.4. Shelter-in-place is not appropriate for sensitive development or emergency facilities.

8. Climate Change

8.1. Council recognizes that over time floods will have a much greater impact due to climate change and population growth. The impact will be greatest in low-lying areas where sea level rise will increase the impacts of coastal inundation.

8.2. Consideration of climate change is necessary for activities or development carried out on flood prone land, whether land use planning, development control or infrastructure assets.

8.3. Planning horizons for consideration of climate change for different types of activities or development shall be as listed in Table 1.

8.4. Consideration of the impacts of climate change shall be based on the Intergovernmental Panel on Climate Change (IPCC) Assessment Report 6 median sea level rise values of the SSP2-4.5 emissions scenario. The sea level rise planning allowances based on this scenario are shown in Table 2.

8.5. Sea level rise flooding impacts shall be considered as part of any activity or development within the flood planning area for all land at an elevation of up to 2.5m Australian Heigh Datum (AHD).

8.6. Council will progressively develop and implement climate change adaptation pathways for communities located on land affected by sea level rise:

8.6.1. As part of the review of relevant Flood Risk Management Plans and then embedded within works programs, strategies and adaptive pathways.

8.6.2. Adaptive pathways provide a roadmap of options that can be implemented progressively as climate conditions change, of which there is some uncertainty.

8.6.3. Relevant types of intervention options include modifying land use planning controls, development controls, infrastructure upgrades and land filling.

8.6.4. The timing of adaptation decision points is dependent on location. Communities located on very low-lying land (around 1mAHD) will be affected earlier than communities on higher land (around 2mAHD or higher).

8.6.5. Council will allow for incremental landform raising where appropriate (Note: Council has already adopted the progressive implementation of future landform

strategies for Davistown, Empire Bay, Woy Woy CBD, Blackwall, Booker Bay and Ettalong as part of the relevant Flood Risk Management Plans).

8.7. Coastal hazard assessment must consider sea level rise in accordance with the NSW Coastal Management Manual (April 2018). Sea level rise is one of many factors affecting the gradual erosion of the open coast (where beaches will move further inland). Coastal erosion occurs in extreme weather events such as east-coast-lows; sea level rise will make these events more damaging over time. This risk is typically managed by establishing coastal hazard lines along the open coast for different planning horizons (in a horizontal direction). This is different to planning for flood risk, which focuses on setting flood planning levels (in a vertical direction).

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9. Tables

Table 1: Planning Horizons for Consideration of Climate Change

Asset Class	Planning Horizon (years)
House, granny flat, townhouse, dual occupancy (up to 2 storey), local roads, shared pathways	35
Commercial, Industrial, mid-rise residential (3-6 storeys), stormwater infrastructure, seawalls	50
High-rise buildings, major roads, water & sewer infrastructure, sensitive and hazardous development	80+

Note: Planning horizons for long-term assets will be determined by Council as the assessing authority supported by information accompanying the proposal / application.

Table 2: Sea Level Rise Planning Allowances

Year	Sea Level Rise (metres)
2030	0.093
2040	0.138
2050	0.197
2060	0.252
2070	0.320
2080	0.389
2090	0.454
2100	0.530
2110	0.606
2120	0.680
2130	0.752
2140	0.882
2150	0.891

Note: The planning allowances for sea level rise in Table 2 are based on the IPCC Assessment Report 6 Median sea level rise values of the SSP2-4.5 emissions scenario. For planning allowances for a year not specifically identified in Table 2, a linear interpolation within the appropriate decade is required.

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10. Records Management

10.1. Staff must maintain all records relevant to administering this policy in accordance with the *State Records Act 1998* and Council's Information and Records Management Policy.

11. Policy Definitions

Term	Definition
Adaptive pathways	A planning and decision-making approach that sets out a sequence of possible actions over time, allowing decisions to change as conditions, knowledge or risks evolve, rather than locking in a single fixed solution.
Annual exceedance probability (AEP)	The chance of a flood of a given or larger size occurring in any one year, which is usually expressed as a percentage. A 1% AEP flood has a 1% or 1 in 100 chance of being reached or exceeded in any given year.
Australian height datum (AHD)	A common national surface level datum used for ground levels and flood levels. 0.0 m AHD corresponds approximately to mean sea level
Coastal Inundation	Flooding in estuaries, lakes and lagoons caused by sea water from the ocean because of storm surges and high tides.
Compound flooding	Some flood prone land can be subject to a combination of two or more types of flooding.
Council	Means Central Coast Council
Climate Change factors	Climate change impacts will alter flood behaviour. The two main aspects of climate change relevant to flood risk management are sea level rise and the increase in flood-producing rainfall volume / rainfall intensity. Those floodplains above the current tidal limit will be impacted by an increase in flood-producing rainfall, while those in estuary or coastal areas and below the current tidal limit will be impacted by both an increase in flood-producing rainfall and sea level rise.
Evacuation off-site	Evacuation of people to an area outside of the effects of flooding that has adequate facilities to maintain the safety of the community.
Flash Flooding	Flash flooding is flooding that occurs within 6 hours of the start of the rain event, which often involves rapid water level changes and flood water velocity. This includes overland, creek and riverine flooding sources. Flash flooding can be more dangerous than long duration flooding. This is largely due to the rapid changes in velocities and depths of water, and very short or minimal warning time providing limited opportunity for communities to respond to a flood threat in an appropriate and timely manner.
Flood	A natural phenomenon that occurs when water covers land that is normally dry. It can result from coastal inundation (excluding tsunamis) or catchment flooding, or a combination of both. Flooding results from relatively high stream flow that overtops the natural or artificial banks in any part of a stream, river, estuary, lake or dam, and/or local overland flow paths associated with major drainage, and/or oceanic inundation resulting from super-elevated ocean levels.
Flood Prone Land	Land susceptible to flooding by the probable maximum flood (PMF) event. Flood prone land is also known as the floodplain, flood liable land and flood affected land. The extent of the PMF is available on Council's online mapping.

Flood Planning Area (FPA)	The area of flood prone land that is subject to residential flood related development controls, under Central Coast Local Environment Plan 2022, Section 5.21. The FPA for each catchment is defined by the relevant flood study. This information is available on Council's online mapping.
Flood Planning Level (FPL)	The minimum habitable floor level for residential development, calculated from the combination of the flood level from the 1% AEP flood, plus a freeboard of 0.5m, plus relevant climate change planning allowances.
Flood study	A comprehensive technical investigation of flood behaviour that defines the nature of flood behaviour and hazard across the floodplain by providing information on the extent, level, and velocity of floodwaters, and on the distribution of flood flows considering the full range of flood events up to the PMF. This information is available on Council's online mapping.
Freeboard	A factor of safety typically used in relation to the setting of minimum floor levels or levee crest levels. The freeboard used across Central Coast is 0.5m. Freeboard allows for uncertainties in the estimates of flood levels and local wave action associated with vehicles in flooded areas. Freeboard does not include an allowance for climate change, which is an additional planning allowance on top of freeboard that is relevant to the appropriate planning horizon.
Full range of flooding	All flooding up to and including the PMF
Groundwater influenced flooding	Rising groundwater tables can cause water to emerge at the surface for days following heavy rain, which can exacerbate local overland flooding. This is common on the Woy Woy Peninsula sandplain.
Intensification of development	Creation of an increased number of dwellings through redevelopment, such as secondary dwellings, dual occupancy, subdivision or a higher density of development.
Intergovernmental Panel on Climate Change (IPCC)	The IPCC is the United Nations body for assessing the science related to climate change. Its objective is to provide governments at all levels with scientific information that they can use to develop climate policies. It provides periodic scientific assessments concerning climate change, its implications, and risks, as well as adaptation and mitigation strategies.
Local overland flooding	Inundation by local runoff on its way to a waterway caused by intense local rainfall.
Low-lying land	Low-lying land is land which is set around waterbodies including lakes, lagoons, estuaries, rivers and streams or the ocean. This land is often swampy and can be at risk of flooding during high tides, after heavy rainfall or during ocean storm surge events. This land is often susceptible to future sea level-rise risk.
Planning horizon	Planning horizon is the time into the future over which the impacts of flooding are to be considered. This will vary depending on the type of development or infrastructure being considered. For example, strategic planning for a new area or design of critical infrastructure that is intended to have a long design or service life requires a distant planning horizon. Conversely, a closer planning horizon can be appropriate for a temporary use or infrastructure with a short design or service life. Consideration of climate change factors for a particular proposal must be applied that are relevant to the planning horizon.
Probable Maximum Flood (PMF)	The largest flood that could conceivably occur at a particular location, usually estimated from probable maximum precipitation, coupled with

	the worst flood-producing catchment conditions and ocean conditions. The extent of the PMF is available on Council's online mapping.
Riverine flooding	When a creek or river rises above its banks and spills onto surrounding land caused by heavy upstream rainfall.
Sensitive and Hazardous Development	Development types as listed in LEP clause 5.22(5), including hospitals, seniors housing, educational establishments and many other land-use types.
Shelter in place	Shelter-in-place is the internal movement of a building's occupants to an area within the building above the probable maximum flood (PMF) level before their property becomes inundated by flood waters. Shelter-in-place is not a design or safety solution free from risk. When considering shelter-in-place, secondary risks such as the impact of a flood on people's access to water and electricity, the availability of food, management of medical emergencies, building fire and their health and well-being must also be addressed.
Storm surge	An increase in coastal water levels above predicted astronomical tide levels. Also known as tidal anomaly. These factors causing these increases can include the inverted barometer effect, wind and wave setup, coastal trapped waves, together with any other factors that increase tidal water level.
Tidal Inundation	Tidal inundation is the process in which seawater is driven up stormwater drainage outlets, or over low-lying land, that is normally dry land. Tidal inundation events occur due to king tides, low-pressure cells, and rising sea levels. Large rainfall events and storm surges also impact drainage systems and can lead to worsened tidal inundation events and localised flooding. Climate change and rising sea levels are predicted to further increase the extent and duration of tidal inundation events. Tidal inundation can restrict access and cause damage to private and commercial property, major infrastructure and roads, drainage, motorists and pedestrians. Tidal inundation also affects the natural environment with important ecosystems and areas of high biodiversity experiencing salt-water inundation. Extreme tidal inundation events have the potential to cut off major roads and inundate parked cars and properties. As sea levels rise, the frequency of tidal inundation events and the severity of impacts in low-lying areas will increase.

12. Policy Administration

Directorate	Environment and Planning
Responsible Officer	Unit Manager Environmental Management
Policy Review Date	30 June 2030
CM Document Number	D17499951
Relevant Legislation	This Policy supports Council's compliance with the following legislation: ▪ Central Coast Local Environment Plan 2022 ▪ Local Government Act 1993 ▪ Environmental Planning and Assessment Act 1979 ▪ Coastal Management Act 2016

Relevant NSW and Commonwealth Guidelines	This Policy supports Council's compliance with the following NSW and Commonwealth Guidelines: ▪ Australian Institute for Disaster Resilience, Handbook 7, Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia (2017) ▪ Australian Rainfall & Runoff: A Guide to Flood Estimation (2019) ▪ NSW Coastal Management Manual (April 2018) ▪ NSW Ministerial Direction 4.1 Flooding ▪ NSW Planning Circular PS 26-001 Flooding and land use planning (Feb 2026) ▪ NSW Shelter-in-place guideline for flash flooding (Jan 2025) ▪ NSW State Flood Plan (Dec 2024) ▪ SES Central Coast Local Flood Emergency Sub Plan (Sept 2021) ▪ State Disaster Mitigation Plan 2024 – 2026 (Feb 2024) ▪ The Sydney Plan, NSW DPHI, Appendix I: Flood planning principles (Dec 2025) ▪ Understanding and managing flood risk: Flood risk management guideline FB01 (June 2023)
Related Policies / Protocols / Procedures	Refer to Council's website for the following: ▪ Floodplain Risk Management Plans (several) ▪ Climate Change Policy (July 2019)

13. Policy Authorisations

Delegated Function	Authorised Positions
NIL	

14. Policy History

Revision	Date Approved / Authority	Summary
1	xxx *[Must include the Council minute number]*	Replaces the previous Gosford City Council Flood Management Policy (16 July 2013)

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