St Georges Basin Flood Study

Fact sheet

Shoalhaven City Council is undertaking a Flood Study to determine the flood risk to the St Georges Basin floodplain as a part of the St Georges Basin Floodplain Risk Management Study and Plan Update.

St Georges Basin is a coastal lagoon and is located immediately south of Jervis Bay draining to the Tasman Sea through the Sussex Inlet channel. The study area comprises of St Georges Basin itself which covers approximately 10% of the catchment, the Estuary area, Sussex Inlet and upstream residential areas along the tributary creeks.

Previous flood information available for the catchment was undertaken using older software and methods. Council is taking the opportunity to update the flood model using the latest software and survey information and expanding the model extent to improve the accuracy and currency of flood information.

This Flood Study outcome will form the basis of the Floodplain Risk Management Study & Plan, which will include identification and analysis of flood risk and flood risk management options assessment.

Flood Modelling

A detailed flood model was developed for the St Georges Basin study area to determine the flood behavior for a range of possible flood events.

Historical flood information has been used to ensure the flood modelling has been calibrated to real historic flood events which ensures the flood modelling will be representative of the catchment behavior to estimate future flood events.

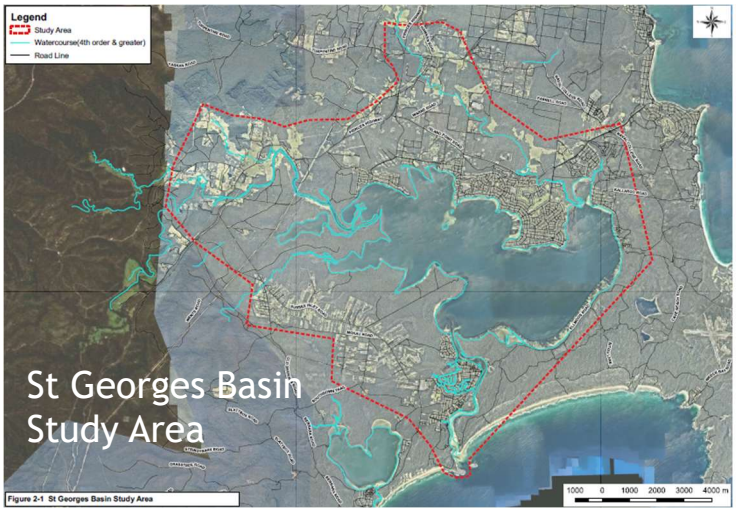
Climate change scenarios were also evaluated using increased rainfall prediction data from the Bureau of Meteorology and sea level rise predictions from Council's Sea Level Rise policy.

The Flood Study was undertaken in accordance with the NSW Floodplain Development Manual and through consultation with Council, the Department of Planning and Environment (DPE), the NSW State Emergency Service (SES) and other stakeholders.

What is the 1% AEP Flood?

Annual Exceedance Probability (AEP) refers to the chance of a flood of a given or larger size occurring in any one year. This is expressed as a percentage. For example, a 1% AEP flood event has a 1% chance of occurring in any one calendar year.

The flood related controls for new development located within the Shoalhaven region are mostly based on the 1% AEP flood. Some development types, however, need to consider larger flood events.



We Need Your Help

A survey is available on our website to submit your feedback throughout the public exhibition period. Visit the Review of the St Georges Basin Floodplain Risk Management Study and Plan Get Involved webpage

What is the Flood Planning Area?

The Flood Planning Area (FPA) is land identified as being flood affected typically in the 1% AEP flood event, plus a freeboard which is usually 0.5m.

The FPA determines the area of land where specific flood related development controls would typically be required for new developments.

What is the Probable Maximum Flood?

The Probable Maximum Flood (PMF) is the largest flood that could occur at a particular location estimated from Probable Maximum Precipitation. The PMF defines the floodprone land within a catchment or floodplain.

Land located above the PMF will not be affected by flooding in St Georges Basin and its tributaries but could still be affected by local flooding along overland flow paths.

The St Georges Basin Flood Study has investigated a range of flood events from 20% AEP to the PMF.

Outcome of the Flood Study

Flood maps across the St Georges Basin floodplain were produced using the flood model results which show the predicted extent of flooding from frequent (20% AEP) to rare (1% AEP) and extreme (PMF) flood events.

Flood analysis and mapping was undertaken to determine:

- Maximum flood depth, flood level and velocity
- Impact of climate change and sea level rise
- Flood hazard categorisation
- Flood planning area
- Impacts of Flooding on the Community
- Flood Damage Assessment
- Flood emergency response planning categories

What will this Information be used for?

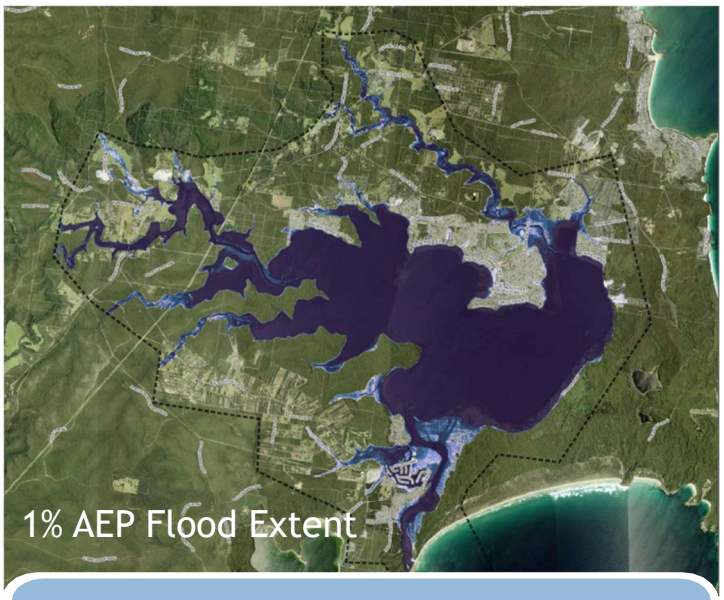
The outcomes from this Flood Study will be used to:

- Help Council and stakeholders to inform flood planning and emergency management
- Prepare flood intelligence for the NSW SES
- Increase community awareness and resilience

Next Steps

The following steps will be undertaken after public exhibition and community consultation:

- Complete the Final Flood Study base on the feedback from the public exhibition and community consultation
- Undertake flood mitigation options assessment
- Develop Emergency Management and Planning based mitigation measures
- Develop Floodplain Risk Management Study and Plan for the St Georges Basin floodplain based on the Final Flood Study.



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