

Northern Floodplain Risk Management Committee

Meeting Date: Monday, 11 August, 2025
Location: Jervis Bay Room, City Administrative Centre, Bridge Road, Nowra
Time: 4.00pm

Please note: Council's Code of Meeting Practice permits the electronic recording and broadcast of the proceedings of meetings of the Council which are open to the public. Your attendance at this meeting is taken as consent to the possibility that your image and/or voice may be recorded and broadcast to the public.

Agenda

1. Meeting Conduct Statement
2. Acknowledgement of Country
3. Apologies
4. Confirmation of Minutes
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5. Declaration of Interests
6. Reports
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7. General Business

Membership

Clr Patricia White - Chairperson
All other Councillors (non voting members)
CEO or nominee (non voting member)
John Gould
David Brawn
Leonard White
Plaxy Rowe

Government Agency representatives:

Local Aboriginal Land Council
NSW State Emergency Services
Department of Planning & Environment (DPE)
Other relevant Government Agency representatives

Quorum – Three (3) (provided that a minimum of one (1) Councillor as the Chair or Acting chair and two community representatives are present).

Note: Any non-voting Councillor in attendance at any Committee meeting may act as an alternate voting member in circumstances where achievement of a quorum is required, noting that this doesn't apply when quorum specifies the quorum to require community member attendance.

Purpose:

The principal objective of the North Floodplain Risk Management Committee is to assist Shoalhaven City Council in the development and implementation of one or more floodplain risk management plans for the north area of the Council. This will need to be in accordance with the NSW Floodplain Development Manual. The north area applies to the following catchments:

- Lower Shoalhaven River;
- Crookhaven River;
- Kangaroo River;
- Broughton Creek;
- Bomaderry Creek;
- Nowra and Browns Creek; and
- Lake Wollumboola.

Role:

1. To assist the Council in the development and implementation of a Flood Study, Floodplain Risk Management Study and Floodplain Risk Management Plan for the areas listed under 'Purpose' (see above);
2. To assist the Council monitoring and assessing the effectiveness of the management plans during and after their implementation;
3. To assist the Council by providing input into known flood behaviour as part of the Flood Study; and
4. Facilitate broader community consultation and participation in floodplain risk management through informing and liaising with member community groups.

MINUTES OF THE NORTHERN FLOODPLAIN RISK MANAGEMENT COMMITTEE

Meeting Date: Wednesday, 6 March 2024
Location: Jervis Bay Rooms, City Administrative Centre, Bridge Road, Nowra
Time: 4.02pm

The following members were present:

Clr Patricia White - Chairperson
Mr John Gould
Mr Mark Kielly
Mr Nathan Pomfret – NSW Dept of Climate Change, Energy, the Environment & Water (Remotely)
Mr Colin Bron – NSW State Emergency Service (Remotely)
Mr Dylan Whitelaw – NSW State Emergency Service
Dr Michael Roberts - Manager - Environmental Services

Others present:

Mr Alexander Aronsson –Lead – Floodplain Management
Mr Mark Stone –Floodplain Engineer
Mr Richard Hart – Local Emergency Management Officer
Dr Filippo Dall’Osso – Water Technology (Remotely) - Left at 4.47pm
Mr Luke Evans – Rhelm (Remotely) – Left at 4.47pm

Apologies / Leave of Absence

Apologies were received from Clr Gray and Ms Robyn Stevens.

Confirmation of the Minutes

RESOLVED (Clr White / John Gould)

That the Minutes of the Northern Floodplain Risk Management Committee held on Wednesday 07 December 2022 be confirmed.

CARRIED

Declaration of Interests

Nil

PRESENTATIONS

NFM24.1 Lower Shoalhaven River & St Georges Basin Flood Evacuation Capability Assessment - Water Technology**HPERM Ref:
D24/52495**

Dr Filippo Dall'Oso - Water Technology presented to the Committee on the Lower Shoalhaven River & St Georges Basin Flood Evacuation Capability Assessment.

The presentation is attached to the Minutes

NFM24.2 Lower Shoalhaven River Floodplain Risk Management Study & Plan Presentation - Rhelm**HPERM Ref:
D24/52525**

Mr Luke Evans – Rhelm presented to the Committee on the Lower Shoalhaven River Floodplain Risk Management Study & Plan.

The presentation is attached to the Minutes.

REPORTS

NFM24.3 General Update on Flood Projects**HPERM Ref:
D24/55502**

Broughton Creek Flood Study – Council currently has a Get Involved Page for this project where feedback can be provided. Community consultation was undertaken from October to November in 2023. A drop-in session was held on 9 November 2023 at the Berry School of Arts. This project is now in the model development and calibration stage of the Flood Study.

EOI – Council has an expression of interest currently open until the vacancies of the Northern Risk Management Committee have been filled. The Floodplain Management Team encourages the Committee to share this EOI with their networks to assist in filling these positions.

It was noted that Council's Flood Alert Network (rainfall and water level gauges) have been audited by Council in the last 6 months. The technology upgrade has commenced on these gauges (30% complete).

There are currently 8 flood investigations underway.

Mr Mark Stone - Acting Floodplain Engineer advised that Council recently installed a new rain gauge in the George Boyd area, therefore, the Lake Conjola catchment area now has three rain gauges and this will eventually feed into the proposed Total Flood Warning System.

Recommendation (Item to be determined under delegated authority)

The Committee receive the General Update on Flood Projects report for information.

RESOLVED (By consent)

The Committee receive the General Update on Flood Projects report for information.

CARRIED

There being no further business, the meeting concluded, the time being 5.04pm.

Clr Patricia White
CHAIRPERSON

NFM25.1 Member Resignations - Mark Kielly and Leonard White

HPERM Ref: D25/200723

Department: Business Assurance & Risk

Approver: Lindsay Usher, Acting Director - City Development

Purpose:

To advise the Committee of a membership resignation received.

Summary and Key Points for Consideration:

Council received notification via email from Mr Mark Kielly and Mr Leonard White advising they wished to resign from their membership on the Northern Floodplain Risk Management Committee (NFRMC).

The vacancies will be absorbed into the combined Northern Coastal and Flood Risk Management Advisory Committee once the current Coastal Management Program (CMP) and Floodplain Risk Management projects and reports for each of the Committees has been adopted.

Council resolved on the 26 November 2024 (MIN24.647) to:

combine the CMP Advisory Committees and Floodplain Risk Management Committees by geography (northern / central / southern) and be effective as soon as a new Terms of Reference for the combined Committees has been established and adopted by Council.

Recommendation (Item to be determined under delegated authority)

That the Committee note the resignations received from Mr Mark Kielly and Mr Leonard White and thank them for their contributions to the Committee.

Options

1. Adopt the Recommendation

Implications: Vacant position will be absorbed into the combined Northern Coastal and Flood Risk Management Advisory Committee.

2. Adopt an alternate recommendation

Implications: Unknown

Background and Supplementary information

Council received notification on 16 April 2025 from Mr Mark Kielly that he wished to resign from the NFRMC Committee. Mr Mark Kielly was appointed in October 2020 and reappointed in 2022 for a further term.

Council received notification from Mr Leonard White on 1 July 2025 that he wished to resign from the Committee. Mr White remains an active member of the Bushcare Group.

NFM25.1

Internal Consultations

Nil

External Consultations

Nil

Community Consultations

Nil

Policy and Statutory Implications

Nil

Financial Implications

Nil

Risk Implications

Nil

NFM25.2 Broughton Creek Flood Study

HPERM Ref: D25/246995

Department: Environmental Services

Approver: Lindsay Usher, Acting Director - City Development

Purpose:

To provide the Northern Floodplain Risk Management Committee (NFRMC) with an update on the draft Broughton Creek Flood Study and to seek NFRMC endorsement to place the report on public exhibition and to commence community consultation.

Summary and Key Points for Consideration:

Council has completed a draft Broughton Creek Flood Study based on current best-practice, incorporating recent significant infrastructure upgrades and urban development to produce contemporary flood information for the Berry township and its surrounding areas.

The study documents current and future flood behaviour within the study area and assessed the flood risk to the community.

The flood modelling has undergone comprehensive calibration and validation against historic flood events and the study contains a detailed assessment of the significant April 2024 flood event.

Recommendation (Item to be determined under delegated authority)

That the NFRMC endorse the draft Broughton Creek Flood Study being placed on public exhibition and that Council commence community consultation for the draft study.

Options

1. That the NFRMC endorse the draft Broughton Creek Flood Study being placed on public exhibition and that Council commence community consultation of the draft study.

Implications: Nil

2. The NFRMC could choose to provide an alternative recommendation for consideration by Council.

Implications: The full extent of the implications depends on the nature of an alternative recommendation. If it were to result in a delay in undertaking public exhibition and community consultation of the study, this would delay the completion of this project. The Broughton Creek Flood Study is 2/3 funded by a NSW Government grant. Delaying the completion of the project may impact Council's ability to meet required milestones for grant payments which would have a financial impact on Council.

Background and Supplementary information

Council received grant funding from the NSW Government's Floodplain Management Program to undertake an updated Flood Study for the Broughton Creek catchment area. Assistance under the program is \$2 from the State Government for every \$1 provided by Council. The study area includes the township of Berry and its surrounding areas.

A Flood Study (2008) and Floodplain Risk Management Study and Plan (2012) for Broughton Creek was previously completed by Council. However, significant infrastructure upgrades such as the Transport for NSW Berry Bypass project, including a diversion of Town Creek to Bundewallah Creek upstream of Berry, and further land development in the area triggered the need to update the existing flood study to better reflect current catchment conditions and associated flood risk.

This project has been undertaken in accordance with the NSW Flood Prone Land Policy, the *NSW Flood Risk Management Manual (2023)* and in close collaboration with the NSW State Emergency Service (SES), the NSW Department of Climate Change, Energy, the Environment and Water (DCCEE), and other agencies and stakeholders as required.

Council engaged a consultant, Arcadis, to assist with the preparation of the Broughton Creek Flood Study. This study will improve Council's understanding of flood behaviour and impacts on the community and better inform management of flood risk in the study area across the full range of potential flood events from frequent to extreme. The study has undergone a rigorous calibration and validation process against historic flood events, including February 2002, July 2005, June 2013, August 2015, August 2020, March 2022 and April 2024. This process ensures a high-level of confidence regarding the flood model's ability to replicate the catchment's response to rainfall for flood estimation. This in turn ensures that Council has robust flood information available to support strategic decision making within the catchment such as for land-use planning, infrastructure upgrades, and preparation of flood certificates. The flood information will also form the basis of a future review of the Broughton Creek Floodplain Risk Management Study and Plan.

NFM25.2

Internal Consultations

No formal consultation has occurred, but relevant internal stakeholders have been consulted on an as needs basis throughout the project.

External Consultations

The Floodplain Management Unit has worked closely with the NSW SES and NSW DCCEE to deliver this project.

Community Consultations

Council undertook initial community consultation between 15 October 2023 to 22 November 2023 to gather firsthand information on historic flood events, with a particular focus on those occurring after the construction of the Berry Bypass and Town Creek diversion. The data collected from community members was instrumental in validating and calibrating the hydrologic and hydraulic models. The community consultation activities included an online questionnaire to gather information and a drop-in session on the 9 November 2023 at the Berry School of Arts to meet community members in person.

Council received seventeen (17) responses to the questionnaire, including submission of various photos and videos of historic flood events.

If endorsed by the NFRMC, Council will undertake community consultation of the draft Broughton Creek Flood Study prior to its finalisation to seek the broader community's support for its adoption by Council. The community consultation activities will include an online survey/questionnaire and one in-person drop-in session in Berry.

Policy and Statutory Implications

Following adoption of the Broughton Creek Flood Study by Council, the outcomes from this investigation will be used as follows:

- The Broughton Creek Flood Study will be made available on Council's website and the mapping will be uploaded onto Council's online flood mapping.
- The data will be available via flood certificate requests and be included in Section 10.7 planning certificates for the Clyde River catchment.
- The information will be used to assess proposed development on flood prone land in accordance with the Shoalhaven Local Environmental Plan 2014 and Development Control Plan Chapter G9 and G10.

All flood information produced in the Broughton Creek Flood Study will be provided to the NSW SES. This ensures that Council satisfies its obligations under the *NSW Flood Prone Land Policy (2023)* and the *NSW Flood Risk Management Manual (2023)*.

Financial Implications

The Broughton Creek Flood Study has been 2/3 funded by the NSW Government and 1/3 funded by Council. The project will be completed on budget and Council's contribution was secured prior to commencement of the project.

It is expected that the project will be completed and the grant acquitted by the end of 2025.

Risk Implications

By completing this study, Council meets its obligations under the NSW Flood Prone Land Policy to manage flood risk within the Berry township and surrounding catchments. The completed study presents best available flood information that should be implemented to inform strategic land-use and infrastructure decisions on flood liable land within the study area. This information should also be used as the basis for a future review of the existing Flood Risk Management Study and Plan to inform flood risk management decisions in the study area. Should the committee choose not to adopt this study, Council would not be able to make decisions relating to flood liable land based on contemporary flood information and would thus not meet its obligation under the NSW Flood Prone Land Policy.

NFM25.3 General Update on Flood Projects Report

HPERM Ref: D25/247636

Department: Environmental Services

Approver: Lindsay Usher, Acting Director - City Development

Purpose:

To provide the Northern Floodplain Risk Management Committee (NFRMC) with an update on various flood related projects in the Committee's region.

Summary and Key Points for Consideration:

An update for the Committee's information is provided on the following projects:

- Lower Shoalhaven River Floodplain Risk Management Study and Plan.
- Enviromon Replacement.
- Shoalhaven River Entrance Management Policy.

Recommendation (Item to be determined under delegated authority)

That the NFRMC receive the general update on Flood Projects Report for information.

Options

1. The NFRMC receive the general update on Flood Projects Report for information.

Implications: Nil.

2. The NFRMC could choose to provide an alternative recommendation for consideration by Council.

Implications: Unknown.

Background and Supplementary information

Lower Shoalhaven River Floodplain Risk Management Study and Plan

Council received grant funding from the NSW Government's Floodplain Management Program to undertake the Lower Shoalhaven River Floodplain Risk Management Study and Plan (FRMS&P).

Council engaged a consultant, Rhelm, in early 2024 to complete this investigation.

The objective of this study is to improve understanding of flood behaviour and impacts, and to better inform management of flood risk in the study area in consideration of the available information and relevant standards and guidelines.

The project will test and investigate practical, feasible and economic management measures, including structural and non-structural (planning / emergency management / educational) measures, to manage flood risk. The Lower Shoalhaven River Floodplain Risk Management Study will provide a basis for informing the development of the Lower Shoalhaven River Floodplain Risk Management Plan (the Plan).

The Plan, once adopted, will document the decisions on the management of flood risk within the floodplain into the future. The Plan will outline a range of measures to manage risk effectively and efficiently, using the investigations undertaken as part of the Lower Shoalhaven River Floodplain Risk Management Study. This will include a prioritised implementation strategy, which will detail how adopted measures should be implemented. Flood mitigation measures included in a Plan are eligible for financial support from the NSW Floodplain Management Program managed by the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW).

The project is well underway and have completed the following tasks:

- Review and update of the hydrology and hydraulic models from the 2022 Flood Study.
- A review of Shoalhaven River Entrance Management Policy for Flood Mitigation Triggers.
- A preliminary assessment of potential flood management options.
- >50% Consequences of Flooding on the Community completed.
- >50% of Information to Support Decisions on Activities in the Floodplain and Managing Flood Risk completed.

In addition, the following tasks are currently being completed:

- Detailed assessment of potential flood management options.
- Draft Floodplain Risk Management Study Report.

The project will have a draft Floodplain Risk Management Study and Plan completed in September 2025 at which point Council will present the draft report to the NFRMC and seek endorsement to place it on public exhibition and to commence community consultation.

Project completion is expected in January 2026.

This project is being undertaken in accordance with the NSW Flood Prone Land Policy, the *NSW Flood Risk Management Manual (2023)* and in close collaboration with the NSW State Emergency Service (SES), the NSW DCCEEW, and other agencies and stakeholders as required.

Enviromon Replacement

Council's Enviromon software (historically provided and supported by the Bureau of Meteorology) allows rainfall and water level gauge data to be accessed in real time. Enviromon also allows alerts to be sent to Council and NSW SES staff based on predetermined trigger levels.

The Bureau of Meteorology is replacing Enviromon software from mid to late 2025 and are only providing technical support to third-party Enviromon users (such as Shoalhaven City Council) until late-2025. Council therefore needs to transition to an Enviromon replacement system. Funding has been included in Council's Draft 2025/26 Delivery Program Operational Plan (DPOP) and Budget. When this budget has been confirmed, Council will implement an Enviromon replacement system in the 2025/26 financial year.

Shoalhaven River Entrance Management Policy and review of Environmental Factors

Council has completed a review of the entrance management arrangements for the Shoalhaven River. This involved the preparation of a draft Shoalhaven River Entrance Management Policy (EMP) and draft Review of Environmental Factors (REF) to implement the draft Shoalhaven River EMP.

The draft Shoalhaven River EMP and REF were on public exhibition until Monday 26 May 2025 and can be viewed in the Document Library on the Shoalhaven Entrance Management Policy Review Get Involved webpage.

The EMP takes into consideration a range of environmental factors and includes the outcome of an evidence-based, technical review of the trigger levels to inform the entrance management options within the document.

The EMP and REF have been developed in consultation with several NSW Government agencies.

Council will review all feedback from the public exhibition period, update the EMP and REF as required, and a report will be prepared to Council for adoption. This report will include the outcome of the community consultation and any amendments to the EMP.

Internal Consultations

Relevant internal stakeholders have been consulted on an as needs basis throughout the Lower Shoalhaven River Floodplain Risk Management Study and Plan project.

The Floodplain Management Unit have collaborated with Council's Coastal Management Unit to deliver the draft Shoalhaven River EMP and REF.

External Consultations

The NSW SES and NSW DCCEEW are regularly consulted as part of the delivery of the Lower Shoalhaven River Floodplain Risk Management Study and Plan project.

The Floodplain Management Unit is consulting with the Bureau of Meteorology in relation to the Enviromon Replacement.

A number of state government agencies has been consulted as part of the Shoalhaven River EMP and REF including NSW DCCEEW (including National Parks and Wildlife Services and Water Floodplains & Coast – Conservation Programs, Heritage and Regulation Group), NSW Department of Primary Industries – Fisheries; and NSW Crown Lands.

Community Consultations

Targeted extensive community consultation will be undertaken for the Lower Shoalhaven River Floodplain Risk Management Study and Plan once the draft reports have been completed. Council will seek NFRMC endorsement prior to undertaking community consultation.

Policy and Statutory Implications

Adopting the updated Shoalhaven River EMP provides for significant improvements in Council's operational ability to implement the EMP and to proactively manage flood risk in the catchment.

Financial Implications

This report provides an update on ongoing projects and does not in itself have any financial implications. No additional funding is sought from this report.

Risk Implications

This report provides an update on ongoing projects and does not in itself have any risk implications. The works listed in this report are business as usual activities for the Floodplain Management Unit.