Notice of Meeting

Floodplain Management Advisory Committee Meeting

A Floodplain Management Advisory Committee Meeting of Byron Shire Council will be held as follows:

Venue	Conference Room, Station Street, Mullumbimby
Date	Thursday, 15 May 2025
Time	9:00 AM

Phil Holloway Director Infrastructure Services

I2025/679 Distributed 08/05/25



CONFLICT OF INTERESTS

What is a "Conflict of Interests" - A conflict of interests can be of two types:

Pecuniary - an interest that a person has in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person or another person with whom the person is associated.

Non-pecuniary – a private or personal interest that a Council official has that does not amount to a pecuniary interest as defined in the Code of Conduct for Councillors (eg. A friendship, membership of an association, society or trade union or involvement or interest in an activity and may include an interest of a financial nature).

Remoteness – a person does not have a pecuniary interest in a matter if the interest is so remote or insignificant that it could not reasonably be regarded as likely to influence any decision the person might make in relation to a matter or if the interest is of a kind specified in the Code of Conduct for Councillors.

Who has a Pecuniary Interest? - a person has a pecuniary interest in a matter if the pecuniary interest is the interest of the person, or another person with whom the person is associated (see below).

Relatives, Partners - a person is taken to have a pecuniary interest in a matter if:

- The person's spouse or de facto partner or a relative of the person has a pecuniary interest in the matter, or
- The person, or a nominee, partners or employer of the person, is a member of a company or other body that has a pecuniary interest in the matter.

N.B. "Relative", in relation to a person means any of the following:

- (a) the parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descends or adopted child of the person or of the person's spouse;
- (b) the spouse or de facto partners of the person or of a person referred to in paragraph (a)

No Interest in the Matter - however, a person is not taken to have a pecuniary interest in a matter:

- If the person is unaware of the relevant pecuniary interest of the spouse, de facto partner, relative or company or other body, or
- Just because the person is a member of, or is employed by, the Council.
- Just because the person is a member of, or a delegate of the Council to, a company or other body that has a pecuniary interest in the matter provided that the person has no beneficial interest in any shares of the company or body.

Disclosure and participation in meetings

- A Councillor or a member of a Council Committee who has a pecuniary interest in any matter with which the Council is concerned and who is present at a meeting of the Council or Committee at which the matter is being considered must disclose the nature of the interest to the meeting as soon as practicable.
- The Councillor or member must not be present at, or in sight of, the meeting of the Council or Committee:
 - (a) at any time during which the matter is being considered or discussed by the Council or Committee, or

(b) at any time during which the Council or Committee is voting on any question in relation to the matter.

No Knowledge - a person does not breach this Clause if the person did not know and could not reasonably be expected to have known that the matter under consideration at the meeting was a matter in which he or she had a pecuniary interest.

Non-pecuniary Interests - Must be disclosed in meetings.

There are a broad range of options available for managing conflicts & the option chosen will depend on an assessment of the circumstances of the matter, the nature of the interest and the significance of the issue being dealt with. Non-pecuniary conflicts of interests must be dealt with in at least one of the following ways:

- It may be appropriate that no action be taken where the potential for conflict is minimal. However, Councillors should consider providing an explanation of why they consider a conflict does not exist.
- Limit involvement if practical (eg. Participate in discussion but not in decision making or viceversa). Care needs to be taken when exercising this option.
- Remove the source of the conflict (eg. Relinquishing or divesting the personal interest that creates the conflict)
- Have no involvement by absenting yourself from and not taking part in any debate or voting on the issue as of the provisions in the Code of Conduct (particularly if you have a significant non-pecuniary interest)

Committee members are reminded that they should declare and manage all conflicts of interest in respect of any matter on this Agenda, in accordance with the <u>Code of Conduct</u>.

RECORDING OF VOTING ON PLANNING MATTERS

Clause 375A of the Local Government Act 1993 – Recording of voting on planning matters

- (1) In this section, **planning decision** means a decision made in the exercise of a function of a council under the Environmental Planning and Assessment Act 1979:
 - (a) including a decision relating to a development application, an environmental planning instrument, a development control plan or a development contribution plan under that Act, but
 - (b) not including the making of an order under that Act.
- (2) The general manager is required to keep a register containing, for each planning decision made at a meeting of the council or a council committee, the names of the councillors who supported the decision and the names of any councillors who opposed (or are taken to have opposed) the decision.
- (3) For the purpose of maintaining the register, a division is required to be called whenever a motion for a planning decision is put at a meeting of the council or a council committee.
- (4) Each decision recorded in the register is to be described in the register or identified in a manner that enables the description to be obtained from another publicly available document and is to include the information required by the regulations.
- (5) This section extends to a meeting that is closed to the public.

OATH AND AFFIRMATION FOR COUNCILLORS

Councillors are reminded of the oath of office or affirmation of office made at or before their first meeting of the council in accordance with Clause 233A of the Local Government Act 1993. This includes undertaking the duties of the office of councillor in the best interests of the people of Byron Shire and the Byron Shire Council and faithfully and impartially carrying out the functions, powers, authorities and discretions vested under the Act or any other Act to the best of one's ability and judgment.

BUSINESS OF MEETING

1. APOLOGIES

2. DECLARATIONS OF INTEREST - PECUNIARY AND NON-PECUNIARY

3. MINUTES FROM PREVIOUS MEETINGS

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4. STAFF REPORTS

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Infrastructure Services

4.2	Current Status of Flood Resilience Studies and Works	. 27
4.3	Performance of Automatic Warning Signs for Water Over Main Arm Road,	
	West of Sherrys Bridge	. 46
4.4	Byron Shire Council Flood Risk Management Plans - Update on Actions and	
	Accomplishments - Post 2022 Flood Priorities	. 50
4.5	Future Discussion Item for Floodplain Management Advisory Committee	. 68

MINUTES FROM PREVIOUS MEETINGS

MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1	Adoption of Minutes from Previous Meeting
Directorate:	Infrastructure Services
File No:	12025/625

RECOMMENDATION:

That the minutes of the Floodplain Risk Management Advisory Committee Meeting10held on 20 February 2025 be confirmed.

Attachments:

- 1 Minutes 20/02/2025 Floodplain Risk Management Advisory Committee, I2025/199, page 101
- 15

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2 Floodplain-Risk-Management-Advisory-Committee-Terms-of-Reference-2024, E2025/46578 , page 17 🖫

MINUTES FROM PREVIOUS MEETINGS

Report

Preamble

The Floodplain Risk Management Advisory Committee is an advisory committee of Byron Shire Council. The role of the Floodplain Risk Management Advisory Committee is to

5 report to Council and provide appropriate advice and recommendations on matters relevant to its Terms of Reference (attachment 2). It does not have executive power or authority to implement actions.

For transparency, the terms of reference document is provided on Byron Shire Council's website per the URL -

10 https://www.byron.nsw.gov.au/files/assets/public/v/1/hptrim/corporate-managementmeetings-internal-external-secretariat-provided-floodplain-management-advisorycommittee-2024/floodplain-risk-management-advisory-committee-terms-of-reference-2024.pdf

<u>Purpose</u>

15 The purpose of the Floodplain Risk Management Advisory Committee is to oversee and advise Council on the preparation, implementation and review of Flood Studies and Floodplain Risk Management Studies as required.

This includes overseeing and advising on any documents or processes that impact the management of ICOLL's (Intermediately Closed and Open Lakes or Lagoons).

20 Summary

The attachment to this report provides the minutes of the Floodplain Risk Management Advisory Committee Meeting of 20 February 2025 .

Report to Council

The minutes were reported to Council on 27 March 2025 Comments

25 In accordance with the Committee Recommendations, Council resolved the following:

25-095 Resolved: that Council adopts the following Committee Recommendations:

Report No. 4.1 Integrated Planning and Reporting

Committee Recommendation 4.1.1

That the Floodplain Risk Management Advisory Committee:

- 30 1. Notes Council's Integrated Planning and Reporting Framework
 - 2. Discusses at our May meeting the priorities for the 2025 2029 Delivery Program.

MINUTES FROM PREVIOUS MEETINGS

25-096 Resolved that Council adopt the following Committee Recommendations:

Report No. 4.2 Byron Shire Council Flood Risk Management Plan-Update on Actions and Accomplishments - Post 2022 Flood Priorities

5 Committee Recommendation 4.2.1

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The Floodplain Management Advisory Committee recommend:

- 1. That Council notes and endorses the update on the 2022 Byron Shire Council Flood Mitigation Program, Attachment 2 (E2025/10640).
- 2. That staff creates a dedicated webpage for current Floodplain Risk Management activities to keep the community well-informed.
 - Staff provides an update on the Post Event Flood Planning Level review (Item 23).
 - 4. Staff provides an update on the Evacuation Assessment for Mullumbimby (Item 12).
- 15 5. The committee requests that staff member Annie Lewis be present at the May meeting to discuss community engagement.

25-097 Resolved that Council adopt the following Committee Recommendations:

Report No. 4.3 Current Status of Flood Resilience Studies and Works

20 Committee Recommendation 4.3.1

- 1. That the Committee notes the status of the following works being undertaken by Council:
 - a) Broken Head Road Evacuation Route
 - b) Belongil and Tallow flood risk management study and plan update DCCEEW & BSC
 - c) Byron Shire overland flow path study DCCEEW & BSC
 - d) Billinudgel rail bridge debris options study and implementation DCCEEW & BSC
 - e) South Golden Beach Levee Works NSW Public Works
 - f) Coogera Basin Upgrade Project NSW Reconstruction Authority
 - g) Byron Preferred Drainage Strategy
 - h) NSW Severe Weather and Flood Grant AGRN1012 \$2M program

3.1

- 2. That the Committee notes the Council staff endorsement of the Stage 2 Bangalow Flood Study Report – Calibration and Validation (E2025/9759).
- 3. That the Chair considers an extraordinary meeting before the May meeting.
- 4. Update to be circulated to committee members regarding the easement enhancement at South Golden Beach.

25-098 Resolved that Council adopt the following Committee Recommendations:

Report No. 4.4 Recommended Flood Grant Applications in May 2025 subject to budget allocation

Committee Recommendation 4.4.1

10 That Council:

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- 1. Endorses funding Councils component and applying for grant funding through the NSW DCCEEW Floodplain Management Program for the following two (2) projects:
 - a) North Byron Floodplain Risk Management Study and Plan, and
- b) Bangalow Floodplain Risk Management Study and Plan.
 - 2. Undertakes appropriate community engagement.

3.1

Minutes of Meeting Floodplain Management Advisory Committee Meeting

Venue	Conference Room, Station Street, Mullumbimby
Date	Thursday, 20 February 2025
Time	9:00 AM



FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES **FEBRUARY 2025**

20

Minutes of the Floodplain Management Advisory Committee Meeting held on Thursday, 20 February 2025

File No: 12025/199

PRESENT:

Councillors:	Cr M Lyon Cr E Hauge Cr Kay Cr D Warth	Present Present Apologies Present
Staff:	Phillip Holloway (Director Infrastructure Services) Samuel Frumpui (Manager Works) Euan Rose (Infrastructure Planning Coordinator) Josh Wilde (Flood and Drainage Engineer Consultant) Heather Sills (Manager Corporate Services) Amber Evans Crane (Corporate Planning & Improvement Officer)	Present Present Present Present Present Present
	Chloe Woods (Minute Taker)	Present
Invited members:	Scott Moffett (Dept of Planning and Environment)	Zoom
Community:	Duncan Dey Matthew Lambourne Robert Crossley Catherine Lane	Present Present Absent Present

Cr Hauge (Chair) opened the meeting at 9:05am and acknowledged that the meeting was being held on Bundjalung Country.

Cr Hauge was appointed as chair of the Floodplain Management Advisory Committee.

ATTENDANCE VIA AUDIO-VISUAL LINK:

Steve Moffat attended via audio visual link.

APOLOGIES:

An apology was received from Cr Delta Kay.

DECLARATIONS OF INTEREST - PECUNIARY AND NON-PECUNIARY

There were no declarations of interest.

FLOOD Floodplain Management Advisory Committee Meeting

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES 20 FEBRUARY 2025

MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1Adoption of Minutes from Previous MeetingFile No:12025/136

Committee Recommendation:

That the minutes of the Floodplain Risk Management Advisory Committee Meeting held on 12 July 2024 be confirmed. (Dey/Lambourne)

The recommendation was put to the vote and declared Carried.

Note: The minutes of the meeting held on 12 July 2024 were noted, and the Committee Recommendations adopted by Council, at the Ordinary Meeting held on 13 February 2025.

BUSINESS ARISING FROM PREVIOUS MINUTES

There was no business arising from previous minutes.

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

Report No. 4.1	Integrated Planning and Reporting
File No:	12025/128

Committee Recommendation:

That the Floodplain Risk Management Advisory Committee:

- 1. Notes Council's Integrated Planning and Reporting Framework
- 2. Discusses at our May meeting the priorities for the 2025 2029 Delivery Program (Hauge/Dey)

The recommendation was put to the vote and declared carried.

Heather Sills and Amber Evans Cranes left the meeting at 9:33am and did not return.

FLOOD Floodplain Management Advisory Committee Meeting

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES 20 FEBRUARY 2025

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.2Byron Shire Council Flood Risk Management Plan-Update on
Actions and Accomplishments - Post 2022 Flood PrioritiesFile No:12025/73

Committee Recommendation:

The Floodplain Management Advisory Committee recommend:

- 1. That Council note and endorse the update on the 2022 Byron Shire Council Flood Mitigation Program, Attachment 2 (E2025/10640).
- 2. That staff create a dedicated webpage for current Floodplain Risk Management activities to keep the community well-informed.
- 3. Staff provide update on the Post Event Flood Planning Level review (Item 23).
- 4. Staff provide update on the Evacuation Assessment for Mullumbimby (Item 12).
- 5. The committee request that staff member Annie Lewis be present at the May meeting to discuss community engagement. (Hauge/Lane)

The recommendation was put to the vote and declared carried.

Cr Lyon left the meeting at 10:02 AM AND returned to the meeting at 10:04 AM.

Report No. 4.3Current Status of Flood Resilience Studies and WorksFile No:12025/74

Committee Recommendation:

- 1. That the Committee notes the status of the following works being undertaken by Council:
 - Broken Head Road Evacuation Route
 - Belongil and Tallow flood risk management study and plan update DCCEEW & BSC
 - Byron Shire overland flow path study DCCEEW & BSC
 - Billinudgel rail bridge debris options study and implementation DCCEEW & BSC

FLOOD Floodplain Management Advisory Committee Meeting

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES FEBRUARY 2025

20

- South Golden Beach Levee Works NSW Public Works
- Coogera Basin Upgrade Project NSW Reconstruction Authority
- Byron Preferred Drainage Strategy
- NSW Severe Weather and Flood Grant AGRN1012 \$2M program
- NSW Severe Weather and Flood Grant AGRN1012 \$1M program
- 2. That the Committee notes the Council staff endorsement of the Stage 2 Bangalow Flood Study Report – Calibration and Validation (E2025/9759).
- 3. That the chair considers an extraordinary meeting before the May meeting.
- 4. Update to be circulated to committee members regarding the easement enhancement at South Golden Beach.
- 5. Scope clarity from public works regarding the South Golden Beach levee.

(Lambourne/Lane)

The recommendation was put to the vote and declared carried.

 Report No. 4.4
 Recommended Flood Grant Applications in May 2025 subject to budget allocation

 File No:
 12025/102

Committee Recommendation:

The Floodplain Management Advisory Committee recommend:

- 1. That Council endorse funding Councils component and applying for grant funding through the NSW DCCEEW Floodplain Management Program for the following two (2) projects:
 - 1.1 North Byron Floodplain Risk Management Study and Plan, and
 - **1.2 Bangalow Floodplain Risk Management Study and Plan.**
- 2. That Council undertake appropriate community engagement.

(Lambourne/Warth)

The recommendation was put to the vote and declared carried.

FLOOD Floodplain Management Advisory Committee Meeting

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES 20 FEBRUARY 2025

Report No. 4.5Performance of Automatic Warning Signs for Water Over Main
Arm Road just west of Sherry's BridgeFile No:12025/105Moved:12025/105

That the matter be deferred to a subsequent meeting.

There being no further business the meeting concluded at 11:10 am.

FLOOD Floodplain Management Advisory Committee Meeting



Floodplain Risk Management Advisory Committee

Terms of Reference

Information about this document

Date Adopted by Council	24 October 2024
Resolution No	
Responsibility	Director Infrastructure Services
Review Timeframe	4 years (unless required by legislation to review within 12 months of an election)
Last Review Date	September 2024
Next Scheduled Review Date	September 2028

Document History

Doc No.	Date Amended	Details/Comments eg Resolution No.
E2016/90828	29 September 2016	Constitution as adopted by Council 29/09/16
E2021/147959	26 May 2022	Resolution 22-227

Further Document Information and Relationships

Related Legislation	Section 355, Local Government Act (1993)
Related Policies	Code of Conduct 2016 Work Health Safety Policy Code of Meeting Practice Guide to Operations – Advisory Committee and Panels (E2016/85075)
Related Standards, Procedures, Statements, documents	

Note: Any reference to Legislation will be updated in the Policy as required. See website <u>http://www.legislation.nsw.gov.au/</u> for current Acts, Regulations and Environmental Planning Instruments.



Policy: <Title> <Year>

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1. Preamble

The Floodplain Risk Management Advisory Committee is an advisory committee of the Council and does not have executive power or authority to implement actions.

The role of the Floodplain Risk Management Advisory Committee is to report to Council and provide appropriate advice and recommendations on matters relevant to its Terms of Reference.

2. Purpose

The purpose of the Floodplain Risk Management Advisory Committee is to oversee and advise Council on the preparation, implementation and review of Flood Studies and Floodplain Risk Management Studies as required.

This includes overseeing and advising on any documents or processes that impact the management of ICOLL's (Intermediately Closed and Open Lakes or Lagoons).

3. Timeframe for Committee

The term of the Floodplain Risk Management Advisory Committee is for the term of Council 2024 - 2028

4. Responsible Directorate

This Committee is administered by the Infrastructure Services Infrastructure Directorate. The Director or their delegate will attend these meetings and minutes will be taken by a member of their staff.

5. Membership

Council must appoint all Advisory Committee members. Appointment must take place prior to a member being conferred the responsibilities and rights as set out in this document.

Council may release individual members from the advisory Committee at any time by a resolution of council. Council may also appoint any new members to an Advisory Committee at any time by a resolution of council.

Membership is to include:

- 4 Councillors
- 4 community representatives including (if possible) one representing communities near Tallow Creek ICOLL, Belongil Creek ICOLL, Marshalls Creek, Brunswick River
- 1 Department of Planning, Industry and Environment representative
- 1 State Emergency Service representative
- 1 Cape Byron Marine Park representative
- 1 National Parks representative
- General Manager (or staff member delegate)

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The General Manager (or staff delegate) will attend meetings but do not have any voting entitlements.

Attendance at meetings by other persons

Attendance at the meeting by members of the public is generally limited. However, Advisory Committee members may formally request the attendance of a member of the public due to their expertise on a specific item on the agenda.

Non-member Councillors may attend as observers at Advisory Committee meetings.

6. Induction

All members will be required to participate in an induction process upon joining an Advisory Committee. The induction will be scheduled prior to their participation in their first meeting, and will cover topics such as:

- Terms of Reference
- The Code of Meeting Practice
- Conflicts of interest
- The Code of Conduct for Council Committee Members, Delegates of Council and Council Advisers

7. Quorum

A quorum is to constitute at least half the number of members plus one, two of which are to be Councillors. The General Manager or delegate, who must be a member of staff, is to attend the Advisory Committee meeting and is not counted in the quorum for the meeting.

8. Confidentiality

Members of the Committee must maintain the integrity and security of confidential information in their possession, or for which they are responsible.

In addition to their general obligation relating to the use of Council information, members of the Committee must:

- a) only access confidential information that they have been authorised to access and only do so for the purposes of exercising their official functions
- b) protect confidential information
- c) only release confidential information if they have authority to do so
- d) only use confidential information for the purpose for which it is intended to be used
- e) not use confidential information gained through their official position for the purpose of securing a private benefit for themselves or for any other person
- f) not use confidential information with the intention to cause harm or detriment to the council or any other person or body
- g) not disclose any confidential information discussed during a confidential session of a council or committee meeting or any other confidential forum (such as, but not limited to, workshops or briefing sessions).

When dealing with personal information, members of the Committee must comply with:

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BYRON SHIRE COUNCIL

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- a) the Privacy and Personal Information Protection Act 1998
- b) the Health Records and Information Privacy Act 2002
- c) the Information Protection Principles and Health Privacy Principles
- d) Council's privacy management plan
- e) the Privacy Code of Practice for Local Government

9. Election of Chairperson

The Committee will be chaired by the Mayor, or, where the Mayor elects not to assume the position of Chairperson, by a Councillor elected by the Committee.

10. Voting

- a) Each member of the Committee (with the exception of staff members) is to have one vote, with the Chairperson to have a casting vote in addition to a deliberative vote.
- b) Members of the Committee who are not Councillors may abstain from voting in any circumstances without such abstention being recorded in the negative.

11. Majority decision

A majority decision of the Committee requires a majority of members to be present and voting on any item subject to the requirements of a quorum being met at the meeting.

12. Convening meetings

Meetings will be held according to an annual timetable of meetings, which will be prepared in advance and adopted by Council for the following 12 months.

A meeting of the Committee may be convened in response to either the direction of the Mayor (or in the Mayor's absence, the Deputy Mayor) in written form to the General Manager; or two Councillors in written form to the General Manager, or by resolution of the Council.

13. Agenda preparation

The agenda is an organised list of the business, in order, that will be discussed at the meeting. An agenda for each meeting, containing a brief report on each item, is to be provided to Committee members and available on Council's website at least 7 days prior to the meeting being held.

Each item of business to discuss at the meeting is required to be listed on the agenda and in written form. Verbal reports at the meeting are not an acceptable practice.

For some matters, it will be necessary to attach other relevant information to the agenda to inform and direct discussion. Such information is to be circulated with the agenda.

It is the responsibility of the relevant Director to prepare the agenda in consultation with the chairperson, setting out the terms of business to be considered.

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Committee members may request items for inclusion in future agendas, by giving notice to the Director 14 days prior to the meeting. Where required, a list of items requested by Committee members for consideration at future meetings will be provided to the next available committee meeting for the committee to collectively determine which items are to be included on upcoming Agendas.

14. Conduct of Business

Meetings are to be conducted in accordance with this Terms of Reference and, where required, reference to Council's *Code of Meeting Practice* 2022.

Each item of business is discussed in the order in which it appears on the agenda. No new matters will be introduced at the meeting. New items of business may be included in a future agenda as noted in clause 13 above.

15. Records of meeting

- a) The minutes of meetings are to be circulated to members of the group within 7 days of the meeting so that members can provide feedback through the Chair on the draft unconfirmed minutes.
- b) Minutes of Committee meetings will be kept and presented to Council at its next meeting via a report of the Committee meeting.
- c) The recommendations made by the Committee will be considered by Council prior to a Resolution being made on the matter.

16. Absence from Committee Meetings

All Committee members are required to advise the Chair when they are unable to attend Committee meetings. The absence of Committee members from the meeting is to be recorded in the minutes. A Committee member (other than the Mayor) ceases to be a member of a Committee if the member:

- a) has been absent from three consecutive meetings of the Committee without having given reasons acceptable to the Committee for the member's absence, or
- b) has been absent from at least half of the meetings of the Committee held during the immediately preceding year without having given to the Committee acceptable reasons for the member's absences.

17. Committee Working Groups

Committee Working Groups may be established as sub-groups to consider special interest items. Committee working groups are to be established by Council at the recommendation of the Committee to address issues clearly identified by the Committee.

The Committee Working Group will meet as required to consider the specific matter/s.

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Staff involvement in working groups is not required however could be provided at the discretion of the Director. Council will provide a suitable meeting space for the working group.

The Committee Working Group may prepare reports and recommendations to the committee for its consideration.

Committee Working Groups operate in accordance with the Code of Conduct for Council Committee Members, Delegates of Council and Council Advisers.

18. Section 377 Delegation

The Committee does not have any delegated functions pursuant to section 377 of the Local Government Act (1993) and does not havae the power to direct staff.

19. Meeting Protocol and Procedure

Advisory Committee meetings will operate in accordance with the relevant sections of the *Code of Meeting Practice*. Subject to these Terms of Reference, the Advisory Committee may regulate its meeting procedures in a manner consistent with good order and effective conduct. The ruling of the Chairperson shall be final in respect of all procedural matters.

20. Miscellaneous

- a) Insurance: All group members are covered by the public liability policy of Council. This insurance does not preclude the Advisory Committee from due diligence and all Council policies must be adhered to.
- b) Code of Conduct: All Advisory Committee and Committee Working Group members are to abide by Council's adopted *Code of Conduct for Council Committee Members, Delegates of Council and Council Advisers 2023* at all times.
- c) Pecuniary Interest: Pecuniary Interest may be defined as an interest that a person has in a matter, as a group member or employee of a company or other body, because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person, or another person with whom the person is associated. Such other person includes the spouse or de-facto partner or relative of the group member.

Section 446 of the Local Government Act states that "a member of a council Committee, other than a Committee that is wholly advisory, must disclose pecuniary interests..."

Even though the Local Government Act provides an exemption to disclose pecuniary interests Council's preference is for all members to declare pecuniary interests where applicable.

Work Health Safety: All group members are required to comply with the "Worker Responsibilities" as prescribed in the Work Health Safety Policy.

E20xx/xxxxx

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

Report No. 4.1	Delivery Program Priorities
Directorate:	Corporate and Community Services
Report Author:	Amber Evans Crane, Corporate Planning and Improvement Coordinator
File No:	12025/606

Summary:

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At the 20 February 2025 Meeting of the Floodplain Risk Management Advisory Committee,
 the Committee were briefed on Integrated Planning and Reporting and carried a motion to discuss the priorities for the 2025 – 2029 Delivery Program at the May Committee Meeting.

The Delivery Program 2025 – 2029 and Operational Plan 2025/26 will be presented to Council on 8 May 2025 to be placed on public exhibition for feedback. The documents are currently published on Council's website in the Agenda for this meeting.

The Committee is invited to view these documents in the 8 May Planning Council Meeting Agenda at Report 13.2 "Draft Delivery Program 2025 - 2029 and 2025/26 Operational Plan, Budget, and Revenue Policy" and consider any comments or suggestions. This can be found via the Agenda and Minutes page on Council's website - <u>Minutes & Agendas -</u> Byron Shire Council

20 Byron Shire Council.

A direct link to the Draft Delivery Program is available here: https://byron.infocouncil.biz/Open/2025/05/PLAN_08052025_AGN_1986_WEB.htm

Subject to Council placing the documents on public exhibition, a submission form will be made available and a link circulated to the Committee inviting submissions.

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RECOMMENDATION:

That the Floodplain Risk Management Advisory Committee discusses the draft priorities for the 2025 – 2029 Delivery Program.

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	CSP Strategy	DP Action	Code	OP Activity
1: Effective Leadership	1.1: Enhance trust and accountability through open and transparent leadership	1.1.1: Leadership - Enhance leadership effectiveness, capacity, and ethical behaviour	1.1.1.3	Develop 2025/26 Operational Plan
1: Effective Leadership	1.1: Enhance trust and accountability through open and transparent leadership	1.1.4: Performance Measurement and Reporting - Embed a robust performance management system through the development of an outcomes measurement framework	1.1.4.4	Prepare the 2025- 2029 Delivery Program

Legal/Statutory/Policy Considerations

Integrated Planning and Reporting is governed by:

- 5
- 'Local Government Act 1993'.
 - 'Local Government (General) Regulation 2021'.
 - Integrated Planning and Reporting Guidelines for Local Government in NSW': outlines the statutory planning and reporting requirements that councils, county councils and joint organisations must meet

10 **Consultation and Engagement**

In accordance with the *Local Government Act*, the draft Delivery Program and Operational Plan (including the annual budget, revenue policy, and fees and charges) must be exhibited for 28 days. Prior to the adoption the Delivery Program and Operational Plan, Council must consider any submissions received during the exhibition period.

STAFF REPORTS - INFRASTRUCTURE SERVICES

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.2	Current Status of Flood Resilience Studies and Works
Directorate:	Infrastructure Services
Report Author:	Ryan Van Doorn, Flood & Drainage Engineer
File No:	12025/67

Summary:

The committee recommendations from 20 February 2025 requested an update to be
 circulated regarding the easement enhancement at South Golden Beach and provide the scope of work being performed by Public Works (NSW Government) on the South Golden Beach Levee.

As previously noted, the following summaries provide an overview of these works: -

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- South Golden Beach Levee Works (funded and run by NSW Public Works). As part of the NSW Flood Levee Repair Project, Public Works are constructing a maintenance access track to the western South Golden Beach Levee and undertaking remediation works on the levee. Construction is set to commence in August 2025. A draft concept of the intended works is supplied in Appendix 1.
- SGB Rear Easements NSW Severe Weather and Flood Grant AGRN1012 \$2M program Highly impacted Councils (wholly NSW State Government, administered by Office of Local Government) The program comprises the following projects:
 - SGB Rear Easements Enhancements Planning (project planning to complete full enhancement of SGB rear easements (\$50,000) – Complete
 - SGB Rear Easements Enhancements (on ground works from planning process) (\$300,000) – 95% complete. A survey plan of the easements intended for works is supplied in Appendix 2.

Essentially, both projects are engaged and are expected to commence in the financial year 2025-2026.

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STAFF REPORTS - INFRASTRUCTURE SERVICES

RECOMMENDATION:

That the Committee notes the status of the following works being undertaken by Council:

- 5 1. South Golden Beach Levee Works NSW Public Works; and
 - 2. SGB Rear Easements NSW Severe Weather and Flood Grant AGRN1012 \$1M program.

Attachments:

- 10
- 1 PUBLIC_WORKS_NSW_LEVEE_INTENT_24-1033-DRG-CD_20241202_DRAFT.pdf, E2025/46541 , page 30 🖟 🖀
- 2 South Golden Beach Easement Works Survey of Site Extents, E2025/46538, page 45 🗓 🛣

STAFF REPORTS - INFRASTRUCTURE SERVICES

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Rear Drainage Easements Upgrade – South Golden Beach

This project focuses on enhancing rear easements through on-ground works from the planning process. With a budget of \$300,000, the project's objective is to mobilise work crews to clear all drainage easements. Currently, the project scope includes conducting detailed site inspections, identifying issues on all easements, engaging a surveyor to survey all easements and mark the centre line, engaging an ecologist for the REF and Ecological Report, and gathering all information required for future funding applications.

The site survey, the review of environmental factors (REF) reporting, and the ecological assessment have been completed.

A survey of the drainage easements intended for works is supplied as Attachment 2.

The remaining budget will be allocated towards designing access to the easements to enable machinery deployment for clearing work, as the site is currently inaccessible in several areas, hampering maintenance efforts.

15 Details and ongoing updates are supplied on Council's website at the following URL:

Current works and projects - Byron Shire Council

South Golden Beach Levee Works

As part of the NSW Flood Levee Repair Project, Public Works are constructing a maintenance access track to the western South Golden Beach Levee and undertaking remediation works on the levee. Construction is set to commence in August 2025.

A draft concept of the intended works is supplied in Appendix 1.





N XXXX2224 N XXXX2224 XXXX2224 XXXX2224 XXXX2224 XXXX2224 XXXX2224

XX/XX/2024

XX/XX/2024

PROJECT:

DRAWING TITLE:

colins

williams

1					
1					
IS-0104	EASTERN LEVEE ISOPACHYTE PLAN SHEET 2 OF 2				
IS-0103	EASTERM LEVEE ISOPACHYTE PLAN SHEET 1 OF 2				
IS-0102	WESTERN LEVEE ISOPACHYTE PLAN SHEET 2 OF 2				
IS-0101	WESTERN LEVEE ISOPACHYTE PLAN SHEET 1 OF 2				
RW-0105	DETAIL PLAN AND LONGITUDINAL SECTION MC30 SH	EET 1 OF 1			
RW-0105	DETAIL PLAN AND LONGITUDINAL SECTION MC20 SH	EET 3 OF 3			
RW-0105	DETAIL PLAN AND LONGITUDINAL SECTION MC20 SH	EET 2 OF 3			
RW-0103 RW-0104	DETAIL PLAN AND LONGITUDINAL SECTION MC10 SH	EET 3 OF 3			
RW-0102	DETAIL PLAN AND LONGITUDINAL SECTION MC10 SH	EET 2 OF 3			
RW-0101	DETAIL PLAN AND LONGITUDINAL SECTION MC10 SH	EET 1 OF 3			
DW 0101					
DW 0101					
RW-0011	GENERAL ARRANGEMENT PLAN				
GE-0021 RW-0011					
GE-0011 GE-0021 RW-0011	DRAWING INDEX				
GE-0001 GE-0011 GE-0021 RW-0011	COVER SHEET DRAWING INDEX				













STAFF REPORTS - INFRASTRUCTURE SERVICES



4.2 - ATTACHMENT 1





STAFF REPORTS - INFRASTRUCTURE SERVICES



4.2 - ATTACHMENT 1

BYRON SHIRE COUNCIL







STAFF REPORTS - INFRASTRUCTURE SERVICES



4.2 - ATTACHMENT 1



STAFF REPORTS - INFRASTRUCTURE SERVICES



4.2 - ATTACHMENT 1



1. FIELD INLET CONCRETE GULLY TYPE 1 detailed in this Standard Drawing shall not be used under road traffic. This standard drawing shall apply to cast in situ field inlet aullies only. Precast pits will require a separate design and drawings, due to additional compaction loads Oversized excavation for the cast in situ construction of this aully pit with subsequent compaction around the pit shall not be used, due to additional compaction loads around the pit. This field inlet concrete gully has been designed only for construction and maintenance vehicles up to 10t gross weight. Refer Standard Drawing 1310 for details of Type 2 field inlet concrete gully. 2. Refer to the Road Drainage Manual for guidance in the selection of the appropriate type of field inlet concrete gully for the project. 3. DESIGN LOADS: Load factors and load combinations shall be in accordance with AS 5100. Dynamic load allowance is zero. LIVE LOAD SURCHARGE: 10 kPa. LIVE LOAD VEHICULAR: 10t gross weight. 4. CONCRETE shall be in accordance with AS 5100 and MRTS70. Concrete class S32/20. Exposure classification B1 to AS 3600. Cover to reinforcing steel shall be 40. 5. REINFORCING STEEL shall be in accordance with AS/NZS 4671 and MRTS71. Pits do not require reinforcement other than that shown for the apron and Reinforcing steel shall be read in conjunction with Standard Drawings 1043 Deformed bars Grade D500N. Round bars Grade R250N. Reinforcing mesh Grade D500L. All reinforcing steel to be ACRS certified. 6. STEELWORK shall be fabricated to the requirements of MRTS78. Angle shall be Grade 250 (minimum) to AS/NZS 3678. Flat bar shall be Grade 300 to AS/NZS 3679.1. All steelwork shall be hot dip galvanized to AS/NZS 4680. Prior to galvanising all weld splatter and welding slag is to be removed. 7. GRATES AND FRAMES shall comply with the requirements of AS3996 Class C design. For bicycle safe grates, only approved grates and frames shall be used. Bicycle safety testing of grates shall be in accordance with AS 3996. The grate detail shown is a bicycle safe grate. Where bicycles are legally prohibited then approved non-bicycle safe grates may be used. 8. WELDING: Symbols are to AS 1101.3. Structural Steel welding shall be to AS/NZS 1554.1. All welds, except location tack welds, shall be SP category. Welding consumables shall be controlled hydrogen type: G493 to AS/NZS ISO 14341-B or T493 to AS/NZS ISO 17632-B. Reinforcing Steel welding shall be in accordance with Standard Drawings 9. SUBSOIL DRAIN OUTLETS shall be to the requirements of MRTS03. Where the subsoil drain is discharged into a gully pit, the outlet of the subsoil drain should be preferably located above the top of the stormwater pipes. The subsoil drain outlets shall be provided with pest-proof flaps. 10. PROJECT-SPECIFIC INFORMATION TO BE SHOWN IN THE DOCUMENTS: Reference Point; frame grate height; connecting pipe details; depth of pit 11. DIMENSIONS are in millimetres unless shown otherwise ASSOCIATED DEPARTMENTAL DOCUMENTS: Design Criteria for Bridges and Other Structures Departmental Standard Drawings: 1043 Reinforcing Steel - Standard Bar Shapes 1044 Reinforcing Steel - Lap Lengths 1310 Concrete Gully - Field Inlet Type 2 MRTS03 Drainage, Retaining Structures and Protective Treatments Concrete MRTS71 Reinforcing Steel MRTS78 Fabrication of Structural Steelwork Department of Transport and Main Roads \odot \bigcirc CONCRETE GULLY The State of Queensland (Departr Transport and Main Roads) 2023 Standard Drawing No A3 1309 FIELD INLET TYPE 1 Not Scale Date 11/2023

¹⁵ May 2025

Report No. 4.3	Performance of Automatic Warning Signs for Water Over Main Arm Road, West of Sherrys Bridge
Directorate:	Infrastructure Services

5 **Report Author:** Ryan Van Doorn, Flood & Drainage Engineer

File No: 12025/297

Summary:

Following the flash flood event on 1 December 2024, Byron Shire Council assessed the effectiveness of the automatic warning signs on Main Arm Road. Internal investigations

10 identified that the warning signs were in operation when the incident occurred, however four vehicles continued to enter the waterway, were washed off the road and one occupant required rescuing from a tree.

The vehicles involved in the incident were likely returning from an event at Durrumbul Hall, with heavy rain falling and river levels peaking at 4 metres around 1 AM.

15 An occupant claimed the sign's height (3 metres) hindered visibility, causing confusion about the flashing lights.

The sign displaying "ROAD SUBJECT TO FLOODING DO NOT ENTER WHEN FLOODED" was set at 2.2 metres above the road, compliant with Australian Standard AS 1742, which recommends a minimum height of 1.5 metres. The nominal sign design is supplied in Attachment 1. A higher placement of the sign ensures better visibility and

20 supplied in Attachment 1. A higher placement of the sign ensures better visibility and deters vandalism. Lowering the sign by 700mm would reduce flood immunity and early visibility, risking driver safety.

Although 'Variable Message Signs' were considered, their higher cost would limit sign installation across the shire. Ultimately, Council officers reviewed the performance of the

- Automatic Signs and confirmed that the status of the devices during the flash flood event was operational. Therefore, on review, advice was supplied by the assessing officers that the heights of the flood warning signs remain unchanged. The Committee recommended that this item, tabled on 20 February 2025, be deferred to a subsequent meeting. The recommendation from staff remains the same and seeks Committee's acknowledgement
- 30 of the recommendation.

STAFF REPORTS - INFRASTRUCTURE SERVICES

RECOMMENDATION:

5 That the Committee notes the staff investigation and decision not to adjust the height of the Main Arm flood warning signs.

Attachments:

1 Nominal Sign Design, E2025/13642, page 48 🗓 🛣

STAFF REPORTS - INFRASTRUCTURE SERVICES

FLOODED ROAD SIGNS

VMS Sign Systems TMR Compliant WigWag Sign

- TC2316 COAD SUBJECT TO FLOODING sign
- link to water level station
- ARC controller telemetry
- 600x400x200 aluminium cabinet
- Two 130W Solar Panel and Brackets
- 100Ah Lithium Battey
- Victron Solar Regulator with smart data connection to local controller.
- Signfix frangible mounting system
- Two 200mm flashing beacons with target board



1 | Aquamonix PTY LTD | Intelligent Road Signage System

STAFF REPORTS - INFRASTRUCTURE SERVICES

4.3 - ATTACHMENT 1



2 | Aquamonix PTY LTD | Intelligent Road Signage System

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.4Byron Shire Council Flood Risk
Management Plans - Update on Actions and
Accomplishments - Post 2022 Flood
PrioritiesDirectorate:Infrastructure ServicesReport Author:Ryan Van Doorn, Flood & Drainage Engineer

 File No:
 I2025/574

Summary:

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On 20th February 2025, Council staff provided the Flood Advisory Committee with a
 historical overview of the Byron Shire Council's three adopted Flood Risk Management
 Studies (FRMS) for its primary riverine catchments. Accompanying these studies are
 individualised and corresponding Flood Risk Management Plans (FRMP), which detail
 floodplain characteristics, known flood behaviours, and potential mitigation options.

These Flood Risk Management Studies are accordingly titled the North Byron (Brunswick)
River Catchment (2020), the Tallow Creek Catchment (2009), and the Belongil Creek
Catchment (2009). These flood studies were initiated to be upgraded following Council resolution 22-349. On October 11, 2022, the Flood Advisory Committee approved 64 prioritised actions based on the Flood Risk Management Plans. The details and current statuses of the 64 prioritised actions are supplied in Attachment 1.

- 20 To facilitate a visual progress of these items since 2022, a timeline of current, past and ongoing projects is supplied in Attachment 2. In summary, a large body of work has progressed since the priority project list's inception and of core focus for Byron Shire Council are 18 remaining projects.
- Similarly, to enhance public awareness of Council's current Floodplain Risk Management activities and as per the Flood Risk Advisory Committee's previous recommendations, a website has been created to display, describe and provide status updates on the 64 priority projects tabled at the previous committee meeting.

In addition to the progress updates, the flood advisory committee recommendations requested an update to be provided regarding the Post Event Flood Planning Level

- 30 Review (item 23 Attachment 1) and the Evacuation Assessment for Mullumbimby (item 12 Attachment 1). Details on their progress are provided in the report below, however, can be summarised as awaiting grant funding to advance the Post-Event Flood Planning Level Review project and collaboration with NSW's reconstruction authority department is ongoing.
- 35 Finally, Council's Media and Communications Coordinator, is available to this Flood Risk Advisory Committee to support discussions regarding community engagement of the FRMS and FRMP programmes, as requested.

STAFF REPORTS - INFRASTRUCTURE SERVICES

RECOMMENDATION:

- 5 That the Floodplain Risk Management Advisory Committee:
 - 1 Recommends that Council notes and endorses the update on the 2022 Byron Shire Council Flood Mitigation Program, Attachment 1 (#E2025/48375)
 - 2 Acknowledges that the 64 priority projects and their supporting information have been added by Council officers to the Byron Shire Council website for community awareness
 - 3 Recommends that Council notes the progress of the Belongil and Tallow Creek Floodplain Management Study and its supporting Draft Calibration Report, Attachment 2 (E2025/48109).
- 4 Notes that the Grant application for the Brunswick River and Bangalow Flood
 15 Risk Management Plans have been submitted.
 - 5 Notes that the Evacuation Assessment for Mullumbimby project is led by the NSW Reconstruction Authority and acknowledges its current status as in progress.
- 6 Acknowledges Council's Media and Communications Coordinator attendance 20 at the May 15th 2025, Floodplain Risk Advisory Committee Meeting.
 - 7 Recommends Council consider the acquisition of software (TUFLOW) for ongoing FRMS hydraulic model development, maintenance, development assessment and optioneering purposes.

Attachments:

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- 1 Byron Shire Council Flood Mitigation Program, E2025/48375 , page 55 $\frac{1}{2}$
- 2 Draft Belongil and Tallow Creek FRMS Calibration Report, E2025/48109 , page 56 $\frac{1}{2}$
- 3 NSW Reconstruction Authority Evacuation Routes and Road Upgrade Options, E2025/46570 , page 62
- 30 4 TUFLOW price listing 2025, E2025/46685 , page 63 🗓 🛣

STAFF REPORTS - INFRASTRUCTURE SERVICES

website housing this additional information has been added to:

Report

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As per the February 2025 Flood Advisory Committee meeting minutes, to enhance public awareness of Council's current Floodplain Risk Management activities, Council officers have added webpage content to Byron Shire's website to display, describe and provide status updates on the 64 priority projects tabled at the previous committee meeting. The

https://www.byron.nsw.gov.au/Council/Plans-Strategies/Planning-Development-Strategies/Flood-Planning-and-Management-Studies.

Similarly, the flood advisory committee recommendations requested an update regarding the Post-Event Flood Planning Level Review (item 23—Attachment 1) and the Evacuation Assessment for Mullumbimby (item 12—Attachment 1). A status update is provided below for these two items.

In addition to the requested items, it is important to note Byron Shire Council will be receiving flood studies from external consultants in a software format called TUFLOW. As

- 15 Byron Shire Council does not have a TUFLOW licence or software installation, it is highly dependent on external consultants to perform hydraulic analyses or drainage improvement investigations when using this supplied model. As Council's new Flood and Drainage Engineer has this expertise in operating TUFLOW and undertaking impact assessments, Byron Shire Council would benefit from acquiring a TUFLOW licence and building its in-
- 20 house expertise to minimise cost to the community. The costing to acquire TUFLOW is supplied in Attachment 4, and support from the Flood Advisory Committee to acquire this software is sought to help build Byron Shire Council's internal capabilities.

Post-Event Flood Planning Level Review

This project is ongoing and is envisaged to span until 2028. It is essentially dependent on
 the engagement and completion of the Brunswick River Flood Study. Council's current
 website details the following regarding this project:

The NSW Department of Climate Change, Energy, the Environment, and Water has published all of its post-2022 Event Flood Behaviour Analysis Reports on the NSW SES Flood Data Portal.

- 30 Post Event Flood Behaviour Analysis of the March 2022 Event Brunswick River Report
 - Post Event Flood Behaviour Analysis of the March 2022 Event Belongil Creek Report
 - Post Event Flood Behaviour Analysis of the March 2022 Event Tallow Creek Report
- 35 The reports aim to understand the areas impacted by the recent 2022 flood event and determine the current approved flood model's ability to replicate the event.

While the reports' findings provide various recommendations that Byron Shire Council supports, we will not be making any changes to our planning instruments at this stage.

STAFF REPORTS - INFRASTRUCTURE SERVICES

In order to do this, we would need our own updated floodplain management plan for each of the catchments in the Shire.

The tenders to review the Belongil and Tallow Creek Floodplain Management Plans are currently under review and successful consultant will be engaged soon. These have been funded by NSW Government's Floodplain Management Grant Program.

Council will seek a further grant to complete a review of the North Byron Floodplain Management Plan as part of the 2025 NSW Government's floodplain management grant program. At this stage Council does not have budget to make an application in this year's round that closed on 16 May 2024.

10 All reviews will involve working closely with our established Floodplain Advisory Committee and other stakeholders.

Since this publication, Water Modelling Solutions has been engaged to undertake the Belongil and Tallow Creek Floodplain Management Study, and the draft Calibration report is supplied as Attachment 2.

- 15 Similarly, Byron Shire has since allocated a co-contribution budget to undertake the North Byron Floodplain Management Study, and its accompanying grant application has been compiled and submitted to the NSW Government floodplain management grant program. Council staff have closely liaised with, consulted with, and had the application reviewed by the Department of Climate Change, Energy, Environment and Water (DCCEW)
- 20 stakeholders.

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Notification of the grant submission's application outcome is anticipated by June 2025. Grant submission deadlines were extended to the 28th of May 2025, due to the exceptional circumstances related to TC Alfred.

Evacuation Assessment for Mullumbimby

- 25 The Evacuation Assessment for Mullumbimby is a project led by NSW's Reconstruction Authority in consultation with Byron Shire Council. The NSW Reconstruction Authority is in the process of developing a Multi-Criteria Analysis tool aimed at prioritising various low point options within Local Government Areas (LGAs) and the wider region. The finalisation of this tool is still underway, yet some key roads have been preliminarily
- 30 identified and are supplied as Attachment 3. The roads considered for evacuation assessment and potential improvements are provided as attachment. Request for Quote (RFQ) documentation is also being prepared to undertake localised flood modelling around key options across the region. Staff are in consultation with the Reconstruction Authority.

A request by staff has been submitted for a presentation by NSW's Reconstruction
 Authority to provide an update on this project's status once options are identified and prior to analyses commencing.

STAFF REPORTS - INFRASTRUCTURE SERVICES

Community Consultation

Finally, Council's Media and Communications Coordinator, is available to this Flood Risk Advisory Committee to support discussions regarding community engagement of the FRMS and FRMP outcomes.

5 Next steps

Await the outcome of the Brunswick River FRMSP grant submission.

Await the Multi-Criteria Analysis from the NSW Reconstruction Authority for proposed flood evacuation route options.

	F	Byron Shire Flood Miti	igation and Drainage I	Vanagement Projects	\$	Status Working On	Not Starte
1/04/2022	27/11/2022	25/07/2023	21/03/2024	16/11/2024	14/07/2025	11/03/2026	6/11/2026
1.a) Implement debris control measures for Federation Bridge STATUS:Complete							
1.b) Implement debris control measures for Billinudgel Railway Bridge. STATUS: In Progress							
2. Further investigate raising eligible residential properties to reduce flood damages. STATUS:Re-assigned							
3. Preferred Byron Drainage Strategy Construction. STATUS:In Progress							
4. Develop a whole of catchment drainage model and overland flow path investigation. STATUS: In Progress						-	
5. Undertake more detailed assessment of properties which may benefit from property level protection. STATUS:In Progress						-	
6. Voluntary House Raising Scheme. STATUS:Re-assigned							
7. Implement the recommendations of the South Golden Beach levee audit. STATUS:Re-assigned							
8. Upgrade Broken Head Road Crossing of South Tallow Creek. STATUS: In Progress							
9. Upgrade Coogera Circuit Detention. STATUS: In Progress						-	
10. Drainage Infrastructure Maintenance. STATUS:Complete							
11. Further detailed assessment of Saltwater Creek upgrade assessment and mitigation options for Mullumbimby. (incl. influence of							
12. Undertake an evacuation assessment for munumpimpy. STATUS: Complete							
15. Identify key roads and implement automatic warning signs and deput indicators. STATUS-Complete							
15. Consider establishing a Voluntary House Purchase scheme for eligible properties. STATUS:Not Started							
16. More detailed assessment of potential raising of River Street to provide improved flood immunity and evacuation. STATUS:Not Started							
17. Further consider viable options to implement the recommendations of the New City Road drainage assessment. STATUS:Not Started							
18. New Byron Local Environment Plan to more robustly protect existing development from increased flooding impacts resulting from future							
19. SGB Flood Pump Generator. STATUS:Complete							
20. Investigate Options for SGB Flood Gate Upgrades. STATUS: Complete							
21. Investigate SGB and Fern Beach Flood Levy Upgrades. STATUS:Complete							
22. Investigate Flood pump for Western SGB levee. STATUS:In Progress							
23. Post Event Shire-wide Flood Planning Level Review. STATUS: In Progress							
24. Council and the SES to update the Local Flood Plan based on findings of the FRMS. STATUS:Re-assigned							
25. Engage with the community to prepare an ongoing flood education program, with appropriate evaluation by Council and SES following							
26. Further consideration of Avocado Court drainage modification. STATUS:Re-assigned							
27. Develop a sediment transport model to investigate modification to the rock walls, as part of the Coastal Management Program for the							
28. Further consideration of Billinudgel infrastructure improvements. STATUS:Not Started							
29. Develop guidance on the design and installation of fencing traversing waterways and channels. STATUS:Complete							
Socian 10.7 (E) contificator to provide further detail of flored behaviour. Consideration to providing memory level flored information via an							
. Section 10.7 (5) certificates to provide rurner detail of nood behaviour. Consideration to providing property-even nood information via an							
33. Changes to land use zoning should consider flood compatibility based on the recommendations of the FRMS. STATUS: Complete							
4. Form a committee, comprising council, state, emergency services and community member representatives to oversee the implementation							
35. Commence undertaking to rezone the land identified as high flood hazard for the 1 in 100 year ARI flood to preclude these areas from							
36. Adopt FPLs as part of the DCP 2002 as the extent of flood prone land in the Tallow Creek catchment that consider climate change							
37. Adopt prescribed areas of fill exclusion. STATUS:Complete							
. Ensure future developments within the catchment utilise on-site stormwater detention measures to maintain predevelopment peak runoff							
39. Update 149 certificates and any lots with additional controls over them, including add 1495 certificates for lots							
40. Adopt new version of the hydraulic model to allow for assessment of all proposed development. STATUS:In Progress							
1. Establish relationship between flood return period, sand bar levels and flooding conditions in Tallow Lake to assist in SES flood evacuation							
2. Install flood gauge at Broken Head Road culvert showing example flood levels. STATUS:Not Started -BoM changing Gauge Network Server							
43. Install lake level and rainfall monitoring station on Tallow Lake and connect to Council's flood warning system. STATUS: Complete							
44. Install lake level and rainfall monitoring station on Tallow Lake and connect to Council's flood warning system. STATUS: In Progress							
45. Develop and implement asset management and maintenance plan. STATUS: Complete							
46. Implement interim management plan through water level and quality monitoring. STATUS:In Progress							
47. Develop data collection program for variables such as sand bar and lake stored level, to support development of long-term management							
48. Inspect the sand bar and record its level every year prior to the onset of the rainfall season. STATUS: In Progress							
. Monitor the level of the opening during the rainfall season and undertake maintenance earthworks to restore the level as per the accepted							
so, opuare council ocographic information systems (cris) to include outputs or this plan and update any lots with additional controls over							
51. Ensure autority uses the GIS layers to prepare property reports. STATUS:Complete							
52. The advention of the second se							
54. Development Controls. STATUS: Complete							
55. Emergency Planning (SMS Messaging). STATUS:Complete							
56. Flood Information Dataset. STATUS:Complete							
57. Belongil Creek Entrance Strategy. STATUS: Complete							
58. Flood Gauges. Install 6 new gauges with collaboration with BoM STATUS:In Progress							
59. Revise the Flood Planning Area based on the recommendations of the FRMS. STATUS: Complete							
60. Council consider updating the DCP to incorporate the recommendations detailed in the FRMS; STATUS:In Progress							
61. Byron Shire Council compliance team investigate illegal builds south of North Heads Road. STATUS:In Progress							
2. Implementation of design measures and evacuation plans to minimise impacts on future planned community uses as identified in the DCP							
63. Prepare a section contribution plan for all civil works in this plan. STATUS: Complete - Not Supported by Council							
64. Support SES in inclusion of Suffolk Park in Flood Response Plan. STATUS:Complete							

Started	Realloo	ated	Complet	ed			
	4/07/	2027		29/02	/2028		
				_			



5.3.2 Surveyed Debris Marks

A comparison between modelled peak levels and surveyed debris marks provided by BSC is provided in **Table 5-6**. In **Figure 5-4**, results within ±0.10 m are represented by a circle for a good match, while results within ±0.30m are represented by triangles as an acceptable match, where a triangle pointing up is above recorded and pointing down is below recorded. The key observations are listed below:

- The debris marks generally align well in the Ewingsdale Road estate area and to the south of the town centre around Centennial Court.
- Measured levels are typically low around the west side of the town centre near the Town Drain.
- Mars around the centre of the town were generally modelled to be higher than the observed survey levels, with five points within
 this area being within 0.1 m of the observed, and a maximum difference of 0.74 m recorded at point 37, this point is 0.342 m
 below point 35, despite being less than 10m away and so can likely be attributed to a either a local hydrodynamic effect or a
 spurious measurement.
- Overall, the calibrated model shows no consistent bias when compared to debris marks, as 21 modelled levels are higher, and 9 are lower. Out of the 30 debris marks, 9 are within ±0.10 m of the modelled levels, and 20 are within ±0.30 m, and a mean absolute error of 0.259 m.

Survey ID	Location	Flood Mark Level (mAHD)	Modelled Peak Level (mAHD)	Difference (m)
2	В	1.887	2.057	0.170
3	A	2.268	2.052	-0.216
562	BAY WHALERS	2.719	3.099	0.380
563	BB LIBRARY	2.727	3.100	0.373
567	BRIGANTINE ST	4.221	4.175	-0.046
568	CENTENNIAL CIRCT	3.39	3.360	-0.030
570	FUNDIES	2.76	3.095	0.335
572	GREAT NORTHERN	2.875	3.095	0.220
573	KENDALL ST-EWNGS	2.19	2.050	-0.140
574	LAWSON-FLETCHER	2.632	3.098	0.466
577	NORTH BYRON PUB	4.056	4.154	0.098
578	RAILWAY PARK	2.987	3.095	0.108
580	SHIRLEY-DRYDEN T	2.316	2.057	-0.259
582	SOMERSET ST	2.164	2.160	-0.004
583	THE CELLAR	2.711	3.096	0.385
584	THE CORNER	2.642	3.095	0.453
1170	20	3.272	3.06	-0.212
1171	21	3.113	3.06	-0.053
1173	23	2.981	3.189	0.208
1176	26	3.176	3.180	0.004
1177	27	3.044	3.180	0.136
1178	28	3.113	3.189	0.076
1180	31	3.091	3.189	0.098
1181	32	3.097	3.189	0.092

Table 5-6 March 2022 Event Modelled Peak Levels vs Surveyed Debris Marks

20207-R01-BelongilCreekFRMSPUpdate-ModelCalibrationandValidation-0.docx

BYRON SHIRE COUNCIL <u>STAFF REPORTS - INFRASTRUCTURE SERVICES</u>



Survey ID	Location	Flood Mark Level (mAHD)	Modelled Peak Level (mAHD)	Difference (m)
1183	34	3.216	3.099	-0.117
1184	35	2.698	3.095	0.397
1185	36	1.92	3.095	1.175
1186	37	2.356	3.095	0.739
1188	39	1.771	1.925	0.154
1190	41	2.565	3.193	0.628

 $20207 \hbox{-} R01 \hbox{-} Belong il Creek FRMSPU pdate-Model Calibration and Validation-0. docx$

STAFF REPORTS - INFRASTRUCTURE SERVICES

4.4 - ATTACHMENT 2





20207-R01-BelongilCreekFRMSPUpdate-ModelCalibrationandValidation-0.docx







	The Pocket Road (@Marshalls Creek)	Coolamon Scenic Drive	Left Bank Road	Main Arm Road (@Unner Main Arm)	Main Arm Road	Myocum Boad	Jonson Street	River Street Marshalls Creek New Brighton	The Saddle Boad
Location (Lat/Land	28°30'25.4"S 153°29'33.3"E	28°31'33.2"S 153°30'41.2"E	28°33'33.6"S 153°29'01.7"E	28°29'50.8"S 153°24'40.8"E	28°31'45.0"S 153°27'18.6"E	28°36'47.3"S 153°30'23.4"E	28°38'38.4"S 153°36'44.4"E	28°30'42.2"S 153°33'02.5"E	28°33'44.1"S 153°31'55.7"E
Google Maps Link	https://maps.app.goo.gl/8jJbT44WfLyXm9uHA	https://maps.app.goo.gl/Ro4bSn8WMomt1A uv6	https://maps.app.goo.gl/kdEuxh2c8rzftwjR8	https://maps.app.goo.gl/aoPPke6xK7QJmDje	https://maps.app.goo.gl/kpZnno99VWhkCE4 VA	https://maps.app.goo.gl/UxsK1FCYVE6mHtz	https://maps.app.goo.gl/7BmYFGvdyfFxbxp1 6	https://maps.app.goo.gl/MZvJ3H4yr9RsViYE	https://maps.app.goo.gl/aJpfHeTRpP7SDA 928
Accet Name (Boad/Bridge)									
Road Status (State/Regional/Local	Local	Local	Local	Local	Local	Local	Local	Local	Local
Official SES Evacuation Boute?	No	No	No	No	No	No	Yes	Yes	No
Within Flood Study Area (Yes/No	Yes - North Byron FS	Yes - North Byron FS	Yes - North Byron FS	No	Yes - North Byron FS	Yes - North Byron FS	Yes - North Byron FS	Yes - North Byron FS	Yes - North Byron FS
	Importantl local rural link road frequently flooded	Importantl local rural link road frequently flooded	Frequently flooded location	Several causeways frequently flooded,	Frequently flooded location	Frequently flooded location	ldentified under the Floodplain Risk Management Plan	Identified under the Floodplain Risk Management Plan	Note this is included as a longer term flood free road option for Mullumbimby
Brief Description of Situation	The Pocket, Main Arm	Local rural communities	Mullumbimby Creek, Mullumbimby (western rural residental area)	Upper Main Arm	Main Arm, Upper Main Arm	Local rural communities	Byron Bay urban areas	New Brighton, South Golden Beach	Mullumbimby
Approx. Population Impacted									
Existing Design Solution Available (Yes/No)	No	No	No	No	No	No	No	No	No
Likely Design Solution (road raising, approach raising, bridge replacement)		Road raising, cross drainage upgrades	Road raising, cross drainage upgrades	Nil suggested	Road raising, cross drainage upgrades	Road raising, cross drainage upgrades			Nil suggested - long term option
Webcam on Site	No	No	Yes	No	Yes	Yes	No	No	No
Council Nominated Priority (Ranking each LGA Site in Order									
Any Other Complementary or Alternative Solution Available									
Links to Reference Document(s)		-	-	-	-	-	-	-	-
Links to Reference Document(s)	-	-	-	-	-	-	-	-	-

4.4 - ATTACHMENT 3

B-1

TUFLOW PRODUCTS SOFTWARE LICENCE AGREEMENT SCHEDULE B (FG-AUD): TUFLOW FIXED GRID MODELLING AUD PRICE LIST 27th March 2025

Please contact sales@tuflow.com for a written quote. To help us assist you, please specify any preferences you have on:

- Whether a Perpetual, Annual Subscription, Monthly Rental or Cloud Service purchase.
- Lock Type (Hardware, Software or Cloud).
- Licence Type (Local or Network) and number of licenses (1, 2, 4 etc).
- Any optional modules (M2D, AD, CATCH or GPU Hardware) and number of module licences.

Purchase Options:

Licences can be purchased as:

- Perpetual: Indefinite expiry date plus an optional annual software upgrade and support fee.
- Annual Subscription: One year expiry and one year of software upgrades and support.
- Monthly Rental: Rent licences month by month.

Lock Types:

TUFLOW Products are licenced via locks, available in two forms:

- 1. Hardware Lock: Licences are assigned to a dongle (e.g. USB lock) that can be attached to any computer. Licences on the Hardware Lock can be updated at any time (for example, to upscale with rental or additional new perpetual licences).
- Software Lock: Licences are assigned to a computer. Software Locks are recognised by the 2016 release onwards. 2. Cloud Server: Only available for Network licence types, your licences are hosted on a TUFLOW managed cloud server. 3.
- Web access is required to connect with the server. The Cloud server option is recognised by the 2016 release onwards.

Licence Types

- Local Licence: TUFLOW simulations can only be run on the computer hosting the Lock.
- **Network Licence:** The Lock is hosted on any computer (e.g. a server). Other computers check out licences from the host computer via a company's network. There are no regional restrictions associated with Network licences. 2.

How many simulations can be run at the same time?

The number of licences reflect how many TUFLOW simulations can be run in parallel at any given time. For example, a Local 4 can run 4 simulations at the same time on the one computer. A Network 5 allows up to 5 simulations at any one time across an organisation's network. If all licences are in use when a TUFLOW simulation starts, the simulation enters a holding pattern until a free licence is available.

Are there ongoing costs?

Yes, if you wish to access our support services and keep your perpetual licence maintained to access the latest software upgrades and releases, an annual invoice for 15% of the value of your perpetual licences is issued in June of each year. At the time of the initial purchase, the annual fee is pro-rated to next June.

Are discounts available for multiple licences?

Our price structure heavily discounts purchase of multiple licences. The more licences you own, the cheaper the per licence rate. In addition, a discount is provided for multiple Local Licences of the same product by the same Licensee (i.e. one point of contact for all invoicing).

What TUFLOW functionality is included?

A TUFLOW licence is 1D and 2D enabled and includes both an implicit (Classic) and the explicit (HPC) solver. All the 1D and 2D functionality listed below are included with a standard licence. Multiple 2D Domains (M2D/QT), Advection-Dispersion (AD), Catch module (CATCH) and access to GPU Hardware are not included - refer to the Optional Modules Section for information on these advanced features.

- Unlimited 1D elements, including open channels, structures, Unlimited 2D elements. • pipes, pits, and manholes.
- Wide range of structures including culverts, bridges, weirs, gates, pumps and more.
- Advanced stormwater network features for modelling inlet pits, pipes, and manholes.
- Wide range of 1D and 2D boundary conditions.
- Powerful 1D operational controls for structures.
- Expansive model quality control check outputs.
- Wide range of output options, styles and formats.
- TUFLOW Classic's 2D Implicit Solver.
- HPC Heavily Parallelised 2D Solver on CPU (the GPU Module is needed to run HPC on GPU cards).
- Unlimited 1D/2D links for Classic and HPC Solvers.
- 2D direct rainfall functionality and time-varying spatial • rainfall inputs (distributed hydrology).
- Several infiltration loss options including Green-Ampt.
- Dynamic embankment breaches.
- Flood evacuation route tracking. •

TUFLOW Products Software Licence Agreement - Schedule B (FG-AUD)

STAFF REPORTS - INFRASTRUCTURE SERVICES

B-2

TUFLOW Pricing (AUD including GST)							
TUFLOW Engi	ine Price						
ltem	Description	Annual Subscription ¹³	Perpetual Licence ^{2 3}				
Local Licences	Local 1	\$2,860 (\$2,860 / licence)	\$7,150 (\$7,150 / licence)				
Licensee to run	Local 2	\$4,510 (\$2,255 / licence)	\$11,330 (\$5,665 / licence)				
one simulation per licence on the	Local 4	\$6,270 (\$1,568 / licence)	\$15,840 (\$3,960 / licence)				
computer with the Lock.	Other	Price upo	on request				
For example, a Local 8 allows for up to 8 simulations to be run at one time on a single computer. For example, a Local 8 allows for up to 8 simulations to be run at one time on a single computer. Additional Local Licence Locks: The price for each additional Perpetual Local Licence Lock of the same product purchased by the same Licensee (i.e. same office and same organisation) is discounted. The largest discounts apply to the cheapest locks. Discount Rate: - 10% for the 2 nd Local Lock - 20% for the 3 rd and subsequent Local Locks Annual subscriptions are not eligible for multi-licence discounts.							
Network	Network 1	\$4,180 (\$4,180 / licence)	\$10,450 (\$10,450 / licence)				
Licences Allows multiple	Network 3	\$10,890 (\$3,630 / licence)	\$27,060 (\$9,020 / licence)				
users and simulations across	Network 5	\$16,170 (\$3,234 / licence)	\$39,930 (\$7,986 / licence)				
the licensee's local area network	Network 8	\$22,440 (\$2,805 / licence)	\$55,880 (\$6,985 / licence)				
(LAN).	Network 10	\$26,070 (\$2,607 / licence)	\$65,010 (\$6,501 / licence)				
For example, a Network 8 allows	Network 15	\$33,550 (\$2,237 / licence)	\$83,710 (\$5,581 / licence)				
for up to 8 simulations to be	Network 20	\$40,260 (\$2,013 / licence)	\$99,880 (\$4,994 / licence)				
run at one time on computers	Network 30	\$53,790 (\$1,793 / licence)	\$133,980 (\$4,466 / licence)				
connected to the licensee's local	Network 50	\$82,500 (\$1,650 / licence)	\$205,920 (\$4,118 / licence)				
area network (LAN).	Other	Price upo	on request				
Additional Locks: Organisations who purchase a Network 20 or greater are entitled to a second Lock to distribute their Network licences. This provides contingency for host computer outages. Note that a request to reduce the number of licences on a lock may require the lock to be returned for re-coding as part of a redistribution.							
¹ Annual subscription licences are more restrictive than perpetual licences. New engine and module licences can only be added annually at the time of the licence renewal. Annual subscription licences are not subject to the multi-Local Licence discounts.							
² Perpetual licences are the most flexible licence type. Upgrades can be made to add new engine and module licences at any time.							
³ Perpetual Purcha purchased as a Po perpetual licence	ase from Annual S erpetual Licence, s price. This offer is	ubscription: If at the end of a subscripti 50% (ex taxes) of the last one-year's sul only valid at the time of the annual subs	on period an Annual Subscription is bscription fees are deducted from the scription renewal.				

TUFLOW Products Software Licence Agreement - Schedule B (FG-AUD)

STAFF REPORTS - INFRASTRUCTURE SERVICES

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Optional TUFLOW Modules							
Computational Modules							
TUFLOW QT / M2D Module	Provides access to the <u>TUFLOW HPC Quadtree and TUFLOW</u> <u>Classic M2D</u> functionality. This allows varying 2D cell sizes within a single model.	50% of the equivalent TUFLOW Engine Licence Price.					
TUFLOW AD Module	Provides access to the <u>TUFLOW AD Module</u> . Can be used to simulate plumes, flushing studies, saline intrusion, etc. Includes a heat exchange formulation for thermal studies.	50% of the equivalent TUFLOW Engine Licence Price.					
TUFLOW CATCH Module	W Provides access to the <u>TUFLOW CATCH Module</u> . Can be used to enable the constituent (sediment, nutrient and pollutant) generation feature in HPC, and to link TUFLOW HPC with TUFLOW FV for seamless catchment / receiving water modelling. 50% of the equivalence						
QT/M2D, AD and CAT number of Modules lice	CH Module licences must be paired with maintained TUFLOW Enginences on a lock can be the same or less than the number of TUFLO	ne licences. The W licences.					
Hardware Modules							
TUFLOW GPU Module	TUFLOW GPU ModuleProvides access to a GPU device for TUFLOW's heavily parallelised HPC 2D Solver for fixed grid and Quadtree meshes, thereby substantially reducing simulation times.The number of GPU Module licences reflects the maximum						
	Note that for a GPU with dual cards, each card is treated as a separate device.						
GPU Module licences must be paired with at least one (1) maintained TUFLOW Engine licence (page B-2). The number of GPU Module licences can be more or less than the number of TUFLOW Engine licences. For example, two GPU Module licences paired with a single TUFLOW Engine licence allows access to two GPU devices on a computer by a single simulation (further reducing simulation times).							

Example Module Price Calculation

Local 4 TUFLOW licence + Local 1 GPU Module: \$15,840 + (0.5 x \$7,150) = \$19,415 incl. GST

Monthly Rental Licences and Conditions

Monthly Rental of Local and Network Licences is available to existing TUFLOW Licensees.

Rental Price = R + NL

R = Number of months times 10% of the Perpetual Licence Price.

NL = New Lock Purchase (if required) of \$220. Hardware Locks may be retained indefinitely for any future rentals or purchases. Software Locks can be recoded for future purchases for the life of the computer. If the rental licensing is to an existing (non-Perpetual) Lock previously purchased by the Licensee, NL equals zero.

Note:

- Rental of additional Local or Network Licences are priced based on the price difference between the Licensee's Perpetual Licence and the value of the Perpetual + Rental Licences.
- Local Licence Rentals are not subject to the multi-Local Licence discounts.
- Rental of additional Local or Network Licences are only compatible with existing Perpetual Licences. They are <u>NOT</u> compatible with existing Annual Subscription Licences.
- Perpetual and Rental Locks can be attached to the same computer to access licences from both Locks.

Perpetual Purchase from Rental: If at the end of the rental period the Rental Licence is purchased as a Perpetual Licence, 50% (ex taxes) of the consecutively accrued rental fees (maximum of 6 months) of R in the Rental Price formula are deducted from the purchase price. Offer valid for 1 month following last rental expiry.

TUFLOW Products Software Licence Agreement - Schedule B (FG-AUD)

STAFF REPORTS - INFRASTRUCTURE SERVICES

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Cloud Simulation

Organisations with access to Cloud hardware may host Network Licences within their Cloud domain provided these licences are only available to users who have access to the Licensee's LAN.

The link below provides a detailed report discussing some benefits, challenges and solutions relating to Cloud computing to help people who are setting up their own system.

Note, rental licences can be used to up/downscale your licence volume on a monthly basis.

Click for further details

Annual Software Upgrades and Support Fee			
Annual Software Upgrades and Support	The annual software upgrades and support, or software maintenance fee provides access to new releases and software updates. It also	15% of the TUFLOW licence value including any purchased modules.	
(Maintenance) Fee	grants the Licensee access to software support via support@tuflow.com .	The first instalment is pro-rated to the end of next June using the following factors:	
	The fee is highly recommended for Perpetual		
	Licences and is compulsory for Annual	Order Date:	
	Subscription Licences.	Jul to Sep 0.75	
		Oct to Dec 0.50	
	For unmaintained Perpetual Licences a	Jan to Mar 0.25	
	surcharge of 25% on all unpaid annual fees applies should annual maintenance be	Apr to Jun 1.00 (to June next year)	
	commenced or reinstated at a later date.	Thereafter, an invoice is issued around June each year to cover	
	There is no annual maintenance fee applied to monthly rental purchases.	software upgrades and support for the next 12-month period from July to June.	

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STAFF REPORTS - INFRASTRUCTURE SERVICES

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Miscellaneous		
Academic Licence Discount	Licences and the annual software upgrades and support fee are discounted for academic institutions for non-commercial, educational use.	50% discount on Perpetual and Annual Subscription Licences
Upgrade of an Existing Licence	Additional engine licences can be added at a later date after the initial purchase. Modules can also be purchased at a later date after initial purchase of engine licences. Local Licences can be converted to Network Licences and vice versa. Upgrades can be made to a fully maintained perpetual licence at any time. Upgrades to annual subscription licences only be completed annually at the time of their renewal. Changes to Locks can be carried out remotely.	The difference in current list price between the two licences. The upgraded licence(s) value must be of similar or greater value than the existing licence(s). No refunds are issued.
New Lock Purchase	New lock purchase	\$220
Transfer or Replacement of an Existing Lock	If a Lock becomes faulty through normal use, there is no replacement charge - please contact <u>sales@tuflow.com</u> .	No Cost
	Damaged Hardware Locks that are returned and need to be replaced.	\$220
	Software Locks that need to be transferred to another computer.	\$110
Loss of an Existing Hardware Lock or Transfer of a Software Lock Not Possible	The Licensee is responsible for taking out insurance against the loss, theft or disappearance of Hardware Locks, or if a Software Lock cannot be transferred (e.g. computer is stolen or no longer functional). The cost to replace a lost or stolen licence is equal to the Licence Fee of the TUFLOW Software payable at the time of the replacement of the lost Licence Lock.	

This Price List is to be read in conjunction with the latest TUFLOW PRODUCTS SOFTWARE LICENCE AGREEMENT available from https://www.tuflow.com/downloads/.

The applicable currency is the currency of the country of the Licensee's invoicing address. TUFLOW Prices are available in AUD, NZD, EUR, GBP, USD, INR and PKR from https://www.tuflow.com/pricing/. For countries, whose official currency is not accounted for by these currencies, the AUD rate applies unless otherwise quoted in writing.

Any applicable non-Australian government taxes are the responsibility of the Licensee.

BMT reserves the right to vary the Prices in this Schedule from time to time without notice to the Licensee.

TUFLOW Products Software Licence Agreement - Schedule B (FG-AUD)

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.5	Future Discussion Item for Floodplain Management Advisory Committee
Directorate:	Infrastructure Services
Report Author:	Ryan Van Doorn, Flood & Drainage Engineer
File No:	12025/699

Summary:

This report summarises an information request submitted by a member of the Floodplain Management Advisory Committee.

The item requested is tabled for discussion by the committee.

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RECOMMENDATION:

That the Floodplain Management Advisory Committee note the request and provides direction on whether this item requires to be an agenda item for the Committee.

Attachments:

20 1 Request_for_Agenda_Item, E2025/49894 , page 70 🗓 🛣

STAFF REPORTS - INFRASTRUCTURE SERVICES

The following request for information has been received by Council staff from a Floodplain Management Advisory Committee member in the table below. The request below is tabled in this report for discussion by the committee, to resolve whether it for inclusion in a future/ next Committee meeting.

As the email correspondence requesting the agenda item was not copied to all committee members, as State members were omitted, it is shared below for transparency. A map and email are supplied in attachment 1.

Information requested

5

Request for discussion of item: Impact of works on Mullumbimby Road on flood levels, including those of residences in east Mullumbimby.

Attached is a map distributed by Council showing the three stages of the works. Stage 3 is the one that could affect flood levels, if it involves road levels rising or any other changes on the floodplain that Mullumbimby Road traverses.

Could Community members and Councillors please receive a copy of the flood assessment on Stage 3 works?

Requested by: Duncan Dey

STAFF REPORTS - INFRASTRUCTURE SERVICES

4.5 - ATTACHMENT 1

From: Duncan Dey
Sent: Sunday, 20 April 2025 9:08 AM
To: Cr. Elia Hauge ; Holloway, Phillip
Cc: Tomanek, Dominika ; Matthew Lambourne ; Rose, Euan ; Frumpui, Samuel ; Cathrine Lane ; robert Cr. Delta Kay ; Cr. David Warth ; Woods, Chloe
Subject: new item for next agenda of the Floodplain Management Advisory Committee

G'day Elia and Phil

I am concerned that works this year on Mullumbimby Road could impact flood levels, including those of residences in east Mullumbimby.

I attach a map distributed by Council showing the three stages of the works. Stage 3 is the one that could affect flood levels, if it involves road levels rising or any other changes on the floodplain that Mullumbimby Road traverses.

Could Community members and Councillors please receive a copy of the flood assessment on Stage 3 works?

Could you please reserve a space on our Committee agenda, in case this needs looking into?

And could both please respond?

Thanks and Cheers, Duncan

