

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	Tuesday, 14 February 2023
Time	9.00am

Phil Holloway
Director Infrastructure Services

I2023/165
Distributed 08/02/23
Amended 10/02/2023



BYRON
SHIRE
COUNCIL

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 vice-versa). 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 [Code of Conduct](#).

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.

BYRON SHIRE COUNCIL

BUSINESS OF MEETING

1. APOLOGIES

2. DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

3. ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

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4. STAFF REPORTS

Infrastructure Services

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4.3	Hydrology Inputs to the North Byron 2020 Flood Model	25
4.4	Byron Shire Post 2022 Flood Analysis Update	30

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1 Adoption of Minutes from Previous Meeting

Directorate: Infrastructure Services

5 **Report Author:** Dominika Tomanek, Executive Assistant Infrastructure Services

File No: I2023/156

10 **RECOMMENDATION:**

That the minutes of the Floodplain Management Advisory Committee Meeting held on 11 October 2022 be confirmed.

15 **Attachments:**

1 Minutes 11/10/2022 Floodplain Management Advisory Committee, I2022/1412 , page 10 [↓](#) 

Report

The attachment to this report provides the minutes of the Floodplain Management Advisory Committee Meeting of 11 October 2022 .

5

Report to Council

The minutes were reported to Council on 27 October 2022.

10 Comments

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

22-603 Resolved that Council adopt the following Committee Recommendations:

Report No. 4.1 Report in response to Res 22-461 Outcome of NSW Flood Inquiries

Committee Recommendation 4.1.1

1. That the Committee notes the recommendations of the two NSW Flood Inquiry reports and that staff have commenced work to identify relevant actions to be pursued through Local, State and Federal avenues.
2. That Council support staff also working to support the following recommendations of the Parliamentary Inquiry:
 - a) Recommendation 10 - Work with the community broadcasting sector to identify ways in which community broadcasters could be better supported to provide critical services during natural disasters, with a view to providing them adequate long term funding.
 - b) Recommendation 15 - . Ensure that the current review of evacuation centres considers the role, accreditation and support of community evacuation centres, with the outcomes of this review to be made public and incorporated into the update of state emergency plans.
 - c) Recommendation 19 - Establish a standing workforce from within the

BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1

public service to staff evacuation and recovery centres, with this workforce to be trained ahead of time and mobilised as soon as a natural disaster occurs.

22-604 Resolved that Council adopts the following Committee Recommendations:

Report No. 4.2 Resolution 22-360 - Decreasing risk on the Shire's floodplain

Committee Recommendation 4.2.1

That the Floodplain Management Advisory Committee:

1. Notes the report on Resolution 22-360 and that Council staff continue to undertake technical work and receive reports from various sources to assist our community's flood event recovery and reconstruction actions.
2. Notes that updates to the Committee and Council will be provided periodically on this work.

22-605 Resolved that Council adopts the following Committee Recommendation:

Report No. 4.3 Flood Levee Repair and Maintenance Program-Department Regional NSW

Committee Recommendation 4.3.1

The Floodplain Management Advisory Committee recommends that Council note the current Flood Levee Repair and Maintenance Program-Department Regional NSW.

22-606 Resolved that Council adopts the following Committee Recommendation:

Report No. 4.4 Byron Shire Post 2022 Flood Analysis Update

Committee Recommendation 4.4.1

That the Floodplain Management Advisory Committee recommends that Council

BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1

note the report and further report be presented at the next Floodplain Management Advisory Committee meeting.

22-607 Resolved that Council adopts the following Committee Recommendation:

Report No. 4.5 Capricornia Canal and Marshalls Creek

Committee Recommendation 4.5.1

That Council notes that the actions proposed in Attachment 2 to the report 4.5 of Floodplain Management Advisory Committee Agenda (E2022/70063) will be completed prior to Council further considering the funding and completion of the scope of works provided in Attachment 1 to the report 4.5 of Floodplain Management Advisory Committee Agenda (E2022/77663).

22-608 Resolved that Council adopts the following Committee Recommendations:

Report No. 4.6 Byron Bay Drainage Upgrade Project

Committee Recommendation 4.6.1

That the Floodplain Management Advisory Committee recommend that Council:

1. Notes the current progress of the Byron Bay Drainage Strategy.
2. Support the project team in commencing development of a Communications Plan with Council's Communications Team.

22-609 Resolved that Council adopts the following Committee Recommendation as amended:

Report No. 4.7 Byron Shire Council Flood Risk Management Plan-Actions and Accomplishments

File No: I2022/1264

Recommendation 4.7.1

That Council endorses the updated Byron Shire Council Flood Mitigation Program (E2022/89966 which was Attachment 1 to report 4.7 of Floodplain Management Advisory Committee Agenda for 11 October) and make that priority listing of projects public and searchable via keywords like "Byron Shire Flood Mitigation Program".

Minutes of Meeting

Floodplain Management Advisory Committee Meeting

Venue	Conference Room, Station Street, Mullumbimby
Date	Tuesday, 11 October 2022
Time	2.00pm



BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES
OCTOBER 2022

11

Minutes of the Floodplain Management Advisory Committee Meeting held on Tuesday, 11 October 2022

File No: I2022/1412

PRESENT: Cr M Lyon (Mayor), Cr D Dey

Staff: Phil Holloway (Director Infrastructure Services)

Scott Moffett (Flood and Drainage Engineer)

Shelley Flower (Minute Taker)

Kate Draskovic

Chloe Dowsett

Sharyn French

Community: Karl Allen, Rebecca Brewin, Matthew Lambourne, Catherine
Lane, Robert Crossley, Ziwar Sattouf, Steven Harris.

*Cr Lyon (Chair) opened the meeting at 2.10pm and acknowledged that the meeting was
being held on Bundjalung Country.*

ATTENDANCE VIA AUDIO-VISUAL LINK:

Martin Rose (Dept of Planning and Environment)

APOLOGIES:

Cr C Coorey, James Flockton (Infrastructure Planning Coordinator), Chad Ellis (SES)

DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

There were no declarations of interest.

BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES 11
OCTOBER 2022

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1 Adoption of Minutes from Previous Meeting
File No: I2022/1399

Committee Recommendation:

That the minutes of the Floodplain Management Advisory Committee Meeting held on 16 June 2022 be confirmed.

(Lyon/Brewin)

The recommendation was put to the vote and declared carried.

Note: The minutes of the meeting held on 16 June 2022 were noted, and the Committee Recommendations adopted by Council, at the Planning Meeting held on 11 August 2022.

BUSINESS ARISING FROM PREVIOUS MINUTES

There was no business arising from previous minutes.

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES
OCTOBER 2022

11

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

Report No. 4.1 Report in response to Res 22-461 Outcome of NSW Flood
Inquiries
File No: I2022/1260

Committee Recommendation:

1. That the Committee notes the recommendations of the two NSW Flood Inquiry reports and that staff have commenced work to identify relevant actions to be pursued through Local, State and Federal avenues.
2. That Council support staff also working to support the following recommendations of the Parliamentary Inquiry:
 - a) Recommendation 10 - Work with the community broadcasting sector to identify ways in which community broadcasters could be better supported to provide critical services during natural disasters, with a view to providing them adequate long term funding.
 - b) Recommendation 15 - . Ensure that the current review of evacuation centres considers the role, accreditation and support of community evacuation centres, with the outcomes of this review to be made public and incorporated into the update of state emergency plans.
 - c) Recommendation 19 - Establish a standing workforce from within the public service to staff evacuation and recovery centres, with this workforce to be trained ahead of time and mobilised as soon as a natural disaster occurs.

(Dey/Lyon)

The recommendation was put to the vote and declared carried.

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES
OCTOBER 2022

11

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

Report No. 4.2 Resolution 22-360 - Decreasing risk on the Shire's floodplain
File No: I2022/1100

Committee Recommendation:

That the Floodplain Management Advisory Committee:

1. Notes the report on Resolution 22-360 and that Council staff continue to undertake technical work and receive reports from various sources to assist our community's flood event recovery and reconstruction actions.
2. Notes that updates to the Committee and Council will be provided periodically on this work.

(Lyon/Dey)

The recommendation was put to the vote and declared carried.

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.3 Flood Levee Repair and Maintenance Program - Department
Regional NSW
File No: I2022/1256

Committee Recommendation:

The Floodplain Management Advisory Committee recommends that Council note the current Flood Levee Repair and Maintenance Program-Department Regional NSW.

(Lane/Brewin)

The recommendation was put to the vote and declared carried.

Report No. 4.4 Byron Shire Post 2022 Flood Analysis Update
File No: I2022/1261

Committee Recommendation:

That the Floodplain Management Advisory Committee recommends that Council note the report and further report be presented at the next Floodplain Management Advisory Committee meeting.

(Lambourne/Brewin)

The recommendation was put to the vote and declared carried.

BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

BYRON SHIRE COUNCIL

FLOODPLAIN MANAGEMENT ADVISORY COMMITTEE MEETING MINUTES
OCTOBER 2022

11

Report No. 4.5 **Capricornia Canal and Marshalls Creek**
File No: I2022/1262

Committee Recommendation:

That the Floodplain Management Advisory Committee recommends:

Council notes that the actions proposed in Attachment 2 (E2022/70063) will be completed prior to Council further considering the funding and completion of the scope of works provided in Attachment 1 (E2022/77663).

(Lyon/Allen)

The recommendation was put to the vote and declared carried.

Report No. 4.6 **Byron Bay Drainage Upgrade Project**
File No: I2022/1263

Committee Recommendation:

That the Floodplain Management Advisory Committee recommend that Council:

1. Notes the current progress of the Byron Bay Drainage Strategy.
2. Support the project team in commencing development of a Communications Plan with Council's Communications Team.

(Harris/Lyon)

The recommendation was put to the vote and declared carried.

Report No. 4.7 **Byron Shire Council Flood Risk Management Plan-Actions and Accomplishments**
File No: I2022/1264

Committee Recommendation:

The Floodplain Management Advisory Committee recommend that Council endorse the updated Byron Shire Council Flood Mitigation Program, Attachment 1 (E2022/89966).

(Allen/Brewin)

The recommendation was put to the vote and declared carried.

There being no further business the meeting concluded at 4.02pm.

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.1 Byron Shire Council-Strategic Fill Policy

Directorate: Infrastructure Services

5 **Report Author:** Scott Moffett, Drainage & Flood Engineer, IS - Works - Infrastructure Planning

File No: I2023/113

Summary:

10 Council adopted the North Byron Floodplain Risk Management Study in 2020. This study includes areas within the Brunswick River catchment that have been designated as no fill zones.

15 Council has recently been awarded Department of Planning and Environment grant funding to update the Belongil and Tallow Creek Flood Risk Management Studies and Plans. Following this update, new no fill zones will be designated for both study catchments.

Currently the 2014 Byron Shire Council Development Control Plan has two specific Chapters that address and constitutes Council's no fill policy. These Chapters are:

- Chapter B14: Excavation and Fill ([Development Control Plan 2014 - Byron Shire Council \(nsw.gov.au\)](#))
- 20 • Chapter C2: Areas Affected by Flood ([Development Control Plan 2014 - Byron Shire Council \(nsw.gov.au\)](#))


This report discusses Councils current and future direction for no filling in the shire.

RECOMMENDATION:

25 **That the Floodplain Management Advisory Committee:**

1. **Notes the current summary of the 2014 Byron Shire Council Development Control Plan.**
2. **Recommends the 2014 Byron Shire Council Development Control Plan be updated as a priority to reference the 2020 North Byron Floodplain Risk Management Study.**
- 30 **3. Acknowledges and discusses Cr Dey's proposal.**

Attachments:

- 1 Background on No Fill Policy - Author Duncan Dey, E2023/13872 , page 22 

5

Report

Council adopted the North Byron Floodplain Risk Management Study in 2020. This study includes areas within the Brunswick River catchment that have been designated as no fill zones.

- 10 Council has recently been awarded Department of Planning and Environment grant funding to update the Belongil and Tallow Creek Flood Risk Management Studies and Plans. Following this update, new or updated no fill zones will be designated for both catchments.

- 15 Currently the 2014 Byron Shire Council Development Control Plan has two specific Chapters that address and constitutes Council's no fill policy. These Chapters are:

- Chapter B14: Excavation and Fill ([Development Control Plan 2014 - Byron Shire Council \(nsw.gov.au\)](https://www.nsw.gov.au/development-control-plans/development-control-plan-2014-byron-shire-council))
- Chapter C2: Areas Affected by Flood ([Development Control Plan 2014 - Byron Shire Council \(nsw.gov.au\)](https://www.nsw.gov.au/development-control-plans/development-control-plan-2014-byron-shire-council))

- 20 Currently these chapters refer to Belongil and Tallow Flood Studies correctly, however. the out-of-date Brunswick River Flood Study is referred to for Brunswick Heads. However, the no fills zones in the currently adopted plan as being implemented by Council planning team.

- 25 Below is Cr Council Dey's Background on No Fill Policy and proposal - Author Duncan Dey, 16th January 2023 (E2023/13872).

flooding in 2022

- 30 The flood year just gone saw many undesirable outcomes of various scales on floodplains. They highlight the real culprit in relation to floodplain management: Filling on Floodplains.

1. First cab of the rank was **West Byron**, approved just before the big floods and after unprecedented months of Court deliberation, with expert reports saying nothing to see here.

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

4.1

Most coastal rivers have a 'bladder' or broad-water for storing floodwater before it reaches the sea. These occur inland as well (Lake Menindee, for example). Catchment water spreads while the sea is up and waits its turn to use a usually narrow exit once sea levels have fallen.

- 5 The narrowness of the 'exit' is of benefit when the ocean is in storm, and at which time it is also an 'entrance'.

- 10 The Court's experts will have written reports that comply with rules and regs on flooding, but not that deal with the truth. Catchment water MUST be able spread. Traditional hydrology has always failed to deal with the catchment ocean interface. We are still learning on this.

The Court has failed to encompass the principle that nature's landscape is the correct one.

- 15 2. Next offence was at a much smaller scale. A house slab was put up on 0.4m of fill in **South Golden Beach**, to comply with a floor level requirement due to flooding but to break a no-fill vision of the developer. The property was landlocked by neighbouring residential Lots and now sheds runoff onto them.

The issue should have been foreseen prior to DA approval. Plans for the proposal were badged No Fill but the slab on ground builder knew only one method of raising the slab.

- 20 3. The third offence was snuck through in **Prince Street Mullumbimby**, under the state's post-flood emergency powers. How urgent was this housing when eleven months after the flood nobody is housed? Council put forward this flood-prone site on a list of government-owned sites. We were told this site was OK because the pods will be on wheels (eg. caravans). A better solution to the question would have been to find private land that was not flood-prone.

- 25 4. The fourth offence also happened under the radar. A large pad was created with fill on the **north bank of Marshalls Creek**. Soil appears of the order of 2m deep but has not been measured. It includes a steep bank of loose soil along the wet edge of the waterway.

- 30 No planning process was involved here. Enforcement includes an Order to Restore but with a relaxed timeframe that encompasses a whole wet season.

The proposed Policy should guide enforcement activities, as well as limit legal placement.

- 35 There are alternatives to fill, if development on floodplains is necessary. These include building on piers, so that there is no impact on flood flow and flood storage.

- 40 Authorities and much of our society has yet to escape the colonial mentality that nature does not know best and that engineers can do better. We can't – the landscape as sculpted over millennia should be our teacher, not a playground for bulldozers.

PROPOSAL: that Council develop a Policy of No Fill on Floodplains with a vision of the Policy being carried through into LEP and DCP changes that implement it (i) for planning matters, (ii) for private and government projects including roads and other infrastructure; (iii) for enforcement.

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Key issues

Ensuring development is appropriate in the shire.

Given all no fill zones from within the current adopted flood plans are being implemented by Council planning team, despite the DCP not being update, this issue is not significant.

10 Options

To ensure continuation and appropriate no fill zones in the shire the 2014 Byron Shire Council Development Control Plan (DCP) needs to be updated to reflect the most current Floodplain Management Plans. This can be done in two ways.

- 15 1. Update the DCP to reflect the new North Byron Floodplain Risk Management Study in 2020 now and then further update it later when the Belongil and Tallow Flood Study updates are adopted.
2. Update the DCP for all catchments when the Belongil and Tallow Flood Study updates are adopted.

Next steps

- 20 Update the 2014 Byron Shire Council Development Control Plan to reference the currently adopted North Byron Floodplain Risk Management Study.
- Undertake the updates of the Belongil and Tallow Creeks Floodplain Risk Management Studies and Plans.
- 25 Update the 2014 Byron Shire Council Development Control Plan to reference the future adopted Belongil and Tallow Creeks Floodplain Risk Management Studies and Plans.

Strategic Considerations

Community Strategic Plan and Operational Plan

There are no current Operational Plan actions that relate to no fill zones.

Legal/Statutory/Policy Considerations

- 30 The Floodplain Development Manual supports the policy and guides councils through the floodplain risk management process. The manual helps councils develop and implement local floodplain risk management plans and outlines the technical assistance provided by the NSW Government.

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

4.1

The manual details the roles and responsibilities of various NSW agencies and includes information on:

- the preparation of flood studies, floodplain risk management studies and plans
- floodplain risk management options
- 5 • flood planning levels and areas
- hydraulic and hazard categorisation
- emergency response planning.

10 The manual was gazetted in 2005 as the manual relating to the development of flood-labile land for the purposes of section 733 of the *Local Government Act 1993*.

Appendix J, Section J2.1.1 and J2.1.2 describe zoning and development controls that Council can utilise to address no fill zones. Section J2.1.2 specifically discusses in general fill or excavation in the floodplain. The Floodplain Development Manual was specifically referred to during the preparation of 2014 Byron Shire Council Development Control Plan.

15 The Floodplain Development Manual can be found at [Floodplain Development Manual \(nsw.gov.au\)](https://www.nsw.gov.au/floodplain-development-manual).

Financial Considerations

Nil.

Consultation and Engagement

20 All adopted Flood Plans have been through a thorough consultation process.



Duncan Dey

Greens councillor 2022-24; flood hydrologist

16 January 2023

flooding in 2022

The flood year just gone saw many undesirable outcomes of various scales on floodplains. They highlight the real culprit in relation to floodplain management: **Filling on Floodplains**.

1. First cab of the rank was **West Byron**, approved just before the big floods and after unprecedented months of Court deliberation, with expert reports saying nothing to see here.

Most coastal rivers have a 'bladder' or broad-water for storing floodwater before it reaches the sea. These occur inland as well (Lake Menindee, for example). Catchment water spreads while the sea is up and waits its turn to use a usually narrow exit once sea levels have fallen.

The narrowness of the 'exit' is of benefit when the ocean is in storm, and at which time it is also an 'entrance'.

The Court's experts will have written reports that comply with rules and regs on flooding, but not that deal with the truth. Catchment water MUST be able spread. Traditional hydrology has always failed to deal with the catchment ocean interface. We are still learning on this.

The Court has failed to encompass the principle that nature's landscape is the correct one.

2. Next offence was at a much smaller scale. A house slab was put up on 0.4m of fill in **South Golden Beach**, to comply with a floor level requirement due to flooding but to break a no-fill vision of the developer. The property was landlocked by neighbouring residential Lots and now sheds runoff onto them.

The issue should have been foreseen prior to DA approval. Plans for the proposal were badged No Fill but the slab on ground builder knew only one method of raising the slab.

3. The third offence was snuck through in **Prince Street Mullumbimby**, under the state's post-flood emergency powers. How urgent was this housing when eleven months after the flood nobody is housed? Council put forward this flood-prone site on a list of government-owned sites. We were told this site was OK because the pods will be on wheels (eg. caravans). A better solution to the question would have been to find private land that was not flood-prone.

4. The fourth offence also happened under the radar. A large pad was created with fill on the **north bank of Marshalls Creek**. Soil appears of the order of 2m deep but has not been measured. It includes a steep bank of loose soil along the wet edge of the waterway.

No planning process was involved here. Enforcement includes an Order to Restore but with a relaxed timeframe that encompasses a whole wet season.

The proposed Policy should guide enforcement activities, as well as limit legal placement.

There are alternatives to fill, if development on floodplains is necessary. These include building on piers, so that there is no impact on flood flow and flood storage.

Authorities and much of our society has yet to escape the colonial mentality that nature does not know best and that engineers can do better. We can't – the landscape as sculpted over millennia should be our teacher, not a playground for bulldozers.

**Report No. 4.2 Modelling of Various Flow Scenarios at
South Golden Beach**

Directorate: Infrastructure Services

Report Author: Scott Moffett, Drainage & Flood Engineer, IS - Works -
Infrastructure Planning

File No: I2023/89

Summary:

A community member of the Flood Advisory Committee has requested a discussion on a strategy of removing (modelling) varying rates of floodwater from the floodplain at locations north and south of the South Golden Beach levees to establish a return on investment for engineering solutions that could achieve those rates.

This report provides a discussion point to allow the discussion to occur.

RECOMMENDATION:

That the Floodplain Management Advisory Committee discusses a strategy of removing (modelling) varying rates of floodwater from the floodplain at locations north and south of the South Golden Beach levees to establish a return on investment for engineering solutions that could achieve those rates.

Report

5 A community member of the Flood Advisory Committee has requested a discussion on a strategy of removing (modelling) varying rates of floodwater from the floodplain at locations north and south of the South Golden Beach levees to establish a return on investment for engineering solutions that could achieve those rates.

Time will be provided at the meeting for the committee member to explain and discuss the proposal.

The committee recommendation can be amended as required at the meeting.

10 Strategic Considerations

Community Strategic Plan and Operational Plan

Not applicable

Recent Resolutions

Not applicable

15 Legal/Statutory/Policy Considerations

Not applicable

Financial Considerations

Currently there is no budget allocated for any proposed works.

Consultation and Engagement

20 Not applicable

Report No. 4.3 Hydrology Inputs to the North Byron 2020 Flood Model

Directorate: Infrastructure Services

Report Author: Scott Moffett, Drainage & Flood Engineer, IS - Works - Infrastructure Planning

File No: I2023/88

Summary:

Following the adoption by Council of the North Byron Flood Risk Management Study and Plan, various community groups have asked the question of whether the North Byron regional modelling has included hydrological modelling of the Marshalls Creek floodplain including consideration of inflows and outflows from the adjacent catchments (those feeding the Billinudgel Nature Reserve, and Brunswick River), to ensure that those flows are accounted for in Councils modelling.

This report discusses what has been included in the study.

RECOMMENDATION:

That the Floodplain Management Advisory Committee notes that all catchment inflows are included in the Council adopted North Byron Flood Risk Management Study.

Attachments:

1 Email from WMA regarding North Byron Flood Model Hydrology, E2023/9670 , page 28 

Report

Following the adoption by Council of the North Byron Flood Risk Management Study and Plan, various community groups have asked the question of whether the North Byron regional modelling has included hydrological modelling of the Marshalls Creek floodplain including consideration of inflows and outflows from the adjacent catchments (those feeding the Billinudgel Nature Reserve, and Brunswick River), to ensure that those flows are accounted for in Councils modelling.

The adopted North Byron Flood Risk Management Study modelling includes all hydrological inflows into the Brunswick River catchment basin. The study can be found on the Byron Shire Council website.

[North Byron Floodplain Risk Management Study and Plan - Byron Shire Council \(nsw.gov.au\)](https://www.byrongov.au/north-byron-floodplain-risk-management-study-and-plan)

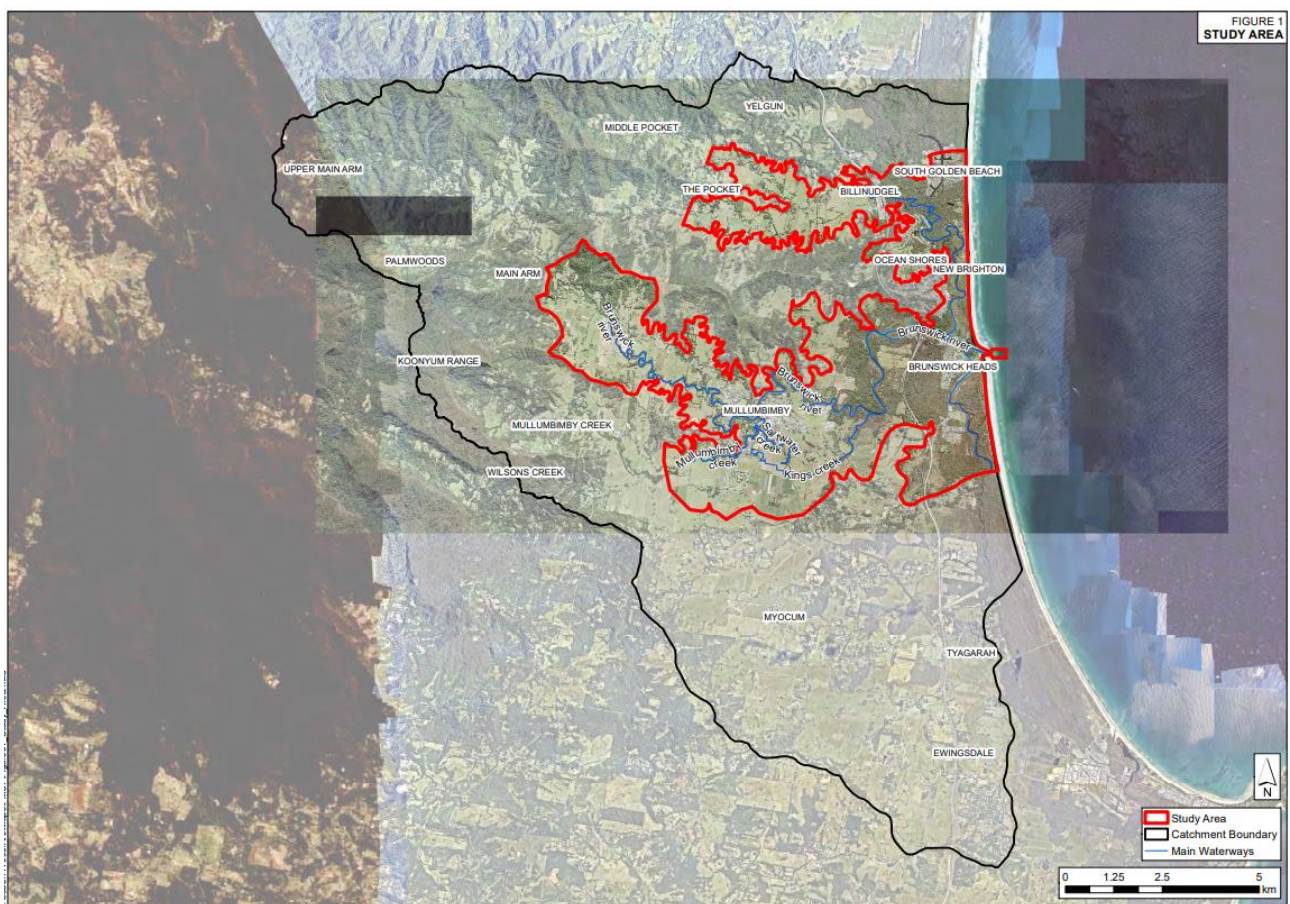


Figure 1 (NBFRMS)-Study area including hydrological catchment boundary

The study area (Figure 1) for the North Byron studies consists of the Brunswick River, Marshalls Creek and Simpsons Creek catchments, located in the north part of the Byron Shire Council Local Government Area (LGA).

Marshalls Creek is the northern major tributary of the Brunswick River, with a catchment area of approximately 42 km² and includes the town of Ocean Shores and the villages of

Billinudgel, South Golden Beach and New Brighton. Marshalls Creek flows south parallel to the coastal dune system prior to joining the Brunswick River. The catchment is traversed by the Pacific Highway and the railway line. To the north, the catchment links to the Yelgun catchment at Kallaroo Circuit in the Capricornia Canal.

- 5 The Brunswick River catchment covers an area of approximately 111 km² and includes the major towns of Mullumbimby and Brunswick Heads. It is also bisected in a north-south direction by the Pacific Highway and railway line.

- To the south, the Simpsons Creek catchment, covers an area of approximately 66 km². Its confluence with the Brunswick River is on the southern bank, opposite Marshalls Creek confluence. (North Byron Floodplain Risk Management Plan, Section 2.1, Page 6).
- 10

- Further inflow / outflows from the north of the shire (catchments in Tweed Shire) are discussed the letter provided in attachment 1 from consultant WMA. Kallaroo Circuit Bund is used as a hydraulic control point and boundary condition because water at this location can flow in both directions depending upon rainfall location and water levels. The previous Coastal Creeks Flood Study modelled all catchments combined and allowed for this boundary conditions to be derived for the North Byron Flood Study and Plan.
- 15

All other outflows are derived from bathymetry (underwater survey) for creek systems and terrain models when modelled water levels are above the bathymetry survey.

Strategic Considerations

- 20 **Community Strategic Plan and Operational Plan**

Not applicable

Recent Resolutions

Not applicable

Legal/Statutory/Policy Considerations

- 25 Not applicable

Financial Considerations

Not applicable

Consultation and Engagement

Not applicable

Moffett, Scott

From: Daniel Wood <wood@wmawater.com.au>
Sent: Tuesday, 6 September 2022 9:11 AM
To: Moffett, Scott; Ella Harrison
Cc: Flockton, James
Subject: RE: North Byron - Karaloo Circuit Representation

Apologies on the incorrect spelling, copied a typo over from the model.

Daniel Wood
Senior Principal, RPEQ

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From: Moffett, Scott <smoffett@byron.nsw.gov.au>
Sent: Tuesday, 6 September 2022 9:09 AM
To: 'Daniel Wood' <wood@wmawater.com.au>; Ella Harrison <harrison@wmawater.com.au>
Cc: Flockton, James <JFlockton@byron.nsw.gov.au>
Subject: RE: North Byron - Karaloo Circuit Representation

Thanks Dan, very appreciated.

Scott Moffett | Flooding and Drainage Engineer | BYRON SHIRE COUNCIL

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Byron Shire Council acknowledges the Traditional Owners of this land, the Arakwal people, the Minjungbal people and the Widjabul people of the Bundjalung Nation, and pays our respects to Elders past and present.

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From: Daniel Wood <wood@wmawater.com.au>
Sent: Tuesday, 6 September 2022 9:07 AM
To: Ella Harrison <harrison@wmawater.com.au>; Moffett, Scott <smoffett@byron.nsw.gov.au>
Subject: North Byron - Karaloo Circuit Representation

Hi Ella, Scott

Within the North Byron FRMS flood model Karaloo Circuit is represented by a flow boundary that is taken from the adjoining coastal creeks model. The flow boundary is a recording of both the flow through the culverts and over the roadway.

I have reviewed the Coastal Catchments model to determine what these flows are likely consisting of. The coastal catchment model covers all the area to the north of Karaloo Circuit as well as covering all of Marshalls creek to the south. The boundary of the Coastal Creek model is located at the confluence of Marshalls Creek and Brunswick heads, and is defined as a tidal boundary. As an inflow into the North Byron regional model this is considered appropriate, providing a reasonable estimation of the contribution of flow into the area from the northern catchment.

The flows recorded within the coastal creek model, for the same duration and AEP as the events running in the North Byron Model are input into the North Byron model as an inflow at Karaloo Circuit. In scenarios where the Brunswick river affects the levels at South Golden Beach (say for example Marshalls Creek cannot discharge into the Brunswick River effectively) the flow line does not have a "feedback" into the Coastal Catchment model. In these scenarios the North Byron model would produce conservative water levels in the South Golden Beach zone as the inflows entering the model would not be reduced to consider the higher tailwater condition.

Based on the check that has been undertaken I am satisfied that North Byron model is using a boundary that is suitable, noting that the input is reliant on the accuracy of the Coastal Catchment model, which is not something that was updated as part of the North Byron FRMS.

Thanks,

Daniel Wood
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Report No. 4.4 Byron Shire Post 2022 Flood Analysis Update

Directorate: Infrastructure Services

Report Author: Scott Moffett, Drainage & Flood Engineer, IS - Works - Infrastructure Planning

File No: I2023/67

Summary:

Following the recent flooding and rainfall events in 2022, Council has been working closely with State Emergency Services (SES), the Department of Planning & Environment (DPE) and flooding consultants to undertake a post event data collection and summary report.

This report provides a summary of actions and ongoing activities for discussion by the Floodplain Management Advisory Committee (FMAC).

Draft reports have been received by DPE and are currently undergoing quality assurance and technical review.

RECOMMENDATION:

That the Floodplain Management Advisory Committee recommends:

Council notes the report and the Floodplain Management Advisory Committee.

Report

Following the recent flooding and rainfall events in 2022, Council has been working closely with State Emergency Services (SES), the Department of Planning & Environment (DPE) along with flooding consultants to undertake a post event/s data collection and summary report.

Council initiated the first phase internal post event survey protocols immediately following the recent events. Council's Flood and Drainage Engineer was contacted by SES to collaborate in obtaining post event survey marks.

SES contracted Public Works Advisory (PWA) to provide survey resourcing across the Byron Shire. DPE then became involved to oversee the data collection. Council's Flood and Drainage Engineer worked closely with SES, DPE and PWA to isolate the areas of interest with a focus on the main urbanised areas of the shire.

Post event survey has now been completed, including an SES, DPE and PWA, along with Council undertaking quality assurance checks. This data is now available for use by Council. Survey has covered the Brunswick River, Belongil, Tallow Creek catchments and Bangalow.

Council also initiated the second phase of post event survey protocols. This involved releasing media alerts to all shire residents to ask for assistance with collection of additional private property survey. This initiative was very successful with over 200 responses received. Council has mobilised survey resources collected all data from this survey.

DPE have agreed to fund all the post event technical analysis.

The post event technical analysis will cover the Brunswick River, Belongil, Tallow Creek catchments and Bangalow. Consultants WMA have been commissioned by DPE for the Brunswick River catchment and BMT have been commissioned by DPE for the Belongil and Tallow Creek catchments. QIT, Council Emergency Dashboard provider have also been commissioned to undertake a post event analysis of Councils flood warning system.

There is a large amount of works involved to complete the post event technical analysis and current estimates from DPE and consultants is likely to take two to three months as a minimum.

DPE has recently extended their proposed delivery month tentatively to February 2023. Staff understand that many flood specialist consultants are experiencing staff change and staff resourcing issues which has caused delays.

Post such significant flood events it is natural that the industry will be under pressure from flood related areas including; insurance companies, developers and local governments.

Draft reports have been received by DPE and are currently undergoing quality assurance and technical review.

Key issues

- Timing of works (reliance on DPE and third-party consultants)
- Privacy of data

Next steps

- 5
- Review draft post event technical analysis
 - Finalise reporting and report back to the Floodplain Management Advisory Committee

Financial Considerations

- Council's Flood and Drainage Engineer's time and resource allocation
- 10
- All other activities are fully funded by DPE and SES (approx. \$150 000)

Consultation and Engagement

Community consultation has been in the form of digital flood survey mark requests via media releases and Council's website.