

Notice of Meeting

Water and Sewer Advisory Committee Meeting

A Water and Sewer Advisory Committee Meeting of Byron Shire Council will be held as follows:

Venue	Conference Room, Station Street, Mullumbimby
Date	Thursday, 17 April 2025
Time	11:30 AM

Phil Holloway
Director Infrastructure Services

I2025/490
Distributed 10/04/25

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 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.

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BUSINESS OF MEETING

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MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1 Adoption of minutes from Previous Meeting



Directorate: Infrastructure Services

5 **File No:** I2025/480

RECOMMENDATION:

10 **That the minutes of the Water and Sewer Advisory Committee Meeting held on 19 July 2024 be confirmed.**

Attachments:

15 1 Minutes 19/07/2024 Water and Sewer Advisory Committee Extraordinary, I2024/1042 , page 10  

Report

The attachment to this report provides the minutes of the Water and Sewer Advisory Committee Meeting of 19 July 2024 .

5

Report to Council

The minutes were reported to Council on

Comments

10

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

24-421 Resolved that Council does not adopt the following Recommendation:

Report No. 4.1 Mullumbimby Water Supply Strategy Public Consultation Report

Committee Recommendation 4.1.1

That Council:

1. Publicly thanks the community for its participation in making more than 433 Your-Say submissions during June 2024 on Mullumbimby's future water supply;
2. Acknowledges that 89% of 411 valid Your-Say respondents oppose abandoning the Wilsons Creek source (Lavertys Gap), while 6% are neutral and 5% support;
3. Notes that Hydrosphere's report "Mullumbimby Water Supply Strategy" of December 2021 does not investigate Option 2 (adding off-stream storage and retaining the Wilsons Creek source) to the extent suggested in Council's Resolution 23-120 and that it assesses Option 3 (Rous only) without Dunoon Dam which is now included in Rous's forward water source planning;
4. Notes the following extract from the North Coast Enabling Regional

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Adaptation, North Coast Region Report (NSW Office of Environment and Heritage, 2019) which states on page 15:

“Under a transformed system for infrastructure [,] water systems are smaller, localised and decentralised with multiple redundancies providing tailored and integrated solutions”

5. Proceeds with the investigations previously outlined in Parts 7 and 8 of Resolution 23-120 with some additions in 8b and 8c, namely:
6. Investigates a strategy for Mullumbimby’s long term water supply based on the following concept:
 - a) Lavertys Gap as the source during flows in excess of environmental requirements;
 - b) water stored off-stream between the source and Mullumbimby;
 - c) water treated at a new location between the storage and Mullumbimby;
 - d) water delivered to Mullumbimby and possibly beyond; and
 - e) maximising demand management, including the harvesting of roof water.
7. Includes in this investigation:
 - a) the topography of the terrain between Lavertys Gap and Mullumbimby, to identify potential dam sites;
 - b) the hydrology of Wilsons Creek and its capacity to supply, including
 - (i) seasonality,
 - (ii) establishing environmental flows for future EPA licensing;
 - c) the impact of climate change on supply and on demand (using up-to-date CC data and methodologies in the pilot phase for local water supply through DPE, and applied in Regional Water Strategies);
 - d) infrastructure needs including offtake, storage, treatment and linkages to the town’s reservoirs;
 - e) environmental assessments for the creation and operation of that infrastructure, including greenhouse gas emissions;
 - f) assessment of the weir at Lavertys Gap including
 - (i) structural integrity;

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- (ii) means of creating fish passage; and
 - (iii) how this proposal enhances its heritage and preservation; and
 - g) economic assessment.
8. Notes the successful upgrade to Kyogle's water supply which included off stream storage and creation of fish passage on the existing weir in the Richmond River.
9. Supports Council consulting with landowners of properties currently supplied from the pressure line between the Water Treatment Plant at Lavertys Gap and the reservoir near Azalea Street, by:
- a) Listening to their wishes, and
 - b) Considering outcomes including a reticulation pipeline returning from Azalea Street reservoir to those properties.

Minutes of Meeting
Extraordinary Water and Sewer Advisory
Committee Meeting

Venue	Conference Room, Station Street, Mullumbimby
Date	Friday, 19 July 2024
Time	10:00 AM



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MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

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MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

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EXTRAORDINARY WATER AND SEWER ADVISORY COMMITTEE MEETING
MINUTES

19 JULY 2024

Minutes of the Extraordinary Water and Sewer Advisory Committee Meeting held on Friday, 19 July 2024

File No: I2024/1042

PRESENT:

Councillors:	Cr C Coorey	Present
	Cr M Lyon	Present
	Cr S Ndiaye	Present
	Cr D Dey	Present
	Cr A Pugh	Present
Staff:	Phil Holloway (Acting General Manager)	Present
	Cameron Clark (Manager Utilities)	Present
	Annie Lewis (Media Communications Coordinator)	Present
	Chloe Woods (Minute taker)	Present
Community	Elia Hauge	Present
	David Fligelman	Apology
	Ben Fawcett	Present
	Bruce Clarke	Present
Visitors	Peter Trute	Present

Cr Sarah Ndiaye (Chair) opened the meeting at 10:13am and acknowledged that the meeting was being held on Bundjalung Country.

ATTENDANCE VIA AUDIO-VISUAL LINK:

Cr Arsen Pugh attended via Audio-Visual Link.

APOLOGIES:

Apologies were received from David Fligelman.

DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

Ben Fawcett declared non-pecuniary interest in Report No. 4.1. The nature of the interest being that Ben Fawcett's residence is less than 1km from Lavertys Gap Weir and 500m

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EXTRAORDINARY WATER AND SEWER ADVISORY COMMITTEE MEETING
MINUTES 19 JULY 2024

from the water treatment plant. Ben Fawcett elected to remain in the Meeting and will participate in discussion and the vote.

Elia Hauge declared a pecuniary/non-pecuniary interest in Report No. 4.1. The nature of the interest being that In Elia's role as an engineer at Greg Alderson Associates, Elia is working on a project for NSW Public Works that involves remediation design for a Rous Water pipeline. Elia Hauge elected to remain in the Meeting and will participate in discussion and the vote.

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

Report No. 3.1 Adoption of Minutes from Previous Meetings
File No: I2024/984

Committee Recommendation:

That the minutes of the Water and Sewer Advisory Committee Meeting held on 30 May 2024 be confirmed. (Fawcett/Clarke)

The recommendation was put to the vote and declared carried.

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Cr Ndiaye left the meeting at 11:04am and returned at 11:05 am.

Report No. 4.1 Mullumbimby Water Supply Strategy
Public Consultation Report
File No: I2024/1032

Committee Recommendation:

That Council:

1. Publicly thanks the community for its participation in making more than 433 Your-Say submissions during June 2024 on Mullumbimby's future water supply;
2. Acknowledges that 89% of 411 valid Your-Say respondents oppose abandoning the Wilsons Creek source (Lavertys Gap), while 6% are neutral and 5% support;
3. Notes that Hydrosphere's report "Mullumbimby Water Supply Strategy" of December 2021 does not investigate Option 2 (adding off-stream storage and retaining the Wilsons Creek source) to the extent suggested in Council's

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EXTRAORDINARY WATER AND SEWER ADVISORY COMMITTEE MEETING
MINUTES

19 JULY 2024

Resolution 23-120 and that it assesses Option 3 (Rous only) without Dunoon Dam which is now included in Rous's forward water source planning;

4. **Notes the following extract from the North Coast Enabling Regional Adaptation, North Coast Region Report (NSW Office of Environment and Heritage, 2019) which states on page 15:**

“Under a transformed system for infrastructure [,] water systems are smaller, localised and decentralised with multiple redundancies providing tailored and integrated solutions”

5. **Proceeds with the investigations previously outlined in Parts 7 and 8 of Resolution 23-120 with some additions in 8b and 8c, namely:**
7. **Investigates a strategy for Mullumbimby’s long term water supply based on the following concept:**
- a) **Lavertys Gap as the source during flows in excess of environmental requirements;**
 - b) **water stored off-stream between the source and Mullumbimby;**
 - c) **water treated at a new location between the storage and Mullumbimby;**
 - d) **water delivered to Mullumbimby and possibly beyond; and**
 - e) **maximising demand management, including the harvesting of roof water.**
8. **Includes in this investigation:**
- a) **the topography of the terrain between Lavertys Gap and Mullumbimby, to identify potential dam sites;**
 - b) **the hydrology of Wilsons Creek and its capacity to supply, including**
 - (i) **seasonality,**
 - (ii) **establishing environmental flows for future EPA licensing;**
 - c) **the impact of climate change on supply and on demand (using up-to-date CC data and methodologies in the pilot phase for local water supply through DPE, and applied in Regional Water Strategies);**
 - d) **infrastructure needs including offtake, storage, treatment and linkages to the town’s reservoirs;**
 - e) **environmental assessments for the creation and operation of that infrastructure, including greenhouse gas emissions;**
 - f) **assessment of the weir at Lavertys Gap including**
 - (i) **structural integrity;**
 - (ii) **means of creating fish passage; and**
 - (iii) **how this proposal enhances its heritage and preservation; and**
 - g) **economic assessment;**
6. **Notes the successful upgrade to Kyogle’s water supply which included off stream storage and creation of fish passage on the existing weir in the Richmond River.**

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MINUTES FROM PREVIOUS MEETINGS

3.1 - ATTACHMENT 1

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7. **Supports Council consulting with landowners of properties currently supplied from the pressure line between the Water Treatment Plant at Lavertys Gap and the reservoir near Azalea Street, by**
 - a. **Listening to their wishes, and**
 - b. **Considering outcomes including a reticulation pipeline returning from Azalea Street reservoir to those properties.** (Dey/Clarke)

Cr Coorey and Cameron Clark left the meeting at 11:29am and did not return.

The recommendation (Dey/Clarke) was put to the vote and declared carried.

Cr Lyon voted against the motion.

Cr Coorey was not present for the vote.

There being no further business the meeting concluded at 12:43pm.

STAFF REPORTS - CORPORATE AND COMMUNITY SERVICES

Report No. 4.1 Integrated Planning and Reporting

Directorate: Corporate and Community Services

5 **Report Author:** Amber Evans Crane, Corporate Planning and Improvement Coordinator

File No: I2025/481

Summary:

10 This report provides an overview of Council’s Integrated Planning and Reporting Framework and invites discussion on priority areas for inclusion in Council’s delivery program.

15 **RECOMMENDATION:**

That the Water and Sewer Advisory Committee:

1. **Notes Council’s Integrated Planning and Reporting Framework;**
2. **Notes Council’s priorities as identified by Councillors for the 2025 – 2029 and Delivery Program**

20

Background to Integrative Planning and Reporting (IP&R)

5 The Integrated Planning and Reporting Framework in NSW requires all councils to adopt a suite of strategic plans. These long-term plans provide transparency and make it possible for Council to plan in a manner which ensures that community needs and priorities are responded to well into the future. Council also has a suite of strategies, plans and policies which help inform operations and decision making, and these policies are adhered to in alignment with the Integrated Planning and Reporting Framework.

The central IP&R documents are outlined in more detail:

10 Year Community Strategic Plan

10 Leading the Council's planning hierarchy, the Community Strategic Plan (CSP) captures the community's vision, aspirations, and expectations for the future. It identifies key social, economic, and environmental priorities and long term strategies to achieve these goals over the next 10 years.

15 The CSP outlines the vision, community objectives and supporting strategies which will guide Council's long-term decision making. Robust engagement with the community about their desires and expectations has guided the long-term future planning to meet the needs and aspirations of the community.

10 Year Resourcing Strategy

20 The resourcing strategy addresses the sustainable long term financial, asset management, and workforce planning requirements. This is the point where Council assists the community by sorting out who is responsible for what, in terms of the issues identified in the Community Strategic Plan.

4 Year Delivery Program

25 The delivery program translates the community strategic plan goals into actions. It is Council's commitment to the community, outlining what it intends to do toward achieving the goals of the community strategic plan during its term of office. The Delivery Program is the single point of reference for all principal activities undertaken by Council. All plans, projects, activities, and funding allocations must be directly linked to the four-year delivery program.

30 Annual Operational Plan

35 The Delivery Program is supported by an annual Operational Plan which details the individual projects and activities that will be undertaken each year to achieve the commitments of the Delivery Program. The Operational Plan is supported by a detailed budget and a statement of revenue policy, which also sets the fees and charges for that year.

Advisory Committee Input into IP&R

The key IP&R documents described in the Background section are in the process of review as is the requirement following a local government election.

5 The current Community Strategic Plan (CSP) 2032 has been reviewed and the next iteration, the CSP 2035, was placed on public exhibition at the 28 November 2024 Ordinary Council meeting with submissions open until 9 February 2025. The revised CSP will be presented back to Council for adoption in May 2025. The draft can be found on Council's website at www.byron.nsw.gov.au/communityplan.

10 Adjacent to this, the Delivery Program 2025 – 2029 and Operational Plan 2025/26 are being developed. Both documents will be presented to Council in May 2025 and placed on public exhibition for public feedback.

The four-year priorities recently identified by Councillors for inclusion in the Delivery Plan 2025-2029 that relate to the Committee include:

- Water Supply
- 15 • Wastewater Management
- Storm-water
- Water Sensitive Urban Design
- Water Security

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	1.1.4: 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

20 **Statutory Considerations**

Integrated Planning and Reporting is governed by:

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- '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
- 5

STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 4.2 Mullumbimby water supply strategy - High-level project plan

5 **Directorate:** Infrastructure Services
Report Author: Pablo Orams, Integrated Water Management Officer
File No: I2025/395

Summary:




10 This report provides the WSAC with a high-level project design for the delivery of evidence-based recommendations for Council to decide on a long-term water supply strategy for Mullumbimby. It includes sections that describe a conceptual project framework, project risks and assumptions, relationships with other projects and a draft estimated project plan.



15 Staff will use feedback from the WSAC to refine this project design and improve its effectiveness at achieving its fundamental purpose: securing Mullumbimby’s long-term water supply.

20 **RECOMMENDATION:**

1. **That the Water and Sewer Advisory Committee notes the proposed project design**
2. **That the Committee provides feedback to staff on how to improve the project design, in alignment with: -**
 - 25 a) **The aim of the project i.e. provide evidence-based recommendations for Council to decide on a long-term water supply strategy for Mullumbimby**
 - b) **The need to provide best-value to ratepayers via sustainable and efficient water services provision**

Attachments:

- 30
- 1 Action Memo Item - Deferral of decision to pursue a connection to Rous Council 24/10/2024, I2024/1475 , page 30 [↓](#) 
 - 2 Mullumbimby water supply strategy Rev 3 Final Sep2024 - Hydrosphere, E2025/8160 , page 32 [↓](#) 
 - 35 3 Action Memo Item - Mullumbimby Water Supply Strategy Council 15/08/2024, I2024/1185 , page 266 [↓](#) 

4 Additional information for the WSAC 17 April 2025 meeting - Mullumbimby Water Supply Strategy project, E2025/38430 , page 268  

5 Report

Purpose

This report provides a high-level project design for the delivery of evidence-based recommendations for Council to decide on a future water supply strategy for Mullumbimby.

The project in question responds to Council **Resolution 24-477** (see **Attachment 1**)

10 Staff request the Committee to provide feedback and advice for ensuring the project design is fit-for-purpose.

Note: Council's Executive Management team have transferred responsibility for the delivery of this project to the Assets & Major Projects Team.

Background

15 Mullumbimby's water supply is sourced from the Lavertys Gap weir, situated in the upper reaches of Wilson's Creek. The weir feeds the Mullumbimby Water Treatment Plant (WTP), which then supplies potable water to the town's water network.

Various elements of this scheme were commissioned between the 1920s and 1940s.

It also included a small hydroelectric plant, but was decommissioned in 1989.

20 Due to its location, condition and design, the Lavertys Gap weir / Mullumbimby WTP scheme is vulnerable to droughts and extreme weather events, and in the face of Mullumbimby's future development estimates, it is predicted the scheme will not be able to meet Mullumbimby's water demand beyond 2028.

25 In situations when the Lavertys Gap weir / Mullumbimby WTP scheme fails (e.g. during droughts or wet weather) Council can operate a supplementary water source through the Rous Emergency Water Supply Line. This scheme connects Mullumbimby to the Rous regional water network, with current capacity to cover approximately half of the town's water demand. The emergency line was built in response to the 2002-2003 drought. Following the 2022 floods, Council secured State Government funding to upgrade the
30 emergency's line capacity to be able to cover all of Mullumbimby's reticulated water demand.

In recognition of these issues, since 2019 Council staff have produced a substantial body of work aimed at informing a long-term water supply strategy for Mullumbimby (see **Attachment 2**). Various water supply options were assessed, with the resulting
35 recommendation being to permanently connect Mullumbimby to the Rous regional water supply via the existing emergency supply line. This recommendation was adopted by Council in August 2024 (**Res. 24-411, Attachment 3**).

5 However, in October 2024, Council decided to defer the decision for an additional two years to allow for further investigations and community consultation while addressing the ongoing risks to the Lavertys Gap weir / Mullumbimby WTP scheme (**Res. 24-477, Attachment 1**). This latest Resolution is the catalyst for the project described in this report.

Project design

10 Staff are undergoing project design to enable an evidence-based and transparent decision-making process to secure long-term water security for Mullumbimby. Lessons learnt are being distilled from the previous round of work and the deliberation process that resulted on Council's **Resolution 24-477 (Attachment 1)**. Staff are also concerned with the ongoing structural, performance and compliance shortfalls of the Lavertys Gap weir / Mullumbimby WTP scheme, which are further compounded by the rising risk of extreme weather events and Council's financial constraints and capital investment priorities across the Shire's water supply systems.

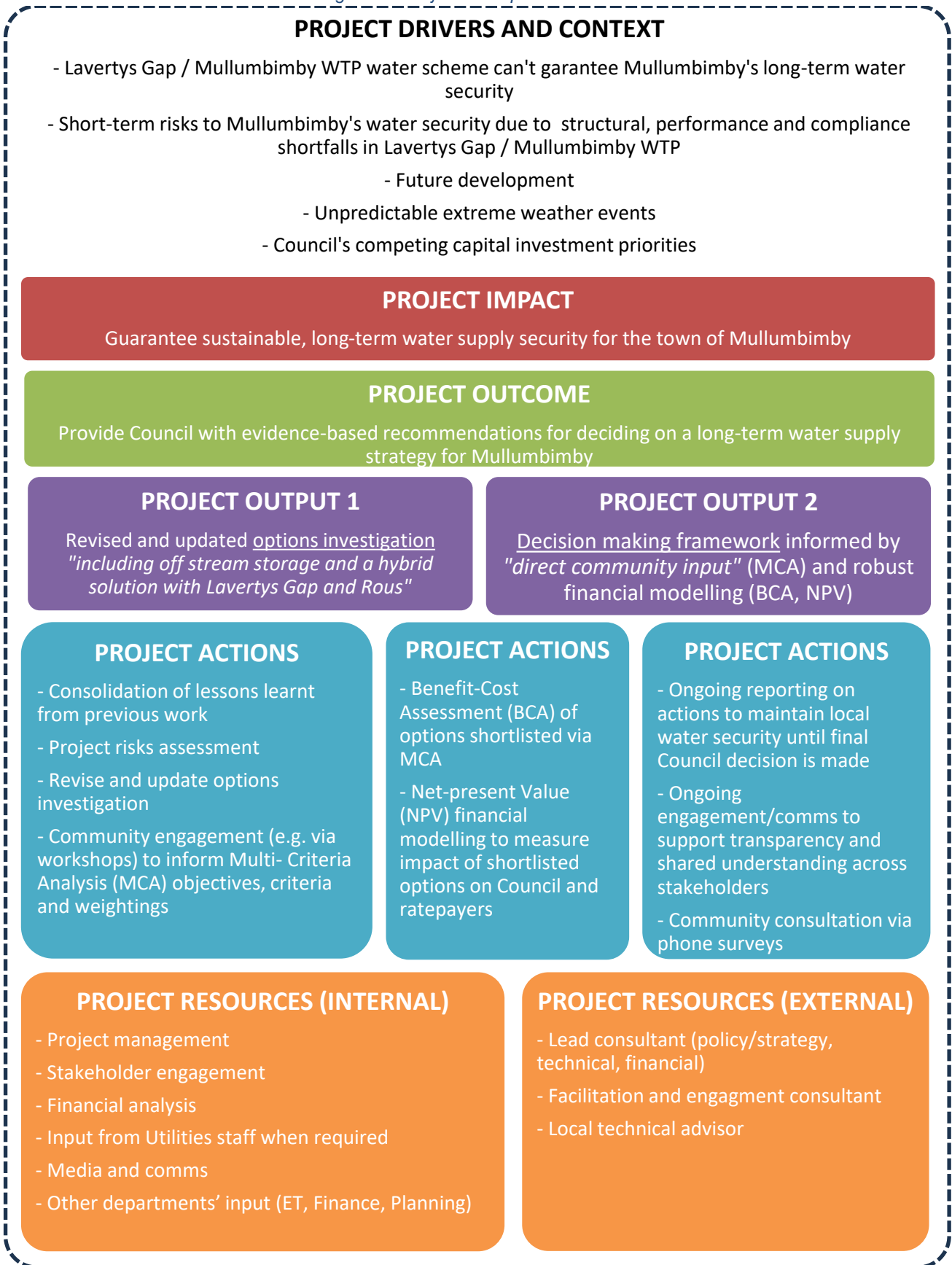
15 Thus, considering the complexity of the above issues, it is of paramount importance that Council staff and decision makers agree on why this project is needed, what it is aiming to achieve, and how it will do so, as well as recognising the constraints and risks that influence it.

The sections below articulate a proposed project design to facilitate this agreement.

20 ***Project conceptual framework***

25 **Figure 1** below presents the proposed project at a conceptual level. It establishes the desired impact (i.e. guarantee sustainable, long-term water supply security for the town of Mullumbimby), and works backwards to describe the project outcomes, outputs, actions and resources that will support that impact. Project drivers and contextual issues are also described.

Figure 1 – Project conceptual framework



Project assumptions

- Previous investigations (see **Attachment 2**) will be reviewed and used as a key input for this project.

- 5 - Off-stream storage option: while this option was already explored in previous investigations, additional comment and high-level/desktop assessments will be provided regarding:
 - possible sites for an off-stream storage

- 10 -
 - hydrology, water quality and catchment impacts
 - environmental flows considerations
 - considerations regarding landholder consultation and land acquisition

- 15 - Hybrid water supply option: this new option assumes the combined operation of the Lavertys Gap water source and the Rous regional water supply (via the upgraded Rous Emergency Supply Line), offering enhanced water security and operational flexibility. This may involve the downsizing and/or relocation of the Mullumbimby WTP to reduce risks associated with extreme weather, treatment performance and regulatory compliance.

- 20 - Mullumbimby's future water demand estimates will be revised and updated in alignment with the latest growth forecasts (i.e. Byron Shire Residential Strategy 2041).

- 25 - **Item 4.c. of Res. 24-477 (Attachment 1)** requests that the reinstatement of hydroelectric facility be explored as part of this investigation. High-level commentary can and will be provided around this issue. It is expected however that given the site's heritage significance (and related constraints), water licence considerations, governance arrangements, and Council's service provision and
30 capital investment priorities, this option will not feature in this study.

- Decision making framework: The process for shortlisting options and ultimately recommending a water supply solution to Council will be multi-staged:

35
 - Stage 1: Options shortlisting through **Multi-Criteria Analysis (MCA)** based on community-designed objectives, criteria and criteria-weightings. Community input will be facilitated via a series of workshops.

- Stage 2: Shortlisted options will then go through a **Benefit-Cost Assessment (BCA)** to assess their economic viability (i.e. benefit/cost ratio). The assessment will follow BCA guidelines from NSW Treasury.
- Stage 3: **Net-Present Value (NPV)** of shortlisted options over a 30-year timeframe will provide the basis for understanding the financial impact on Council, and ultimately, the ratepayer.

Other metrics may be defined to assist Councillors on their final decision, and could include estimated rate increases, dollars per kilolitre of water supplied (\$/kL), etc.

Project risks

Staff considers important risks impacting the delivery of this project to be clearly defined and understood across stakeholders. While a comprehensive risk assessment is proposed to be done early on the project timeline, an initial description of some key project risks is provided below. Staff hopes to use this as a springboard to further unveil project risks in collaboration with the WSAC, and support the upcoming risk assessment process.

- The capital costs of some options to be investigated may exceed Council's and the community's capacity to fund it (via rate increases). This risks the long-term condition of water provision assets and levels of service to the community.
- Unpredictable weather events, the high-risk nature of Wilsons Creek catchment, and the end-of-life condition of the Lavertys Gap weir / Mullumbimby WTP scheme hinder Council's capacity to maintain water security and comply with relevant regulation until a final decision is made and implemented.
- Recent revised growth forecasts for Mullumbimby are likely to increase future water demand estimates, changing water supply options' capacity modelling.
- The State Heritage listing of Mullumbimby Hydro-electric Power Station Complex. This includes the weir but not the treatment plant. There will be additional approvals required to modify or upgrade the weir.
- Community's willingness to pay for proposed options is yet to be understood.
- Misinformation / disinformation in the community throughout this project may impact efforts to drive evidence-based decision making.

Project interdependencies

Achieving a decision on a long-term water supply strategy for Mullumbimby and safeguarding short-term water provision may be influenced or constrained by other Council activities/projects, including:

- **Rous Emergency Water Supply Line upgrade project**: This is currently ongoing, with completion expected by September 2025. Regardless of what long-term water

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supply strategy Council decides on, completion of this upgrade is critical to enable that strategy, either as the main water supply moving forward, or as the redundancy required to allow for the implementation of other long-term solutions. It will also offer interim water supply security in case the Lavertys Gap weir / Mullumbimby WTP scheme fails before a long-term strategy is adopted.

5

- **Negotiation of Level of Service Agreement (LSA) with Rous:** As requested in **item 3 of Res. 24-477 (Attachment 1)**, Council's executive team, with support from Utilities staff, are in negotiations with Rous to facilitate a reduction of the emergency water supply volumetric charges. This important to help reduce the financial impact on Council if Lavertys Gap weir / Mullumbimby WTP fails and/or reliance on the Rous Emergency Supply Line increases in the short term.

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- **Lavertys Gap weir condition assessment, monitoring and repairs project:** Council's Utilities Department, with the support of NSW Public Works, is undertaking actions to address bank erosion issues that put at risk the weir's structural integrity, and consequently, its storage capacity. The key focus is on condition monitoring until final remediation works can be done. These are only possible once the upgraded Rous Emergency Water Supply Line is operational. Wet weather events can hinder these efforts.

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- **Mullumbimby WTP short-term improvements:** Following advice from NSW Health, Council staff are investigating operational controls and treatment process upgrades to manage non-compliance risks at Mullumbimby WTP. These risks relate to the high-risk nature of the Wilson's Creek catchment and the design and end-of-life condition of the WTP, and might trigger boil water alerts if advised by the regulator.

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- **Securing water supply for Wilson Creek residents:** There are 13 properties in Wilsons Creek directly connected to the Mullumbimby WTP trunk main. These connections are not compliant with Council's current Water Supply Operations Standards and land zoning rules, but it is understood this is a legacy issue going back to the establishment of the Mullumbimby WTP. The properties have become reliant on the potable water supply for rural water security, with a high level of water consumption.

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It is expected that potable supply to the above-mentioned properties will need to continue (**item 6, Res. 24-411, Attachment 3**). In the short term, supply from the WTP is at risk due to the issues described in the above sections, and Council will need to find alternative water sources if required (e.g. trucking water to the WTP's clear water tank). In the long-term, if Council decides to favour the Rous supply, upgrades to water conveyance and storage systems will be required to enable supply to the Wilsons Creek residents.

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Project draft plan

A high-level draft implementation plan is provided below. This plan will be refined following consultation with the WSAC.

		2025												2026											
PROJECT COMPONENT	ACTIVITY	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
5	Project scope refinement	Internal engagement																							
		WSAC engagement																							
		Stakeholder engagement and comms strategy design																							
		Project risk assessment																							
		Endorsed project plan																							
Procurement of external expertise	Including lead consultant, facilitation/engagement consultant and local technical advisor																								
10	Updated options investigation	Review of previous work																							
		Update with latest information																							
		Additional investigations as per Res. 24-477																							
		Progress / draft investigation report																							
		Feedback and review																							
15	Multi-Criteria Analysis (MCA) process	DRAFT MCA objectives / criteria definition																							
		Internal review																							
		WSAC review																							
		Community workshops - planning																							
		Community workshop 1 (objectives and criteria)																							
		Community workshop 2 (MCA weightings definition)																							
		Community workshop 3 (MCA application to options)																							
		Documentation and reporting of engagement process results																							
20	Benefit-Cost Assessment (BCA) and financial modelling	Detailed collection and refinement of data inputs for BCA																							
		Application of BCA methodology to shortlisted options from MCA process																							
		Financial modelling to define impact of shortlisted options on Council and ratepayers																							
25	Comms and consultation	Internal reporting on status of short-term water security risks																							
		Media releases																							
		Phone surveys design																							
		Phone surveys delivery																							
	Final council decision	Final report to Council																							
		Council meeting for final decision																							

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	CSP Strategy	DP Action	Code	OP Activity
5: Connected Infrastructure	5.5: Provide continuous and sustainable water and sewerage management	5.5.1: Water supply - Provide a continuous water supply that is maintained in accordance with NSW Health guidelines	5.5.1.20	Report to Council on the future water strategy for Mullumbimby

Financial Considerations

A project budget will be put forward following refinement of the above project design.

5 Consultation and Engagement

This report is part of the internal engagement and consultation required to refine the above project design. A detailed stakeholder consultation and engagement strategy is to be developed.

Additional Information

- 10 Attachment 4 provides a summary of progress done with regards to the action items of Council **Resolution 24-477**

Byron Shire Council

FOR ACTION

Report No 9.1 - Deferral of decision to pursue a connection to Rous

TO: Clark, Cameron - Manager Utilities

COPY TO:

DATE: 28 October 2024

MEETING: Council Meeting of 24 October 2024

RESOLUTION NUMBER: 24-477

Action is required for this item as per the Council Resolution outlined below.

Resolved that:

1. The decision to pursue a permanent connection to Rous be deferred for up to two years.
2. Council continues with the emergency connection to Rous as planned and investigates operational regimes to minimise the risk of water quality incidents, as has been done for the existing emergency line.
3. Council seeks to renegotiate an interim agreement for a reduced cost for emergency supply during this period with Rous.
4. That a staged investigation into integrated water supply options be continued, including off stream storage and a hybrid solution with Lavertys Gap and Rous, and:
 - a. the investigation includes an options workshop with community, and direct community input to multi-criteria weightings to compare options;
 - b. regular progress reports be provided to the Council during this investigation period; and
 - c. investigations into the possible reinstatement of the hydroelectric plant be explored.
(Ndiaye/Hauge)

SPECIFIC ACTIONS REQUIRED:

Byron Shire Council

This action sheet has been automatically produced by the administrator using **InfoCouncil**, the agenda and minutes database.






Click the **Actions** button on the InfoCouncil Toolbar to update the outstanding actions.

For completed actions: Please update the notes and update the finalisation date.

For ongoing actions: Please update the notes and the expected completion date.

Please continue to update the comments until the matter has been finalised.

Please note:

- The notes that you record against *Actions* in InfoCouncil are reported to Council and are therefore **public and should not be used for internal comments**
- When a resolution has multiple parts (i.e. 1., 2., 3.) **each update should address each of the points**, with the corresponding number
- The default *target date* is 1 month from the meeting – you can **change the target date**  and provide a reason (again... this will be public)
- Only mark as complete once **ALL parts are complete** 
- Once you have marked complete, your **Director** will receive an email requesting authorisation for the action be marked as complete. Directors can either:
 - a. **Approve completion** – This marks it as complete and notifies the action owner; OR
 - b. **Return the action** – This can be selected where the action notes provided by the officer are insufficient or if the action shouldn't have been marked complete yet. The officer will have the action returned to them and it will stay incomplete. If the action is returned to you, you will need to action any feedback from your Director and redo the steps to mark the action as complete when appropriate.
- If for some reason the resolution cannot be completed (e.g. budget, legislation, or competing priorities) you can reallocate  the action to the user called '**No Action, Closed**' and provide a detailed reason. This will be reported to Council to endorse the closure of the resolution.
- Reference **CM9 doc numbers** in notes whenever possible
- You can add notes at any time, but at a minimum **all actions should be updated before the end of the quarter** (30 Sept, 31 December, 31 March, 30 June).

Further information can be found on the [Intranet](#) and in the [Resolution Reporting Guidelines](#).



Mullumbimby Water Supply Strategy



Final, updated September 2024

Mullumbimby Water Supply Strategy

Disclaimer:

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Acknowledgement of Country

Hydrosphere Consulting recognises the traditional owners of the land discussed in this report, the Bundjalung of Byron Bay, Arakwal people, the Widjabal people, the Minjungbul people and the wider Bundjalung Nation.

Cover photo: Lavertys Gap weir, September 2018

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20-020 MULLUMBIMBY WATER SUPPLY STRATEGY					
REV	DESCRIPTION	AUTHORS	REVIEW	APPROVAL	DATE
0	Draft for Council review	R. Campbell, J. Fullerton, K. Menzies	K. Pratt, M. Howland	M. Howland	17 June 2021
1	Final draft	R. Campbell	M. Howland	M. Howland	17 Dec 2021
2	Minor edits for public exhibition	R. Campbell	M. Howland	M. Howland	21 May 2024
3	Updated with new data, revised cost estimates and Council resolution	R. Campbell	M. Howland	M. Howland	25 Sept 2024



Mullumbimby Water Supply Strategy

EXECUTIVE SUMMARY

Introduction

Mullumbimby’s drinking water supply is sourced from the upper reaches of Wilsons Creek. Water is extracted from Lavertys Gap weir on Wilsons Creek where it flows by gravity through an open channel, via a tunnel to the Mullumbimby water treatment plant (WTP) as shown on Figure 1. The channel and tunnel were the original raw water transfer system to the Mullumbimby Hydroelectric Power Station (now decommissioned). There is an emergency supply pipeline from the Rous County Council (RCC) bulk supply system with agreement to supply up to 0.5 ML/d to the lower areas of the Mullumbimby distribution system. In 2021, the Mullumbimby water supply serviced approximately 1,620 residential properties (3,600 people) and 270 non-residential properties. Approximately 13 customers along Wilsons Creek Road are connected to the trunk main from the WTP.

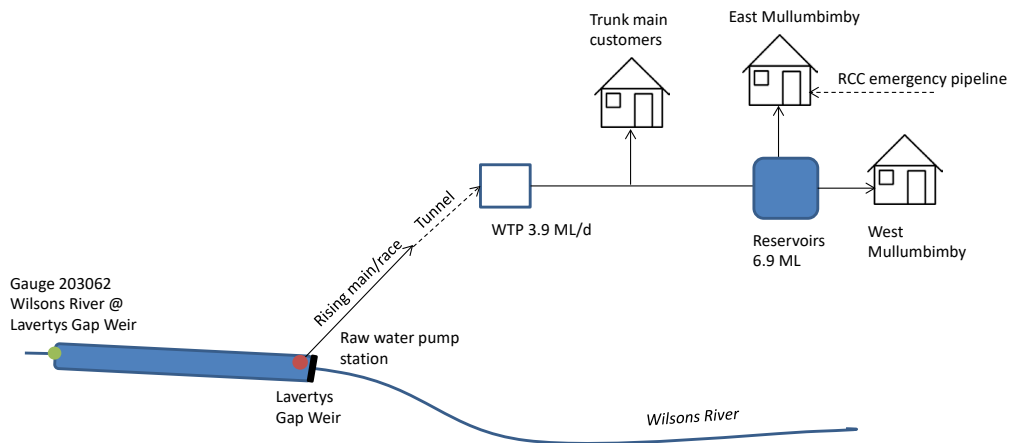


Figure 1: Mullumbimby water supply schematic diagram

Byron Shire Council (BSC) engaged Hydrosphere Consulting to prepare a long-term strategy for Mullumbimby water supply. The key issue to be addressed is water supply security (servicing existing customers and future development over the long-term). The current demand for water is similar to the secure yield at Lavertys Gap weir and if the worst drought on record were to repeat, the current supply would not meet demand. BSC has prepared growth management strategies for urban land, rural areas and business/industrial land which include future development that will increase the demand for potable water. This strategy also considers the following issues:

- Asset condition and performance - the raw water channel (constructed in the 1920s) has exceeded its useful life. The likelihood of failure is considered very high and on the basis that structural failure of the channel would cause extended interruption to the water supply, upgrading the raw water transfer system is a high priority while the weir supply continues to be used. In addition, due to the age of the Mullumbimby WTP (originally constructed in 1940), the WTP requires replacement in the next five to ten years. In addition, WTP upgrades are required to ensure removal of pathogens in the short-term.

Mullumbimby Water Supply Strategy

- Drought management and emergency response - restrictions are currently introduced based on the water level and inflows in Lavertys Gap weir. Restrictions were imposed in Mullumbimby during the droughts of 2002/03, 2006/07 and 2019/20. The emergency supply from the RCC regional supply was used for 30 days during summer 2019/20 and two weeks during the 2022 floods.
- Heritage considerations and management obligations - Lavertys Gap weir and the channel (as part of the Mullumbimby hydro-electric power complex) are listed on the NSW State Heritage Register. In addition, the WTP has heritage significance at a local level.

This report assesses the security of the existing water supply system based on its secure yield and current demand. Options to increase the supply and reduce potable water demand were identified and analysed and scenarios have been developed using combinations of the options to achieve the required secure yield in 2050. An integrated water cycle management (IWCM) approach was used to compare options and scenarios and identify the preferred supply augmentation scenario to meet the predicted 2050 demand.

A draft of this report was prepared in 2021, updated for public exhibition in May 2024 and updated following the public exhibition with new data and Council's resolution in September 2024.

Security of Current Water Supply

'Secure yield' is defined as the highest annual water demand that can be supplied from a water supply headworks system whilst water restrictions are not too severe, not too frequent, nor of excessive duration. A model has been developed using GoldSim 12.1 (Monte Carlo simulation software) to simulate the Mullumbimby water supply and assess the secure yield for various Global Climate Models using the methodology prescribed by the draft *Guidelines on Assuring Future Urban Water Security* (NSW Office of Water, 2013). Water security is achieved if the secure yield of a water supply is at least equal to the unrestricted dry year annual demand.

The historical demand for potable water in a 'dry year' (a year with low rainfall) and an 'average year' (a year with average rainfall) were calculated using the data on existing customers and demand. The predicted residential, business and industrial development was used to estimate the additional number of future connected properties in Mullumbimby and the total demand over the next 30 years. Reduced water losses are predicted as a result of pressure reduction measures to be implemented as part of Council's water loss management program.

Mullumbimby's demand for water is increasing with development and population growth. The current (2020) and 2050 dry year unrestricted demand are compared to the secure yield in Table 1. The RCC emergency supply pipeline improves the water supply security although it is not intended to operate any more than an emergency supply. Assuming that water loss reduction measures are implemented and the emergency supply is available, the supply will be secure until 2027 (Figure 2). After this time, the existing system cannot meet forecast demand without the potential for more frequent, longer and severe water restrictions. The supply deficit at 2050 (excluding the emergency supply) will be 377 ML/a.

Report No. 4.3 Byron STP Wetlands Monitoring Report

Directorate: Infrastructure Services

Report Author: Cameron Clark, Manager Utilities

File No: I2025/470

5 **Summary:**

This report provides a summary of Byron STP wetlands performance in accordance with the STP Operations Environmental Management Plan.

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RECOMMENDATION:

That the committee note the report.

15

Report

Australian Wetlands Consulting (AWC) have been engaged by Byron Shire Council (BSC) to provide operational support and management for the Byron Bay Integrated Water Management Reserve, (BBIWMR). This report summarises the key activities, actions and
5 key findings.

The BBIWMR includes 15 ha of constructed treatment wetlands and the 24 ha Melaleuca regeneration system within a total site area of 106 ha. In addition to the managed wetland and regeneration areas are lands specifically designated for biodiversity in particular areas
10 managed for frog and grass owl habitat. Refer to Attachment 1 for a plan showing the OEMP management zones

In 2022 AWC reviewed and updated the BBIWMR Operation and Environmental Management Plan (OEMP). During this review of the OEMP the various monitoring and
15 reporting requirements as related to the Byron STP conditions of approval, legislative requirements and environmental management obligations were identified. The key reporting and frequency requirements are summarised in Table 1 – Documentation and Reporting.

20 Summary of Key Activities Undertaken 2022-2025

1. Monthly checklists have been recorded since July 2022, providing knowledge of the site conditions and how it responds to operational and seasonal changes
2. A comprehensive asset register has been compiled determining the condition of all the components within the treatment wetland complex and Melaleuca regeneration
25 area
3. A scientific trial of salvinia weevils (*Cyrtobagous salviniae*) for the control of *Salvinia molesta* is ongoing with the NSW Department of Primary Industries. December 2022 to June 2026
4. Development and collaboration with Rous County Council, BSC Bush Regeneration
30 Team and AWC to detect, monitor and control an outbreak of Amazonian Frogbit (*Limnobium laevigatum*)
5. A review and update to the Byron STP Biodiversity Management Plan

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- 6. A review of Bird monitoring activities in collaboration with Byron Bay Bird Buddies (BBBB)
- 7. Bird Surveys (Australasian Bittern, bimonthly bird surveys)
- 8. Grass Owl Survey
- 5 9. Cane Toad surveys
- 10. Feral Animal detection and management
- 11. Clearing of access and drains
- 12. Frog Survey (Wallum Sedge Frog and Wallum Froglet)
- 13. Anabat Survey
- 10 14. Installation of Nest boxes (BBBB and Wild BnB)
- 15. Vegetation Mapping and Monitoring (2023, 2024 and 2025)
- 16. Development of maintenance and repair lists

Table 1 Documentation and reporting requirements

Reporting	Frequency
Site inspections recorded in Water Outlook	Weekly
Annual return on environmental protection licences	Annually
Compliance report for this OEMP to satisfy consent condition 45, 49 and 60	Every 5 years
Bird survey – undertaken by Byron Bird Buddies	Annually
Threatened species report	Every 5 years
Flora and fauna survey	Every 5 years
Revision of the Effluent Management Strategy (in consultation with the EPA)	Every 5 years
Staff training and induction records to be kept	Following training
Annual performance report	Every 3 years

15 **Summary of Key Management Activities**

Table 2 summaries the key management activities and actions in relation to the OEMP and Biodiversity Management Plan and their current status as in April 2025.

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Table 2 Management tasks, frequency, location and status April 2025

Management Task	Frequency	Location	Actions and Remediation	Status April 2025
Routine inspection (refer checklist in Appendix D) Ensure operational areas and public walkways are safe and accessible.	Weekly	Designated monitoring and observation points	Schedule mowing. Mowing undertaken as required by external contractor. Notify Operations Engineer of need for any works (e.g. stabilisation works)	Completed June 2022 to March 2025
Maintain dense cover of low grasses and sedges on berm surfaces	Monthly	Constructed wetland cells	Bush regeneration and weed management undertaken as required by external contractor or the BSC regen team	Ongoing condition of edge vegetation has significantly improved
Weed management and bush regeneration)	Monthly	Whole site	Bush regeneration and weed management undertaken as required by external contractor or the BSC regen team (Refer to <i>West Byron Sewerage Treatment Plant Weed Management Strategy</i> (DM530123))	Ongoing work with DPI as part of weevil trial for Salvinia control. Ongoing work with BSC Bush Regen Team to control Frogbit. Successful control on Salvinia in Cell H
Facilitate the annual Bird Survey	Annual	Whole site	Ensure records are kept and reports provided to NPWS	Ongoing
Create mudflat habitat and manage water levels in Cell H	Ongoing	Whole site	Refer to Section 4.8 of OEMP	In progress

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Management Task	Frequency	Location	Actions and Remediation	Status April 2025
for bird habitat				
Communication and engagement with relevant stakeholders	Ongoing	Whole site	Refer to Section 5 of OEMP	Ongoing
Record and monitor plant health and growth	Weekly	Cells D, E, F, G Cells I and J	Identify areas of poor plant growth or health	Ongoing - completed June 2022 to March 2025
Seasonal drying of wetland cell floors to allow oxygenation of sediments and germination of wetland plants	Annual	Cells D, E, F, G Cells I and J	Drain cells slowly and carefully via all outlet valves to prevent erosion, scour and suspending sediments Close cells requiring maintenance during dry season. Cells D or E may need to be drained in mid June – July to create mudflats for habitat when wet weather prevents this within Cell H (refer Section 4.8 of OEMP).	Partial success (Cells D and E) Cells I and J have not been possible due to operational constraints (weather conditions, weed management requirements and no ability transfer to effluent reuse area)
Replanting of vegetation at outlets ¹ , in areas of poor growth and open water.	Bi-annually	Cells D, E, F, G Cells I and J	Schedule and arrange for replanting and translocation of healthy plants to areas of poor growth Ensure appropriate	Ongoing some trials have been undertaken but the main focus has been weed control

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Management Task	Frequency	Location	Actions and Remediation	Status April 2025
			water levels can be provided in planting areas and consider bird protection	
Routine inspection of wetland cells for presence and growth of weeds (refer checklist in Appendix D)	Monthly	Cells D, E, F, G Cells I and J	Identify and prioritise weed management within the treatment wetland cells	Completed June 2022 to March 2025 Ongoing
Routine inspections (refer checklist in Appendix D)	Monthly	Cell H	Identify, record, and monitor any maintenance works	Completed June 2022 to March 2025
Maintain water level	When water levels drop to 0.45m	Cell H inlet	Maintain water level >0.45m and <1.0m Top-up cell to 0.65m when water level reaches 0.45m	Completed June 2022 to March 2025 No top ups required
Create mudflat habitat	Annually (in mid June – July)	Cell H or alternatively Cells C and D	<ol style="list-style-type: none"> 1. Open valves to lower water level to approximately 0.4m to expose mudflats 2. Allow area to dry 3. Slash vegetation 4. Raise water level to 0.8m – 1.0m to kill remaining vegetation <p>If wet weather</p>	Ongoing has been partially completed. Increase in waders and waterbirds in Cells D and E

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Management Task	Frequency	Location	Actions and Remediation	Status April 2025
			prevents the creation of mudflats in Cell H, Cell D or E shall be drained to create mudflats.	
Maintain wet season water level of 0.8m	Wet season (~Nov-Mar)	Cell H	To prevent inundation of plants and loss of habitat	Complete
Maintain water quality	As required	Cell H	Top up cell following significant rainfall events (>25mm/day)	Not required due to climatic conditions
Remove weeds	3 monthly	Cell H	Refer to <i>West Byron Sewerage Treatment Plant Weed Management Strategy (DM530123)</i>	Ongoing
Routine inspection (refer checklist in Appendix D)	Monthly	24ha area	Identify, record, and monitor any maintenance works	Completed June 2022 to March 2025 Ongoing
Manage weeds within the 24ha	Monthly	24ha area	Identify, record, and monitor any required weed management tasks	Completed June 2022 to March 2025 Ongoing
Monitor groundwater quality	Continuously	Groundwater monitoring wells Refer Appendix C	Record pH, conductivity and temperature	Completed June 2022 to March 2025 Ongoing
Monitor groundwater levels	Continuously	3 x Groundwater monitoring wells Refer Appendix C	Record groundwater levels to inform irrigation application and to manage ASS	Completed June 2022 to March 2025 Ongoing
Maintain groundwater levels above	Monthly	Groundwater monitoring wells	Increase irrigation when ground water level drops below	Completed June 2022 to March 2025 Ongoing

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Management Task	Frequency	Location	Actions and Remediation	Status April 2025
600mm below ground level (BGL)		Refer Appendix C	600mm	
Fluctuate the water table level by 300mm increments	3 monthly	Groundwater monitoring wells Refer Appendix C	Reduce surface pyrite formation during periods of waterlogging <ol style="list-style-type: none"> 1. Raise water table to 300mm (BGL) for one month 2. Raise to surface and maintain for three months 	Completed June 2022 to March 2025 Ongoing
Minimise surface ponding	Monthly	Irrigation area	Avoid irrigating following rainfall events	Not applicable
Maintain pH below 5.2		Groundwater monitoring wells	Lower the water table when pH approaches 5.2	Completed June 2022 to March 2025 Ongoing
Maintain pH above 3.5		Groundwater monitoring wells	Raise the water table when pH approaches 3.5	Completed June 2022 to March 2025 Ongoing
Record observations of threatened species	During site inspection or when sighted	All areas of the BBIMWR	Record and document threatened species occurrence on the site	Completed June 2022 to March 2025 Ongoing
Ensure contractors and visitors receive the necessary training and communicate the requirement to protect frog	Ongoing	All areas of the BBIMWR	Provide induction and training to contractors and site visitors	Ongoing

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Management Task	Frequency	Location	Actions and Remediation	Status April 2025
and owls on the site				
Manage weeds and feral species to prevent impacts to habitat	Ongoing	All areas of the BBIMWR	Bush regeneration and weed management undertaken as required by external contractor or the BSC regen team (Refer to <i>West Byron Sewerage Treatment Plant Weed Management Strategy</i> (DM530123))	Completed June 2022 to March 2025 Ongoing
Ensure that works are ceased in the event of grass owl detection	Ongoing	All areas of the BBIMWR	Follow Grass Owl Protection Procedure as detailed in 4.10.1	Completed June 2022 to March 2025 Ongoing
Undertake required monitoring of threatened fauna	Annually	Targeted Locations in the BBIWMR	Update Biodiversity Management Plan	Complete June 2022 to March 2025

Category	Performance criteria	Status April 2025
Constructed Wetlands (D, E, F, G, I & J)	<ul style="list-style-type: none"> • Emergent weeds and invasive natives are controlled and comprise ≤5% total cover within each cell • Native macrophyte vegetation is dense and healthy (>80% coverage of native macrophytes >80% of the time) • Cell batters where access to operational infrastructure is 	<ul style="list-style-type: none"> • Emergent and floating weed cover in Cells D and E <5% total • Emergent and floating weed cover in Cells F and G and I and J exceed performance criteria • Cells batters where access is not required are densely vegetated • Native macrophytes dominate Cells D and E

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Category	Performance criteria	Status April 2025
	not required are densely vegetated	
Cell H	<ul style="list-style-type: none"> • Contains all of the following wetland habitats: <ul style="list-style-type: none"> ○ Open water with floating macrophytes (bottom and middle of cell) ○ Native emergent macrophytes (top and edges of cell) ○ Native woody vegetation on the north-eastern berm only ○ Mudflats (from August – March inclusive)* • Emergent weeds and invasive natives are controlled and comprise ≤5% total cover within each cell • No decline in plant species diversity • Cell batters where access to operational infrastructure is not required are densely vegetated • Predatory native fish populations such as Eel and Mullet are present • Minimum water depths required for Comb-crested Jacana are maintained • Works avoided in Cell H during Jacana breeding season 	<ul style="list-style-type: none"> • Open water in bottom and middle of cell with floating macrophytes • Emergent weeds (including floating) and invasive natives cover in cell H <5% total • Native emergent macrophyte coverage (top and edges of cell) stable and healthy • Native woody vegetation on the north-eastern berm only • Mudflats to be developed from August 2025 • No observed decline in plant species diversity • Cell batters where access is not required are densely vegetated • Predatory native fish populations such as eel and mullet present • Minimum water depths required for comb-crested Jacana present • Works avoided in cell H during Jacana breeding season
24 Hectare Melaleuca Regeneration Habitat	<ul style="list-style-type: none"> • Emergent weeds controlled and comprise ≤5% total cover • Optimal water use to maintain plant health and evapotranspiration 	<ul style="list-style-type: none"> • Emergent weeds controlled and compromise <10% total cover • Water use in 24Ha impacted by loss of critical infrastructure and downstream drain condition

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Category	Performance criteria	Status April 2025
Frog and Grass Owl Habitat	<ul style="list-style-type: none"> Emergent weeds controlled and comprise $\leq 5\%$ total cover Native vegetation continues to persist and structurally provide suitable Grass Owl habitat which is not degraded or disturbed Water chemistry is between a pH range of 3 – 5 	<ul style="list-style-type: none"> Emergent weeds controlled and compromise $< 5\%$ total cover Native vegetation present and healthy providing suitable Grass Owl habitat Water pH between 3-5
Acid Frogs	<ul style="list-style-type: none"> Existing/known habitat areas continue to be utilised by Acid Frog species Native vegetation within Acid Frog habitat areas (constructed wetlands, Frog and Grass Owl Habitat) continues to persist and is not degraded or disturbed 	<ul style="list-style-type: none"> Existing/known habitat areas for Acid Frogs continue to be utilized Native vegetation within Acid Frog habitat areas has continued to persist and has not degraded or disturbed
Grass Owl	<ul style="list-style-type: none"> Existing/known habitat areas continue to be utilised by Grass Owls Native vegetation within Frog and Grass Owl Habitat areas continues to persist and structurally provide suitable Grass Owl habitat which is not degraded or disturbed 	<ul style="list-style-type: none"> No Grass Owls detected during monitoring surveys Habitat areas persist and further vegetation survey required
Bats	<ul style="list-style-type: none"> Existing/known habitat areas continue to be utilised by insectivorous bats Native vegetation within suitable habitat areas (constructed wetlands, Frog and Grass Owl Habitat and 24ha Melaleuca Habitat) continues to persist and is not degraded or disturbed 	<ul style="list-style-type: none"> Bat survey complete Native vegetation supports bat presence on the site
Feral Animals	<ul style="list-style-type: none"> Feral species, particularly 	<ul style="list-style-type: none"> Feral Species, cane toads

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Category	Performance criteria	Status April 2025
	<p>Cane Toads do not become established within cells</p> <ul style="list-style-type: none"> Densely vegetated cell batters maintained Feral animal trapping/control actions are initiated should populations be observed within the BBIWMR 	<p>present on the site</p> <ul style="list-style-type: none"> Densely vegetated cell batters maintained Feral animal trapping/control actions are in place
<p>Threatened Birds (Comb-crested Jacana, Australasian Bittern, Black-necked Stork, Black Bittern)</p>	<ul style="list-style-type: none"> Populations distributions and abundances of threatened waterbird species are monitored annually, particularly during breeding events 	<ul style="list-style-type: none"> Monthly Bird surveys carried out annually to monitor population distributions and abundances of threatened waterbird species, particularly during breeding events
<p>Threatened shorebirds</p>	<ul style="list-style-type: none"> Populations distributions and abundances of threatened waterbird species are monitored annually, particularly during breeding events 	<ul style="list-style-type: none"> Monthly Bird surveys carried out annually to monitor population distributions and abundances of threatened waterbird species, particularly during breeding events

Significant Events 2022-2025

A number of significant events occurred at the BBIWMR during the period 2022 to April 2025. These include complete removal of Salvinia from the biodiversity wetland Cell H. (see Figures 1 and 2)

5



Figure 1 Cell H December 2022 Complete Salvinia Cover



Figure 2 Cell H January 2023 Salvinia clearance due to weevil control

5 In October 2023 a large bushfire occurred impacting a significant portion of the site (Figure 3 Extent of fire 2023). Since this time operation of the effluent reuse area has not been possible.

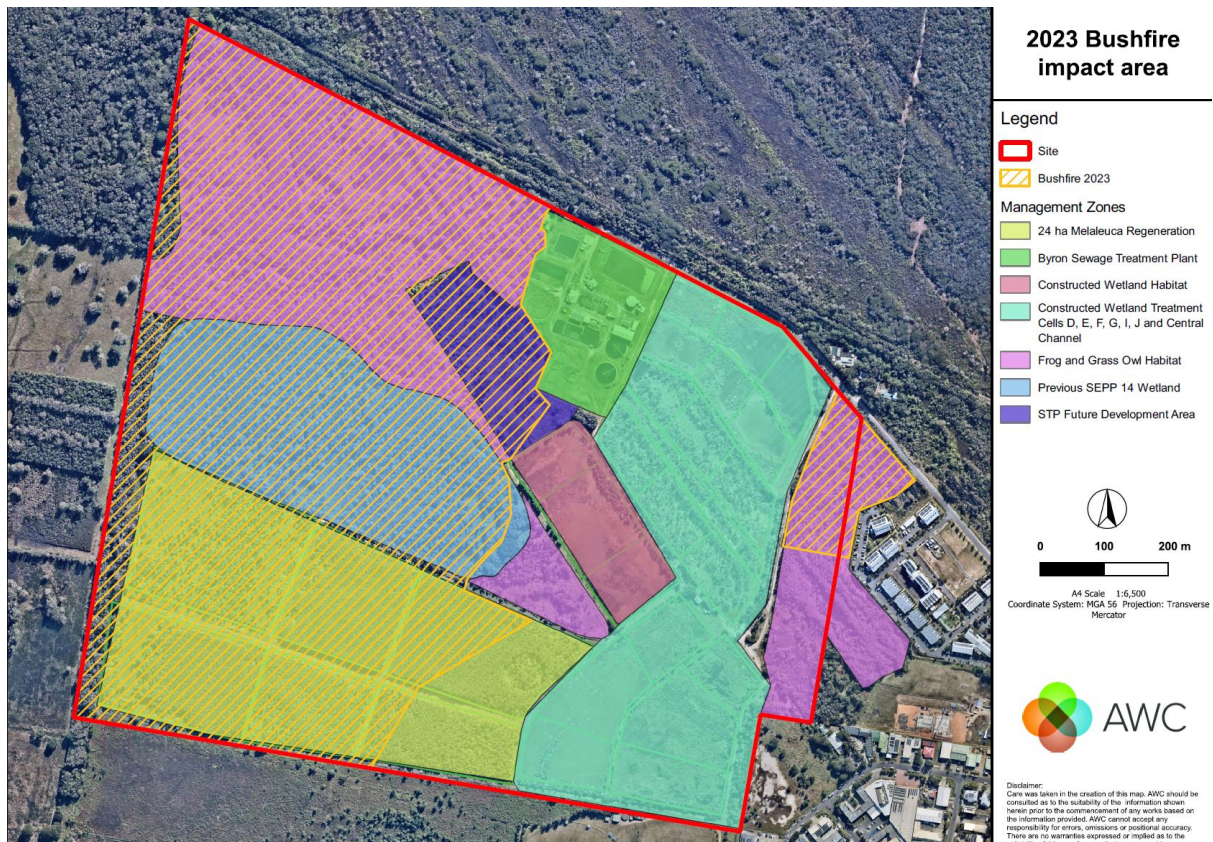


Figure 3 Extent of fire 2023

A comprehensive audit and assessment of the condition of all site infrastructure was undertaken 2023 -2024 (See Figure 4)



- 5 Figure 4 Undertaking asset condition assessment in the 24ha regeneration area September 2024

Amazonian frogbit was detected in Cell H and Cells D and E in 2024.

- 10 A number of significant rainfall events occurred during the period with conditions generally being wetter than average limiting the maintenance activities that could be undertaken on the site.

Works to be undertaken 2025 – 2026

- 15 The following points identify tasks to be undertaken in the next 12-18 months
- Workshop with BBBB Review of Monitoring (20 years of data, key trends, review of monitoring strategy)
 - Installation of Automated Logging System 24ha and Cell J (Water level, pH)
- 20
- Downstream drain management

- Assessment of Acid Sulphate Soils and review of ASS Management Plan for the BBIWMR
- Completion of compliance reporting
- Continuation of required biodiversity monitoring
- 5 • Further monitoring of vegetation condition
- Repair and reactivation of 24 Melaleuca Regeneration area
- Repair and renewal of assets as identified by the asset condition register

Condition of the System Summary

10 The treatment wetland cells were commissioned as part of the 2006 capital works program and components of the system are now in need of replacement and renewal in order to ensure that the wetland system provides the required polishing function for treated effluent from the Byron Bay STP.

15 The wetland cell inlets in particular have reached the end of their functional life and are now not providing even distribution of effluent flow across the top of the cells. In a number of locations water depths do not support the establishment of dense healthy aquatic macrophyte vegetation. There is also Acid Sulphate Soils underlying Cell D.

20 Weed management requirements on the site are significant and require sustained effort to but some areas of improvement are evident particularly Cells D, E and H.

Since the bushfire the operation of the 24ha regeneration area has not been feasible. Much of the infrastructure was completely destroyed.

25 Condition of Cell H has improved with Salvinia control with more bird activity and Black Necked Storks observed on two occasions.

30 Migratory bird activity also appears to have improved with Latham's snipe detected in 2024. Grass Owls were not detected on the site in survey undertaken in 2024.

**Report No. 6.1 Infrastructure Services Utilities Monthly
Status Report December 2024 - February
2025**

5

Directorate: Infrastructure Services
Report Author: Cameron Clark, Manager Utilities
File No: I2025/434

Summary:

10 This report summarises the performance of Utilities delivery during the period December 2024 to February 2025.

Recommendation:

That the Committee note the report.

15

Report

DRINKING WATER QUALITY

In February 2025 there were three (3) exceedances related to turbidity.

5 January 2025 there were zero (0) and in December 2024 there were two (2) exceedances at Mullumbimby WTP related to level sensor technical faults.

NSW Health Water Quality Monitoring

The tables below detail the performance of the water supply network for 2025.

Analysis Type	Guideline Value	Units	Mean	Median	Standard deviation	Min.	Max.	Sample Count	Exception Count	↑	↓	↕	h	h	h	Guidelines
										Percentile	Percentile					
Total Dissolved ...	10000	mg/L	83.86	85.00	8.39	73.00	97.00	7	0	94.9000	73.6000					100.0 %
Total Hardness ...	200	mg/L	51.69	52.80	1.93	49.00	53.70	7	0	53.6100	49.0300					100.0 %
Calcium	10000	mg/L	19.31	19.80	0.77	18.20	20.10	7	0	20.0700	18.2300					100.0 %
Chloride	250	mg/L	13.71	14.00	1.28	11.00	15.00	7	0	15.0000	11.6000					100.0 %
Sodium	180	mg/L	11.57	11.00	1.68	10.00	14.00	7	0	14.0000	10.0000					100.0 %
pH	6.5 - 8.5		7.67	7.70	0.15	7.40	7.90	7	0	7.8700	7.4600					100.0 %
Nitrate	50	mg/L	1.29	1.00	1.13	0.50	4.00	7	0	3.1000	0.5000					100.0 %
Turbidity	5	NTU	0.48	0.10	0.80	0.05	2.40	7	0	1.8300	0.0650					100.0 %
True Colour	15	Hazen Uni...	0.93	1.00	0.49	0.50	2.00	7	0	1.7000	0.5000					100.0 %
Sulfate	250	mg/L	1.00	1.00	0.00	1.00	1.00	7	0	1.0000	1.0000					100.0 %
Magnesium	10000	mg/L	0.84	0.85	0.02	0.81	0.87	7	0	0.8670	0.8130					100.0 %
Fluoride	1.5	mg/L	0.05	0.05	0.00	0.05	0.05	7	0	0.0500	0.0500					100.0 %
Nitrite	3	mg/L	0.05	0.05	0.00	0.05	0.05	7	0	0.0500	0.0500					100.0 %
Aluminium	0.2	mg/L	0.01	0.01	0.00	0.01	0.02	7	0	0.0170	0.0050					100.0 %
Zinc	3	mg/L	0.01	0.01	0.00	0.01	0.02	7	0	0.0170	0.0050					100.0 %
Boron	4	mg/L	0.01	0.01	0.00	0.01	0.01	7	0	0.0127	0.0098					100.0 %
Iodine	0.5	mg/L	0.01	0.01	0.00	0.01	0.01	7	0	0.0100	0.0100					100.0 %
Copper	2	mg/L	0.00	0.00	0.00	0.00	0.01	7	0	0.0060	0.0020					100.0 %
Iron	0.3	mg/L	0.01	0.01	0.00	0.01	0.01	7	0	0.0050	0.0050					100.0 %
Selenium	0.01	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0035	0.0035					100.0 %
Barium	2	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0034	0.0024					100.0 %
Lead	0.01	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0007	0.0001					100.0 %
Arsenic	0.01	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0005	0.0005					100.0 %
Chromium	0.05	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0005	0.0005					100.0 %
Mercury	0.001	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0004	0.0004					100.0 %
PFBS	9999	µg/L	0.00	0.00	0.00	0.00	0.00	1	0	0.0003	0.0003					100.0 %
Nickel	0.02	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0002	0.0002					100.0 %
Manganese	0.5	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0002	0.0002					100.0 %
Molybdenum	0.05	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0001	0.0001					100.0 %
Silver	0.1	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0001	0.0001					100.0 %
Antimony	0.0030000...	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0001	0.0001					100.0 %
Cadmium	0.002	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0001	0.0001					100.0 %
PFHxS	9999	µg/L	0.00	0.00	0.00	0.00	0.00	1	0	0.0001	0.0001					100.0 %
PFOA	0.5600000...	µg/L	0.00	0.00	0.00	0.00	0.00	1	0	0.0001	0.0001					100.0 %
PFOS	9999	µg/L	0.00	0.00	0.00	0.00	0.00	1	0	0.0001	0.0001					100.0 %
Sum of PFOS an...	0.0700000...	µg/L	0.00	0.00	0.00	0.00	0.00	1	0	0.0001	0.0001					100.0 %
Uranium	0.02	mg/L	0.00	0.00	0.00	0.00	0.00	7	0	0.0001	0.0001					100.0 %
Microbiology																
Temperature	30	C	21.94	21.25	3.72	15.40	30.90	104	1	27.4700	16.5150					99.0 %
pH	6.5 - 8.5		7.76	7.80	0.10	7.50	8.00	104	0	7.9000	7.6000					100.0 %
Total Chlorine	5	mg/L	1.12	1.16	0.27	0.13	1.57	99	0	1.4210	0.7150					100.0 %
Free Chlorine	0.2 - 5	mg/L	1.05	1.06	0.20	0.40	1.90	103	0	1.3190	0.7310					100.0 %
E. coli	0	mpn/100 ...	0.50	0.50	0.00	0.50	0.50	103	0	0.5000	0.5000					100.0 %
Turbidity	5	NTU	0.20	0.18	0.12	0.11	1.17	84	0	0.3240	0.1200					100.0 %

10 Incident Reports and Public Health Reportable Events

There were zero (0) Public Health reportable events and NSW Health Sampling non-compliances in February, January 2025.

EPA Reportable Events

There were zero (0) EPA reportable incident during February, January 2025 and December 2024.

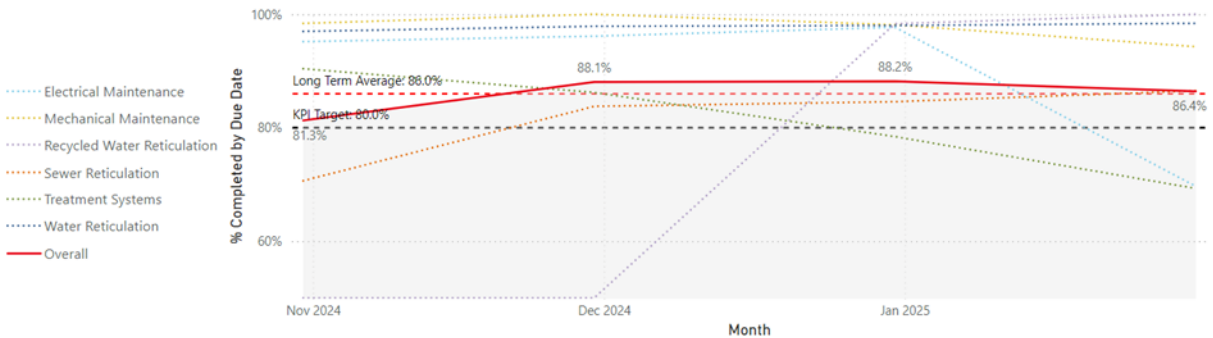
5 ASSET MAINTENANCE MANAGEMENT

Continuous Improvement Actions

Recent Improvements:

1. Property water meters have already been brought into the system and reactive maintenance tasks are routinely logged against these. The geographical location of the meters could not be discerned as part of the GIS upload and therefore meters are currently, in general, located in the centre of each lot. We are currently undergoing a process of relocating each meter to the correct location in line with information held in the Water Billing system. Currently:
 - a. Mullumbimby, Bangalow, and Brunswick Heads are complete and service lines have been generated.
 - b. Suffolk Park is at approximately 35% completion and will be included in the system in the coming weeks.
2. Following recent update to the Assetic platform, changes have been made to the Planned Maintenance programming and the Asset catalogue to create separate Work Groups for operational teams. Previously all teams were within one Water and Sewer Work Group, which cluttered workspaces and required complex filtering to avoid seeing all work for all teams. Moving forward, all PM tasks will be generated within their appropriate Work Groups. Team leaders and supervising staff who create work orders for reactive work have been notified of this change.
3. Because of the live nature of current reporting integrations between Assetic and Power BI, there is not currently a way to look back on the state of the system as it was in any given month in the past. The IT Team have created a series of history tables that will be appended at the end of every month, essentially creating easily reportable snapshots of the Assetic system to track KPIs, as seen below

← KPI - Percentage of Planned Maintenance Completed by Due Date (last 12 months)



Next Steps:

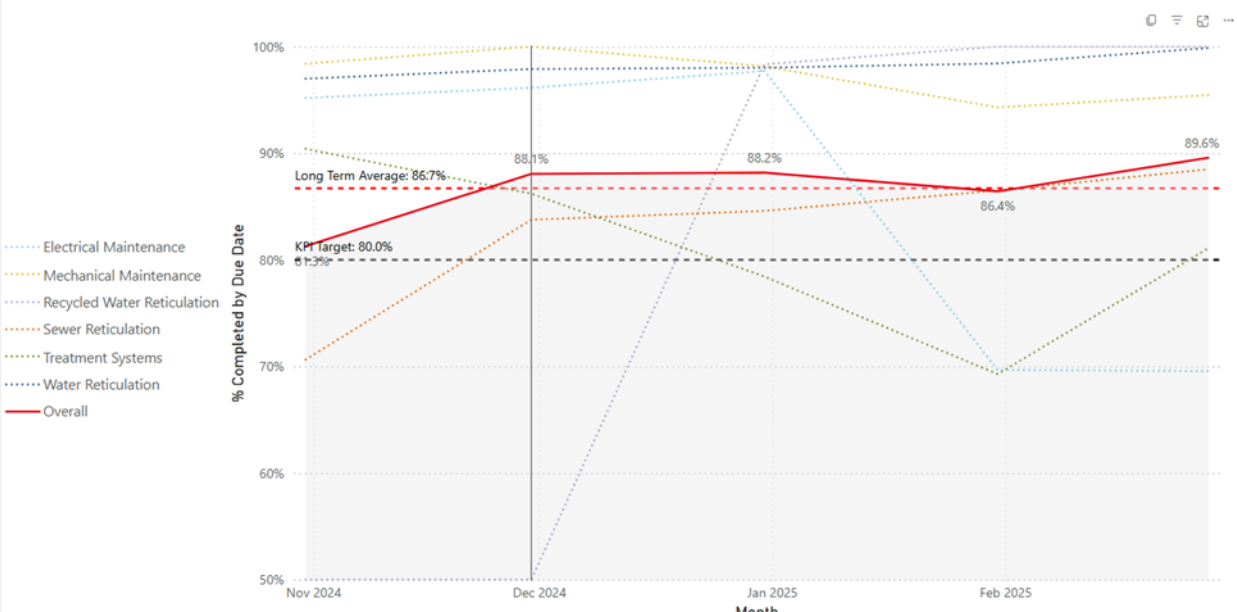
1. Weekly meetings with team leaders were suspended over the Christmas/New Year break and have resumed to drive further improvements to the Assetic System.
- 5 2. With the ongoing effort to digitise and properly catalogue plans and important asset-related documents, the team will soon be uploading more of these documents to Assetic to be easily accessible to field staff when needed.

ASSET MAINTENANCE STATUS

Planned Maintenance – Progress against Program

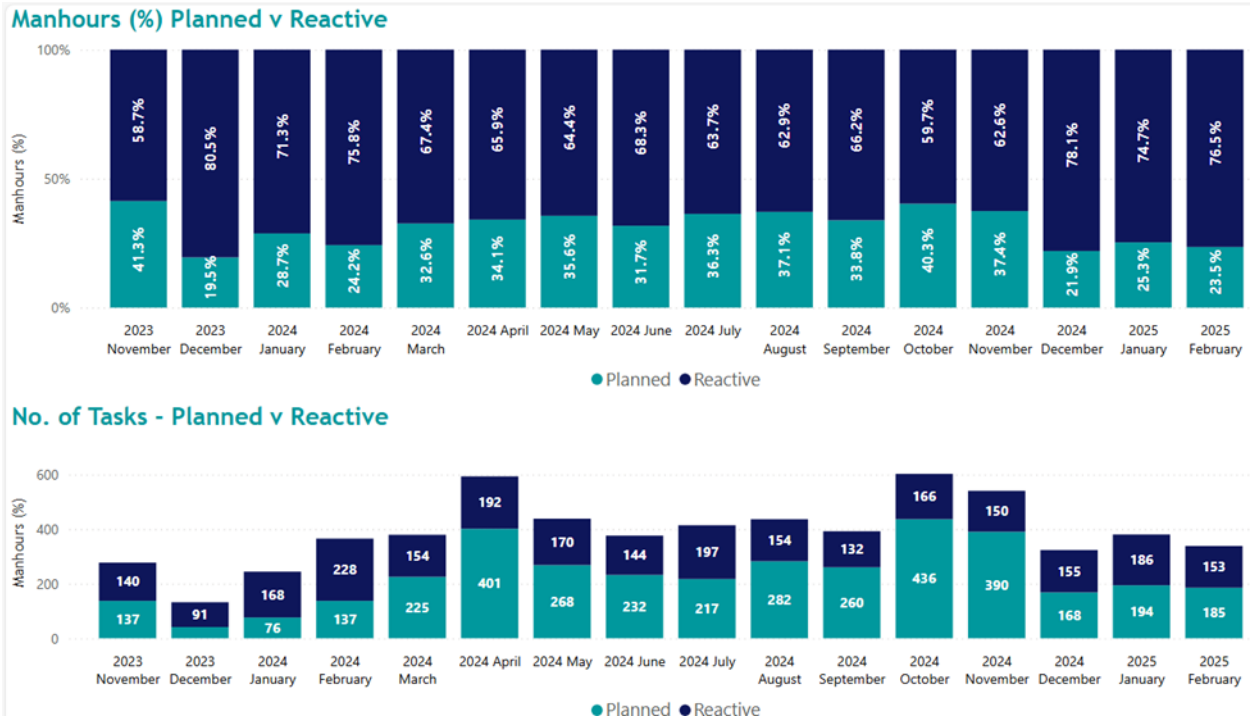
- 10 Overall, Utilities planned maintenance in February is 89.6% tasks completed by due date against a target of 80%. The current long-term average of tasks completed by due date is 86.7%.

← KPI - Percentage of Planned Maintenance Completed by Due Date (last 12 months)



Planned versus Reactive Maintenance

The figure below shows the comparative maintenance hours for each team between planned and reactive maintenance. Reactive maintenance has taken 67.0% of all hours spent working on assets for the last 12 months.



5

CAPITAL WORKS

SPS Renewals for Byron, Mullum, Ocean Shores & Bangalow

SPS	% COMPLETE	PUMPS DELIVERED	SWITCH-BOARD DELIVERED	COMPLETED SCOPE SUMMARY
SPS 1002	100	N/A	Delivered	Casted new switchboard pad and installed new 3x 63mm electrical conduits and new 32mm mains onto pumps. Switchboard installed. Made good old switchboard plinth and penetrations into well and valve chamber. Restoration completed.
SPS 1005	100	N/A	Delivered	Removed existing broken sealed surface and re-asphalt access road
SPS 1007	100	N/A	Delivered	MH and bypass connection installed. NPE by pass pumps demob. Epoxy works completed and SPS back in operation. Add spindle (SS316) on inlet valve. Replaced risers in PE 125 and replaced lifting chains in SS. Installed new switchboard on new concrete pad

BYRON SHIRE COUNCIL

FOR INFORMATION ONLY

6.1

				(1960x1600x200) with new odour filter and old concrete plinth removed. 3x63mm conduit 16mm electric main installed. Penos with 2 parts mega poxy (5-10mm) concluded. Replaced odour filter to ground mount McBerns filter. Water service to be relocated. Fixed padlock cover on lid. Restoration completed.
SPS 2002	100	N/A	Delivered	Completed replacement of risers PE125 through to the valve chamber, no need for valves. New PE pipe connected directly into valves to save space. New Spindle on SS316 was installed. Restoration completed.
SPS 2004	100	N/A	Delivered	Replace existing DN150 gate valve in the 2002 rising main on outside of well
SPS 2010	100	N/A	Delivered	Replaced risers PE180, DN150 outlet gate valves, check valves, Gibault and flanged spigot. Installed new Switchboard pad (1600x1600x200). 3 x 63mm electrical conduits installed to green boy approx. 120m away. Water Service relocated. Excavation under high water table needed dewatering system. Restoration completed.
SPS 3004	100	N/A	Delivered	Bypass completed, Epoxy Coating and crack injections completed, Standpipe and ductile iron manifold updated to HDPE.
SPS 3010	100	N/A	Delivered	Replaced risers PE125 from elbow on wet well to valve pit, DN150 outlet gate valves, check valves. Relocated water service. Restoration completed.
SPS 3017	100	N/A	Delivered	Replaced inlet gate valve and refurbish inlet pipe penetration
SPS 3021	100	N/A	Delivered	Construction completed. Replaced DN125 risers, DN100 outlet gate valves, check valves, DN150 inlet gate valve, replace guide rails and brackets, relocated water service, removed vent pole and replaced with McBerns odour filter, removed switchboard plinth and replace switchboard. Restoration completed.
SPS 4007	N/A	N/A	Delivered	Removed from scope
SPS 5003	N/A	N/A	Delivered	Removed from scope
SPS 5014	100	N/A	Delivered	New switchboard plinth cast done, already installed new 3x63mm conduits to pump well, removing existing conduits and grout. No need to remove part of the fence. New electrical mains from green boy to board completed, new switchboard and commission with electricians had issues but a work around was completed. Running on new switchboard. Restoration completed.
SPS 5017	100	N/A	Delivered	Completed the replacement of the DN125 risers, DN100 outlet gate valves, check valves and dismantling joints, DN150 inlet gate valve and spindle as well as handrail around new switchboard platform. Old platform was removed, switchboard replaced as well as new electrical mains. Water service relocated. Restoration completed.

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SPS 5020	100	N/A	Delivered	Completed the install of the 2 x new DN125 PE riser pipes through to the valve chamber, new gate valves and check valves, Gibault and flanged spigots. New gate valve DN150 on incoming gravity sewer. New slab for switchboard (3120x1000x200) was casted. Applied bitumen coat on spigot. Removed the Ladder. Restoration completed.
SPS 5022	100	N/A	Delivered	Installed new switchboard, conduits, electric main and new concrete platform. Removed existing switchboard and concrete plinths and installed new switchboard on new platforms. Pipework is also completed as well as stairs. Relocated water service. Installed new Covers, grill and frames sealed for odour control. Handrails were installed and existing plinth was modified to suit new ground mount odour filter. Restoration completed.

Gravity Sewer Mains Remediation

Based on previous condition assessments of the gravity sewer main network, Willow and Sparrow identified mains that required remediation works to prolong their use and/or to fix acute defects. The remediation scope included the installation of patch liners, excavation and repair, and CCTV survey. This package of works was awarded to Subsurface Pipe Solutions to a value of \$132,950 plus GST. Work has commenced and is currently running on schedule. There has been some variation in scope due to previously unknown site and asset conditions which has resulted in lowering the overall budget whilst maintaining the desired outcomes. This project is nearing completion.

10 Gravity Sewer Condition Assessments

The condition assessment of gravity sewer mains and maintenance holes was awarded to Willow and Sparrow (maintenance holes) and Subsurface Mapping Solutions (mains). The Maintenance hole condition assessments are underway. The CCTV mains contract was awarded to Subsurface Mapping Solutions and work is scheduled to be completed by June 30. The sewer catchments that fall within this scope are across Bangalow, Suffolk Park, and Ocean Shores. The indicative budgetary limit of ~\$320,000 will cover the costs for both CCTV assessments and MH visual assessments. Condition assessment reports for mains and maintenance holes will be completed once all data has been gathered.

20 Water Main Replacements – Supply and Installation: Fletcher St, Carlyle St and Bangalow Rd Byron Bay; and Azalea St Mullumbimby

Site 01 Carlyle Street – Byron Bay

- Construction is completed – Planit and CivilCS are to review and finalise WAE and ITPS;

Site 02 Azalea Street – Mullumbimby

- Construction is completed – Planit and CivilCS are to review and finalise WAE and ITPS;
- CivilCS to complete final remediation works.

Site 03 Fletcher Street– Byron Bay

- Construction is completed – Planit and CivilCS are to review and finalise WAE and ITPS;
- CivilCS to complete final remediation works.

5 Site 04 Bangalow Road – Byron Bay

- Construction is completed – Planit and CivilCS are to review and finalise WAE and ITPS;
- CivilCS to complete final remediation works.

10 Paterson St Reservoir Replacement

Work accomplished in the period:

- Michael Salu (SSE) has finalized the structural engineering concept designs (exclusive of stairs).
 - Planit has now issued their Concept Design Plans for Council review.
- 15 • A meeting with the telcos occurred mid-December. Agreement was made to progress the Concept Design to Detailed Design. Council need to review the concept plans and a new fee proposal is required to be submitted by Planit.

Telcos – Paterson: NO CHANGE FROM MAY 2023

- A meeting was held with BMM Group (who act on behalf of all major Telcos)
- 20 • BSC and BMM have agreed on a concept design for the antenna locations and Telco access to the antennas – being from a Telco gantry off the side of the reservoir, NOT via the BSC stairs and roof.
- Planit to provide survey and concept design to BMM to allow them to proceed with planning approvals and draft design of the access and antenna connections.
- 25 • Concept structural plans have now been issued to the telcos for comment.

Mullumbimby Emergency Trunk Water Main Construction

Work accomplished in the period:

- The project has now commenced construction.
- 30 • UGL Regional Linx held a meeting as they required additional information to provide approval. Plans were updated accordingly with the water main being 4.1m deep to accord with their standard requirements.

Ewingsdale Road Water Main

Work accomplished in the period:

- 5
- Planit has now completed the detailed design of this water main, inclusive of the structural engineering design of the water main brackets.
 - ENV Solutions has now completed their ASSMP Report.
 - Plans were reissued to show survey marks.
 - Design now under staff review.

Main Arm Road Concept Water Main

10 **Work accomplished in the period:**

- Project postponed to FYE2027 due to budget resource constraints.