

# 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, 18 August 2022
Time	9.00am

Phillip Holloway  
Director Infrastructure Services

I2022/1033  
Distributed 11/08/22



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## 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)

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## 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.

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## 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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**ADOPTION OF MINUTES FROM PREVIOUS MEETINGS**

**Report No. 3.1 Adoption of Minutes from Previous Meeting**

**Directorate:** Infrastructure Services

5 **Report Author:** Rachel Barnden, Systems Support Officer

**File No:** I2022/960

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10 **RECOMMENDATION:**

**That the minutes of the Water and Sewer Advisory Committee Meeting held on 21 April 2022 be confirmed.**

15 **Attachments:**

1 Minutes 21/04/2022 Water and Sewer Advisory Committee, I2022/387 , page 7 [↓](#) 

# BYRON SHIRE COUNCIL

## ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1

### **Report**

The attachment to this report provides the minutes of the Water and Sewer Advisory Committee Meeting of 21 April 2022 .

### **Report to Council**

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The minutes were reported to Council on 26 May 2022

### **Comments**

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

**Resolved** that Council notes the minutes of the Water and Sewer Advisory Committee Meeting held on 21 April 2022. (Lyon/Ndiaye)

10

**22-202 Resolved** that Council adopts the following Committee Recommendations:

**Report No. 3.2 Byron STP Condition 9 Additional Load - Quarterly Report**  
File No: I2022/238

#### Committee Recommendation 3.2.1

That Council:

1. Notes the report.
2. Asks Council staff to show both ET units and megalitres per annum. (Lyon/Ndiaye)

**22-203 Resolved** that Council adopts the following Committee Recommendations:

**Report No. 3.3 Utilities Overview**  
File No: I2022/291

#### Committee Recommendation 3.3.1

1. That Council notes the presentation: Infrastructure Services Utilities Overview Presentation to Water & Sewer Advisory Committee 21 April 2022 (E2022/32261).
2. This summary to continue at the next Water and Sewer Advisory Committee. (Lyon/Ndiaye)











STAFF REPORTS - INFRASTRUCTURE SERVICES

**Report No. 4.1      Committee Constitution**

**Directorate:**                      Infrastructure Services

5 **Report Author:**                Rachel Barnden, Systems Support Officer

**File No:**                            I2022/957

**Summary:**

Attached is Draft Water and Sewer Advisory Committee Constitution 2022 to be ratified by the Committee



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**RECOMMENDATION:**

**That the Committee ratify the Committee Constitution**

15 **Attachments:**

1      DRAFT Water and Sewer Advisory Committee Constitution 2022, E2021/148692 , page 13  

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**Report**

The purpose of the Committee is to:

- a)    develop policies for addressing the water and sewer cycle management needs and aspirations of the Shire’s population in an ecologically sustainable way.
- 25 b)    develop strategies for natural resource management / demand management for water and sewer management within the Shire.
- c)    recommend on strategies and plans that address water and sewer management issues in a regional/ broader context.

30

**WSAC Constitution Amendments Proposal from Cr Dey for the Committees Consideration**

**Section 2 Purpose:**

The purpose of the Committee is to:

- 5
- a) develop policies and programs that address the water and sewer needs and aspirations of the Shire's populations in a resilient and ecologically sustainable way;*
  - b) develop strategies and projects that minimise the environmental impacts (i) of extracting water, (ii) of returning sewage to receiving environments, and (iii) of treatment and processing for these purposes;*
  - c) recommend strategies and plans to manage water and sewerage assets.*

**In Section 5 Membership:**

- 10
- Council appoints Advisory Committee members, thus conferring their responsibilities and rights as set out in this document.*

**In Section 11 Majority Decision:**

*A decision of the Committee is by majority of the voting members present at the time of the vote, including on-line presence.*

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**In Section 16 Absence from Committee Meetings:**

- a) Has been absent from two consecutive meetings of the Committee without having given acceptable reasons for the member's absence.*

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**Legal/Statutory/Policy Considerations**

The Constitution has been prepared with reference to Council's Code of Conduct and Code of Meeting Practice.

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**Report No. 4.2      Utilities Overview**

**Directorate:** Infrastructure Services

**Report Author:** Rachel Barnden, Systems Support Officer

**File No:** I2022/653

5 **Summary:**

Council staff have developed a presentation summarising the services provided to Byron Shire Community by Councils Utilities Branch. The presentation has been developed to allow for open discussion with committee members.

**22-203      Resolved** that Council adopts the following Committee Recommendations:

**Report No. 3.3 Utilities Overview**

File No: I2022/291

Committee Recommendation 3.3.1

1. That Council notes the presentation: Infrastructure Services Utilities Overview Presentation to Water & Sewer Advisory Committee 21 April 2022 (E2022/32261).
2. This summary to continue at the next Water and Sewer Advisory Committee.

(Lyon/Ndiaye)

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**RECOMMENDATION:**

**That the committee note the presentation.**

15 **Attachments:**

- 1 Infrastructure Services Utilities Overview Presentation, E2022/32261 , page 21  























































**Report No. 4.3      Safe and Secure Yield**

**Directorate:**                      Infrastructure Services

**Report Author:**                Cameron Clark, Manager Utilities

**File No:**                         I2022/583

5    **Summary:**

Council is currently preparing a long-term strategy for Mullumbimby water supply to ensure that it can meet future water demand.

The need for a long-term water supply strategy for Mullumbimby is based on the following findings from previous studies:

- 10        -    The current demand for water is similar to the secure yield at Laverty's Gap Weir and if the worst drought on record were to repeat, the current supply would not meet demand.
- Mullumbimby's demand for water is increasing with development and population growth.
- 15        -    The Mullumbimby WTP requires upgrades to ensure consistent supply of microbially safe water in the short-term and is ageing and requires replacement.
- The raw water supply channel is in poor condition and is at risk of failure.

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**RECOMMENDATION:**

1.    **That the Committee notes the report.**
- 25        2.    **That an extraordinary WSAC workshop is held with representatives from Rous and Byron Councils relating to integrated future water strategies across the region including Byron and Mullumbimby.**

30

## Strategic Considerations

### Community Strategic Plan and Operational Plan

<b>CSP Objective</b>	<b>CSP Strategy</b>	<b>DP Action</b>	<b>Code</b>	<b>OP Activity</b>
<b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable	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	5.5.1.9	Mullumbimby - Emergency Water Supply Detailed Design
<b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable	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	5.5.1.16	DWMP Improvements
<b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable	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	5.5.1.8	Mullumbimby WTP - Asset Management
<b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and	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	5.5.1.14	Asset Management Plans / Asset Management System

## BYRON SHIRE COUNCIL

### STAFF REPORTS - INFRASTRUCTURE SERVICES

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reliable				
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	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	5.5.1.15	Development Servicing Plan
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	5.5: Provide continuous and sustainable water and sewerage management	5.5.2: Wastewater management - Manage effluent in an ecologically sustainable way that ensures public health and protects and enhances the natural environment	5.5.2.12	Review Recycled Water Management Strategy
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	5.5: Provide continuous and sustainable water and sewerage management	5.5.2: Wastewater management - Manage effluent in an ecologically sustainable way that ensures public health and protects and enhances the natural environment	5.5.2.5	Byron Bay - Section 60 Reuse Water System Upgrade
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe,</p>	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	5.5.1.3	Mullumbimby - Tuckeroo Ave Watermain Construction

# BYRON SHIRE COUNCIL

## STAFF REPORTS - INFRASTRUCTURE SERVICES

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accessible, and reliable		guidelines		
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### Recent Resolutions

**21-239**      **Resolved** that Council adopts the following Committee Recommendations:

**Report No. 4.1 Mullumbimby Future Water Strategy**

File No: I2021/781

Committee Recommendation: 4.1.1

That Council:

1. Recognises that for the Mullumbimby township there are 2 water supply issues being considered at the moment, one being a potential drought next summer and the other being the long-term future water supply strategy.
2. Undertakes works to complete the connection of the emergency supply to the rest of Mullumbimby.
3. In relation to a long term strategy, firms up the management options including recognising the environmental impacts of each option, inclusive of impacts of Rous's own options (for options that use Rous water).
4. Aims to produce a draft long-term strategy to go to a Strategic Planning Workshop with a view to putting the strategy on public exhibition.

(Ndiaye/Spooner)



**22-171**

**Resolved:**

- 1. That during Stage 2 of the IWCM Strategy (beyond 2028) further investigation into the groundwater supplies at Tyagarah Byron Shire, will be undertaken by Rous County Council to confirm infrastructure requirements and assess environmental impacts.**
- 2. That during Stages 1 and 2, Rous County Council will continue investigations into the preferred long-term source augmentation strategy (Stage 3 options) which may include (around 2040):**
  - i) Expansion of the Tyagarah groundwater scheme (if viable).**
  - ii) Desalination of ocean feedwater at Byron Bay.**
  - iii) A regional desalination facility with interconnection of the Tweed and Rous County Council regional supplies.**
  - iv) Surface Water Supplies**
- 3. That a draft of the Rous County Council Regional Demand Management Plan 2023 - 2026 will be on public exhibition during 2022**
- 4. That, in relation to its long term water supply strategy for Mullumbimby, Council:**
  - a) firms up its four management options including recognising the environmental impacts of each option, inclusive of impacts of Rous's own options (for options that use Rous water).**
  - b) adds to Scenario S4 an alternative new groundwater source namely to buy back existing licences around Tyagarah.**
  - c) reports that revised information to a meeting (extraordinary if necessary) of the Water & Sewer Advisory Committee.**
  - d) aims to produce a draft long term strategy to go to a Strategic Planning Workshop with a view to putting the strategy on public exhibition during 2022.**

**(Dey/Ndiaye)**

**Report No. 4.4 West Byron STP Compliance Report**

**Directorate:** Infrastructure Services

**Report Author:** Chris Larkin, Manager Sustainable Development

**File No:** I2022/947

**5 Summary:**

Council resolved (21-096) on the 25 March 2021 in adopting the Water and Sewer Advisory Committee recommendations in relation to report 4.1 Byron STP Condition 9 Additional Load – Quarterly Report to request an independent planning assessment of the interpretation of compliance with, and ongoing fulfilment of Condition 9.

10 Specifically condition 9 for the West Byron STP states:

*9. Additional Load at West Byron STP will not be accepted until:*

*i. The transfer of 100% of the sewage flows from South Byron Catchment;*

*ii. West Byron STP satisfactorily meeting all applicable performance requirements as specified in the plants Environment Protection Licensee and in this approval;*

15 *iii. Availability of sufficient reuse capacity to accommodate 100% of the volume of treated effluent generated by the additional load; and*

*iv. Availability of treatment capacity as defined in Approval Condition 6 above.*

20 The assessment was carried out by Chris Borg, CP Engineer from Barker Ryan Stewart Consulting and Cecilia Rose, Solicitor from Wiltshire Webb. Copies of their reports and documents are attached to this report.

25 The findings from that the assessment are that the West Byron STP is operating in accordance with the requirements of Condition 9. In relation to point (iii) of the condition, an additional 2,791ET's have been approved, whilst the plants reuse capacity sits at 3,416 ETs, some 22% beyond what is required. It is concluded the plant complies with the condition 9.

As part of the review of condition 9, a review of all conditions of consent was undertaken.

30 A shortcoming was identified in relation to the Operational Environmental Management Plan (OEMP) with no provisions for it to be updated amongst other things as discussed in the body of this report. It is recommended the 2013 OEMP be updated to address any shortcomings and the consent then be amended to reflect the updated OEMP and to also incorporate provisions to facilitate a future review and update of the OEMP as required.




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**RECOMMENDATION:**

**That the Water and Sewer Advisory Committee note the findings of this report in terms of Condition 9.**

10 **Attachments:**

- 1 Letter from Wilshire Webb - Conditions of Consent – Byron STP, E2022/75003 , page 55 [↓](#) 
- 2 Letter From Barker Ryan Stewart - Byron Bay Sewerage Treatment Plan - Condition No. 9, E2022/75002 , page 58 [↓](#) 
- 15 3 Table - Comment on Conditions of Consent for the West Byron STP, E2022/75004 , page 65 [↓](#) 

## Report

Council on the 25 March 2021 adopted the Water and Sewer Advisory Committee recommendations in relation to report 4.1 titled Byron STP Condition 9 Additional Load – Quarterly Report as follows:

- 5      **21-096** Resolved that Council adopt the following Committee Recommendations:

**Report No. 4.1 Byron STP Condition 9 Additional Load - Quarterly Report**

File No: I2021/161

Committee Recommendation 4.1.1

1. That Council recognises:

- 10      a) That Additional Load approved since 2006 is of the order of 1.6 ML/day;  
b) That in recent years 1.1 ML/day of Byron STP's effluent has been reused;  
c) That Consent Condition 9 approved by Council in December 2002 states

15      "Additional load at West Byron STP will not be accepted until: availability of sufficient reuse capacity to accommodate 100% of the volume of treated effluent generated by the additional load";

2. That Council seeks an independent planning assessment during the current financial year, of the interpretation of, compliance with, and ongoing fulfilment of Condition 9;

3. That Council seeks more opportunities to re-use effluent as soon as possible

(Richardson/Cameron)

- 20      The purpose of this report is to provide the committee a summary of the independent planning assessment as per part 2 of the resolution.

25      The assessment was carried out by Chris Borg, CP Engineer from Barker Ryan Stewart Consulting and Cecilia Rose, Solicitor from Wiltshire Webb. Copies of their reports and documents are attached to this report. In addition to Condition 9 the assessment has also reviewed all conditions of the Review of Environmental Factors (REF) approval for the West Byron Sewage Treatment Plant. Relevant details are attached to this report.

Specifically condition 9 of the approval states:

9. Additional Load at West Byron STP will not be accepted until:

- 30      i. The transfer of 100% of the sewage flows from South Byron Catchment;  
ii. West Byron STP satisfactorily meeting all applicable performance requirements as specified in the plants Environment Protection Licensee and in this approval;

## BYRON SHIRE COUNCIL

### STAFF REPORTS - INFRASTRUCTURE SERVICES

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*iii. Availability of sufficient reuse capacity to accommodate 100% of the volume of treated effluent generated by the additional load; and*

*iv. Availability of treatment capacity as defined in Approval Condition 6 above.*

5 In summary the assessment found that the West Byron STP complied with the condition as follows:

- i. The transfer of sewage flows from the South Byron catchment to the west Byron STP has occurred.
- 10 ii. The West Byron STP has been shown to meet all applicable performance requirements in the plants Environmental Protection License and in this approval and evidence of such is provided in regular Annual Return Summary reports produced by Council as part of the EPA Licensing agreement.
- 15 iii. Since the West Byron STP augmentation approval date, there have been 2791 ETs approved by Council, hence reuse capacity has to be at least 2791 ET's. This equates to 1.65 ML/ day or 601 ML/ Year. It was found that the capacity of the reuse system is 2.016ML/ day or 735.84 ML/ Year. This is equivalent to 3416 ET's.
- 20 iv. The ongoing Annual Summary reports provide by BSC indicate that the West Byron STP has available treatment capacity of up to 6.95 ML/ day, consistent with condition 6.

In conclusion the assessment found that the West Byron STP was re-using 22% more treated effluent than it was required to do under condition 9(iii).

25 For further details on this assessment by Chris Borg from Barker Ryan Stewart see Attachment 2.

#### **Other STP Conditions of Consent.**

30 The attached documentation also reviewed the remaining conditions of approval. The correspondence from Wiltshire Webb and the Table of Conditions (See attachment 1 and 3) identified an issue with condition 41 and associated conditions with the Operational Environmental Management Plan. It is understood that a 2007 OEMP was originally adopted, however the STP is now using an updated OEMP dated 2013 which has not been adopted by Council. The consent does not specifically facilitate a need for an updated OEMP, but it would seem prudent that the OEMP is updated from time to time to respond to issues as they arise and better information being made available. Other issues were also identified in relation to OEMP conditions 42-45.

The table recommends that a S4.55 application be prepared to amend conditions of consent in relation to the OEMP that is being utilised by the STP and it is suggested the

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## STAFF REPORTS - INFRASTRUCTURE SERVICES

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OEMP should address any current shortcomings. Further the correspondence from Wiltshire Webb states

13. We have been provided with the AWC Byron Bay STP Licence and Conditions review dated 15 June 2021 (**AWC Review**). The AWC Review recommends that the 2013 OEMP be updated to address certain monitoring, recording, and documentation requirements. Having regard to that conclusion, and our review of the Consent, Council may consider a section 4.55 modification application to adjust condition 41 and related conditions, to enable the Consent to be updated with a revised OEMP, but also enable Council to review and update the OEMP, then conduct the STP in accordance with the revised OEMP. This will provide Council with more flexibility in undertaking monitoring and compliance.

- 5 It is recommended the 2013 OEMP be updated to address any shortcomings and the consent then be amended to reflect the updated OEMP and to also incorporate provisions to facilitate a future review and update of the OEMP.









































































**Report No. 4.5      STP Quarterly Operational Performance Report**

**Directorate:** Infrastructure Services

**Report Author:** Cameron Clark, Manager Utilities

5 **File No:** I2022/999

**Summary:**

10 This quarterly report outlines the operational performance of Council's four sewerage treatment plants: West Byron, Ocean Shores, Bangalow and Brunswick Valley. It also outlines the Mullumbimby drinking water supply system performance and the Utilities operational planned maintenance performance targets.

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**RECOMMENDATION:**

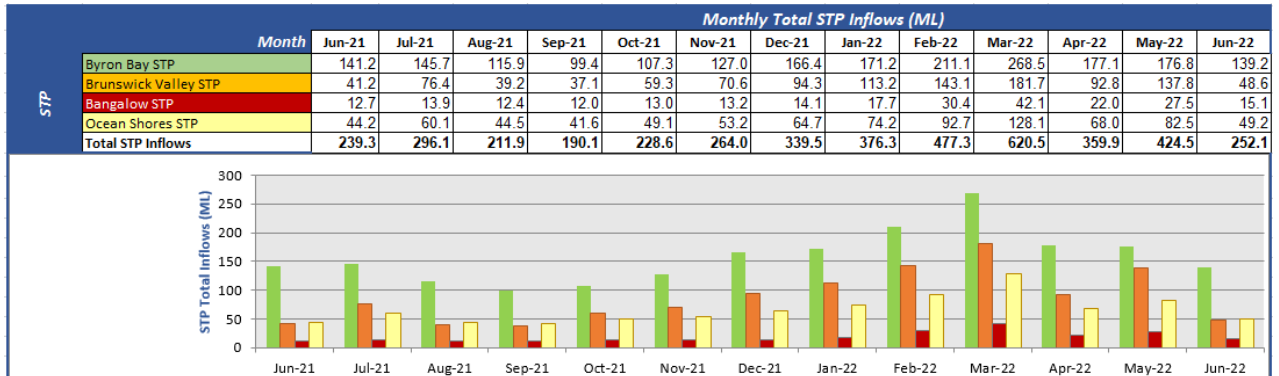
15 **That the committee note the report**

20

## Report

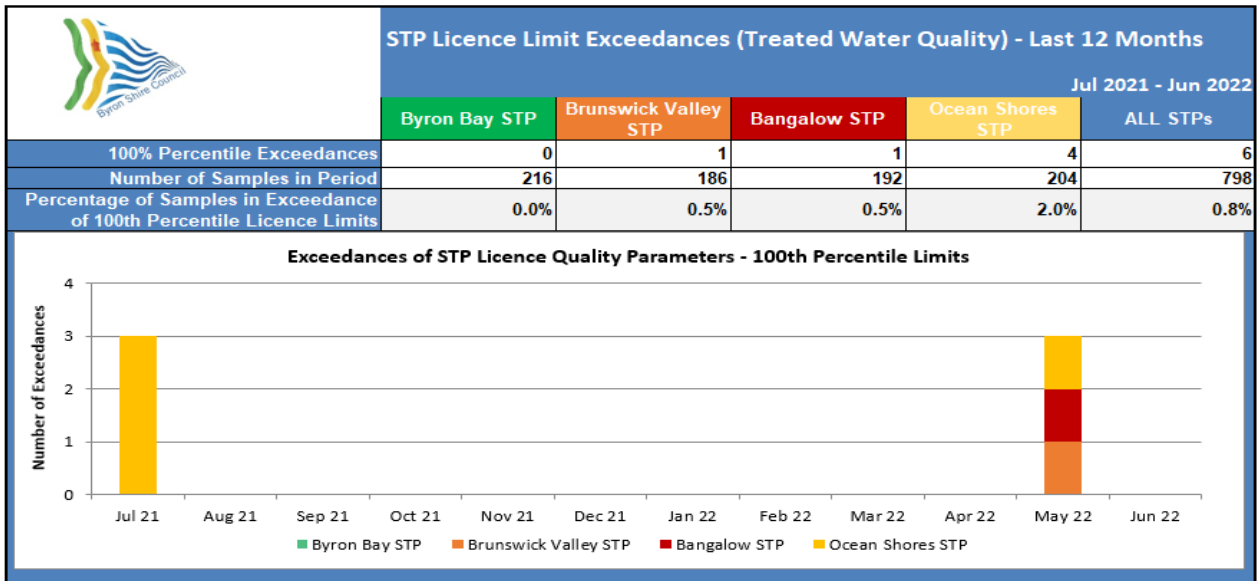
### Sewerage Treatment System Performance

#### *Monthly STP Inflow Volumes*



#### 5 *STP Performance against EPA Licence Limits*

The performance of the STPs for the last 12 months show that 99.2% of quality samples were within licence limits.



#### *EPA Reportable Events*

10 There was one (1) EPA reportable incident during the April to June 2022 period.



# BYRON SHIRE COUNCIL

## STAFF REPORTS - INFRASTRUCTURE SERVICES

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### Byron Wetlands Water Quality

The data below shows the assimilative and polishing capacity of Byron Wetlands for the April to June 2022 was in line with nutrient removal targets.

Byron Wetlands Nutrient Removal - April 2022 to June 2022										
Statistics	Total Nitrogen (mg/L)					Total Phosphorus (mg/L)				
	EPA P1 Inlet	EPA P3 Mid point	EPA P4 Outlet	Reduction Target	Total Nitrogen Reduction	EPA P1 Inlet	EPA P3 Mid point	EPA P4 Outlet	Reduction Target	Total Phosphorus Reduction
Average	2.75	1.40	0.61	40-55%	78%	0.23	0.12	0.05	40-60%	77%
Geomean	1.93	1.37	0.60		69%	0.13	0.12	0.05		61%
Median	1.60	1.47	0.63		61%	0.09	0.10	0.05		44%

Note: Average nutrients removals figures from:

[https://www.researchgate.net/publication/6717563\\_Removal\\_of\\_Nutrients\\_in\\_Various\\_Types\\_of\\_Constructed\\_Wetlands](https://www.researchgate.net/publication/6717563_Removal_of_Nutrients_in_Various_Types_of_Constructed_Wetlands)

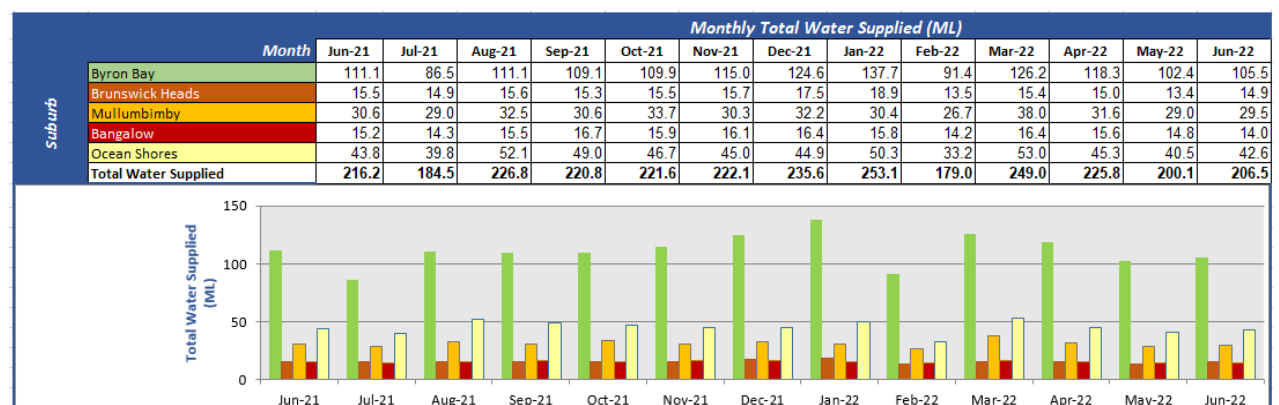
1-"Removal of total nitrogen in studied types of constructed wetlands varied between 40 and 55%"

2-"Removal of total phosphorus varied between 40 and 60% in all types of constructed wetlands"

5

## Water Supply System Performance

### Supplied Volumes



### Mullumbimby Drinking Water Supply Performance

10 The performance of the Mullumbimby Drinking Water supply system for the last 12 months shows that:

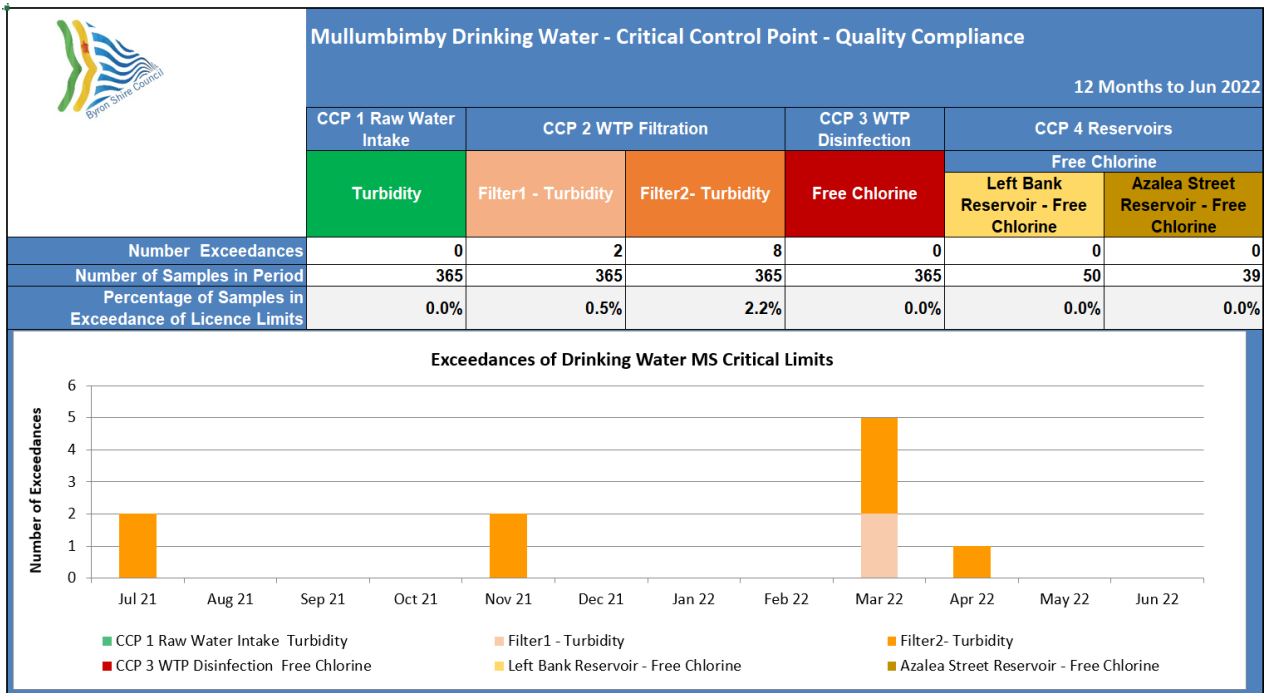
- 99.2% of Critical Control Point water quality samples at Mullumbimby WTP were within NSW Health quality guidelines (10 exceedances out of 1,460 samples).

15 • 100% of Critical Control Point water quality samples at Mullumbimby reservoirs were within NSW Health quality guidelines.

# BYRON SHIRE COUNCIL

## STAFF REPORTS - INFRASTRUCTURE SERVICES

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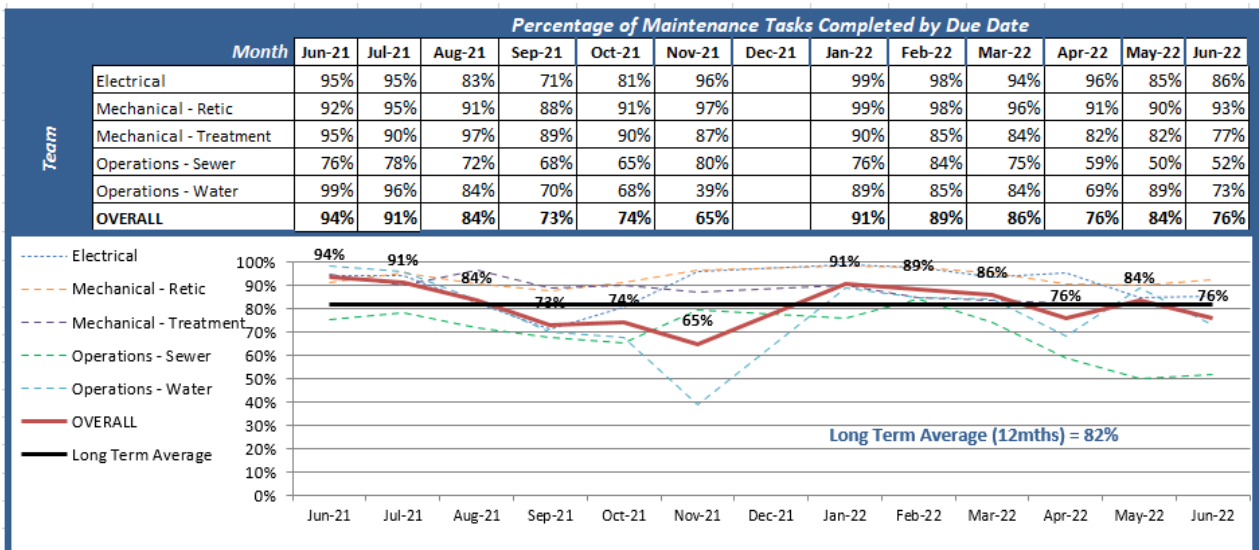


### NSW Health Reportable Events

There were zero (0) NSW Health reportable incident during the April to June 2022 period.

### Asset Maintenance

- The long-term average (12 month) planned maintenance stands at 82% of tasks completed by due date. This is in line with the target of 80%.



Note: No monthly statistics produced for December 2021.

## Strategic Considerations

### Community Strategic Plan and Operational Plan

<b>CSP Objective</b>	<b>CSP Strategy</b>	<b>DP Action</b>	<b>Code</b>	<b>OP Activity</b>
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	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	5.5.1.1	Complete 80% of programmed maintenance for water and sewer assets`
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	5.5: Provide continuous and sustainable water and sewerage management	5.5.2: Wastewater management - Manage effluent in an ecologically sustainable way that ensures public health and protects and enhances the natural environment	5.5.2.2	Report forward works program and performance to Water and Sewer Advisory Committee
<p><b>5: Connected Infrastructure</b> We have connected infrastructure, transport, and facilities that are safe, accessible, and reliable</p>	5.5: Provide continuous and sustainable water and sewerage management	5.5.2: Wastewater management - Manage effluent in an ecologically sustainable way that ensures public health and protects and enhances the natural environment	5.5.2.3	Monitor and compile annual licence returns

**Report No. 4.6      Byron STP Condition 9 Additional Load -  
Quarterly Report**

**Directorate:**                      Infrastructure Services

**Report Author:**                Dean Baulch, Principal Engineer, Systems Planning

5    **File No:**                        I2022/955

**Summary:**

This report is for the Committee's information and reviews compliance with the Byron Bay Sewerage Augmentation Scheme - Conditions of Approval (2002).

10    Condition 9(iii) requires that sufficient reuse (recycled water) capacity be available before the acceptance of any additional load at the treatment plant.

15    In the years since the approval was granted (2002 to date) 2,810 Equivalent Tenements (ET) have been approved, resulting in an additional load of 1.66 ML/day at the treatment plant. The current day operating capacity of the reuse system equates to 2.02ML/day or 3,427ET. Therefore, the reuse system provides sufficient capacity to accommodate the additional load as defined in the Conditions of Approval.

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**RECOMMENDATION:**

**That the report is noted.**

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Report

The relevant section from Condition 9 of the Approval is Condition 9(iii), which states, “Additional load at West Byron STP will not be accepted until: availability of sufficient reuse capacity to accommodate 100% of the volume of treated effluent generated by the additional load”.

- 5 “Additional Load” is defined in the report as “any sewage load resulting from development consents after the date of this approval”. Date of Approval is 9 December 2002.

10 From December 2002 through to March 2022 there have been 2,791 additional Sewer Equivalent Tenements (ET) approved by Council via development consents. This additional load (including approvals for secondary dwellings) is also adjusted based on development applications that have been modified, withdrawn, refused or when the approval expires during the same period. Figure 1 shows the annual approved additional ET load from 2002 to June 2022.

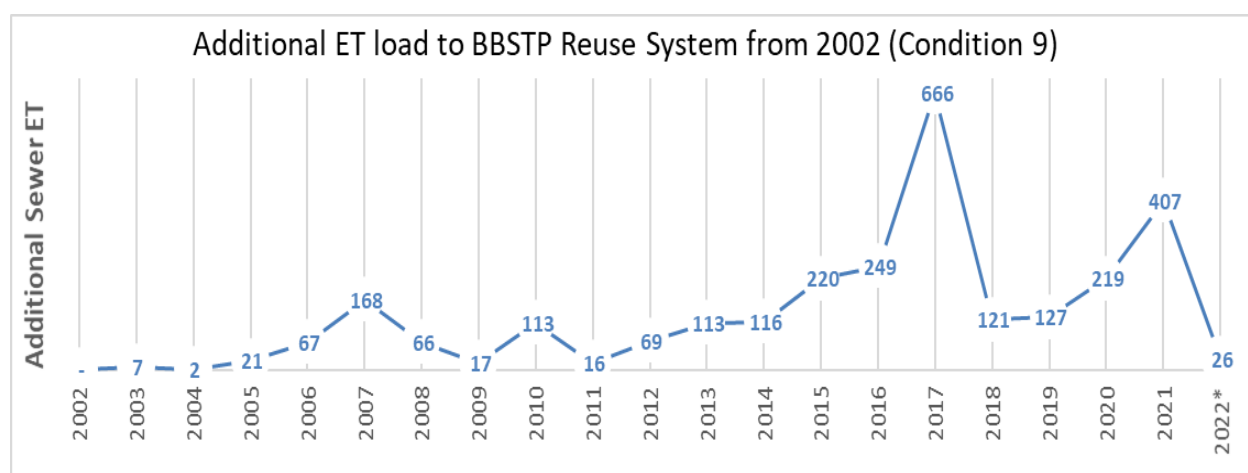


Figure 1 - Equivalent Tenements approved by Council from 2002 to June 2022

- 15 The current day operating capacity of the reuse system to produce treated effluent is 26 Litres per second or 2.25ML/day less 10% of water for filter backwash purposes equates to 2.02ML/day or 3,427ET. (Note: 1ET = 590L/day for sewer = 0.215ML/annum)

20 Definition of an Equivalent Tenement: Sewage: That for the purpose of the policy an Equivalent Tenement is 590 litres per day of unmetered sewage discharge. These loadings are the average loading per dwelling. The sewer figure allows for base load infiltration to the sewerage system.

	Current Approved ET	ET Megalitres per annum	Available Capacity (ET)
Condition 9(iii) Additional Load Calculation	2,810	605.2	-
Current effluent reuse system capacity 2022	3,427	736.8	617

Therefore, the existing reuse system provides sufficient capacity to accommodate the additional load as defined in the Conditions of Approval.

Committee Report Tracking Summary: Condition 9. Additional Load at Byron STP	Current Approved ET	Difference (ET)
30 January 2020	2,408	-
30 July 2020	2,478	70
29 October 2020	2,508	30

# BYRON SHIRE COUNCIL

## STAFF REPORTS - INFRASTRUCTURE SERVICES

4.6

18 February 2021	2,738	230
29 April 2021	2,749	11
19 August 2021	2,683	(66)
21 October 2021	2,727	44
18 March 2022	2,791	64
18 August 2022	2,810	19

Note that ET load is adjusted (reduced in some cases) based on development applications that have been modified, withdrawn, refused or the approval expires.

In terms of the actual reuse volumes for Byron Bay since the system was commissioned the following annual figures are provided:

Year	Total Urban Reuse Flows (ML)
2006	258.8
2007	336.1
2008	204.4
2009	174.5
2010	257.2
2011	287.4
2012	294.0
2013	287.2
2014	296.9
2015	261.9
2016	221.8
2017	257.8
2018	246.3
2019	425.3
2020	405.2
2021	382.5
*2022	149.4

\* Partial Year

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