

NOTICE OF MEETING



BELONGIL CATCHMENT ADVISORY COMMITTEE MEETING

A Belongil Catchment Advisory Committee Meeting of Byron Shire Council will be held as follows:

Venue	Cavanbah Centre, Ewingsdale Road, Byron Bay
Date	Monday, 18 April 2016
Time	9.00am

A handwritten signature in black ink, appearing to read 'Phillip Holloway', is located below the meeting details table.

Phillip Holloway
Director Infrastructure Services

I2016/380
Distributed 14/04/16

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 Local Government Act (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 Section 448 of the Local Government Act.

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.

Participation in Meetings Despite Pecuniary Interest (S 452 Act)

A Councillor is not prevented from taking part in the consideration or discussion of, or from voting on, any of the matters/questions detailed in Section 452 of the Local Government Act.

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 if the provisions in S451 of the Local Government Act apply (particularly if you have a significant non-pecuniary interest)

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 Division 2A of Part 6 of 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.

BYRON SHIRE COUNCIL
BELONGIL CATCHMENT ADVISORY COMMITTEE MEETING

BUSINESS OF MEETING

1. APOLOGIES

2. DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

3. ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1 Belongil Catchment Advisory Committee Meeting held on 8 March 2016

4. BUSINESS ARISING FROM PREVIOUS MINUTES

5. STAFF REPORTS

Infrastructure Services

5.1	Belongil Creek Fate of the Effluent Alternative Flowpath Project Rev 2.....	4
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STAFF REPORTS - INFRASTRUCTURE SERVICES

Report No. 5.1 **Belongil Creek Fate of the Effluent Alternative Flowpath Project Rev 2**
Directorate: Infrastructure Services
Report Author: Peter Rees, Manager Utilities
File No: I2016/367
Theme: Community Infrastructure
 Sewerage Services

Summary:

The attached discussion paper is the paper presented to the Committee meeting held on 8 March 2016. It presents a summary of the information gathered over the past 12 months of investigation of water flows from the STP effluent. It contains recommended project objectives and project plan.

Attached are comments received from Cr Dey; Tony Flick and Mary Gardner.

The discussion paper and the comments are presented for discussion and finalisation of the project plan.

RECOMMENDATION:

That The Committee review the attached project discussion paper and comments from the various committee members and provide input into the project.

Attachments:

- 1 Fate of the Effluent Alternative Flowpaths Discussion Paper, E2016/13752 , page 6
- 2 M Gardner comments on Discussion Paper, E2016/23853 , page 13
- 3 M Gardner Attachment CATCHMENT REHAB PRINCIPLES, E2016/23785 , page 16
- 4 Cr Dey Comments 1 April 2016 Alternative Flowpath Discussion Paper, E2016/22824 , page 17
- 5 Tony Flick Comments 10 April 2016 Alternative Flowpath Project Discussion Paper, E2016/22825 , page 20

Report

Refer attached discussion paper and attachments.

5 Financial Implications

Section 64 funding of \$350,000 has been allocated to this project by Council Resolution 15-674.

- 10 It should be noted Section 64 funds have been allocated to this project as identification or otherwise of alternative flowpaths is critical to making a decision on any expanded sewage treatment plant project.

Statutory and Policy Compliance Implications

- 15 Nil



Belongil Catchment Advisory Committee

Byron STP Alternative Flow Path

Overview

5 Byron Shire Council (Council) has identified the need to implement a major project to investigate future flow paths for treated effluent discharge from the Byron STP. The Byron STP treats wastewater from the Byron Bay / Suffolk Park area and discharges a high quality tertiary treated effluent into the:

- ❑ Byron Bay Urban Recycled Water Scheme (BBURWS); or
- ❑ Byron Bay Integrated Wetlands Management Reserve (BBIWMR) where the water flows
10 through a series of constructed wetlands prior to environmental release

With the augmentation of the West Byron STP in 2005, an increased volume of treated effluent has been released from the BBIWMR into the Belongil Creek Catchment via a farm drainage system. The local landholders have raised concerns that the increased flow in the drain has impacted on the local
15 hydrology, with respect to increasing the height of local groundwater levels.

Currently the Byron STP is operating at 72% capacity (approx. 5 ML/day) with the design capacity of 6.95 ML /day to be reached by 2025. Based on Councils current land use strategies, it is estimated that the Byron STP will need to be upgraded to a capacity of 10 ML/day to continue servicing the area beyond 2025.

20 As the volume of STP discharge is set to increase, Council would like to determine the sustainable capacity for increased flows in the Belongil Creek Catchment, in regards to both the ecological health of the catchment and localised hydrological impacts.

The table below shows current release and the approximate volumes discharged from the Byron STP.

STP Release		Approx. Discharge
Byron Bay Urban Recycled Water Scheme (BBURWS)	Treated effluent is filtered and chlorinated for irrigation purposes and public toilet use	1 ML/day
Byron Bay Integrated Wetland Management Reserve (BBIWMR)	Treated effluent is irrigated through the 25ha Melaleuca wetland	1 ML/ day *
	Treated effluent is released into the upper catchment of the Belongil Creek via a series of open drains	3 ML/day

25 Note: * taken up in the wetlands through evapotranspiration

Project Status

Council installed data loggers on 25 March 2015 to investigate the behaviour of the standing water levels of the shallow groundwater system within the three adjoining landowner's properties. The results to date indicate that the main factor influencing groundwater levels is rainfall in the catchment [Technical Memorandums: Assessment of Water Levels within Union Drain and Morans Hill Drain, Byron Bay (AWC, April 2015; August 2015; November 2015)] (see Attachment A).

The analysis of flow data to date has not shown a correlation between the environmental release from the BBIWMR and the water levels in the farm drainage system - high effluent release does not correspond with high drain water levels. Council is continuing to monitor groundwater levels and investigate the behaviour of STP discharge in relation to local groundwater levels.

To investigate the future requirements of the Byron STP, Council commissioned an investigation to review the capacity of the Byron STP in line with Councils population projections [Byron STP Capacity Review – Final Report (GHD, August 2015)]. The review found that Byron STP will require augmentation to cater for development beyond 2025. An STP capacity of 10 ML/day will be prerequisite for the delivery of sewage services up to 2050. [Byron STP Capacity Review – Final Report (GHD, August 2015)].

In response to the Landowners concerns and a possible increase in future STP environmental release, Council has undertaken a preliminary study on alternative flow paths [West Byron STP Preliminary Review of Alternative Effluent Release Locations (AWC, April 2015)]. The study identified six alternative flow paths for the discharge of treated effluent (See Attachment B).

Council has formed the Belongil Catchment Advisory Committee (Committee) to steer the project as part of the community consultation process. In considering STP environmental release beyond 2025, it is necessary to ensure current and future flow paths enhance the environmental aspects of the catchment as a whole.

At the Byron Shire Council Meeting held on the 10 Dec 2015, Council resolved [Resolution 15-674]:

1. The Council commence an investigation into the Belongil Fate of Effluent Flow Path and consult with the newly formed Belongil Catchment Advisory Committee and Water, Waste and Sewer Advisory Committee on the aims and scope of the project
2. That the project be reported regularly to that Committee and to the Water, Waste and Sewer Advisory Committee
3. That Council allocate \$350,000 from the Sewer Fund section 64 reserves to undertake the Belongil Fate of the Effluent Flow Path project over 12 months from early 2016

In Summary:**Council position**

- The evidence to date indicates the current flow path has not negatively impacted on the hydrology Belongil Creek Catchment
- The increase in STP flows since augmentation of the Byron STP has increased the frequency of the Belongil mouth opening indicating that the water is effectively flowing through the Belongil Creek Catchment.
- The Byron STP and Wetlands have delivered environmental benefits to the whole community by enhancing the environmental aspects of the upper catchment

Nevertheless:

- Council has identified that the design capacity of 6.95 ML/day will be reached by 2025 and that the current planning strategy indicates an augmentation of the STP will be required in the next 10 years
- Environmental release from the Byron STP will increase by approx.:
 - 2 ML /day by 2025
 - 5 ML /day by 2050
- Council would like to ensure neighbouring landholders are not negatively impacted by the current or future hydraulic loading of STP discharge
- Council would like to investigate the sustainable capacity of the Belongil Creek Catchment for future release strategies

Adjoining landowner's position

- Landowners believe the current effluent flow path has increased the height of the water table and is contributing to water logging parts of their low lying land
- Landowners claim the original agreement was for a 1 ML /day discharge with the augmentation of the West Byron STP

Regulators position

- EPA confirms Council is managing the current discharge and irrigation of effluent in accordance with EPA requirements
- EPA has further advised that modifying the Byron STP discharge arrangements requires investigation of options along with comprehensive environmental assessment.
- DPI Water confirm that provided the water is flowing through the drainage network unimpeded (NO Ponding) there should be little impact on the height of the water table

Project Plan Proposal

The following Project Plan outline is provided for Committee review and input.

Project Objectives

The objectives of the Committee are to:

- 5
- ☐ Determine the sustainable capacity for increased flows in the Belongil Creek
 - ☐ Identify alternative flow path/s for Byron STP treated effluent discharge
 - ☐ Enhance environmental and scenic values (beautification) of the Belongil Catchment
 - ☐ [to further develop with Council / Committee]

Scope of Works

Task		Completed By
1	Engage consultant to undertake a review of the sustainable capacity for increased flows in the Belongil Creek	April 2016
2	Engage consultant to undertake a Detailed Review of Byron STP Alternative Flow Paths including: <ul style="list-style-type: none"> ▪ Assess the potential options of treated effluent release, including a mix of options ▪ Model potential scenarios for STP discharge with consideration to <ul style="list-style-type: none"> ○ the relative contribution to the flows from the STP discharges and rainfall ○ the impacts of discharges with the Belongil estuary open and closed ▪ Assessment and understanding of project risks ▪ Determine all regulatory and formal requirements ▪ Provide recommended option/s to Council 	June 2016
3	Report preferred option/s to relevant various Council committees	September 2016
4	Council Resolution of the preferred option/s	October 2016
5	Engage consultant/s to undertake the required detailed Environmental and Engineering studies – this could include REF, EIS, Flora and Fauna Studies, Hydraulic studies	November 2016

10

Studies, Plans and Reports

The following Council documents are available on the Belongil Creek Catchment:

- ☐ 3 x Technical Memorandums: Assessment of Water Levels within Union Drain and Morans Hill Drain, Byron Bay (AWC, April 2015; August 2015 and November 2015)
- 5 ☐ 3 – Union Drain WL Assessment (???, October 2015)
- ☐ Byron STP Capacity Review – Final Report (GHD, August 2015)
- ☐ West Byron STP Preliminary Review of Alternative Effluent Release Locations (AWC, April 2015)
- ☐ Belongil Creek Floodplain Risk Management Study and Plan (BMT WBM, March 2015)
- 10 ☐ Belongil Creek Flood Study (SMEC, November 2009)

Appendix A

1) Technical Memorandum: Assessment of Water Levels within Union Drain and Morans Hill Drain, Byron Bay (AWC, April 2015)

5 **2) Technical Memorandum: Assessment of Water Levels within Union Drain and Morans Hill Drain, Byron Bay (AWC, August 2015)**

3) Technical Memorandum: Assessment of Water Levels within Union Drain and Morans Hill Drain, Byron Bay (AWC, November 2015)

10

Appendix B

West Byron STP Preliminary Review of Alternative Effluent Release Locations (AWC, April 2015)

5

Rees, Peter

From: M Gardner <mgardneridea@gmail.com>
Sent: Tuesday, 12 April 2016 9:57 AM
To: Rees, Peter
Cc: t.flick@bigpond.com; Holloway, Phillip; flicksonsite@hotmail.com; Cr. Duncan Dey; Cr. Alan Hunter; Cr. Simon Richardson; candjwonhill@gmail.com; rmcewen@ozemail.com.au; tim@planula.com.au
Subject: TRIM: Re: RE:FW: Belongil Catchment Advisory Committee documents
Attachments: catchment principles DRAFT.docx

HP TRIM Record Number: E2016/23852

ciao!

i am interested in considering all the problems, issues, information knowledge and experiences in the light of some basic catchment rehab principles.

with a committment to furthering some basic principles, we could organize a wide variety of actions which could transform problems into opportunities

i would like to have five or six minutes to present this and begin a discussion
 please see attached draft
 m

On Sun, Apr 10, 2016 at 11:01 AM, Rees, Peter <peter.rees@byron.nsw.gov.au> wrote:

Thanks Tony.

I will include these comments as an attachment to the report for discussion at the meeting.

Peter Rees

Byron Shire Council | P: 02 6685 9306 | Mbl: 0417 464 716

I would like to acknowledge the Arakwal Bundjalung People and the wider Bundjalung Nation as traditional owners and custodians of this land and pay my respects to elders past and present.

From: t.flick@bigpond.com [mailto:t.flick@bigpond.com]
Sent: Sunday, 10 April 2016 6:23 AM
To: Rees, Peter
Cc: Holloway, Phillip; flicksonsite@hotmail.com; Cr. Duncan Dey; Cr. Alan Hunter; Cr. Simon Richardson; candjwonhill@gmail.com; mgardneridea@gmail.com; rmcewen@ozemail.com.au; tim@planula.com.au
Subject: RE:FW: Belongil Catchment Advisory Committee documents

Good morning Peter

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.1 - ATTACHMENT 2

I think as far as the brief is concerned it would be in the best interest of both BSC and the objectives of the Committee to concentrate less on working towards the upgrade in 2025 and more on fixing the current unsustainable and increasing problems that have been impacting the neighbouring properties for so many years.

It is important for the consultants who will conduct these studies, to understand the background situation more clearly. In the landowners' position section, It should be noted that BSC have been and continue to be in direct breach of the conditions of both the EIS and operating licence for many years. Hence the urgency surrounding this project.

Also in the landowners' position we would like it noted that the landowners' do not agree with these findings in the AWC's conclusions and recommendations.

In the regulators' position section, I question if they have awareness of the full background story? And if so would they would still take the same position? I am currently seeking confirmation on these matters.

Regards Tony Flick

Subject: FW: Belongil Catchment Advisory Committee documents

Date: Tue, 5 Apr 2016 19:32:50 +1000

Subject: Re: Belongil Catchment Advisory Committee documents

From: belongilswamp@gmail.com

To: peter.rees@byron.nsw.gov.au

CC: alan.hunter@cr.byron.nsw.gov.au; duncan.dey@cr.byron.nsw.gov.au; simon.richardson@cr.byron.nsw.gov.au;

Phillip.Holloway@byron.nsw.gov.au; candjwonhill@gmail.com; mgardneridea@gmail.com; rmcewen@ozemail.com.au;

tim@planula.com.au; flicksonsite@hotmail.com

Thank you Peter, I think I was there for all of those plans except for the Cumbebin Plan, which I still don't think has any relevance to the activities of this Advisory Committee- I wonder if we could PLEASE also see: the John Murtagh Irrigation report, commissioned by Council to establish the upper level of effluent which could be USED at the BB Golf Course; the Bolton irrigation volumes prediction for the melaleuca plot- I know it's a hefty lump of some 500 pages, but if you take out the cartoon characters and repetitions it becomes very light reading; and I believe I also mentioned a report of the Acid-CRS levels in the melaleuca plot as compared to real hotspots such as Boggy Creek, Bungawalbyn and about four other sites- was that report by ALLERY or David someone? No problem for you, I know your staff will have a copy handy to help your management planning Cheers Col- and I already miss your Boogie Beh!

On Tue, Apr 5, 2016 at 6:05 PM, Rees, Peter <peter.rees@byron.nsw.gov.au> wrote:

Committee Members,

Please find attached links to some of the documents relating to the

Belongil Catchment. For the documents noted as TBA they are not on Council's website and I am looking at a preferable way to send. If you prefer however, I can arrange to deliver hard copies of the documents for you.

Also attached is a pdf version of the alternative

flowpaths as requested at the meeting.

The link below is to the minutes which are being reported to Council this week. Please note, the next meeting of the committee will be on the 18 April 9am at the

Cavanbah centre Byron Bay. I will send an agenda out early next week.

<http://www.byron.nsw.gov.au/meetings>

Document

Author

Document Number

1.

Belongil Estuary Study and Management Plan (November 2001)

Peter Packer Environmental Consultants and Dave Pont

E2015/533

<http://www.byron.nsw.gov.au/belongil-estuary-management>

2.

Belongil Creek Floodplain Risk Management Plan (March 2015)

BMT WBM

E2015/16795

[https://databox-](https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil%20Creek%20Floodplain%20Risk%20Management%20Plan%20low%20res.pdf/373d834ca1094a?view=1)

[apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil Creek Floodplain Risk Management Plan low res. pdf/373d834ca1094a?view=1](https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil%20Creek%20Floodplain%20Risk%20Management%20Plan%20low%20res.pdf/373d834ca1094a?view=1)

3.

Belongil Creek Floodplain Risk Management Study and Plan Summary

BMT WBM

E2015/16794

[https://databox-](https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil%20Creek%20Floodplain%20Risk%20Management%20Study%20Summary%20low%20res.pdf/373d834ca1094a?view=1)

[apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil Creek Floodplain Risk Management Study Summa ry lowres.pdf/373d834ca1094a?view=1](https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil%20Creek%20Floodplain%20Risk%20Management%20Study%20Summary%20low%20res.pdf/373d834ca1094a?view=1)

(March 2015)

4.

Byron Bay Drainage Maintenance Plan (July 2014)

Byron Shire Council

E2015/68222

TBA

E2014/46832

5.

Byron Bay Drainage Strategy draft report

SMEC

DM958501

TBA

(April 2010)

6

Plan of Management ?

Cumbebin Swamp Nature Reserve (February 2012)

NPWS

<http://www.environment.nsw.gov.au/resources/planmanagement/final/20120399CumbebinSwampNRFinal.pdf>

7

Byron Shire Council Urban Stormwater Management Plan (1st Review 2010)

BSC / PPK

DM759744

TBA

Peter Rees

|

Manager Utilities

| BYRON SHIRE COUNCIL

P: 02 6685 9306 | M: 0417 464 716 |

F: 02 6684 3018 | E: peter.rees@byron.nsw.gov.au

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www.facebook.com/byronshire.council

I would like to acknowledge the Arakwal Bundjalung People and the wider Bundjalung Nation as traditional owners and custodians of this land and pay my

respects to elders past and present.

Find out more about Byron Bay's town centre pay parking scheme at <http://www.byron.nsw.gov.au/byron-bay-pay-parking>

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CATCHMENT REHAB PRINCIPLES for both Belongil & Tallow (which may have important overlapping areas) *DRAFT (M Gardner)*

Our four interrelated water cycles and pathways (simplified indicative diagramme)



Current problems:

- 5 1. Too much rain becomes stormwater, stormwater moves too quickly to ICOLLS and coastal sea
2. Expensive import used too freely, then thrown away as waste
3. Rain received by diminished areas of drained wetlands where farming emphasises grazing cattle
4. ICOLLS overwhelmed by role as default holders of stormwater & effluent
- 10 5. Little scope to meet extremes such as drought and flooding,
 quality of water to ICOLLS and sea: weak fish food/strong pollutant

Rehabilitation principles (with i.e. sample applications)

1. **SLOW the RAINWATER:** i.e. Strong conservation programme: i.e. rain tanks, rehab & water sensitive urban design wetlands at Depot, Sandhills, Butler St & parklets/channels throughout town, water permeable pavements/drives & swales
- 15 2. **CLOSE CYCLE FOR VALUABLE RESOURCE:** i.e. Strong conservation/education/purple tap programme: identify flows, quantities and trends, use less in residences, make better use of effluent as resource for grey water uses esp in comm place, giveaway for tank truck to dry places in and outside Shire
3. **REHAB** drains as **CHANNELS** and **PONDS** expanding **WETLANDS** i.e. **producing** plant and animal products for **Australian cuisine market/conservation**
4. **REHAB flow to and from ICOLLS:** i.e. increase ratio of rainwater to effluent, revive coastal marine life: start w/ecological engineers & housekeepers in each habitat

Rees, Peter

From: Cr Duncan Dey <duncan.dey@cr.byron.nsw.gov.au>
Sent: Friday, 1 April 2016 12:03 PM
To: Rees, Peter
Cc: Holloway, Phillip; Cr. Simon Richardson; Mary Gardner; tony flick
Subject: TRIM: BCAC input to Flowpath Project

HP TRIM Record Number: I2016/317

G'day Peter

As agreed at the Committee meeting on 8 March, below are my suggestions for the Brief.

Would you be able to amend it accordingly and with other suggestions of Committee members and circulate the revised draft?

Thanks and Cheers, Duncan (02 6684 5440; 0429 845 440)

The Brief needs to expand beyond just what may be required for the 2025 upgrade and take care of existing "fate of effluent" problems as well.

Council has resolved at least twice that the current matters be resolved. Both these Resolutions should appear in the Brief, as background and for guidance of this Flowpath investigation.

Resolved 15-045 on 26 February 2015 that Council:

1. Negotiate with affected rural landowners to form an Agreement on jointly managing the stream of effluent emanating from Byron Bay Sewage Treatment Plant and its wetland system and crossing their properties on the Belongil floodplain; 2. Review via the Water, Waste and Sewer Advisory Committee, the monitoring system for that effluent flow-path; 3. Receive a preliminary report on current fates of effluent from the STP and from the wetland system; 4. Receive a preliminary report on options for alternative routes for the wetland effluent; 5. Receive a report on the status of the Trust that operates or operated the Union Drain; 6. Receive these reports and a report on the Agreement no later than May 2015.

Resolved 15-236 on 21 May 2015:

1. That Council continue with the data logging exercise in the Belongil to help define the hydraulic impacts of current STP effluent.
2. That Council continue to negotiate with affected Landowners to form an Agreement on jointly managing the stream of effluent through their properties.
3. That invitations be extended to Councillors to attend meetings held with the Landowners or with the Drainage Union.
4. That Council continue to negotiate with the Belongil Swamp Drainage Union to undertake periodical maintenance of the Union drains, with a view to forming an Agreement on that maintenance.
5. That Council utilise funds available from existing budget activities for the Byron Bay Integrated Water Management reserve to implement the activities already identified in the various Council prepared management plans for the catchment.
6. That Council create a new Advisory Committee to advise on priorities and on integration of the various Plans & Strategies listed in today...

I ask for the following changes as a minimum to make the issues clearer.

I will highlight the places for these changes on a copy of Attachment
1 to Report 5.3 to our Committee meeting of 8 March and send it to you.

Page and Line numbers refer to that Attachment 1:

PAGE 11:

At Line 6, insert "current and" before "future".

At Line 10, change "environmental release" to read "release into private drains on farmland, the Union Drain and then Belongil Creek".

At Line 14, replace "local groundwater levels" with "groundwater levels upstream of Ewingsdale Road".

At Line 20, replace "is set to increase" with "has increased significantly since agreement was reached with landholders to accept 1ML/day and is set to increase further with new development".

At Line 21, remove the word "increased".

PAGE 12:

At Line 8, replace "has not shown" with "is claimed not to show".

At Line 9, insert new sentences after the full stop saying "STP effluent management has not achieved its goal of sending most effluent to reuse.

Because the flow path now takes most of the STP's effluent, an opposite test cannot be performed - ie whether ceasing effluent discharge will lower the water-table in waterlogged farmland upstream of Ewingsdale Road".

At Line 12, insert "current and" before "future".

At Line 21, replace "to steer the project" with "with the following purpose: <copy BCAC Purpose as per its Constitution>" and then "The Committee will be involved in the project ...".

At Line 22, remove "In considering STP environmental release beyond 2025".

PAGE 13:

Remove the first bullet point. I and others do not agree with the conclusion that the evidence indicates this. See also my comment on Page 12 Lines 8 and 9.

Remove the second bullet point. What evidence or investigation is there of this correlation? Has there been a change in trigger level (from 1.2m to 1m)? If so, this could be mentioned.

Remove third bullet point. What are the benefits and with what are they compared?

Include the DPI Water document on which the last bullet point is based, or remove it.

PAGE 14:

At Line 4, change "Committee" to "project".

At Line 6, add new Objectives before the others "Determine the impact of current flows of about 3ML/day and of agreed flows of 1ML/day on the drainage system and farmland upstream of Ewingsdale Road" and "Assess whether throughput from the Wetlands (BBIMWR) is also charging those drains".

In Task 1 of Scope of Works, replace "for increased flows in" with "of the drains and catchment to". This task is larger than the original so "Completed by" dates may have to change.

PAGE 15:

Add the documents listed in the BCAC Constitution including:

- * Cumbebin Swamp Plan of Management
- * Byron Bay Stormwater Management Plan
- * Belongil Estuary Management Plan
- * Preferred Byron Drainage Strategy.

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.1 - ATTACHMENT 5

Rees, Peter

From: t.flick@bigpond.com
Sent: Sunday, 10 April 2016 6:23 AM
To: Rees, Peter
Cc: Holloway, Phillip; flicksonsite@hotmail.com; Cr. Duncan Dey; Cr. Alan Hunter; Cr. Simon Richardson; candjwonhill@gmail.com; mgardneridea@gmail.com; rmcewen@ozemail.com.au; tim@planula.com.au
Subject: TRIM: RE:FW: Belongil Catchment Advisory Committee documents

HP TRIM Record Number: E2016/22823

Good morning Peter

I think as far as the brief is concerned it would be in the best interest of both BSC and the objectives of the Committee to concentrate less on working towards the upgrade in 2025 and more on fixing the current unsustainable and increasing problems that have been impacting the neighbouring properties for so many years.

It is important for the consultants who will conduct these studies, to understand the background situation more clearly. In the landowners' position section, it should be noted that BSC have been and continue to be in direct breach of the conditions of both the EIS and operating licence for many years. Hence the urgency surrounding this project.

Also in the landowners' position we would like it noted that the landowners' do not agree with these findings in the AWC's conclusions and recommendations.

In the regulators' position section, I question if they have awareness of the full background story? And if so would they would still take the same position? I am currently seeking confirmation on these matters.

Regards Tony Flick

Subject: FW: Belongil Catchment Advisory Committee documents
Date: Tue, 5 Apr 2016 19:32:50 +1000
Subject: Re: Belongil Catchment Advisory Committee documents
From: belongilswamp@gmail.com
To: peter.rees@byron.nsw.gov.au
CC: alan.hunter@cr.byron.nsw.gov.au; duncan.dey@cr.byron.nsw.gov.au; simon.richardson@cr.byron.nsw.gov.au; Phillip.Holloway@byron.nsw.gov.au; candjwonhill@gmail.com; mgardneridea@gmail.com; rmcewen@ozemail.com.au; tim@planula.com.au; flicksonsite@hotmail.com
Thank you Peter, I think I was there for all of those plans except for the Cumbebin Plan, which I still don't think has any relevance to the activities of this Advisory Committee- I wonder if we could PLEASE also see: the John Murtagh Irrigation report, commissioned by Council to establish the upper level of effluent which could be USED at the BB Golf Course; the Bolton irrigation volumes prediction for the melaleuca plot- I know it's a hefty lump of some 500 pages, but if you take out the cartoon characters and repetitions it becomes very light reading; and I believe I also mentioned a report of the Acid-CRS levels in the melaleuca plot as compared to real hotspots such as Boggy Creek, Bungawalbyn and about four other sites- was that report by ALLERY or David someone? No problem for you, I know your staff will have a copy handy to help your management planning Cheers Col- and I already miss your Boogie Beh!
On Tue, Apr 5, 2016 at 6:05 PM, Rees, Peter <peter.rees@byron.nsw.gov.au> wrote:
Committee Members,
Please find attached links to some of the documents relating to the Belongil Catchment. For the documents noted as TBA they are not on Council's website and I am looking at a preferable way to send. If you prefer however, I can arrange to deliver hard copies of the documents for you.
Also attached is a pdf version of the alternative flowpaths as requested at the meeting.
The link below is to the minutes which are being reported to Council this week. Please note, the next meeting of the committee will be on the 18 April 9am at the Cavanbah centre Byron Bay. I will send an agenda out early next week.
<http://www.byron.nsw.gov.au/meetings>
Document
Author
Document Number
1.
Belongil Estuary Study and Management Plan (November 2001)
Peter Packer Environmental Consultants and Dave Pont
E2015/533
<http://www.byron.nsw.gov.au/belongil-estuary-management>

1

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.1 - ATTACHMENT 5

2.
Belongil Creek Floodplain Risk Management Plan (March 2015)
BMT WBM
E2015/16795
https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil_Creek_Floodplain_Risk_Management_Plan_low_res.pdf/373d834ca1094a?view=1
3.
Belongil Creek Floodplain Risk Management Study and Plan Summary
BMT WBM
E2015/16794
https://databox-apps.opaas.net.au/1/files/share/26/Belongil%20Creek%20Flooding/Belongil_Creek_Floodplain_Risk_Management_Study_Summary_lowres.pdf/373d834ca1094a?view=1
(March 2015)
4.
Byron Bay Drainage Maintenance Plan (July 2014)
Byron Shire Council
E2015/68222
TBA
E2014/46832
5.
Byron Bay Drainage Strategy draft report
SMEC
DM958501
TBA
(April 2010)
- 6
Plan of Management ?
Cumbebin Swamp Nature Reserve (February 2012)
NPWS
<http://www.environment.nsw.gov.au/resources/planmanagement/final/20120399CumbebinSwampNRFinal.pdf>
- 7
Byron Shire Council Urban Stormwater Management Plan (1st Review 2010)
BSC / PPK
DM759744
TBA
Peter Rees
|
Manager Utilities
| BYRON SHIRE COUNCIL
P: 02 6685 9306 | M: 0417 464 716 |
F: 02 6684 3018 | E: peter.rees@byron.nsw.gov.au
PO Box 219, Mullumbimby NSW 2482 |
www.byron.nsw.gov.au
Find us on Facebook
www.facebook.com/byronshire.council
I would like to acknowledge the Arakwal Bundjalung People and the wider Bundjalung Nation as traditional owners and custodians of this land and pay my respects to elders past and present.
Find out more about Byron Bay's town centre pay parking scheme at <http://www.byron.nsw.gov.au/byron-bay-pay-parking>
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Report No. 5.2 **Belongil Catchment Management Plan Review of Actions**
Directorate: Infrastructure Services
Report Author: Peter Rees, Manager Utilities
File No: I2016/369
Theme: Community Infrastructure
 Sewerage Services

Summary:

Staff have been reviewing 8 major plans and strategies encompassing the Belongil Catchment over the past 3 weeks. In these documents 155 actions have been identified in the catchment. Of these, 10 have been confirmed as completed; 30 as current or ongoing and 115 as not determined or not done.

The recent restructure which has combined water, sewer and urban stormwater into the one department provides a unique opportunity to allocate resources to immediately undertake 28 of the 115 incomplete actions centred on water quality and education. These activities are listed in Attachment 3 and are spread across all the plans. In particular, actions can be summarised into 4 recommendations.

1. Develop and implement a water quality programme in the Belongil Catchment.
2. Employment of an Education Officer on a 5 year term position encompassing the Water, Sewer, Stormwater and Catchment functions.
3. Prepare a design for a natural channel drain for the Butler Street drain incorporating a wetlands filter system.
4. Prepare a project plan for the Butler Street drainage upgrade for work to coincide with the Byron Bay Bypass project.

These actions can essentially be paid for from the savings accruing to the water, sewer and stormwater operational funds from the recent restructure.

RECOMMENDATION:

That Council approve

- 1. Development and implementation of a water quality programme in the Belongil Catchment.**
- 2. Employment of an Education Officer on a 5 year term position encompassing the Water, Sewer and Stormwater functions.**
- 3. Prepare a design for a natural channel drain for the Butler Street drain incorporating a wetlands filter system.**
- 4. Prepare a project plan for the Butler Street drainage upgrade for work to coincide with the Byron Bay Bypass project.**

Attachments:

- 1 Attachment 1 - Belongil Catchment Management Plan Review Rev E, E2016/23918 , page 26
- 2 Attachment 2 - B2033 Belongil Catchment Plan Actions Review_Rev2, E2016/23917 , page 31
- 3 Attachment 3 - Belongil Catchment Plans Recommended Actions, E2016/23919 , page 44

Report

The key management plans and strategies encompassing the Belongil Catchment are:

5 Table 1

Document Name	Author (date)
Belongil Estuary Study and Management Plan	Peter Packer Environmental Consultants and Dave Pont (2001)
Byron Bay Drainage Maintenance Plan 2014 - 15	Byron Shire Council (2014)
Belongil Creek Floodplain Risk Management Plan	BMT WBM (2015)
Belongil Creek Floodplain Risk Management Plan Summary	BMT WBM (2015)
Restoration Strategy Belongil – Cumbebin Wetland Complex	Australian Wetlands and Wetland Care Australia (2005)
Plan of Management Cumbebin Swamp Nature Reserve	National Parks and Wildlife Service (2012)
Byron Shire Council Urban Stormwater Management Plan	BSC (Revised 2010 Draft)
Byron Bay Drainage Strategy	SMEC (2010)

Of the 8 plans, the National Parks and Wildlife Service has carriage of one (Plan of Management Cumbebin Swamp Nature Reserve) with Council responsible for the remaining seven. A synopsis of each plan is contained in Attachment 1.

10 Over the past 3 weeks Council has extracted the actions from the seven plans and attempted to categorise by status, category and priority as stated in the relevant plan. The categories used by Council staff in this analysis are:

15 Table 2

Category	No.
Cultural	7
Education	18
Environmental	24
Hydrology	33
Planning	40
Water Quality	30
Total	155

20 A complete list of the actions is contained in Attachment 2 – Management Plan Action Listing. Of the 155 extracted actions, 10 have been confirmed as complete; 30 as current or ongoing; 87 not determined or not done; and 28 identified as recommended to implement as a result of this analysis. A list of the recommended actions is contained in Attachment 3 – Recommended Management Plan Actions for Implementation.

25 The recent Council restructure has combined into one department (in Infrastructure Services) the functions of water supply; sewerage collection and treatment; and urban stormwater maintenance. This provides a unique opportunity to implement actions across functions/assets. The categories where this can be most effectively realised with the Belongil Plans and Strategies is in the areas of Water Quality and Education.

30 The Sewer Fund needs to implement a water quality monitoring programme for both the Alternative Flowpath and the possible future STP Upgrade projects. The General Fund (Stormwater) has

actions that require water quality monitoring to determine the effectiveness of stormwater programmes and sources of pollution.

5 Between these two drivers it will be possible to develop and implement a water quality monitoring programme that will provide data for current and future actions across the entire Belongil Catchment. It is estimated a water quality monitoring programme encompassing 10 sites throughout the catchment would cost approximately \$60,000 per annum with a breakup of 80% Sewer Fund and 20% General Fund (Stormwater).

10 In the area of education, all 3 funds of Water, Sewer and General (Stormwater) have requirements for education resources. These are

- The Water Fund has ongoing need for demand management; rainwater tanks; water saving devices; water meters and water losses.
- 15 - The Sewer Fund for source control (trade waste/ grease traps; wipes in pipes) and recycled water.
- Stormwater operations are also clear in an education requirement for the community on stormwater source control.
- In addition to this there are numerous actions in all the Belongil plans calling for education of
- 20 the community on catchment issues.

As all of these education requirements are related, it would be efficient to combine all activities in the one functional area in the Utilities Department which has carriage of water, sewer and urban stormwater. This could be implemented through the development of a 5 year term Educational

25 Position within the Utilities structure paid for by the 3 funds in the proportion of Water (40%); Sewer (40%) and Stormwater (20%).

As a result of this review it is recommended therefore that Council immediately

- 30 1. Develop and implement a water quality programme in the Belongil Catchment
2. Employment of an Education Officer on a 5 year term position encompassing the Water, Sewer and Stormwater functions.

35 In conjunction with this there is a key stormwater action to clean up the Butler Street Drain in the vicinity of the railway line where it crosses Butler Street. Part of this action is to install a wetland filter in the drain. With the expertise developed in Sewer Operations in operating the wetlands at both Byron Bay and Ocean Shores; the imminent Byron Bay Bypass project and the Sewer personnel now undertaking stormwater maintenance; it would an opportune time to prepare a project plan to implement this recommended task.

40 It is therefore also recommended to

3. Prepare a design for a natural channel drain for the Butler Street drain incorporating a wetlands filter system
- 45 4. Prepare a project plan for the Butler Street drainage upgrade for work to coincide with the Byron Bay Bypass project.

It is envisaged the project implementation will be funded through a combination of operational budget savings and grants.

50

Financial Implications

The costs for each recommendation are detailed below.

55

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.2

Recommendation	Total Cost	Water	Sewer	Stormwater
Recommendation 1 – Water Quality Testing	\$60,000 pa	0%	80% S64 Sewer	20% Reserves
Recommendation 2 – Education Officer	\$80,000 pa	40% (Reserves)	40% (Reserves)	20% (Reserves)
Recommendation 3 – Prepare drainage design Butler Street	In house staff	0	0	0
Recommendation 4 – Prepare a Project Plan for Butler Street Drain	In house	0	0	0

The savings that will accrue in the stormwater budget as a result of the sewer maintenance staff undertaking stormwater maintenance can be applied to the water quality testing programme and the Education Officer. Similarly, the savings accruing to the sewer budget as a result of the same initiative can similarly be applied to the Education Officer.

The Water Fund has been generating operational savings through various efficiency measures and is well placed to contribute to these recommendations. It should also be noted that Rous Water has scaled back the regional demand management role which will require Byron Shire to become more active in this area.

Statutory and Policy Compliance Implications

Nil



Belongil Catchment Advisory Committee

Belongil Catchment Management Plans Review

The Belongil Creek is approximately 3 km long with a catchment of approx. 30 km². Parts of the catchment have undergone urban development, with the Byron Bay Township located towards the eastern boundary of the catchment, whilst one third of the catchment is covered by the Cumbebin Swamp. Complex land ownership and management arrangements exist within the catchment area.

There are numerous management plans that have been developed through consultative committee processes, with stakeholder involvement. The purpose of this report is to provide a summary of the primary management documents for the Belongil Catchment. The documents reviewed are listed in Table 1 and briefly summarised in the Section below. There are a total of 155 actions.

Table 1 Belongil Catchment Management Documents

	Document	Author	Document Number
1	Belongil Estuary Study and Management Plan (November 2001)	Peter Packer Environmental Consultants and Dave Pont	E2015/533
2	Belongil Creek Floodplain Risk Management Plan (March 2015)	BMT WBM	E2015/16795
3	Belongil Creek Floodplain Risk Management Study and Plan Summary (March 2015)	BMT WBM	E2015/16794
4	Byron Bay Drainage Maintenance Plan (July 2014)	Byron Shire Council	E2015/68222 E2014 / 46832
5	Byron Bay Drainage Strategy draft report (April 2010)	SMEC	DM958501
6	Restoration Strategy Belongil – Cumbebin Wetland Complex Final Report (March 2005)	Australian Wetlands and Wetland Care Australia	E2016/1626
7	Plan of Management – Cumbebin Swamp Nature Reserve (February 2012)	NPWS	
8	Byron Shire Council Urban Stormwater Management Plan (1 st Review 2010)	BSC / PPK	DM759744

Belongil Estuary Study and Management Plan

The overarching management document is the Belongil Estuary Study and Management Plan (Peter Packer Environmental Consultants and Dave Pont, 2001), which was developed in consultation with the BSC Belongil Estuary Management Committee. This document has been adopted by Council [resolution number 01-1243] and is aligned with other management documents for the Belongil Estuary.

The objective of the management plan:

"to sustain a productive and attractive estuary where balanced and co-ordinated management of resources ensures sustainability of diverse natural systems whilst maintaining or meeting community needs".

The Belongil Catchment has diverse plant and animal communities of considerable conservation significance including: the wetlands of the Cumbebin Swamp, floodplain rainforest in the upper catchment (an endangered ecological community), eucalypt and mangrove forest and woodlands, littoral rainforest, saltmarshes and estuary flats. Within these habitat environs the catchment is reported to support over 60 threatened species.

The Belongil Estuary is impacted by poor quality stormwater (from both rural and urban areas), by acid runoff (from rural areas during adverse seasonal conditions) and potential impacts that relate to residential development. The plan provides specific actions that aimed to protect the estuary and to restore degraded areas.

Belongil Creek Floodplain Risk Management Plan and Belongil Creek Floodplain Risk Management Study and Plan Summary

The Belongil Creek Floodplain Risk Management Plan (FRMS) (BMT WBM, 2015) and Belongil Creek Floodplain Risk Management Study and Plan Summary (BMT WBM, 2015) investigates a wide range of floodplain management options and provides a framework for long term sustainable flood risk management. The document was developed in consultation with the BSC Belongil Creek Floodplain Management Committee and used information as provided in the Byron Bay Drainage Strategy. The FRMS assesses and recommends an integrated range of modification measures to minimise community exposure to flood risks.

The catchment is vulnerable to flooding by both high creek flows and high ocean elevations in combination with high creek flows. The intermittent closure of the Belongil Creek entrance through sand build up can also impact on flood levels, either by exacerbating flood levels throughout the catchment under heavy rainfall, or reducing ocean induced flooding during times of elevated ocean levels. Council have an interim license which allows Council to mechanically open the creek entrance to relieve flooding (when the gauged water level at Ewingsdale Road Bridge reaches 1m AHD).

The Byron Bay Township is susceptible to flooding from both intense short duration storms and elevated ocean levels. Furthermore, flooding in the township can be caused by the limited capacity (lack of hydraulic gradient between the low lying township and the Belongil Creek outlet) of the Byron Bay stormwater network which is unable to manage local stormwater runoff.

Catchment runoff enters the Belongil Creek via numerous manmade drains and infrastructure, including the Union Drain, the Byron Bay town drain (or butler street Drain), the North Coast Railway line, Ewingsdale Road and numerous bridges and culverts.

A number of modification measures were assessed for Councils consideration, including recommendations, costings, potential funding sources and future implementation plans, as discussed in the sections below.

Byron Bay Drainage Maintenance Plan 2014 – 15

The Byron Bay Drainage Maintenance Plan (BSC, 2015) details the ongoing regular maintenance tasks to ensure the Byron Bay drainage systems remain operational. The objective of this document is to ensure the Byron Bay drainage system remains free flowing and operational at all times whilst maintaining the service levels. This includes ensuring all inlets are clear of blockages, all kerbs are clear of sediment and rubbish, all pipes are clear of sediment and any drainage defects are repaired in a timely manner.

The Byron Bay drainage system has limited capacity, with very little gradient. The system relies on water head to push water through the system and therefore maintaining free flowing drains with minimal potential for blockage can greatly increase drainage time.

When considering a potential stormwater upgrade for Byron Bay, Council opted to increase drain maintenance funding rather than costly infrastructure upgrades (Council Resolution 10-863). The Maintenance Plan outlines the proposed budget for additional stormwater maintenance works at \$50,000.00. This cost is expected to rise as Council has resolved to be chemical / herbicide free by 2018/19.

Byron Bay Drainage Strategy

The Byron Bay Drainage Strategy (SMEC, 2010) was developed to provide improved flood immunity to vulnerable parts of the catchment. Many of the developed urban areas are low lying in relation to the sea level and therefore susceptible to flooding events. This study includes the four principle areas including: Cowper and Marvel Street subcatchments; town centre subcatchment; Shirley Street subcatchment and Western Industrial Area.

The objectives of the study were to:

- ☐ Alleviate flooding in principle areas
- ☐ Provide a drainage system for minor and major flows
- ☐ Protect against ocean storm surges
- ☐ Provide adaptability to climate change including sea level rises and increased rainfall intensities
- ☐ Reduce stormwater pollution
- ☐ Consider removal of Clarks Beach stormwater outlet.

The drainage strategy includes the use of pump stations, levees, upgrades to the underground drainage and a wetland / basin to improve water quality and help mitigate flooding impacts.

The strategy examined the feasibility of improving stormwater quality through the provision of wetlands and gross pollutant traps as well as a diversion of the first flush away from Clarks Beach. The report notes that due to the flat topography, water quality improvement devices can result in increased flooding in some locations.

The strategy identifies options based on three events based on size (50 year event, 20 year event and 10 year event) and includes costings and prioritisations. The estimated minimal cost for implementing the drainage strategy is around \$9 Million. Prioritisation on staging the works is based on the expected benefits to public, town infrastructure and private properties.

Restoration Strategy Belongil – Cumbebin Wetland Complex

The Restoration Strategy Belongil – Cumbebin Wetland Complex (Australian Wetlands and Wetland Care Australia, 2005) was prepared for, and funded by, the Northern Rivers Catchment Management Authority (NRCMA).

The Wetlands Restoration Study (WRS) provides a management framework to address the natural resource management problems resulting from past, present, future landuse activities within the Belongil – Cumbebin wetland catchment. The WRS provides a list of priority works as well as a strategy for resourcing the changes in landuse necessary to achieve the environmental benefits. Stakeholder acceptance of the need for change is central to the strategy.

The Belongil – Cumbebin wetland complex has been identified as a priority area under the NRCMA. The study was developed with an emphasis on community consultation to ensure the highest level of community ownership.

The primary objective for the WRS was to:

- ☐ Produce an Environmental Management Plan, addressing all natural resource management issues relevant to the area and ratified by the NRCMA
- ☐ Document the priority issues and potential sites for strategic on-ground works
- ☐ Identify and support funding opportunities
- ☐ Achieve stakeholder ownership, adoption and implementation of recommendations

Plan of Management – Cumbebin Swamp Nature Reserve

Cumbebin Swamp Nature Reserve Plan of Management (National Parks and Wildlife Service, 2012) was adopted by the Minister for the Environment on 1 February 2012. A plan of management is a statutory document under the NPW Act. Once the Minister has adopted the plan, no operations may be undertaken within Cumbebin Swamp Nature Reserve except in accordance with this plan.

Cumbebin Swamp Nature Reserve was established in 1999 to protect a significant component of the Belongil-Cumbebin wetland. The Cumbebin Swamp Nature Reserve is located adjacent to the township of Byron Bay with an area of 91 hectares.

Cumbebin Swamp Nature Reserve is an important part of Country to the Bundjalung of Byron Bay (Arakwal) people and is subject to an Indigenous Land Use Agreement (ILUA), signed in 2008, which more than doubled the size of Cumbebin Swamp Nature Reserve from its original 40 hectares. Under

the ILUA the reserve will be jointly managed with the Bundjalung of Byron Bay (Arakwal) people through a management committee.

The Cumbebin Swamp Nature Reserve conserves wetlands of state significance, sensitive coastal dunes, coastal swamp forests and riparian areas. It contains three endangered ecological communities, which provide habitat for a wide range of native animals including threatened species.

Sections of Belongil Creek and its tributaries are within the reserve. The majority of Belongil Creek and its tributaries to mean high water mark are part of the Cape Byron Marine Park which is managed by the Marine Parks Authority. Belongil Creek and its tributaries within the marine park are managed as a special purpose zone for the protection and rehabilitation of Belongil Creek.

Clearing and draining of the Cumbebin-Belongil wetlands, including Cumbebin Swamp began in the late 1800s when European settlers moved permanently into the area to establish agriculture, particularly dairying. In the central part of the reserve, a drain which runs west to Belongil Creek located south of and parallel to Ewingsdale Road is shown on maps from 1912 onwards.

Byron Shire Council is the authority for an easement created under the Conveyancing Act 1919 over a drain running east-west through the central section of the reserve and into Belongil Creek, south of Ewingsdale Road. This drain connects to Council's Butler Street drain which forms part of the urban stormwater drainage system for Byron Bay.

Byron Shire Council Urban Stormwater Management Plan

The Byron Shire Urban Stormwater Management Plan (PPK Environment and Infrastructure 1998) is under review by Byron Shire Council (Draft 2010). The plan includes the upgrading of the Byron Bay stormwater discharge system, including a wetland treatment system for the Butler Street drain. The wetland treatment system is a high priority in the Belongil Estuary Management Plan (Parker & Pont 2001) and is included as a priority action in Council's Management Plan (BSC 2009).

The review process reflects Council's current direction and practices, and had included additional details on climate change, asset management, community infrastructure maintenance, infrastructure condition and incorporates the principles of water sensitive urban design. The plan details a three year implementation strategy for the recommended actions.

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.2 - ATTACHMENT 2

Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
1	BES&MP	Water Quality	High	Reduction of contaminant loads at their source: education, management and	Recommend	SMP; Byron Bay Drainage Maintenance Plan 2014 - 15
2	BES&MP	Water Quality	High	Complete Butler Street wetland	Recommend	SMP. Consideration of works to be undertaken in line with Bypass road
3	BES&MP	Water Quality	High	Identify potential sites pollutant controls and stormwater treatment, e.g. industrial drain		Council to recommence sampling as part of a stormwater quality monitoring program. To implement immediately.
4	BES&MP	Water Quality	High	Adoption and funding of SMP recommendations	Recommend	SMP. Council will prioritise actions and fund through the stormwater / water and sewage funds
5	BES&MP	Planning	High	Implementation of source controls for New Developments		SMP, DCP. New developments are subject to s/water controls as per
6	BES&MP	Water Quality	High	Develop surface water quality monitoring program and install a permanent data logger	Recommend	SWQ monitored for 5 years after the WBSTP was commissioned. REC: Council to recommence sampling as part of a stormwater quality
7	BES&MP	Water Quality	High	Continue to maintain Butler Street GPT	Recommend	SMP; Byron Bay Drainage Maintenance Plan 2014 - 15
8	BES&MP	Water Quality	High	Enforce litter and pet dropping regulations	Ongoing	Signs, rangers
9	BES&MP	Water Quality	Medium	Investigate potential for contamination from Butler Street landfill	Recommend	Council to do in line with stormwater quality monitoring program.
10	BES&MP	Education	Medium	Maintain community consultation (media / field days) to educate community on stormwater pollution	Recommend	SMP
11	BES&MP	Hydrology	Medium	Investigate the possibility of drain management works with landholders	Recommend	Council is investigating in consultation with the Drainage Union.
12	BES&MP	Education	Low	Continue joint Council community funding applications	Ongoing	Council have a small budget
13	BES&MP	Water Quality	Low	Conduct drainage upgrades to implement strategies in the Belongil Estuary S&MP	Recommend	Byron Bay Drainage Strategy (SMEC 2010), SMP (2010). Funding and implementation required
14	BES&MP	Water Quality	Low	Investigate flood detention and infiltration opportunities	Complete	Byron Bay Drainage Strategy (SMEC 2010), SMP (2010). Funding and implementation required
15	BES&MP	Water Quality	Low	Undertake experimental drain re-shaping	Recommend	Preliminary discussions with Landowners and Drainage Union. Aim to improve flow and reduce pollutants
16	BES&MP	Planning	High	Support formation of an ASS working group		
17	BES&MP	Planning	High	Prepare and implement ASS priority area management plan		
18	BES&MP	Planning	High	Finalise and implement ASS LEP	Complete	2014 Maps LEP / GIS layers
19	BES&MP	Planning	High	Delineate buffer zones to Belongil Estuary	Recommend	SEPP Buffer Zones 7FJ (shorebirds)
20	BES&MP		High	Incorporate results of the PPK drilling program into the BESMP		
21	BES&MP	Hydrology	Medium	Support the West Byron Wastewater Management Project		Committee Objective
22	BES&MP	Hydrology	Low	Increase scope of water table trials	Recommend	Council has put in data loggers with quarterly reports from Australian Wetland Consultants (AWA)
23	BES&MP	Environmental	Low	Lodge funding application for ASS monitoring		ASS has not been an issue since the WBSTP upgrade
24	BES&MP	Planning	Low	Input into Sunny-brand Chicken Co and Byron Bypass EIS	Complete	Council provided input into the EIS process for the Highway -
25	BES&MP	Hydrology	High	Support West Byron Wastewater Steering Committee goal of maximum reuse	Ongoing	Recycled Water is of a quality for Dual Reticulation. BSC operate one of the largest recycled water schemes in NSW (DPI Water 2016). Current BBLRW's extension to include public toilet flushing and Byron
26	BES&MP	Hydrology	High	Support Belongil Rehabilitation project using West Byron wastewater	Ongoing	Committee Objective
27	BES&MP	Water Quality	Unrated	Continue using Typha or natural wetlands to reduce nutrients	Ongoing	Council continues to manage wetlands to reduce nutrients. BSC are required to monitor total phosphorous fortnightly at the discharge point from the BBIWMR wetlands to the Belongil Creek (EPA 4). The sampling results indicate the effluent discharged is consistently under the EPL 90th percentile concentration limit of 0.3 mg/L with an average of 0.07 mg/L (Oct 2013 – Oct 2015). The average total phosphorus
28	BES&MP	Environmental	Unrated	Investigate the leasing or acquiring land for tree planting		To consider
29	BES&MP	Hydrology	High	Keep estuary mouth open continuously at interim bench mark level of 1m in conjunction with monitoring water quality	Current	Operates as an intermittent closed and open lake or lagoon (ICOLL) system. Licenced to open creek entrance when 1m at Ewingsdale Bridge. Licence valid until 2022. Council operate the estuary in accordance with the Belongil Estuary Mouth Opening Plan. Water quality monitoring (1 day prior and six days after opening) includes EC, DO pH, turbidity, temperature, water level. Council reports on a six

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
30	BES&MP	Hydrology	High	Investigate upper catchment remediation works (e.g. trial drop-boards) in conjunction with estuary opening strategy		Previously discussed with Drainage Union - to investigate in consultation with the Drainage Union.
31	BES&MP	Planning	High	Liaise with DPI for a Part 5 Application for estuary opening	Complete	Belongil Creek Entrance Opening Strategy - Review of Environmental Factors (October 2005, Integrated Ecosystem Research & Management)
32	BES&MP	Hydrology	High	Monitor the protocol for entrance opening including: water quality, width of estuary and time and date of opening	Current	Council undertakes monitoring 1 day before opening and 6 days after opening - monitoring includes EC, DO, pH / Turbidity / temperature and water level. Monitoring since 2002. Council reports on a six monthly basis - Byron Estuary Entrance Management Report.

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
33	BES&MP		High	Adopt actions which support sediment control in the BES&MP		

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
34	BES&MP	Planning	High	Define foreshore reserves and riparian buffers	Current	Crown Reserves

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
35	BES&MP	Planning	High	Introduce appropriate zoning for riparian zone protection (LEP amendment or clause)		

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
36	BES&MP	Education	High	Encourage weed control, revegetation and rehabilitation of riparian zone	Recommend	

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
37	BES&MP	Education	High	Encourage community appreciation of the estuary (e.g. education programs / signage)	Recommend	
38	BES&MP	Planning	High	Adopt action plans which support fishery and shorebird habitat as recommended above		
39	BES&MP	Planning	High	Identify and protect significant estuarine and aquatic habitats by rezoning, reservation, DCP. Support the Byron Bay, Suffolk Park, Ewingsdale Settlement Strategy riparian buffer		
40	BES&MP	Environmental	High	Enforce dog exclusion zones at mouth of estuary	Ongoing	Signs, rangers. Action 1.1.1 Draft Coastal Zone Management Plan for the Byron Bay Embayment (CZMP) (2016)
41	BES&MP	Environmental	Unrated	Investigate rehabilitation and revegetation opportunities	Ongoing	

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
42	BES&MP	Environmental	Unrated	Encourage NPWS to undertake fox eradication programs	Ongoing	Fox baiting around WBSTP, wetlands and 24ha. WetlandCare Australia's Coastal20 Wetlands Project has undertaken strategic fox control over
43	BES&MP	Cultural	High	Support the implementation of the Arakwal Agreement		
44	BES&MP	Cultural	High	Consult with Aboriginal Land Council and Consultative Committee if issues arise		Invite Aboriginal Land Council / Arakwal representative to the Belongil Catchment Advisory Committee
45	BES&MP	Planning	Medium	Prepare and implement a Belongil Floodplain Management Plan and Study	Complete	Belongil Creek Floodplain Risk Management Plan and Study (2015). Plan to be implemented.
46	DMP 14/15	Water Quality	Not determined	Asset Inspections	Ongoing	Byron Bay Drainage Maintenance Plan 2014 - 15
47	DMP 14/15	Water Quality	Not determined	Railway Culverts	Ongoing	Byron Bay Drainage Maintenance Plan 2014 - 15
48	DMP 14/15	Water Quality	Not determined	Open Drains	Ongoing	Byron Bay Drainage Maintenance Plan 2014 - 15
49	BCFRMP	Hydrology	Immediate	Preferred Byron Drainage Strategy	Complete	Byron Bay Drainage Strategy (SMEC 2010). Council need to implement actions 148 - 156.
50	BCFRMP	Hydrology	High	Drainage infrastructure maintenance	Complete	Byron Bay Drainage Maintenance Plan 2014 - 15.
51	BCFRMP	Hydrology	High	Belongil Creek Entrance Strategy - Recommends the development of a long term management plan for the operation of ICOLL	Recommend	Council has applied for 2 grants (approx. \$150K for 2 year project) both unsuccessful. Needs to be a whole of catchment / stakeholders approach. To be completed before 2022.
52	BCFRMP	Planning	Immediate	Development Control Planning - A future development zone map and flood planning matrix		
53	BCFRMP	Planning	Medium	Voluntary house raising - Ten residential properties flood in a 20yr ARI event / Four houses eligible for housing rise due to building or construction type. / One house at (~\$60K) eligible if Preferred Byron Drainage Strategy implemented		Will apply for funding - not a high priority
54	BCFRMP	Education	Immediate	Community flood awareness - Multipronged approach: utility bills or rates; website; social media; community information briefings. / Evacuation centres / Liaise with SES	Recommend	
55	BCFRMP	Hydrology	High	Flood warnings and gauges including: Installation of additional rainfall gauge at Saint Helena / Installation of ALERT water level gauge at Ewingsdale Bridge	Current	No rainfall gauge at St Helena / Council have been successful in a grant and will have the ALERT water level gauge at Ewingsdale Bridge
56	BCFRMP	Hydrology	Immediate	Flood information interpretation dataset including: Develop flood information dataset linking water levels to real world outcomes / Review existing SES emergency procedures using design flood information	Current	Council has successfully received funding to incorporate the dataset into SCADA system
57	BCFRMP	Hydrology	Immediate	Emergency response and evacuation including: SMS and / or telephone warning system / Review flood evacuation warning procedures / Identification of alternate evacuation route	Current	When the SCADA system is operational Council will then determine alert and critical levels for emergency notification
58	RS B-C WC	Hydrology	Not determined	Install temporary sandbag weir in lower end of Union Drain to trial heights and monitor impacts		To discuss in consultation with the Drainage Union.
59	RS B-C WC	Hydrology	Not determined	Replace temporary weir with automated control structure		To discuss in consultation with the Drainage Union.
60	RS B-C WC	Hydrology	Not determined	Decommission Union Drain and remove all impediments to natural overland flows		To discuss in consultation with all stakeholders.
61	RS B-C WC	Planning	Not determined	Provide planning offsets incentives for landholders to rehabilitate wetlands and buffer areas		

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
62	RS B-C WC	Planning	Not determined	Incorporate wetland buffer provision in wetland zone – ecotourism		
63	RS B-C WC	Education	Not determined	Seek funding and technical support for landholders to undertake wetland restoration	Ongoing	
64	RS B-C WC	Planning	Not determined	Ensure provision of essential public infrastructure occurs within the frameworks of “no net loss to wetlands or their function”		
65	RS B-C WC	Hydrology	Not determined	Regenerate riparian vegetation and control weeds throughout the wetland via reinstatement of natural hydrology and planting the wetland buffer		WetlandCare Australia’s Coastal20 Wetlands Project has undertaken bush regeneration activities throughout the Belongil -Cumbegin Swamp catchment - over 3,000 native trees planted, the revegetation of over 1 ha of wetland vegetation, native habitat reinstated and the reduction in
66	RS B-C WC	Education	Not determined	Assist community interest groups obtain funding	Ongoing	
67	RS B-C WC	Planning	Not determined	Establish a register of HCV wetlands on private property for inclusion in wetlands reserve acquisition program	Recommend	HCV mapping has been completed as part of the 2014 LEP process
68	RS B-C WC	Education	Not determined	Promote long term ownership of B-C wetland complex	Ongoing	
69	RS B-C WC	Planning	Not determined	Assist landowners with low impact proposals (e.g. ecotourism development) where they agree to dedicate the wetland for environmental management		
70	RS B-C WC	Planning	Not determined	Identify and pursue other acquisition opportunities		
71	RS B-C WC	Environmental	Not determined	Byron Bay Bush Fire Management Plan to include provisions to address the special requirements of the B-C wetland complex		Overarching Bush Fire Management Plan (Far North Coast Bush Fire Management Committee, 2009.)
72	RS B-C WC	Environmental	Not determined	WBSTP operational plan to include provisions for the use of treated effluent as a contingency measure to flood peat fires		No peat fires since the WBSTP
73	RS B-C WC	Planning	Not determined	Develop guidelines for development adjacent to the proposed wetland zone and buffer to meet fire management standards and rehabilitation / revegetation		
74	RS B-C WC	Planning	Not determined	Rezone land defined as ‘Wetland’ – include 100m buffer?		Draft OEH SEPP 14 mapping
75	RS B-C WC	Planning	Not determined	Provide flexibility adjacent to the proposed wetland buffer – low impact development as an incentive to landowners to undertake wetland and riparian buffer rehabilitation	Recommend	
76	RS B-C WC	Planning	Not determined	Existing and new developments to comply with best practice runoff management (prepare a Stormwater Management Plan)	Ongoing	SMP 2000 (PPK) adopted by Council 2000 / SMP Review 2010 (BSC) – 1st review (Draft)
77	RS B-C WC	Water Quality	Not determined	Control urban stormwater pollutants	Ongoing	SMP
78	RS B-C WC	Water Quality	Not determined	Control industrial stormwater pollutants	Ongoing	SMP
79	RS B-C WC	Environmental	Not determined	Promote expansion of constructed wetlands as well as acquisition of degraded wetlands for revegetation using treated effluent on a seasonal basis		WetlandCare Australia’s Coastal20 Wetlands Project has also engaged one farmer to adopt landscape scale conservation activities contributing to conservation and protection of biodiversity.

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
80	RS B-C WC	Hydrology	Not determined	Continue to refine entrance opening procedures to improve water quality and alleviate short term flooding of assets	Ongoing	Council reports on a six monthly basis - Byron Estuary Entrance Management Report. Council undertakes monitoring 1 day before opening and 6 days after opening - monitoring includes EC, DO, pH / Turbidity / temperature and water level. Monitoring since 2002. Council reports on a six monthly basis - Byron Estuary Entrance Management Report. Will develop a long term management plan for the entrance.
81	RS B-C WC	Hydrology	Not determined	Examine the feasibility of permanent flood protection structures versus wetland protection to protect assets		To be investigated
82	RS B-C WC	Hydrology	Not determined	Slow down inflows by installing sills in drain in the Tyagarah Nature Reserve	Recommend	To be investigated
83	RS B-C WC	Planning	Not determined	Strengthen planning controls by zoning wetlands		
84	RS B-C WC	Planning	Not determined	Develop a master plan for Wetland / Biodiversity trail		
85	RS B-C WC	Education	Not determined	Partner with community groups to seek funding for trail	Recommend	
86	RS B-C WC	Education	Not determined	Promote B-C Wetland complex as a local school project site	Recommend	
87	CSNRMP	Cultural	High	Develop procedures and protocols developed for the operation of the CSNR Management Committee	NA	NPWS
88	CSNRMP	Cultural	High	Develop and implement a program to identify and record Aboriginal cultural sites within the reserve	NA	NPWS
89	CSNRMP	Cultural	Medium	Record the location of any sites of historic heritage in the reserve, such as historic tracks	NA	NPWS
90	CSNRMP	Environmental	High	Implement relevant actions in the PAS and Recovery Plans for threatened species and ecological communities in the reserve.	NA	NPWS
91	CSNRMP	Environmental	High	Continue to liaise with Byron Bird Buddies in regard to implementation of the Belongil Estuary Seabird and Shorebird Management Plan relevant to the reserve.	NA	NPWS
92	CSNRMP	Environmental	High	Encourage flora and fauna surveys of the reserve to establish baseline information on the reserve's flora and fauna.	NA	NPWS
93	CSNRMP	Environmental	High	Remove illegal camps and dumps from the reserve and rehabilitate these areas.	Ongoing	Council has worked with police to remove illegal camps
94	CSNRMP	Environmental	Medium	Investigate opportunities to include the inter-tidal zone to mean low water mark in the reserve to protect the habitat of migratory and threatened shorebirds.	NA	NPWS
95	CSNRMP	Environmental	High	Prepare and implement a Pest Management Strategy for the reserve.	NA	NPWS
96	CSNRMP	Environmental	Medium	Liaise with BSC regarding improving water quality in Council's Butler Street Drain which drains through the reserve to Belongil Creek and the feasibility of piping essential drains in the reserve to reduce acid generation and runoff.	Recommend	SMP - Council will do in line with Butler Street works (wetlands, landfill, GPT)
97	CSNRMP	Cultural	Medium	Continue to participate on BSCs Belongil Creek Floodplain Risk Management and Environmental (Coastal and Estuary) Project Reference Groups.	NA	NPWS

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
98	CSNRMP	Environmental	Medium	Map all the drains in the reserve and investigate closing and rehabilitating drains which are non-essential or which adversely impact on the reserve.	NA	NPWS
99	CSNRMP	Hydrology	High	Ensure that maintenance of essential drains in the Cumbebin Nature Reserve is in accordance with the NPW Act and NPWS Policy including any requirements for permits/licensing and environmental impact assessment.	NA	NPWS
100	CSNRMP	Education	Medium	Encourage BSC to erect signage adjacent to the boundary of the reserve, advising the public of health risks associated with the drain in the central section of the reserve which connects to Council's Butler Street drain, due to poor water quality.	NA	NPWS
101	CSNRMP	Environmental	High	Investigate whether sand-mining tailings were disposed of in the reserve and, if so, determine if there are any associated health or environmental risks or any remediation works required	NA	NPWS
102	CSNRMP	Environmental	High	Implement the reserve's Fire Management Strategy and review and update the strategy to include recent additions to the reserve.	NA	NPWS
103	CSNRMP	Environmental	Medium	Close and rehabilitate trails not required for management purposes.	NA	NPWS
104	CSNRMP	Environmental	Medium	Conduct studies into any threat to reserve values, including to threatened species, from the exercise of rights to use wild resources and manage activities accordingly.	NA	NPWS
105	CSNRMP	Cultural	Medium	Consult and involve the Bundjalung of Byron Bay (Arakwal) people in the development and delivery of information programs on the reserve's Aboriginal cultural and biodiversity values.	NA	NPWS
106	CSNRMP	Environmental	High	Encourage the preparation of a plan of management for the Cumbebin Wetland Reserve	NA	NPWS
107	SMP	Planning	Rank 1	Coordinate and supervise the implementation of the SMP strategies		
108	SMP	Water Quality	Rank 2	Monitor and review program to measure success of SMP initiatives.		
109	SMP	Education	Rank 3	Educate construction community through providing best practice guidelines, e.g. Blue Book EPA Solutions to Pollution Booklet at the development approval stage		
110	SMP	Planning	Rank 4	Review and update Policy 5.1 for Erosion and Sediment Controls (COR050505, March 94) to include the requirements of the Blue Book.		
111	SMP	Planning	Rank 5	Review the Final Byron Bay Stormwater Strategic Plan and ensure that it addresses water quality issues and includes best practice stormwater management techniques.		
112	SMP	Environmental	Rank 6	Develop and implement a Weed Management Strategy.		
113	SMP	Planning	Rank 7	Amend Policy No. 5.30 Keeping of Animals and Birds to include requirements for appropriate disposal of animal faeces and waste effluent.		
114	SMP	Planning	Rank 8	Audit commercial animal facilities for compliance against Policy No. 5.3 Keeping of Animals and Birds.		
115	SMP	Education	Rank 9	Provide environmental audit training for Council enforcement officers.		
116	SMP	Planning	Rank 10	Develop and implement a planning policy requiring GPTs and/or litter interceptors to be installed and maintained by the developer in new commercial, industrial and shopping centre developments and redevelopments.		
117	SMP	Planning	Rank 11	Council to develop policy within the planning framework to ensure the continuing management of buffer zones along waterways.		
118	SMP	Environmental	Rank 12	Investigate the feasibility of implementing the recommendations made in the Acid Sulfate Soil (ASS) Field Survey Upper Belongil Catchment, Byron Bay, Slavich and Wood. 1988.		ASS has not been an issue since the augmentation of WBSTP

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
119	SMP	Planning	Rank 13	Audit service stations and industry for pollution control practices. Develop waste management practice guidelines and identify potential pollutant sources		
120	SMP	Planning	Rank 14	Improve existing council policies to require WSUD principles - minimisation of hard surfaces or to maintain a percentage of high permeability surface area. Developer to quantify/calculate the potential increase in stormwater runoff from the proposed development and include in DA for Council review.		
121	SMP	Education	Rank 15	Develop appropriate procedures to manage blue green algal blooms and also develop education programs.		
122	SMP	Water Quality	Rank 16	Council to improve and manage street side landscaping, increasing the areas of infiltration.	Ongoing	Byron Bay Drainage Maintenance Plan 2014 - 15.
123	SMP	Water Quality	Rank 17	Establish systems to address illegal pollution and litter and advertise procedures for reporting annually.		
124	SMP		Rank 18	Establish and implement industry, commercial and community Green Awards for the recognition of environmental excellence		
125	SMP	Planning	Rank 19	Investigate opportunities for directing stormwater away from Paterson Hill or around the wetland, and for protecting the hill above the wetland from erosion.		
126	SMP	Water Quality	Rank 20	Investigate and identify appropriate locations for additional wetland and constructed wetlands to assist in managing urban stormwater quality.	Complete	Byron Bay Drainage Strategy (SMEC 2010) identified a new wetland / basin for Cowper Street system. Funding and implementation required. Sites such as the Butler Street Wetland are under consideration. Detailed planning required.
127	SMP	Water Quality	Rank 21	Install / retrofit litter baskets in existing stormwater pits with sediment traps at selected sites.		
128	SMP	Education	Rank 22	Produce information brochures for display in hotel and accommodation rooms outlining the actions tourists can take to improve stormwater quality		
129	SMP	Education	Rank 23	Provide public education program to increase community awareness and reduce pollution, e.g. link up with EPA's that the drain is just for rain program.		
130	SMP	Water Quality	Rank 24	Identify monitoring points at the outlet of urban stormwater systems to the receiving waters.	Recommend	Recommendation to recommence water quality monitoring program in the Belongil Estuary - including sampling individual stormwater sub-catchment.
131	SMP	Water Quality	Rank 25	Investigate use of additional GPT's, culverts, trash racks or nets as appropriate to all Urban Areas.	Recommend	
132	SMP	Water Quality	Rank 26	Trial installation of pollution control structures in urban roads, such as grass swales or kerb and gutter, and seal road shoulders and install drains in critical areas.		see 143
133	SMP	Education	Rank 27	Develop a weed management / residential gardening and environmental weeds best practice guideline and distribute to the community annually. Provide information, workshops and demonstrations of improved gardening practice.	Recommend	
134	SMP	Hydrology	Rank 28	Carry out a detailed drainage study to delineate the areas of acidic groundwater associated with humic acids in the Belongil area. Once this is achieved, determine appropriate management options.		
135	SMP	Water Quality	Rank 29	Investigate sources of pollution in headwaters as a separate study.	Recommend	
136	SMP	Education	Rank 30	Educate community and staff on best practice guidelines for fertiliser and pesticide management in parks, residential and commercial areas; review irrigation practices; provide training of Council staff; increase community awareness of fertiliser/nutrient issues.	Ongoing	
137	SMP	Environmental	Rank 31	Monitor soil and stream erosion in the catchment. Identify and map areas with potential for soil erosion, stream-bank and channel erosion, sedimentation, update according to catchment changes and link to vegetation map already being done.		

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Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
138	SMP	Water Quality	Rank 32	Review the adequacy of the frequency of trash collection on all stormwater systems.	Current	Byron Bay Drainage Maintenance Plan 2014 - 15
139	SMP	Water Quality	Rank 33	Establish database of potential pollutant sources in Byron Bay	Recommend	
140	SMP	Planning	Rank 34	Audit sediment controls on construction sites for compliance with development approval conditions	Ongoing	
141	SMP	Hydrology	Rank 35	Investigate feasibility of installing energy dissipation control structures, GPTs and scour protection for stormwater outlets at road ends which enter into creeks.	Complete	Byron Bay Drainage Strategy (SMEC 2010).
142	SMP	Water Quality	Rank 36	Identify all sewer pump station overflow points in Byron Shire	Complete	BSC have identified and listed all sewer pump station overflow points
143	SMP	Water Quality	Rank 37	Trial amelioration methods such as grass swales and retention basins along side some portions of the road. Include some of these stormwater reduction methods in future road-making policy.		see 132
144	SMP	Planning	Rank 38	Council to establish a policy on regular inspection and monitoring of waterways. Sampling and analysis should be conducted and reported in accordance with the ANZECC Guideline. Show linkage to stormwater discharge quality and report results to community. Use stream watch volunteers	Recommend	
145	SMP	Planning	Rank 39	Introduce policy requirement for inspection of residential sewer and stormwater connections (e.g. on sale of property).		
146	SMP	Planning	Rank 40	Review current and future stormwater and drainage works for health and safety implications prior to implementation.	Current	
147	BBDs	Hydrology	High	Pump station - 6m ³ /s, levee, GPT and street drainage in Byron Street (Town Street System)		
148	BBDs	Hydrology	High	Byron Street levee and 4 pump stations (Shirly Street System)		
149	BBDs	Hydrology	High	Pump Station - 3m ³ /s and 2-900 diameter outfall (Cowper Street System)		
150	BBDs	Hydrology	High	New wetland / basin (Cowper Street System)		
151	BBDs	Hydrology	High	Link Channel, levee between Marvel and Cowper Street, pump station - 1m ³ /s (Cowper Street System)		
152	BBDs	Hydrology	High	Street network in Fletcher, Lawson and Johnston Street (Town Center System)		
153	BBDs	Hydrology	High	Street drainage Middleton Street (Cowper Street System)		
154	BBDs	Hydrology	High	Culverts at Ewingsdale Road (Western Industrial Area)		
155	BBDs	Hydrology	Medium	Wetland downstream of Ewingsdale Road - to reduce pollutants entering the Belongil Creek (Western Industrial Area)		

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5.2 - ATTACHMENT 3

Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
1	BES&MP	Water Quality	High	Reduction of contaminant loads at their source: education, management and regulation	Recommend	SMP; Byron Bay Drainage Maintenance Plan 2014 - 15
2	BES&MP	Water Quality	High	Complete Butler Street wetland	Recommend	SMP. Consideration of works to be undertaken in line with Bypass road upgrade
4	BES&MP	Water Quality	High	Adoption and funding of SMP recommendations	Recommend	SMP. Council will prioritise actions and fund through the stormwater / water and sewage funds
6	BES&MP	Water Quality	High	Develop surface water quality monitoring program and install a permanent data logger	Recommend	SWQ monitored for 5 years after the WBSTP was commissioned. REC: Council to recommence sampling as part of a stormwater quality
7	BES&MP	Water Quality	High	Continue to maintain Butler Street GPT	Recommend	SMP; Byron Bay Drainage Maintenance Plan 2014 - 15
9	BES&MP	Water Quality	Medium	Investigate potential for contamination from Butler Street landfill	Recommend	Council to do in line with stormwater quality monitoring program.
10	BES&MP	Education	Medium	Maintain community consultation (media / field days) to educate community on stormwater pollution	Recommend	SMP
11	BES&MP	Hydrology	Medium	Investigate the possibility of drain management works with landholders	Recommend	Council is investigating in consultation with the Drainage Union.
13	BES&MP	Water Quality	Low	Conduct drainage upgrades to implement strategies in the Belongil Estuary S&MP	Recommend	Byron Bay Drainage Strategy (SMEC 2010), SMP (2010). Funding and implementation required
15	BES&MP	Water Quality	Low	Undertake experimental drain re-shaping	Recommend	Preliminary discussions with Landowners and Drainage Union. Aim to improve flow and reduce pollutants
19	BES&MP	Planning	High	Delineate buffer zones to Belongil Estuary	Recommend	SEPP Buffer Zones 7FJ (shorebirds)
22	BES&MP	Hydrology	Low	Increase scope of water table trials	Recommend	Council has put in data loggers with quarterly reports from Australian Wetland Consultants (AWA)
36	BES&MP	Education	High	Encourage weed control, revegetation and rehabilitation of riparian zone	Recommend	
37	BES&MP	Education	High	Encourage community appreciation of the estuary (e.g. education programs / signage)	Recommend	
51	BCFRMP	Hydrology	High	Belongil Creek Entrance Strategy - Recommends the development of a long term management plan for the operation of ICOLL	Recommend	Council has applied for 2 grants (approx. \$150K for 2 year project) both unsuccessful. Needs to be a whole of catchment / stakeholders approach. To be completed before 2022.
54	BCFRMP	Education	Immediate	Community flood awareness - Multipronged approach: utility bills or rates; website; social media; community information briefings. / Evacuation centres / listen with CEC	Recommend	
67	RS B-C WC	Planning	Not determined	Establish a register of HCV wetlands on private property for inclusion in wetlands reserve acquisition program	Recommend	HCV mapping has been completed as part of the 2014 LEP process
75	RS B-C WC	Planning	Not determined	Provide flexibility adjacent to the proposed wetland buffer – low impact development as an incentive to landowners to undertake wetland and riparian buffer rehabilitation	Recommend	
82	RS B-C WC	Hydrology	Not determined	Slow down inflows by installing sills in drain in the Tyagarah Nature Reserve	Recommend	To be investigated

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5.2 - ATTACHMENT 3

Action #	Document (see key tab)	Category	Priority	Actions	Status	Comments
85	RS B-C WC	Education	Not determined	Partner with community groups to seek funding for trail	Recommend	
86	RS B-C WC	Education	Not determined	Promote B-C Wetland complex as a local school project site	Recommend	
96	CSNRMP	Environmental	Medium	Liaise with BSC regarding improving water quality in Council's Butler Street Drain which drains through the reserve to Belongil Creek and the feasibility of piping essential drains in the reserve to reduce acid generation and runoff.	Recommend	SMP - Council will do in line with Butler Street works (wetlands, landfill, GPT)
130	SMP	Water Quality	Rank 24	Identify monitoring points at the outlet of urban stormwater systems to the receiving waters.	Recommend	Recommendation to recommence water quality monitoring program in the Belongil Estuary - including sampling individual stormwater sub-catchment.
131	SMP	Water Quality	Rank 25	Investigate use of additional GPT's, culverts, trash racks or nets as appropriate to all Urban Areas.	Recommend	
133	SMP	Education	Rank 27	Develop a weed management / residential gardening and environmental weeds best practice guideline and distribute to the community annually. Provide	Recommend	
135	SMP	Water Quality	Rank 29	Investigate sources of pollution in headwaters as a separate study.	Recommend	
139	SMP	Water Quality	Rank 33	Establish database of potential pollutant sources in Byron Bay	Recommend	
144	SMP	Planning	Rank 38	Council to establish a policy on regular inspection and monitoring of waterways. Sampling and analysis should be conducted and reported in accordance with the ANZECC Guideline. Show linkage to stormwater discharge	Recommend	

Report No. 5.3
Directorate: Infrastructure Services
Report Author: Peter Rees, Manager Utilities
File No: I2016/370
Theme: Community Infrastructure
Sewerage Services

Summary:

The Belongil Swamp Drainage Board pre-exists the current *Water Management Act 2000* (WMA).

The Board is now subject to the WMA.

Under the WMA, dissolution of a board is at the Governor's prerogative (WMA section 216). The Governor's decision to dissolve the Board depends on them being presented with a petition from at least one third of the land holders in the Board's district.

Council therefore has no role to play in the termination or otherwise of the drain management other than as a landholder in the Belongil Swamp Drainage Union catchment.

RECOMMENDATION:

That Council write to all land owners within the Belongil Swamp Drainage Union catchment to gauge support for either re establishing the drainage board or petitioning the Governor of NSW to dissolve the union.

Attachments:

- 1 Confidential - Legal Advice Drainage Union, E2016/23920
- 2 Legislative obligations and proper governance of Drainage Unions - DPI Office of Water, E2016/15181, page 48

Report

At the Committee meeting held on the 8 March, the Committee recommended

- 5 That a report be brought to the next Belongil Catchment Advisory Committee Meeting outlining possible Union Drain management options including:
1. Council supporting drain management by the Drainage Union, which may include the Union operating in a more conforming manner (DPI letter of 10 February 2015 E2016/15181)
 - 10 2. Dissolving the existing Drainage Union management and Council establishing a new body
 3. Dissolving the existing Union management and Council taking over management responsibilities
- 15 Confidential Attachment 1 contains the legal advice provided by Council's legal services team. Attachment 2 provides the letter from the DPI presented at the last Committee meeting. From these documents it can be surmised:
- 20 • Council cannot support the existing Drain Management unless governance processes are followed and properly documented. It can be assumed there have been no adequate governance processes for at least the last 10 years.
 - Correct governance requires elections and meetings to be held and documented; as well as a proper accounting for Union expenditure..
 - 25 • Council has no role to play in the termination or otherwise of the drain management other than as a landholder in the Belongil Swamp Drainage Union catchment.

The course of action therefore would be for Council to write to all landholders in the union drain catchment and recommend a meeting be held to discuss the options of

- 30
- Re establishing the drainage board
 - Petitioning the Governor to dissolve the Board

Financial Implications

35 Nil

Statutory and Policy Compliance Implications

Water Management Act 2000.

40

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.3 - ATTACHMENT 2



Department of
Primary Industries
Office of Water

DOC NO:
REC'D: 16 FEB 2015
FILE NO:
ASSIGNEE:

Bryan Green
Byron Shire Council
PO Box 219
MULLUMBIMBY NSW 2482

Contact: Peter Hackett
Phone: 02 6641 6563
Fax: 02 6641 6642
Email: Peter.Hackett@water.nsw.gov.au

10 February 2015

Our ref: 6014742
Your ref:

Dear Bryan,

Legislative obligations and proper governance of Drainage Unions

I write to provide general advice about the various legislative obligations with which each drainage union must comply. The **Water Management Act 2000 (WM Act)** confers powers that enable drainage unions to pay for and undertake appropriate maintenance of various drains and floodgates within their respective drainage districts.

Notwithstanding the powers provided drainage unions in the **WM Act**, additional obligations under other statutes must also be met as drainage unions discharge their drainage management responsibilities. Examples of these other relevant statutes include the **Environmental Planning and Assessment Act 1979**, the **Protection of the Environment Operations Act 1997**, the **Fisheries Management Act 1994**, and the **Threatened Species Conservation Act 1995**.

Drainage Unions were originally set up under the **Water Act 1912** and then under the **Drainage Act 1939**. On 1 January 2001 the **Drainage Act 1939** was repealed and provisions relating to the functions, administrations and finances of drainage unions (now called private drainage boards) are now contained in Chapter 4 Part 3 of the **WM Act** and commence at Part 6 of the **Water Management (General) Regulation 2011**.

Section 200 of the **WM Act** provides that each PDB is a corporation under the name by which it was constituted. Each PDB is therefore individually responsible for maintaining compliance with any relevant statutory instrument, including the **WM Act**.

Of particular note are the provisions of the **WM Act** relating to the election of board members, the rating of land within a drainage district and the keeping of financial records. It is important that proper elections of directors are held and proper financial accounts are kept to ensure transparency of administration and allow ratepayers to maintain confidence in the governance of the drainage union.

An open standing provision (section 336), is available to any person to bring proceedings in the Land and Environment Court to remedy or restrain a breach of the **WM Act** or regulations, including a failure to hold proper elections or keep appropriate financial records. Shortcomings and failures in administration and governance may also impinge on a drainage union's ability to withstand private legal action to remedy damage to the land and property of ratepayers and third parties.

BYRON SHIRE COUNCIL

STAFF REPORTS - INFRASTRUCTURE SERVICES

5.3 - ATTACHMENT 2

I have attached excerpts from the WM Act and the regulations of the provisions relevant to drainage unions and controlled activities.

If you require any further advice as to this matter please contact Mr Patrick Pahlow, Senior Licensing Officer, NSW Office of Water on (02) 6676 7386 or myself.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Peter Hackett', with a long horizontal flourish extending to the right.

Peter Hackett

Water Regulation Officer

PRIVATE DRAINAGE BOARDS



Department of
Primary Industries
Office of Water

LEGISLATIVE OBLIGATIONS AND PROPER GOVERNANCE OF DRAINAGE UNIONS

This fact sheet provides general advice about the various legislative obligations to which each Drainage Union must comply.

Drainage Unions were originally set up under the **Water Act 1912**. The governance and administration of Drainage Unions were then brought under the **Drainage Act 1939**. On 1 January 2001, the **Drainage Act 1939** was repealed and provisions relating to the functions, administrations and finances of Drainage Unions are now contained in Chapter 4 Part 3 of the **Water Management Act 2000 (WM Act)** and Part 6 of the **Water Management (General) Regulation 2011**.

Under the **WM Act**, a Drainage Union is known as a Private Drainage Board (PDB). The **WM Act** confers powers that enable Drainage Unions to pay for and undertake appropriate maintenance of various drains and floodgates (drainage works) within their respective drainage districts. These powers include right of entry, for operational purposes, to properties inside and outside of their drainage districts.

To ensure that the activities of PDBs are undertaken in accordance with relevant statutory and regulatory requirements, Section 200 of the **WM Act** provides that each PDB is a corporation under the name by which it was constituted. As a corporation, a Drainage Union is obliged to ensure that their governance, administration and operational activities and are undertaken in accordance with any relevant statutory instrument, including the **WM Act**, in the course of maintaining and operating drainage works.

Relevant statutes include but are not limited to the **Environmental Planning and Assessment Act 1979**, the **Protection of the Environment Operations Act 1997**, the **Fisheries Management Act 1994**, and the **Threatened Species Conservation Act 1995**.

Of particular note are the provisions of the **WM Act** relating to the election of board members, the rating of land within a drainage district and the keeping of financial records. It is important that elections of directors are held and financial accounts are kept to ensure transparency of administration and allow ratepayers to maintain confidence in the governance of the Drainage Union.

An open standing provision (Section 336), is available to any person to bring proceedings in the Land and Environment Court to remedy or restrain a breach of the **WM Act** and regulations, including a failure to hold proper elections or keep appropriate financial records. Shortcomings and failures in governance and administration may also impinge on a Drainage Union's ability to withstand private legal action to remedy damage to the land and property of ratepayers and third parties.

PRIVATE DRAINAGE BOARDS



Department of
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Office of Water

A summary of the legislative requirements of a Private Drainage Board under Part 3 of the *Water Management Act 2000* & *Water Management (General) Regulation 2011*

Drainage Union = Private Drainage Board (PDB)

S200 PRIVATE DRAINAGE BOARDS

- Each PDB is a corporation under the corporate name by which it is constituted

S201 APPOINTMENT AND ELECTION OF DIRECTORS

- A PDB is to have not less than 3, and no more than 7 directors
- If any Crown Lands are included in the PDB's district, one of the directors is to be appointed by the Minister
- The remaining directors are to be elected by landholders within the PDB
- The number of directors that constitute a quorum for a PDB is:-
 - If the board consists of 3 directors—2
 - If the board consists of 4 or 5 directors—3
 - If the board consists of 6 or 7 directors—4

S202 FUNCTIONS OF PRIVATE DRAINAGE BOARDS

- To prepare, review and implement a management program for its drainage district
- To maintain in a state of efficiency the drainage works under its charge, and renew such drainage works if necessary
- To construct, alter, or extend any drainage works in accordance with any authority and consent given under this Part
- To make, levy and collect rates
- To appoint such officers and employees as may be required
- To institute legal proceedings for the recovery of outstanding rates or other amounts
- To keep the prescribed books and accounts
- To manage the affairs of the drainage union
- To do such acts as may be necessary or desirable for carrying out the purposes of Part 3
- No drainage works affecting navigatable waters are to be commenced without the approval of the Governor

S203 ENTRY ON LANDS

- A PDB or any person authorised by it may enter any land within or outside its drainage district:
 - For the purpose of making inspections or surveys, and
 - For the purpose of constructing, maintaining and effecting extensions and alterations to the drainage works; and
 - For any other purpose in the exercise of its powers and duties

S204 EXTENSION OF DRAINAGE WORKS

- A PDB is to carry out such extensions of drainage works as are authorised by a majority of votes cast at a general meeting at which a quorum is present

S205 AMENDMENT OF BOUNDARIES

- The boundaries of a drainage district may from time to time, on application by the PDB, be amended by the Governor
- Any such application must contain particulars of the lands proposed to be added to or excised from the drainage district, and that have or are capable of being increased in value or that have decreased in value respectively by reason of the operations of the PDB
- The Minister must cause notice of any such application to be published in an appropriate newspaper
- The notice must:-
 - Give particulars of the lands proposed to be added to or excised from the drainage district, and
 - Appoint a time and a place at which objections may be lodged
- After expiration of the appointed time and on consideration of any objection lodged the Minister may recommend and the Governor may approve an application with such modification, if and, as the Minister, on investigation, may recommend
- The approval of the Governor, and particulars of the alterations made in the boundaries of the drainage district, must be notified by the Minister in the Gazette
- As from the date of publication of such notification, the boundaries of the drainage district are taken to be altered accordingly.

S206, S209, S210 & S212 RATES

- A PDB may, in respect of each landholding within its area of operations, fix, assess and levy rates in order to provide funds to enable it to exercise its functions
- Rates levied by a PDB are payable by the persons, as prescribed by the regulations
- A PDB is to keep the records prescribed by the regulations in connection with the rates fixed, assessed and levied by it. A rate book must contain the following particulars:-
 - Assessment number, name of ratepayer, additional charges for current year, payment received, receipt number, date of payment, current rates, arrears of rates carried forward, arrears, total, total due
- Every rate must be entered in a rate book which must be in the prescribed form
- An alteration or amendment in the rate book may be made in respect of any rate by altering such of the particulars entered therein as may be prescribed
- An alteration or amendment in the rate book has effect on adoption by the private drainage board as though made when the rate was made
- An alteration or amendment in the rate book in conformity with a resolution of the private drainage board must be made in the prescribed manner
- Every rate becomes due and payable to and recoverable by the PDB on the expiration of one month after service of the rate notice
- If a PDB is unable to recover any amount owing by way of rates from the owner of any land, the PDB may serve on any tenant of that land a notice requiring that any rent then due or thereafter to become due by the tenant in respect of the land be paid by the tenant as it falls due to the board in liquidation of the amount owing

S214 & 215 SUBDIVISIONS

- If a holding is subdivided, a new holding resulting from the subdivision is not entitled to be connected to a PDB's drainage works until a date determined by the board
- The person who, immediately before the disposition of a new holding resulting from a subdivision of land within a PDB's drainage district, was the landholder of the holding (the previous landholder) must construct at his or her own costs such works as are necessary to provide:-
 - Means of conveying water to the board's drainage works from the new holding, and
 - Means of access from roads to any works of the board or any works provided for the purpose of conveying water
 - Means of access across a channel of the drainage district to the new holding if that means of access is required by reason of the subdivision
- All works to be constructed must be constructed before the new holding is disposed of or within such period after the disposition of the new holding as the board may, in any particular case allow
- All works constructed or to be constructed must be constructed in accordance with the approval in writing of the board in respect of location, design, form, dimensions and construction
- At the request of the previous landholder, the board may undertake, at the landholders cost, the construction of any works required
- The board may construct such works as have not been constructed by the previous landholder, and any costs and expenses are payable to the board either by the previous landholder or by the new landholder, as the board may determine
- If any part of the costs and expenses referred to above is recovered by the board from the new landholder, the new landholder may recover from the previous landholder the whole or that part of those costs or expenses, as the case may be

S216 DISSOLUTION

- When all amounts due by the PDB of any drainage union have been repaid, the landholders may present a petition to the Governor for the dissolution of the union
- The Governor may notify such petition in an appropriate newspaper, and if no sufficient cause to the contrary is shown by other landholders within the drainage district, may proclaim that the union is dissolved
- The regulation may make provision for or with respect to the winding up of a PDB and for the disposal of any residual assets of the board
- If the Governor is satisfied that the winding up of a PDB has been completed under this section, the Governor may, by proclamation published in the Gazette, abolish the board

S218 ACCOUNTS

- The accounts of a PDB must be audited once every year
- A PDB must each year publish in an appropriate newspaper, a statement of the receipts and payments or alternatively of the income and expenditure for the next preceding year, certified under the hands of the chairperson of the board of management and the auditor, or forward a copy of such statement to each landholder of land within the drainage district
- The PDB must forward a copy of the statement to the Minister

PRIVATE DRAINAGE BOARDS



Department of
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Office of Water

ELECTION OF DIRECTORS OF PRIVATE DRAINAGE BOARDS

An election of directors of a private drainage board must be held every 3 years. Final roll must be prepared before election called.

ELIGIBILITY TO BE ELECTED AS A BOARD MEMBER

A person is entitled to be elected as a director of the Private Drainage Board if they are entitled to vote in an election of the Drainage Board.

INELIGIBILITY TO BE ELECTED AS A BOARD MEMBER

A person is ineligible for election if the person has not paid all due and outstanding rates (or other moneys) by the end of the month before the month in which the nomination date falls, eg if the nomination date is set as 29th November 2009, to be eligible to be elected a person must be fully paid up by the 31st October 2009.

A person is also ineligible to be elected as a Board Member if they have been convicted in NSW of a serious indictable offence, or if they have been convicted elsewhere of an offence that would, in NSW, be classified as a serious indictable offence.

ELIGIBILITY TO VOTE

A person is entitled to vote in an election of a Private Drainage Board if they own land within the drainage district of that Drainage Board.

The size of their landholding determines how many votes an eligible voter is entitled to:

Up to 20 hectares = 1 vote

20 - 120 hectares = 2 votes

Greater than 120 hectares = 3 votes

CORPORATIONS, TRUSTS AND ESTATES AS LANDOWNERS

If land is owned by a corporation, the corporation is taken to be included in the final roll for an election only if the secretary of the corporation or some other nominee is included in that roll as the representative of the corporation.

If land is owned by more than one trustee or legal personal representative (whether as administrators or executors) on behalf of the estate of a person—the trustees are, or the estate is, taken to be included in the final roll for an election only if a nominee of those trustees or legal personal representatives is so included in that roll as the representative of the trustees or estate.

Only one person may be nominated to vote in the election as a representative of the corporation, trustees or estate concerned.

RETURNING OFFICER

who is this?

The Board must appoint a Returning Officer to be responsible for the proper conduct of the election of Board Members. The secretary of a Private Drainage Board may be appointed as the Returning Officer for an election.

The Returning Officer must prepare the electoral roll, addressing all applications for, and objections to, enrolment to vote. They must ensure a preliminary roll is placed on exhibition at a place where applications and objections to enrolment may be made. However, the Returning Officer may elect to prepare the electoral roll by mail or email.

A preliminary roll must be exhibited for no less than 14 days. Enrolments will be closed at some time soon after the exhibition of the preliminary electoral roll.

ENROLLING TO VOTE

When the preliminary electoral roll is exhibited, a person whose name does not appear on the preliminary roll for an election may apply for enrolment in the final roll for the election. The application must be in the proper form and must be lodged with the Returning Officer before the close of enrolments.

On receipt of the application, if the Returning Officer is satisfied that the applicant is entitled to vote, they must accept the application and enter the name and address of the applicant in the final roll. If not satisfied, the Returning Officer must reject the application and inform the applicant in writing that the application has been rejected.

If the application is not in the proper form or is incomplete, the Returning Officer must return the application for correction or completion and consider the duly corrected or completed application if received before the close of enrolments.

OBJECTIONS TO ENROLMENT

Before the close of enrolments, the Returning Officer and any person who is entitled to vote in an election may object to the inclusion of the name of any person in the final roll.

An objection must be in the correct form and must state the grounds on which it is made; must be signed by the objector; and must be lodged with the Returning Officer. The Returning Officer must then send particulars of an objection to the person to whom the objection relates. The person to whom an objection relates may lodge a written reply with the Returning Officer within 14 days after the date on which particulars of the objection were sent to that person.

The Returning Officer must then consider each objection, and any reply received within that 14-day period, and may make such inquiries as the Returning Officer thinks fit. The Returning Officer may require a person who lodges an objection, or who replies to an objection, to verify the objection or reply by statutory declaration.

For the purpose of enabling the Returning Officer to make a decision to accept or reject an objection to the inclusion of the name of a person in the final roll, the Returning Officer may require a person to furnish the Returning Officer with such information regarding the person objected to as the Returning Officer may specify.

If the Returning Officer accepts an objection, the Returning Officer must exclude from the final roll for the election the name of the person to whom the objection relates and must inform that person and the objector, in writing, that the person's name is so excluded. If the Returning Officer rejects an objection, the Returning Officer must notify the person to whom the objection relates and the objector, in writing, that the Returning Officer has rejected the objection.

NOTICE OF ELECTION

The Returning Officer must arrange a time and place for an election and cause notice of that fact to be posted to every person eligible to vote at the election, or to be published in a newspaper circulating generally throughout the relevant board or trust's district.

The notice must state that an election is to be held for the purpose specified, and must call for nominations of candidates, and must specify the date (**the nomination day**) and time for the close of nominations. The nomination day must be at least 14 days after notice is given.

The notice must also advise where nomination forms can be obtained and lodged, and in the case of a notice sent to eligible voters, must contain a nomination form, and advise when and where the final roll for the election will be available on public exhibition.

NOMINATION OF CANDIDATES

A nomination of a candidate must be in the correct form and must be made by at least 2 persons (other than the candidate) who each are eligible to vote in the election. The nomination must be endorsed with, or accompanied by, the consent of the nominee, then lodged with the Returning Officer before the close of nominations.

If the Returning Officer determines that an persons nominating a candidate are ineligible to nominate a candidate, the Returning Officer must, as soon as practicable, cause notice of that fact to be given to the candidate.

A candidate who has been nominated in an election may withdraw the nomination at any time before the close of nominations by notice in writing addressed to the Returning Officer.

CONTESTED AND UNCONTESTED ELECTIONS

If the number of persons who have been duly nominated as candidates by the close of nominations does not exceed the number of persons to be elected, each of those persons is taken to have been elected.

If the number of persons who have been duly nominated as candidates by the close of nominations exceeds the number of persons to be elected, a ballot must be held.

NOTICE OF BALLOT

As soon as practicable after it becomes apparent to the Returning Officer that a ballot is required, the Returning Officer must cause notice that a ballot is to be taken to be published in at least one newspaper circulating locally in the area to which the election relates, or to be sent by post to each person whose name is included in the final roll at the address shown on the roll.

The notice must state that a ballot is to be taken, and must specify a time and date for the close of the ballot, and in the case of a notice in a newspaper, advise where copies of the final roll will be exhibited. The notice must also state that it is compulsory for persons who wish to vote in the election to be enrolled in the final roll for the election.

The close of the ballot must be at least 28 days after the calling of the ballot.

BALLOT PAPERS

As soon as practicable after a ballot is called, the Returning Officer must send to each person included in the final roll for the election: a ballot-paper that is initialled by the Returning Officer; and an unsealed envelope (*the voter's envelope*) addressed to the returning officer and bearing on the back the words "NAME AND ADDRESS OF VOTER" and "SIGNATURE OF VOTER", together with appropriate spaces for the insertion of a name, address and signature, and another unsealed *reply-paid* envelope (*the posting envelope*) that is large enough to accommodate the voter's envelope if that envelope is folded, and is addressed to the Returning Officer.

SCRUTINY

Each voter in a ballot is entitled to request, by writing to the Returning Officer at any time after the close of enrolments for the ballot, the appointment of a person (who may, but need not, be the voter making the request) as a scrutineer for the purposes of the ballot.

The Returning Officer may appoint a maximum of 10 persons as scrutineers for a ballot and appointments are to be made in the order in which the requests for their appointments were received by the Returning Officer. A person must not be appointed as a scrutineer unless the person consents to the appointment and a candidate must not be appointed as a scrutineer.

A scrutineer's functions include scrutinising the receipt of ballot-papers under clause 76.

NOTICE OF RESULT OF ELECTION

As soon as practicable after a candidate in an election has been elected, the Returning Officer must notify the Minister in writing of the name of the candidate elected. As soon as practicable after declaration of a poll, the Returning Officer must issue to each person elected a notice in writing of the result of the election.

OFFENCES

It is an offence under the *Water Management Act 2000* for a person to vote, or attempt to vote, more than once in any election, or in any election in which the person is not entitled to vote.

It is also an offence under the *Water Management Act 2000* to make a false or wilfully misleading statement (not being a statement verified by statutory declaration) to the Returning Officer in con-

nection with any election, or in any document that the person furnishes for the purposes of any election, or apply for enrolment in respect of any election in respect of which the person is already enrolled.

PRIVATE DRAINAGE BOARDS



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CONTROLLED ACTIVITIES AND THE MAINTENANCE AND OPERATION OF DRAINAGE WORKS

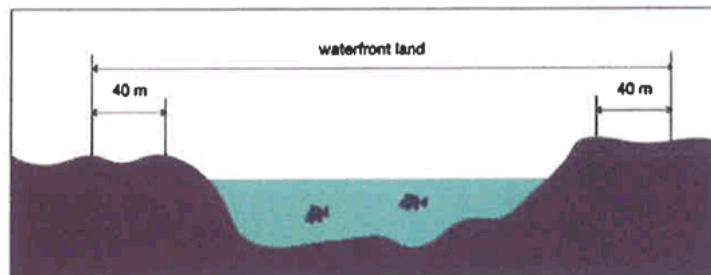
Some of the activities carried out on farms within a drainage district will be controlled activities under the **Water Management Act 2000** (*WM Act*) by virtue of their location on waterfront land.

A controlled activity approval authorises its holder to carry out a specified controlled activity at a specified location in, on or under waterfront land. A person must obtain a controlled activity approval before undertaking the activity, unless there is a relevant exemption provided in the Water Management (General) Regulation 2011,

Under the *WM Act* a controlled activity means:

- the erection of a building or the carrying out of a work (within the meaning of the *Environmental Planning and Assessment Act 1979*), or
- the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
- the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
- the carrying out of any other activity that affects the quantity or flow of water in a water source.

Waterfront is defined by the *WM Act* as the bed of any river, lake or estuary and any land within 40 metres of the river banks, lake shore or estuary mean high water mark. For a more detailed definition, see the Dictionary to the *WM Act*.



The *WM Act* defines **river** as including:

- any watercourse, whether perennial or intermittent and whether comprising a natural channel or a natural channel artificially improved, and
- any tributary, branch or other watercourse into or from which a watercourse referred to in paragraph (a) flows, and
- anything declared by the regulations to be a river,

whether or not it also forms part of a lake or estuary, but does not include anything declared by the regulations not to be a river.

The *WM Act* defines **estuary** as:

- any part of a river whose level is periodically or intermittently affected by coastal tides, or
- any lake or other partially enclosed body of water that is periodically or intermittently open to the sea, or
- anything declared by the regulations to be an estuary,
- but does not include anything declared by the regulations not to be an estuary.

The *WM Act* defines **lake** to include:

- a wetland, a lagoon, a saltmarsh and any collection of still water, whether perennial or intermittent and whether natural or artificial, and
- any water declared by the regulations to be a lake,

whether or not it also forms part of a river or estuary, but does not include any water declared by the regulations not to be a lake.

WATERFRONT LAND ON FARMS

Any creek that has been artificially improved ie widened, deepened, and straightened and any drain that carries water to flow from such a creek is a river for the purposes of the *WM Act*.

Any works that meets the abovementioned definition of a controlled activity requires a CAA.

In general a CAA is required for any works associated with modifying drainage works eg replacing or modifying floodgates, and expanding the capacity, or extending a drain.

Cultivating waterfront land that has been previously and lawfully cleared of vegetation does not meet the definition of a controlled activity and requires no approval.

Works such as removal of reeds and rushes from a drain or creek is exempt from requiring a CAA where it is otherwise lawful. The provisions under the *Fisheries Management Act 1994* for dredging and reclamation provide the regulatory framework for works such as this.