
**LAKE WYANGAN & CATCHMENT MANAGEMENT COMMITTEE
TO BE HELD IN COUNCIL CHAMBERS ON
TUESDAY, 6 OCTOBER 2020 AT 5:00 PM**

- 1 Apologies
- 2 Confirmation of Minutes
- 3 Business Arising
- 4 Declarations of Interest
- 5 Items of Business
- CL01 p10 Project Officer's Report
- CL02 p30 Boating Now Funding Approval for Upgrade of Boat Ramp at Camping Ground/Recreation Area
- CL03 Sediment Testing Debrief (Darren Baldwin via ZOOM)
- CL04 Lake Wyangan Fish Sampling - 24/25 August 2020
 - information that would, if disclosed, confer a commercial advantage on a person with whom the council is conducting (or proposes to conduct) business 10A(2) (c)
- CL05 p45 Water Research Australia (waterRA) Project - Managing Future Low Reservoir Levels
- CL04 p46 Joint Meeting with Environmental Protection Authority & Department of the Environment - 2 September 2020
- CL05 p57 New Code of Conduct Policy from 25 August 2020
- CL06 p59 Proposed Meeting Dates 2021
- 6 p60 Outstanding Action Report
- 7 General Business
- 8 Next Meeting

DISTRIBUTION LIST

Councillor John Dal Broi (Chair), Councillor Doug Curran, Councillor Anne Napoli, Councillor Brian Simpson, Paul Eldridge (Community Representative), Karen Hutchinson (Murrumbidgee Irrigation), Anthony Kidman (Community Representative), John McFadzean (Community Representative), Mat Ryan (Community Representative), Jade Salvestro (Community Representative), Vickie Simpson (Community Representative), Mark Vitucci (Community Representative), Kelvin Williams (Community Representative), Stephen Young (Community Representative)

General Manager, Brett Stonestreet, Director Sustainable Development, Phil Harding; Director Utilities, Graham Gordon; Principal Planner Urban Design & Strategic Planning, Peter Badenhorst; Lake Wyangan and Catchment Management Project Officer, Tom Mackerras and Minute Secretary, Brittany Everett

Quorum = 3

If you are unable to attend this meeting please notify the Minute Secretary prior to commencement of the meeting by email or by telephoning Council on 6962 8100.

**LAKE WYANGAN & CATCHMENT MANAGEMENT COMMITTEE
HELD IN THE COUNCIL CHAMBERS, TUESDAY, 4 AUGUST 2020
COMMENCING AT 5:08 PM**

PRESENT

Councillor John Dal Broi (Chair), Councillor Doug Curran, Councillor Anne Napoli (Zoom), Councillor Brian Simpson (Zoom), Paul Eldridge (Community Representative), Anthony Kidman (Community Representative), John McFadzean (Community Representative), Kelvin Williams (Community Representative), Mark Vitucci (Community Representative) (Zoom), Mat Ryan (Aquna Sustainable Murray Cod), Stephen Young (Griffith Local Aboriginal Land Council) and Vickie Simpson (Griffith Local Aboriginal Land Council)

Quorum = 3

STAFF

General Manager, Brett Stonestreet, Director Sustainable Development, Phil Harding, Lake Wyangan & Catchment Management Project Officer, Thomas Mackerras, Director Utilities, Graham Gordon, Principal Planner Urban Design & Strategic Planning, Peter Badenhorst, Minute Taker, Leanne Austin

The Mayor welcomed Stephen Young and Vickie Simpson from Griffith Local Aboriginal Land Council, Mat Ryan from Aquna Sustainable Murray Cod and newly appointed Lake Wyangan & Catchment Management Project Officer, (former Committee member) Tom Mackerras.

1 APOLOGIES

RECOMMENDED on the motion of Councillor Doug Curran and John McFadzean that an apology be received from Karen Hutchinson (Murrumbidgee Irrigation).

2 CONFIRMATION OF MINUTES

RECOMMENDED on the motion of Councillor Anne Napoli and Councillor Brian Simpson that the minutes of the previous meeting held on 8 July 2020, having first been circulated amongst all members, be confirmed.

3 BUSINESS ARISING

Councillor Simpson enquired if NSW Fisheries had been contacted regarding assessment of the fish population in the Lake. Mr Harding advised a quote had been received and this would be discussed in more detail later in the meeting.

4 DECLARATIONS OF INTEREST

Pecuniary Interests

There were no pecuniary interests declared.

Significant Non-Pecuniary Interests

There were no significant non-pecuniary interests declared.

Less Than Significant Non-Pecuniary Interests

There were no significant non-pecuniary interests declared.

5 ITEMS OF BUSINESS

CL01 FISH KILL UPDATE

The Mayor advised members of the Committee had previously received a report regarding the Lake Wyangan fish kill prepared by Darren Baldwin (Rivers & Wetlands). The Environment Protection Authority (EPA) has completed its investigation into this matter which included a review undertaken by NSW Department Planning, Industry and Environment regarding the fish kill. This was emailed out to Committee members earlier in the day. The report stated that there was limited data on the water quality in the lake prior to the fish kill therefore there was no conclusive evidence to reliably identify a single factor as the cause of the fish kill. It was unlikely the fish kill was the result of low dissolved oxygen in the water or that the fish kill was caused by pesticides or other organic contaminants. There was no conclusive evidence the fish kill was caused by metals or ammonia. The report stated that it was not unusual for fish kills to be the result of several factors acting together and this may be the case for this particular incident. The report recommended ongoing monitoring of pH, ammonia and metal concentrations be undertaken to assess the ongoing risk of these contaminants. Council will continue working with the EPA in relation to this matter.

Mr Harding provided an update on the unearthing of Aboriginal artefacts at Lake Wyangan in late May 2020 when a track was graded adjacent to the eastern shoreline to undertake clean-up work. The EPA and Department of Heritage have been notified and remediation work is required to be carried out. Council will apply for Aboriginal Heritage Impact Permits (AHIP) for the works to be undertaken at the Lake which may result in an 8 month delay to the wetlands project. This has outlined the area is a culturally sensitive area and Council will be working closely with the Aboriginal community moving forward.

CL02 LAKE WYANGAN PROJECT OFFICER PROGRESS REPORT

Mr Mackerras provided an update to the Committee advising he had commenced the role of Lake Wyangan Project Officer two weeks ago.

Water test results and graphs were provided to the Committee including total biovolume (Amber level), potentially toxic BV, Nitrogen, Phosphorus, salinity and water levels. Pond weed is starting to re-grow around the shores of the lake and may need to be harvested.

Councillor Curran enquired when Council would be putting in an allocation of water as previously recommended. Mr Harding advised this would be discussed later in the meeting.

A quote has been received from Dr Fish Contracting regarding assessment of fish species in Lake Wyangan North. Assessment will be done using fyke nets to allow fish to swim into the nets, fish captured will be assessed and released. Mr Eldridge asked if accurate recordings could be achieved given that fish are less mobile in cooler weather and there is not much

water flow currently. Mr Mackerras responded that the contractor would take readings over two nights to ensure accuracy of the data. The Committee discussed the timing of adding water to the Lake to coincide with the fish assessment to assist with the process.

Council is communicating with Phoslock Environmental Technologies about options for treatment of the existing load of Phosphorous in the water column sediments which may assist in the reduction of growth of harmful algae. Council will provide required data and a proposal will be prepared.

Mr Mackerras advised the Water Quality Buoys had been removed from the Lake and returned to the manufacturer for servicing and maintenance. Solar panels have been upgraded and leaks sealed. Council has requested an option to include salinity probe for continuous monitoring.

Catchment monitoring has been proceeding at the five locations recording flow data. Manual water samples are being obtained at the Recreation area NW drain.

A budget overview was provided to the Committee.

Mr Stonestreet commented about the benefits of the Phoslock system, given that it is expensive and requires high water flow to be effective. It may be warranted that Phoslock be installed in areas where water is coming in to the Lake system.

CL03 WETLANDS PROJECT UPDATE AND NEXT STEPS

Mr Harding provided an update on the project advising that construction is currently on hold pending further investigation due to the discovery of Aboriginal artefacts in the area.

Mr Peter Bacon joined the meeting the time being 5:32 pm and provided the following information:

- Woodlots and Wetlands were the successful tenderers for the project.
- Aboriginal artefacts were located in May 2020. This has allowed for re-design of the proposed project prior to commencement of works so as to minimise risk / damage to the artefacts.
- Key values of the Lake area are recreation, education and now cultural importance of the site. The findings have emphasised the cultural value of this site.
- Important to eliminate the risk of uncovering human remains.
- On the Eastern side of the Lake there appears to have been a lot of activity between the water and sand near the Lake shore.
- Preference is to locate the wetlands at the Northern end of the Lake as the Northwest channel is relatively contaminated.
- Re-design may require moving proposed site back from the Lake 100 metres, so that the wetlands can be located where the sandy soil is less than 0.3 m.
- Eastern side where there are a lot of artefacts, option to pull back 100 – 200 m towards dune area. This may be the lowest risk design due to clay soils.
- This is all subject to approvals by relevant agencies being provided.
- At least 10 ha of land available with the amended design.
- It is a valuable important cultural site – recognise in design, education aspects, increased focus on indigenous aspect.

Councillor Simpson requested a copy of the presentation be provided to Committee members.

Mr Young advised there is a significant burial site in the Pelican Shore area as well as possible Scar Trees located nearby. From the Aboriginal community's perspective any opportunity to reconnect, to find a sense of belonging and connection to the land would be

beneficial. The Lake provides this opportunity and the Aboriginal community are looking to working with the Committee to develop this connection. There may be possibilities for funding for the development of an Aboriginal tourism/heritage tourism group. This is a positive step forward and would promote connection to culture and education opportunities.

The Mayor reiterated that we must respect the Aboriginal cultural significance of the site.

Mr Stonestreet referred to the alternative proposal which may be located in a low risk area for Aboriginal artefacts with studies to be completed. Mr Stonestreet commented that the total area available for wetlands would increase from 5 ha to 10 ha in the re-design. Mr Bacon noted that there may be more activity away from the water and this would be taken on notice. Mr Bacon confirmed that the wetland would be best located in the Northern area to treat the contaminated water run off. On the Eastern side the aim is to be around 100-200 metres away from the site. A risk assessment will be prepared by an archaeologist.

Mr Bacon continued with his presentation.

- Colour of lake emphasises the presence of algal bloom.
- Northwest channel carries contaminated drainage water therefore it would be beneficial to use the area to North of the lake to create wetlands.
- Lake is manmade with the site being a gypsum quarry until the mid -1950's.
- The Lake is currently closed for recreational use.
- For really effective wetlands the aim is to treat 1% of catchment area. Design should be 75 ha. We have a minimum of 5 ha.
- Design will maximise removal of key contaminants ie suspended solids and Phosphorus. No salt removed in this system.
- Original design was to address recreation, social, excess water management, education and now includes significant cultural values.
- It is likely the lake foreshore has large number of artefacts as well as other nearby areas. Burial more likely to occur in soft sandy soil than clay areas.
- Options include:
 - abandon the project,
 - move the treatment area into the Lake to create wetland. Problem isolating area, very expensive and difficult.
 - plough ahead, stick with design as is, and (hopefully) get approval.
 - adapt the treatment area and construction design to achieve risk minimisation and (hopefully) get approval.
- Minimise the disturbance by:
 - Keeping any soil disturbance to the necessary minimum.
 - Keeping any disturbance as far away from the Lake as possible.
 - Keeping construction on clay.
 - Adapting design to minimise impact risk option.
- Reduce risk by pulling back construction from the Lake shoreline and only installing the Northern wetland cells where the sandy topsoil is <0.3m.
- Eastern area – pull design down to the south towards Campbell Swamp on clay soil.
- Design to include:
 - Visitor access (safety issue).
 - Indigenous heritage (increase emphasis).
 - Special interest groups e.g birdwatching.
 - Vegetation array
 - Educational e.g. Signage, story boards, study centre, gravity and solar power.
- The Lake has been receiving nutrients for 65 years with approximately 2 year residence time. Therefore it will take time to achieve water quality improvement.
- The proposed system will not reduce salinity.

Shireen Donaldson entered the meeting the time being 6:15 pm.

Councillor Curran enquired if the re-design would satisfy the ability to develop a significant site for tourism and cultural purposes?

Mr Young advised that the community needs to be educated around cultural awareness so visitors to the site don't interfere with any sacred areas. It is an essential public place and the Aboriginal community wants to move forward and promote the connection for the Aboriginal community.

Mr Bacon advised he would be guided by the Aboriginal community and take their feedback into consideration with the design to meet the cultural concerns. The access track is important but needs to be implemented in a culturally respectful way. The design needs to discourage illegal collection of artefacts.

Councillor Curran enquired if the redesign could occur within the 8 month approval process?

Mr Harding advised Mr Bacon will proceed with the re-design in consultation with an archaeologist and the Aboriginal community.

The meeting was suspended at 6:26 pm and reconvened at 6:50 pm.

CL04 BRAIN STORMING SESSION: LONG TERM APPROACH TO IMPROVING AND MANAGING CATCHMENT WATER QUALITY

The Committee workshopped areas of concern with the following points discussed:

- Issue of salt levels.
- Will the addition of water fix the problem in future?
- Less water going in – recordings are more concentrated.
- Gradual increase in salinity over the years.
- Maintain quality of water going down Lakeview Branch Canal.
- To what extent do we control water in the Lake – need to talk to MI/customers.
- Difficult to solve long term.
- Difficulty getting fresh water in.
- Tharbogang Swamp option – requires engineering/studies.
- Let current water levels evaporate, remove salt and sediment then start again with fresh water.
- Can we afford the Lake?
- Water would need to be purchased resulting in less income for the community. Need to consider ongoing costs.
- Need to put it out to the community.
- Option to do a section of the Lake at a time. Work with MI. Increase depth, decrease size?
- Recreational/social uses – salt levels may be ok? Fish may handle salt levels. Increase water levels?
- Aboriginal community water rights – due to the cultural significance may be able to obtain funding and support from Government.
- Salt will increasingly get worse - fish will die, closed system, issues with gypsum mine and irrigation water, sediments potentially toxic, leads to deoxygenation and acidic events. Lake is in poor condition.
- Need to break cycle - remove sediment. Water needs to get pumped out, sediment is an issue, fresh water needs to be shandied in.
- Residual gypsum in system. Scouring system won't solve problem. Need to make a decision about the value of the Lake to community.
- Farms draining into Lake Wyangan – look into the legality of drainage. MI changed

rules to allow some farmers to drain water. Need to look at rights to drain in some farming areas – should be returned to original state.

- Stormwater may be different issue.
- Long term – community needs to make decision – what is the cost?
- Council's financial position – there has been no special rate variation in the past. May be an option?
- Costs \$3M to keep filling the Lake annually – is this dead money?
- If we dredge and clean out, what is the ongoing cost/outcome?
- Engineering solutions – look at Tharbogang Swamp.
- Cultural Water availability may assist with Lake issues.
- Discussions with MI – set up a MoU – how the Lake is to be managed.
- Consult with Aboriginal community.
- Series of options to be developed and presented to the next meeting.
- Look at the next few months while waiting for options. There are 1,500 megs water programmed to go in this year and 400 megs remaining from last year.

RECOMMENDED on the motion of Councillors Doug Curran and Brian Simpson that 400 megs water remaining from last year's allocation be put into the Lake within the next two months.

- Water is to be added slowly so as to not disturb sediments – trickle in.
- Water allocation may assist with fish assessment if timing coincides.
- Need to consider works programmed by MI.
- Advocacy with Government departments regarding cultural water – look into this further.
- Report from April 2017 provided by Water Technology recommended long term staff position not just a term appointment. This is to be reviewed by Senior Management Team.
- Need to annually review potential for external funding sources in relation to the Lake – may not need rate variation.
- Pilot project for macrophytes – this has not been looked at yet.
- Land management practices – Council needs to look at further.
- Targeted Carp removal in hotspots.

6 GENERAL BUSINESS

6.1 Resignation of Thomas Mackerras

The Mayor advised Mr Mackerras has resigned as a voting Committee member as Mr Mackerras has been appointed to the position of Lake Wyangan and Catchment Management Project Officer.

RECOMMENDED on the motion of Councillors Brian Simpson and Doug Curran that the Committee accept the resignation from Mr Mackerras and congratulate him on his appointment to new role.

6.2 Media Release

Mr Stonestreet advised a Media Release is being prepared regarding the disturbance of the Aboriginal artefacts. Councillor Curran suggested Council obtain input from Griffith Local Aboriginal Lands Council representatives to ensure the Aboriginal community is consulted with on an ongoing basis.

RECOMMENDED on the motion of Councillor Doug Curran and John McFadzean that Stephen Young, Vickie Simpson and Mat Ryan be appointed as members of the Committee.

Mr Young advised he was looking forward to the opportunity to working together with Council and bringing the community together.

Mr Harding raised the issue of the AHIP process and advised one application will be required for the access track and another for the wetlands project. The Committee agreed to proceed with both applications.

7 NEXT MEETING

The next meeting of the Lake Wyangan & Catchment Management Committee is to be held Tuesday 6 October 2020.

There being no further business the meeting terminated at 7:53 pm.

Confirmed:

CHAIRPERSON

CLAUSE CL01**TITLE** Project Officer's Report**FROM** Tom Mackerras, Lake Wyangan & Catchment Management Project Officer**TRIM REF** 20/95590

SUMMARY

Refer Attachment (a) for the Lake Wyangan Project Officer's Report.

Further update to be presented to the Committee at the Meeting.

- Allocation of funds for ACHAR/AHIP Process
- Fill Program to be carried out in conjunction with the Jones Rd Causeway Project.

RECOMMENDATION

That the information be noted.

ATTACHMENTS

(a) Project Officer's Report - 6 October 2020 [↓](#)

11

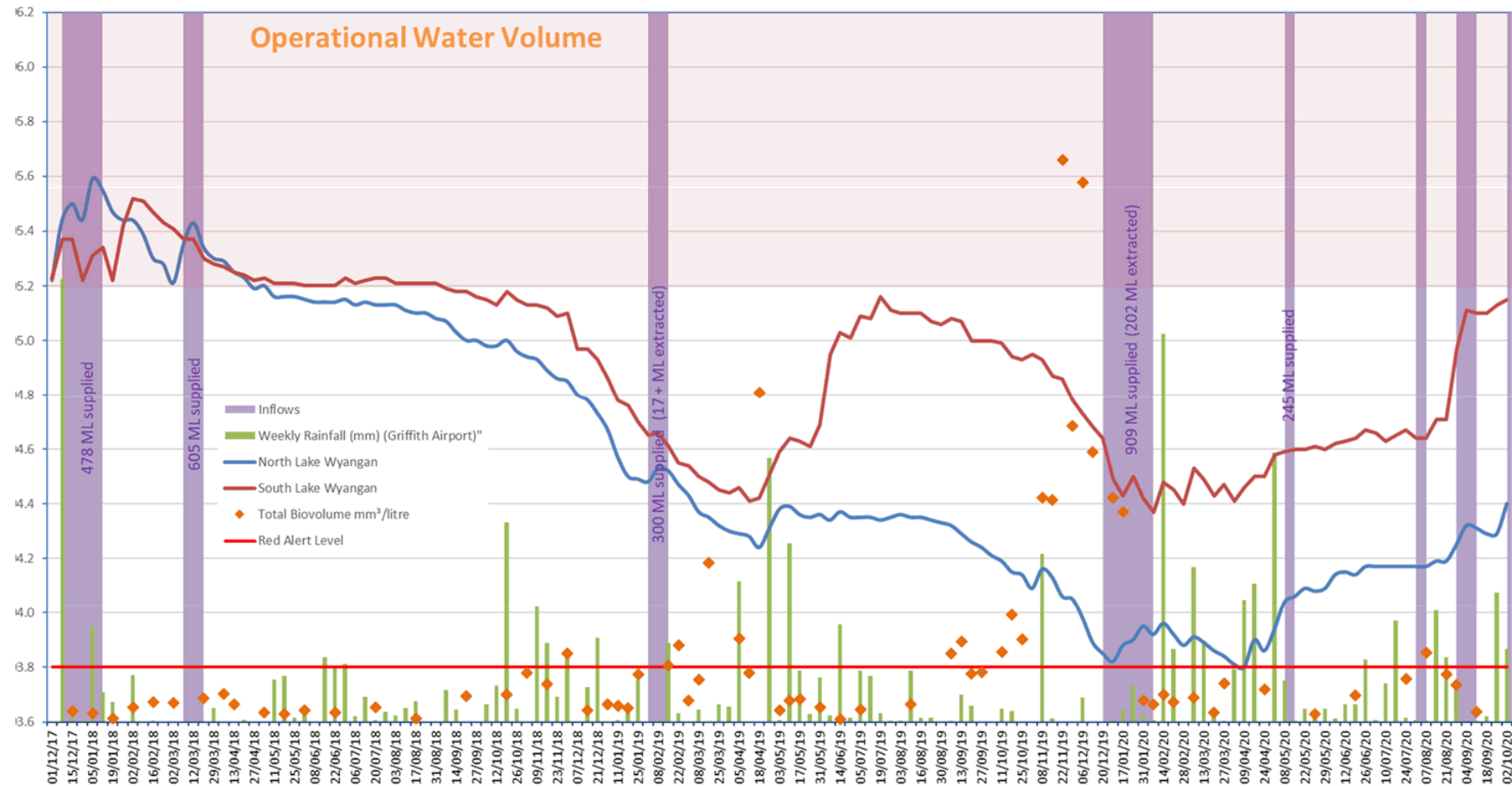


Lake Wyangan & Catchment Management Committee Meeting 6 October 2020

Project Officer's Report
Updated to 6 October 2020
Tom Mackerras

Current Status of Lake Wyangan

- **Blue Green Algae – Sampling of 30 September 2020**
 - Amber Alert level tests of
 - Total Bio-volume: 0.798 mm³/L
 - Potentially Toxic BGA 0.000 mm³/L
- **Bacterial Levels – Sampling of 8 September 2020**
 - Medium
- **Lake Level – at 2 October 2020**
 - 104.40 m AHD
 - Approx. 3570ML



Rain 7/8 August 2020

16.4mm recorded at Airport BOM station

Samples taken morning of 8 August



Rain 19/20 September 2020

21.6mm recorded at Airport BOM station

Samples tank morning 21 September



277ML Supplementary Water August 2020

- Commenced 24 August – 31 August
- Samples taken 1 September
- 137.4ML Through Temporalli's Escape (Zilliotto Road Drain) – 20ML/Day
- 139.5 Through New Farms Escape (Recreation Ground) – 20ML/Day



Catchment Sampling Results

Event	Client Sample Id	Date Sampled	Total Nitrogen	Total Phosphorus	Salinity	Conductivity (uS/cm)
General Sampling	Rec Ground Drain	27/07/2020	1.49	0.048	2.5	4598
General Sampling	Zilliotto Drain - West Rd	27/07/2020	0.42	0.074	0.2	471
General Sampling	CAMPBELL'S SWAMP	27/07/2020	5.00	0.129	0.3	703
General Sampling	LVBC	27/07/2020	0.36	0.026	0.1	215
Rain	Rec Ground Drain	8/08/2020	7.60	0.039	2.3	4181
Rain	Zilliotto Drain - West Rd	8/08/2020	42.80	12.500	0.4	843
Rain	West Rd	8/08/2020	1.59	0.490	0.1	169
Algal Sampling	Boat Club	11/08/2020	3.61	0.172	2.5	4688
Algal Sampling	Camping Area	11/08/2020	3.01	0.089	2.5	4696
Algal Sampling	Recreation Area	11/08/2020	3.23	0.145	2.7	4861
Algal Sampling	East	11/08/2020	3.36	0.137	2.5	4657
Fill	Rec Ground Drain	1/09/2020	1.18	0.068	0.2	343
Fill	Zilliotto Drain - West Rd	1/09/2020	0.90	0.073	0.1	282
Fill	Zilliotto Drain - Bridge	1/09/2020	0.89	0.069	0.1	291
Fill	Zilliotto Drain - Cumbungee	1/09/2020	0.51	0.042	0.1	279
Fill	LVBC	1/09/2020	1.18	0.073	0.1	178
Algal Sampling	Boat Club	8/09/2020	3.12	0.108		
Algal Sampling	Camping Area	8/09/2020	3.22	0.146		
Algal Sampling	Recreation Area	8/09/2020	3.40	0.217		
Algal Sampling	East	8/09/2020	3.32	0.171		
Algal Sampling	Lake Wyangan Combined	8/09/2020			2.4	4429
Ground Water	Adj to Jones Rd causeway	8/09/2020			7.9	13460
Rain	Rec Ground Drain	20/09/2020	2.16	0.285	0.5	971.2
Rain	Zilliotto Drain - West Rd	20/09/2020	7.63	2.98	0.1	275.7
Rain	West Rd	20/09/2020	1.23	0.33	0.1	128

Catchment Sampling – General Notes

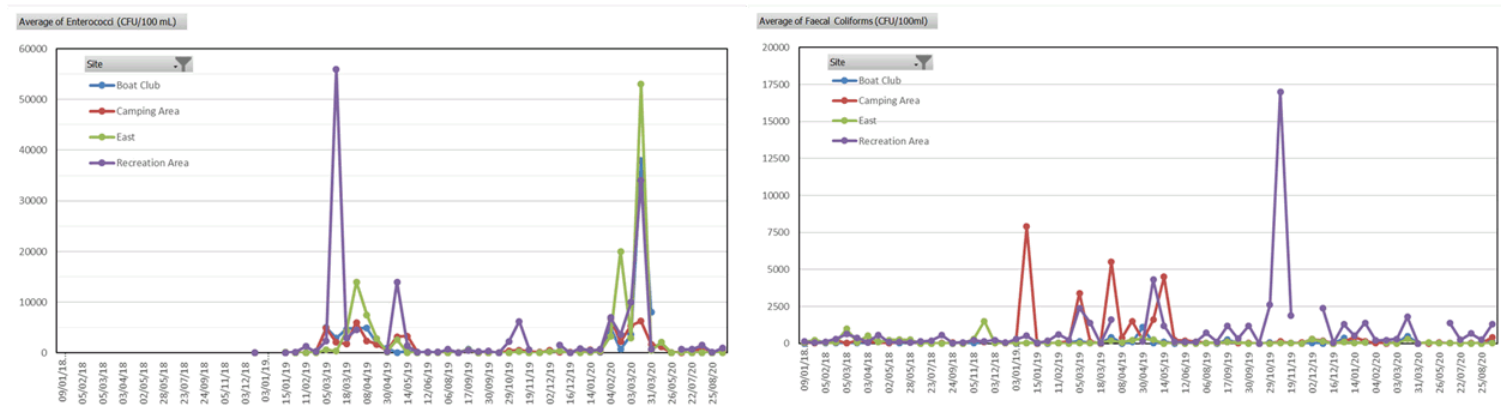
- Very High salinity coming in through the Recreation Ground Drain (during rain events) > 4000 EC
- Salinity coming in Zilliotto Drain after rain >840EC
- Minor salinity pick up from channels during the fill event
- High nutrients coming in through Zilliotto Drain during rain
- LVBC – Salinity is 175 – 215 EC ($\mu\text{S}/\text{cm}$)
- Lake Salinity is approx. 4400 $\mu\text{S}/\text{cm}$ at 104.3m AHD, approx. 3550 ML volume
- Reduction of N and P in the lower section of the Zilliotto drain
- No distinct TSS or TDS results for August rain samples. The samples were highly turbid, with no settlement of sediment between when the sample was taken on Saturday morning and sent of Monday morning

Reference Trigger Levels

Location	Situation	Nitrogen mg/L	Phosphorous mg/L	Salinity EC S/cm
SE Australia	Lowland River	0.5	0.05	125 - 2200
SE Australia	Freshwater Lake & Reservoir	0.35	0.01	20 - 30
South central Australia - Low Rainfall	Lowland River	1.00	0.01	100 - 5000
South central Australia - Low Rainfall	Freshwater Lake & Reservoir	1.00	0.0025	300 - 1000

Bacterial Results

- Have noticed that high results are typically at the Recreation Ground (purple) and Camping Area (red) test sites. Occasional peak on the Eastern shore (green).
- Is there an issue with effluent from the animal enclosures entering the lake?
 - Does the recreation ground contribute sediment to the lake from storm water run off?
- Note that Faecal Coliforms at the Camping Area site have reduced since June 2019



Salinity – Identified Sources

- Delivery from fills – LVBC approximately 200 $\mu\text{S}/\text{cm EC}$
- Groundwater
 - Soak near the causeway recorded at 13,460 $\mu\text{S}/\text{cm EC}$.
 - Inflow rate unknown but potentially variable once lake pressure is on it. Other soaks?
 - Groundwater monitoring at Jones Rd & Wyangan Estate indicate high water tables and high salinity over the period of Nov 2006 to March 2013
 - Note that the maximum & minimum groundwater level in the Jones Rd well equates to the target fill levels in the lake 105.2 AHD to 106.2.
- Catchment flows - measured through the Recreation ground at >4000 $\mu\text{S}/\text{cm EC}$
 - Surface rainfall runoff
 - Tile drains?
- Other?

Groundwater Salinity – Salinity Project Bores

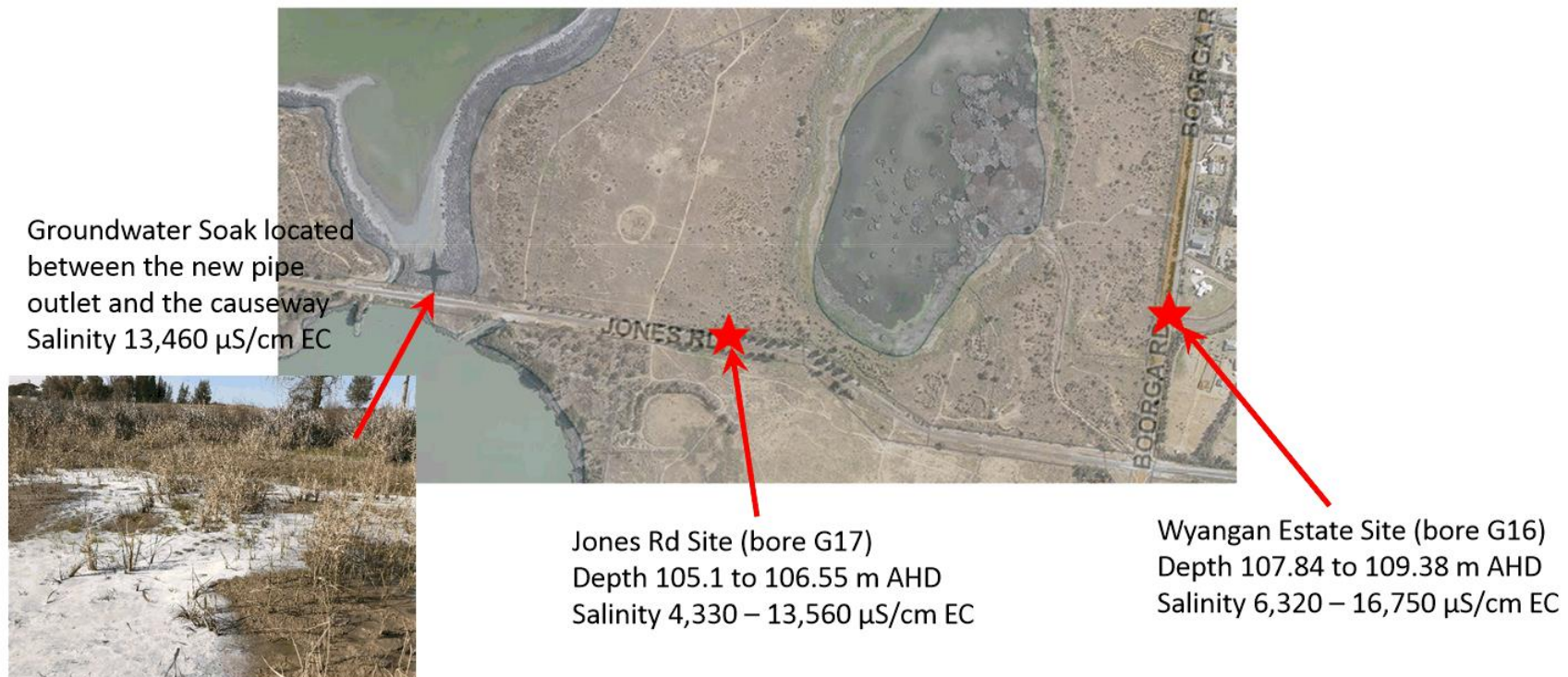


Photo taken 11
September 2020.
Line showing point
where highly saline
water meets less saline
water?

NO. The salinity levels
were about the same
4300 – 4500, when
tested

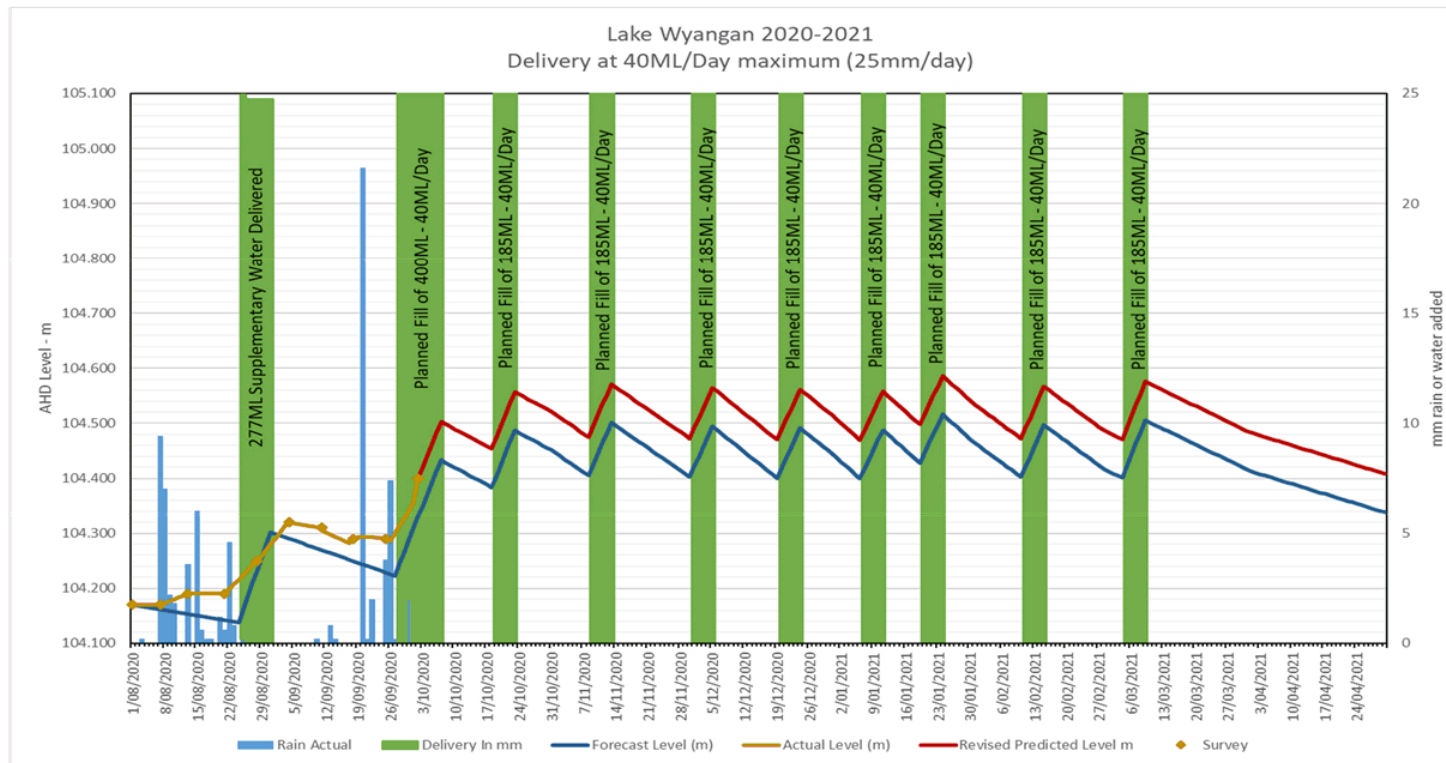
More likely to be where
the lake gets deeper.



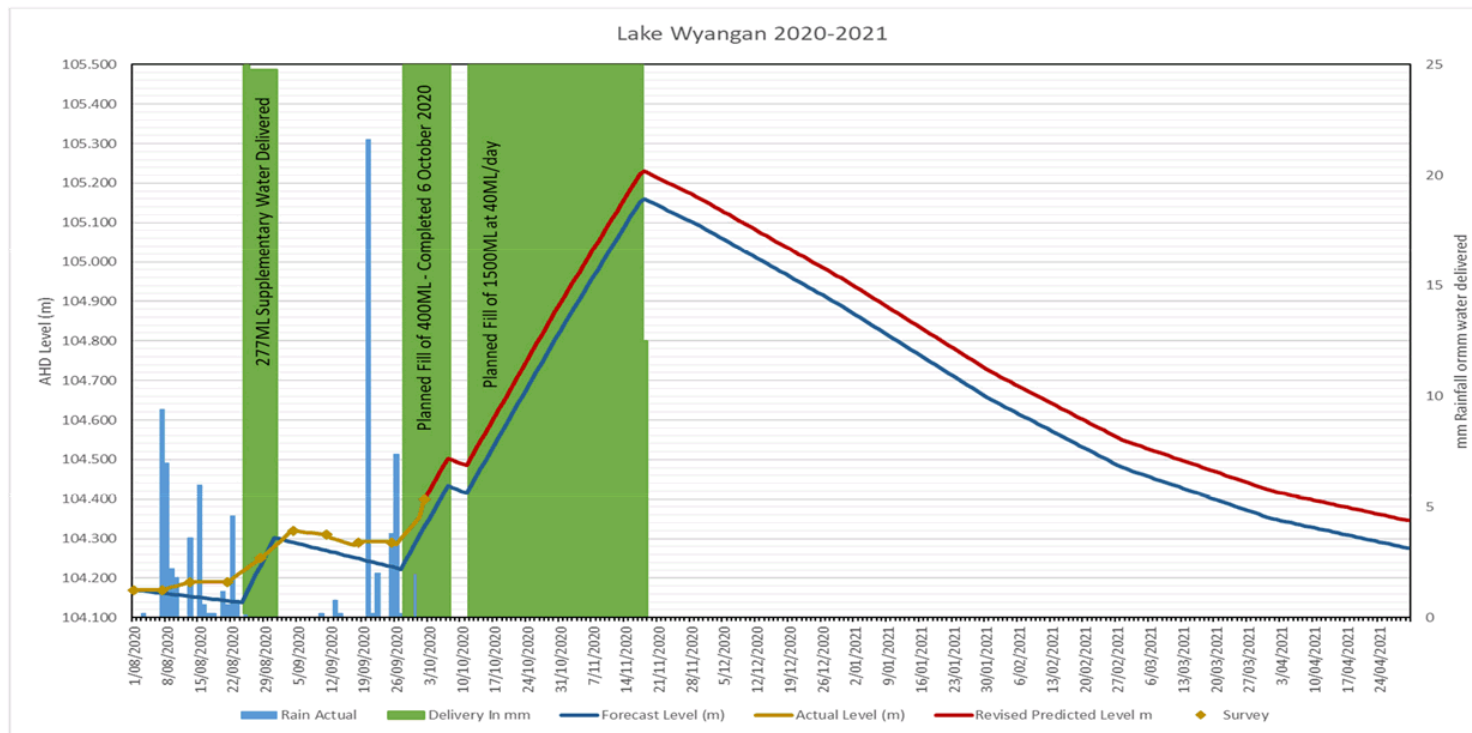
Proposed Fill Regime for Summer 2020/2021

- 400 ML available from 2019/2020
- 1500 ML available for 2020/2021
- Assuming 10 year average rainfall & evaporation rates
 - Loss of 1256mm = approx. 2050ML assuming a max level of 105.2m AHD
 - Does not take into account forecast above average rainfall
- Blue Line represents base level forecast from 1 August 2020 to 30 April 2021
- Brown line represents surveyed water levels in LWN
- Red line represents level forecast extrapolated from current survey levels
- Establish a monitoring regime to monitor the results of each fill as it occurs, including:
 - Temperature profiles (thermistor chains)
 - Water sampling of key parameters
 - Video footing & satellite imagery
- Conflicting requirements from causeway project with regards to fill levels during construction

Proposed Fill Regime for Summer 2020/2021



Alternate Fill Regime for Summer 2020/2021



Causeway Project

- Requires to limit the water level in the lake to enable construction to proceed. This will alter the fill plan.
- Project funded to 30 June 2021
- Requires Fisheries permit, which necessitates habitat offsets to be established.
- Opportunities in the northern & southern sections of the lake for:
 - Planting of cumbungi or other macrophytes suitable to creating habitat for desired species
 - “Fish Hotels” (logs, etc) for breeding and providing habitat

Other

- In lake buoys:
 - Waiting on supply of new probes so these can be fitted & commissioned
 - Hopefully back in the lake by end October
 - In the meantime, thermistor chains will be utilized for temperature profile monitoring.
- Wetlands Project:
 - RFQ for ACHAR & AHIP process sent out & offers received 18 September
 - Initial 2 stages to achieve a full assessment of the Northern & Eastern precincts of the lake
- Sediment Sampling
 - Darren Baldwin was on site on Monday 28 September to take a series of grab samples for analysis.
 - He will report separately

Other 2

- Phoslock:
 - Ongoing conversation with PET
 - They have requested additional sediment sampling & testing. This will be done by Darren Baldwin.
- Veolia Environmental technologies:
 - Enquiry about an RO & filtration plant
 - Have reviewed the available data and have also requested additional testing/data
 - Have suggested a modular plant may be suitable for the project
 - Would it be possible to treat the water into/out of the plant to kill algae?
 - Would result in a highly concentrated saline byproduct which would need to be disposed of. Possibility of finding a customer for this?
- In-Lake Aerators
 - Supplier is currently preparing a proposal for the supply of solar powered units, eliminating the need for a power upgrade

LINK TO STRATEGIC PLAN

This item links to Council's Strategic Plan item 8.1 Provide, renew and maintain a range of quality infrastructure, assets, services and facilities delivered in a cost effective and sustainable manner.

ATTACHMENTS

- (a) Proposed Boat Ramp - Lake Wyangan (confidential)

CLAUSE **CL03****TITLE** **Water Research Australia (waterRA) Project - Managing Future Low Reservoir Levels****FROM** **Tom Mackerras, Lake Wyangan & Catchment Management Project Officer****TRIM REF** **20/95563**

SUMMARY

Griffith City Council is a project partner of the Water Research Australia (waterRA) Project and has a commitment of \$40,000 toward it (payable over two years). The involvement was a result following the Expert Panel Meeting held in Griffith.

This includes a data sharing agreement, which has now been signed off by both Griffith University & Hydronumerics. This will enable the data collected in Lake Wyangan to be expertly analysed and allow evidence based decision making on solutions. Hydronumerics is the software which Chris Butson used for the model which he has created as part of his thesis.

Dr Philip Orr (Griffith University) has previous knowledge & experience with Lake Wyangan, and already has insights into its issues.

An online meeting was held 10 September 2020 to commence the project.

The next step is to compile all of Griffith City Council's existing data and Lake Fill Programs for further action.

RECOMMENDATION

That the information be received.

ATTACHMENTS

Nil

CLAUSE CL04**TITLE** Joint Meeting with Environmental Protection Authority & Department of the Environment - 2 September 2020**FROM** Tom Mackerras, Lake Wyangan & Catchment Management Project Officer**TRIM REF** 20/95573

SUMMARY

A meeting between Griffith City Council, Environment Protection Authority (EPA), Department of the Environment and Department of Primary Industries (DPI) was convened to review the departmental reports into the fish kill in Lake Wyangan in May 2020 and consider options for further actions.

Lake Wyangan & Catchment Management Project Officer, Tom Mackerras will:

- (a) Expand the existing monitoring programme to account for the issues identified in the reports
- (b) Investigate ground water tables and associated salinity
- (c) Consider inviting representative from the departments to join the LWCM Committee

Follow-up on the agency investigations & findings, which highlighted the high salinity levels as well as concerns relating to specific metals due to the high pH in Lake Wyangan, particularly Aluminium, Boron & Ammonia.

All agencies are interested in being involved in the Committee and future actions to address water quality issues.

It was noted that previous studies at the properties adjoining Lake Wyangan have shown a high, saline water table. The low water levels in the lake at present may be allowing inflow from the water table. Gradual seepage into the lake has been noted at the southern end of the Lake & samples taken to determine the level of salinity.

Follow-up actions:

- Testing for metals will be added into the regular water sampling regime. This applies to catchment sampling & in-lake sampling.
- Ground water test sites & hydrological survey.
 - Reviewing existing test sites and data for the locality (see Locality & Data Tables)
 - Have identified a soak near the causeway & taken waste sample for testing – 13,500 µS/cm EC

Refer to the Project Officer's Report for details on follow up actions.

RECOMMENDATION

That the information be noted.

ATTACHMENTS

- (a) EPA Report into Lake Wyangan Fish Kill May 2020 (confidential)

CLAUSE	CL05
TITLE	New Code of Conduct Policy from 25 August 2020
FROM	Leanne Austin, Governance Manager
TRIM REF	20/83697

SUMMARY

Amendments have been made to the Model Code of Conduct and Procedures. The new Model Code of Conduct and Procedures have been prescribed under the Local Government (General) Regulation 2005 and were adopted by Council 25 August 2020.

RECOMMENDATION

Committee members note the amended Model Code of Conduct policy adopted by Council 25 August 2020.

REPORT

The Model Code of Conduct has been amended as follows:

- remove as a breach, failure to comply with a council resolution requiring action in relation to a code of conduct breach
- update the language used in clause 3.6 to reflect more contemporary standards
- include in the definition of council committee and council committee members, members of audit, risk and improvement committees (ARICs) in anticipation of the commencement of the requirement for all councils to appoint an ARIC following the next local government elections.

Amendments have also been made to the gifts and benefits provisions of the Model Code of Conduct. The amendments:

- lift the \$50 cap on the value of gifts that may be accepted to \$100
- clarify that items with a value of \$10 or less are not “gifts or benefits” for the purposes of the Model Code of Conduct and do not need to be disclosed
- clarify that benefits and facilities provided by councils (as opposed to third parties) to staff and councillors are not “gifts or benefits” for the purposes of the Model Code of Conduct, and
- remove the cap on the value of meals and refreshments that may be accepted by council officials in conjunction with the performance of their official duties.

The Procedures have been amended as follows:

Councils have the following options when taking disciplinary action against councillors for breaches of their codes of conduct under the new Procedures:

- that a councillor be formally censured for the breach under section 440G of the *Local Government Act 1993* (the Act), or
- that a councillor be formally censured for a breach under section 440G and the matter referred to OLG for further disciplinary action under the misconduct provisions of the Act.

The process for censuring councillors for breaches of the code of conduct has been significantly strengthened to ensure councillors are made publicly accountable to their electors for their conduct. When censuring councillors, councils are required to specify in their resolution the grounds on which the councillor is being censured by disclosing the investigator's findings and determination and any other grounds that the council considers may be relevant or appropriate.

Councillors may seek to avoid public censure for breaches of the code of conduct by voluntarily agreeing to undergo training or counselling, to apologise for their conduct or to give undertakings not to repeat their conduct before the investigator finalises their report to the council. Investigators can finalise their investigations without a report to the council where they consider these to be an appropriate outcome to the matter they are investigating. However, it will remain open to investigators to finalise their report and to recommend censure where they consider this is appropriate and warranted.

The process for referral by councils of code of conduct breaches by councillors to OLG for further disciplinary action under the misconduct provisions of the Act has been streamlined. Investigators are required to consult with OLG before recommending the referral of matters to ensure the conduct in question is sufficiently serious to warrant disciplinary action for misconduct and that there is sufficient evidence of the breach to allow OLG to take further disciplinary action.

Other amendments have been made to the Procedures to:

- allow panels of conduct reviewers to be appointed without a resolution of the council, and
- allow the referral of investigators' reports to OLG for action under the misconduct provisions of the Act where the council will not have a quorum to deal with the matter.

LINK TO STRATEGIC PLAN

This item links to Council's Strategic Plan item 3.1 Undertake Council activities within a clear framework of strategic planning, policies, procedures and service standards.

ATTACHMENTS

- (a) Code of Conduct Policy adopted 25 Aug 2020 (under separate cover) ➡
- (b) Model Code of Conduct at a Glance Council Committee Members and Delegates updated August 2020 (under separate cover) ➡

CLAUSE **CL06**

TITLE **Proposed Meeting Dates 2021**

FROM **Brittany Everett, Governance Officer**

TRIM REF **20/93215**

SUMMARY

The proposed meeting dates for 2021 are:

Tuesday, 2 February

Tuesday, 6 April

Tuesday, 1 June

Tuesday, 3 August

Note: A Council election will be held in September 2021.

RECOMMENDATION

The Committee note the proposed meeting dates for 2021.

REPORT

As above.

LINK TO STRATEGIC PLAN

This item links to Council's Strategic Plan item 8.1 Provide, renew and maintain a range of quality infrastructure, assets, services and facilities delivered in a cost effective and sustainable manner.

ATTACHMENTS

Nil

TITLE Outstanding Action Report

TRIM REF 20/96751

RECOMMENDATION

The report be noted.

ATTACHMENTS

- (a) Action Report - Lake Wyangan and Catchment Management Committee - 6 Oct 2020 [↓](#) 39

Lake Wyangan & Catchment Management Committee Action Report 6 October 2020				
Date of Meeting	Agenda Item	Action	Action Officer	Comment
4 February 2020	Rural Catchment Management Issues and Discussion of need for Rural Development Water Quality Guidelines	RESOLVED on the motion of Councillor Brian Simpson and Councillor Doug Curran that Mr Ryan will communicate with land owners in the Lake Wyangan catchment area in relation to water drainage and the General Manager will seek legal advice in relation to neighbouring shires retaining drainage water.	Phil Harding/ Peter Badenhorst/ Brett Stonestreet	11/02/20: Legal advice requested with associated discussions ongoing.
3 September 2019	Drainage Channel Redesign EOI	An Expression of Interest (EOI) has been developed and will go out to applicants to submit a concept design and including examples of previous work. From the submissions a fully costed tender for design and construct will be sought.	Phil Harding & Peter Badenhorst	6/11/2019: Four applicants are being asked to submit detailed design and construct tenders. 20/03/20: Sailing Club works completed. 4/06/20: Tender awarded to Woodlots & Wetlands Pty Ltd.
3 September 2019	Biological Manipulation (Billabong Mussels)	RECOMMENDED on the motion of Councillor Doug Curran and Councillor Anne Napoli that subject to approval from Department of Agriculture – Fisheries, the introduction of Floodplain Mussels at Lake Wyangan be trialled to assist with improvement of water quality.	Phil Harding/ Paul Eldridge	6/11/2019: Negotiations are still in progress with Department of Agriculture – Fisheries. Dry conditions have made finding sources of freshwater mussels difficult to find.

3 September 2019	Algae Update (BGA + Other Algae Species)	Mr Ryan is to provide an update at the next meeting regarding restocking of native fish and ongoing management for the lake.	Phil Harding	6/11/2019: Negotiations are still in progress with Department of Agriculture – Fisheries. 4/06/20: Restocking necessary as part of recovery plan following recent events.
2 July 2019	Removal of Cumbungi	Mr Williams requested that the dry, dead Cumbungi be removed. Mr Ryan advised he would look into te management of this invasive native plant in this winter/spring and for the future.	Phil Harding/ Tom Mackerras	6/11/2019: On-going management issue.
2 July 2019	Waste and Stormwater Management for Development Approval	RECOMMENDED on the motion of Councillors Brian Simpson and Doug Curran that the Committee approve the draft terms of reference for Waste and Stormwater Management for Development Approval and an EOI process commence.	Phil Harding	6/11/2019: Expression of Interest in development to be advertised. 4/06/2020: Received 2 submissions, currently under consideration.

2 July 2019	Request for Assistance – Sail Club And Boat Club	Councillor Simpson enquired if approval/assistance has been provided to the Sailing Club for construction of a retaining wall. Mr Ryan advised a statement of public access has been received and Mr Harding will present this to Senior Management for discussion. Mr Ryan advised the Boat Club had put in a similar request for assistance. Mr Stonestreet advised that these issues will be discussed by Senior Management and presented to Council however the concerns are around the issue of community members having access to the facilities.	Phil Harding	6/11/2019: Sailing and Boat Club in the process of collating paperwork and preparing to commence work. 20/03/20: Retaining Wall works completed. Outstanding budget money still available.
2 July 2019	Detailed Design for Sediment Traps and Wetland	RECOMMENDED on the motion of Councillors Brian Simpson and Anne Napoli that Council allocate funds to prepare a detailed design for sediment traps and a wetland to address the algae and water quality issues in the lake.	Phil Harding/ Tom Mackerras	6/11/2019: As per Action 1: Four applicants are being asked to submit detailed design and construct tenders. 4/6/20: Tender awarded to Woodlots & Wetlands Pty Ltd.
2 July 2019	Installation of Aeration Oxygenation and Bacterial Dosing System	RECOMMENDED on the motion of Councillor Brian Simpson and Paul Eldridge that Council investigate and install an aeration oxygenation and bacterial dosing system in a sample section of the lake providing the costing is between \$60,000 to \$80,000. The trial is to include at least one solar powered aerator.	Phil Harding/ Tom Mackerras	6/11/2019: Negotiations in progress. Difficulty is finding sufficient power source close to water. 4/06/2020: Further considered as part of sediment pond and wetlands design and construction.

6 Attachment (a) Action Report - Lake Wyangan and Catchment Management Committee - 6 Oct 2020

2 July 2019	Funding Opportunities - Environmental	Mr Ryan to discuss options for funding opportunities/creating environmental areas with Office Environment and Heritage.	Phil Harding/ Tom Mackerras	6/11/2019: Will update on November 12. 4/06/2020: Ongoing
2 July 2019	Draft Master Plan	Mr Ryan advised that community consultation is required in relation to the draft masterplan as presented by Mr Beer at the last meeting.	Phil Harding/ Tom Mackerras	6/11/2019: Ongoing.
2 July 2019	Water and Sewer Infrastructure	Mr Eldridge suggested Council consider opportunities presented by the proposed upgrade to infrastructure in relation to the Almond processing plant. This may be an opportunity for Council to investigate upgrading of water/sewer infrastructure for future requirements. Mr Ryan and/or Council management will meet with appropriate Council Project Managers to get an update.	Brett Stonestreet/ Phil Harding/ Tom Mackerras	6/11/2019: Department of Water and Sewer have advised that this was not possible under the given circumstances.
7 May 2019	Weeds at Lake Wyangan	Mr Ryan advised weed control is to be undertaken at the Lake to maintain access at boat ramps. Mr Ryan is to enquire about the purchase of machinery to maintain the weeds with the option of hiring this out to other organisations.	Phil Harding/ Tom Mackerras	26/6/2019: Ongoing negotiations. 6/11/2019: Need to change "Weeds" to "Aquatic plants" to reflect that these water plants are native.
6 Feb 2018	Weeds at Lake Wyangan	RECOMMENDED on the motion of Thomas Mackerras and Hayden Cudmore that Council make enquiries to engage a contractor to control the weeds at the Griffith Sailing Club and Boat Club areas at Lake Wyangan when and if required.	Phil Harding/ Tom Mackerras	1/5/2018: Mr Mackerras advised that removal of the pond weed (with a mechanical harvester) was conducted by the Griffith Boat Club and that 60 loads of the weed was extracted from Lake Wyangan. Ongoing maintenance will be required.

				7/5/2019: Quotes for this year on for an annual program are being compiled. Weed control was not required in 2018/19, but ongoing commitment will be required when lake refills.
6 Feb 2018	MI & Council – Water Protocols	RECOMMENDED on the motion of Councillor Doug Curran and John McFadzean that a report be prepared by Council in conjunction with MI to the next meeting to be held 1 May 2018 as to the protocol in the use of water at the North Lake at Lake Wyangan.	Tom Mackerras/ Phil Harding	1/5/2018: Mr Gordon to liaise with MI to draft a document as a benchmark on the process of the use of water at Lake Wyangan. Who to contact for the refilling of water at the lake for recreational purposes and pumping access on allocation provision. 7/5/2019: This is still the focus of ongoing discussions with MI. 6/11/2019: Draft MOU of water level maintenance with MI will be discussed. 04/06/2020: Draft MOU with MI being finalised.
2 May 2017	Overview of Lake Wyangan and Catchment Management Strategy Technical Report and Strategy Report	Mrs de Wit advised options are available to utilise satellite monitoring on the lake, aligning imagery and sampling times on the same day. There are opportunities to identify which parts of the lake are subject to algal blooms through satellite mapping. The Mayor requested the Committee be updated on progress in relation to these issues (monitoring options) at the Workshop.	Phil Harding/ Tom Mackerras	Information about an enhanced monitoring program is to be discussed further at the 8 August 2017 meeting. The project is currently exploring all options of spectral observations including fixed and drone mounted cameras and satellite imagery. 7/5/2019: Remote imagery options continue to be explored and trialled. 04/06/2020: Discuss at next meeting.