

<p>Revive Lake Cathie Community Questions - 12 March 2020</p>	<p>Council Response - 2 April 2020</p>
<p>Grant Funding</p>	
<p>1. Has Council applied for emergency dredging funding from the NSW Government.</p>	<p>No Council has not applied for emergency dredging funding.</p>
<p>2. Did Council apply for Bushfire funding that closed March 10 (as per Leslie Williams) and can we have a briefing on what was applied for, for public information?</p>	<p>Yes Council did apply for financial assistance for bushfire affected coastal waterway.</p> <p>The application was as such: The Port Macquarie-Hastings (PMH) Local Government Area (LGA) has some very significant estuarine and coastal wetlands and coastal lakes located along its coastal strip including Lake Innes/Lake Cathie and Watson Taylor Lake. During the 2019 fires, approximately 2950 ha of land was burnt in the Lake Innes catchment and 1215 ha was burnt in the Watson Taylor Lake area.</p> <p>PMH is an area rich in biodiversity supporting a diverse and significant assemblage of both terrestrial and aquatic plants and animals. In 2018 extensive detailed community vegetation mapping was undertaken on numerous estuarine systems including Lake Innes/Lake Cathie and the Queens Lake and Watson Taylor Lake systems. This mapping has shown excellent pre-fire conditioning of these systems and provides a true baseline from which we are able to assess changes in systems function over time. The proposed project will be to examine the extent of impact to the landscape, in both terrestrial and aquatic ecosystems, caused directly by the bushfires and the associated remediation and rehabilitation works that will be required to follow to assist in reversing the damage caused.</p> <p>The project will be divided into two stages. Stage one will focus on data collection and investigation along with comparison against historical trends and stage two will be about on ground implementation and remediation including weed management, replanting, temporary containment works and soil and erosion controls coupled with ongoing monitoring to provide evidence of success or opportunities for improvement. Stage 2 improvements will provide both immediate and long term outcomes.</p>
<p>Mosquito Trapping/Monitoring</p>	
<p>1. Is there an update from Councils February Meeting regarding Mosquito trapping/testing?</p>	<p>Council sought and received advice from Dr Stephen Doggett from the Department of Medical Entomology regarding the question asked at the February Council meeting about potentially opening Lake Cathie to reduce mosquito numbers. The advice received was that opening the lake could in actual fact result in an increase in mosquito numbers. He also advised that whilst mosquito trapping will not reduce the number of mosquitoes, it does provide information on the abundance of the different species and have the ability to test the mosquitoes for viruses. Council has also sought advice on this issue from Assoc. Prof. Cameron Webb, Entomologist and he advised that while it may provide short term relief from freshwater mosquitoes, the estuarine mosquitoes will increase.</p> <p>In respect of additional traps, the Local NSW Public Health Unit (PHU) have indicated that their Head office is not supportive of having additional traps set. They also did not recommend relocation of the existing traps for a period of time because the information collected is longitudinal.</p> <p>Notwithstanding, if we were to set an additional trap, they should be able to count and test the collection with the other three traps. Identifying a suitable site at Lake Cathie has been difficult as it needs to be near residents, near a mosquito breeding area, accessible for staff, and secure to prevent tampering and vandalism of the sampling equipment. Staff have however identified a site this week and will proceed with implementing the trapping at this location which will be sampled in line with the regular PHU program.</p>

Revive Lake Cathie Community Questions - 12 March 2020	Council Response - 2 April 2020
Kenwood Bridge	
1. Has Council written a letter to the State Government to seek funding assistance to replace Kenwood Drive Bridge?	At the time of preparing these responses Council has not written to the State Government regarding funding for the replacement of Kenwood Drive Bridge. Council's priorities are determined through the Integrated Planning Delivery and Operational Planning process. In the current Operational Plan (OP) the upgrade or replacement of Kenwood Drive Bridge is not identified. This will be managed through the Coastal Management Program (CMP) process. All issues will be considered in stage 2 and 3 of the process and if determined to be a priority it will be included.
2. Kenwood Dr bridge was a lot wider when it was originally installed. It then got washed away in a flood and a 'temporary' smaller bridge was installed. Why has this temporary bridge not been returned to its original size?	Council has included stage 2 investigation of the CMP specifically for Lake Innes/Lake Cathie estuarine system as a draft OP item in 2020/2021. This item is proposed to be actioned from July 2020. The Kenwood Drive Bridge along with other identified threats and issues will be investigated during stage 2.
Community Engagement	
1. When is Council going to engage with the community on issues about the Lake and how?	Council is committed to engaging with our community to discuss at length the CMP and also the specific issues affecting the Lake Cathie/Lake Innes estuary. The ideal situation would be a face to face meeting in mid-April but we are aware that we need to be conscious of health issues at the moment during this COVID-19 pandemic so we are alternatively creating a digital platform to deliver the messages and seek feedback. Council staff have been providing the community with information as timely as possible and will continue to do so. Council is also in the process of improving our website to provide better information on a more timely basis for the community. This remains our focus and we are working to have further information and video's on the website by the end of April/early May.
2. Revive Lake Cathie is considering hosting a public meeting to give the community an update on the Lake and inviting Council. Would Council attend?	Council would be happy to attend a community meeting to discuss the topics at hand. Although given the current situation we will need to wait until we are able to meet in large numbers again.
3. When will council provide more community consultation with updates on progress?	As above
REF – Opening Strategy for height of water at 1.6M	
1. With the current restrictions due to the REF requirement, will council open the lake to prevent damage to infrastructure and property at 1.6 metres?	The opening of the lagoon to alleviate flood threats to community infrastructure and private property is distinctively different to opening the lagoon during a low level opening trigger. Council is able to open the lake using Section 191A under the Local Government Act if required in a short time frame or during an emergency. One of the triggers for Council to consider opening the lagoon in the current opening strategy is 1.6m AHD. This trigger is contingent on optimal conditions also being met. The optimal conditions would include tides and long term weather forecasts which predicts rain on the horizon.
2. Has the building of a Breakwall been considered by Council?	Stage 2 investigation of the CMP specifically for Lake Innes/Lake Cathie estuarine system has been included in the draft OP for 2020/2021. If this is endorsed, this item would be actioned from July 2020. Threats and issues will be investigated during stage 2, potential solutions will be investigate in stage 3 and 4 with implementation of ideas/actions in stage 5 of the CMP. Stages 3, 4 and 5 will be implemented in due course. As such, discussions such as the efficacy of a breakwall will be investigated during stage 2 and 3 investigations.
3. Why, with so much research and previously completed assessments, why this data can't be used to make an informed decision to open the Lake immediately?	As we are all aware NSW has recently suffered through an unprecedented drought. As such the previous Council Review of Environmental Factors (REF) was not relevant to the prevailing conditions of the extensive drought and was therefore not sufficient to be used when applying for a license from Crown Lands. Due to the unique circumstances of the situation we do not have data that investigates and answers this question. Council has sought and now received advice from DPIE regarding what information would be required in order to not only meet our legislative requirements but best understand and manage the impact that might be caused from opening the lake. This information is extensive and detailed in nature and will take time to investigate.

Revive Lake Cathie Community Questions - 12 March 2020	Council Response - 2 April 2020
4. Can council provide a list of all compliance required in order for any works to proceed to open the lake? And what order does this process need to be in?	Council staff have prepared a detailed document that explains the legislative process required to open the lake. We have included this as an attachment to help answer this question.
5. Can you advise what assistance has been provided by State MP's?	Council has been working closely with the NSW State government to answer the questions around how to manage the ecological impacts of Lake Cathie/Lake Innes. Meetings have been held with both MP's and staff from the NSW government which have been constructive and helpful in determining what direction to take, how to possibly fund projects and how to navigate the licensing requirements of State government.
6. Is there a more permanent solution council could come up with other than ratepayers footing the bill almost annually to open the lake?	Council is looking for permanent solutions to manage the Lake Cathie/Lake Innes estuarine system. These discussions and decisions are all part of stage 2, 3 and 4 of the CMP. Stage 2 investigation for the CMP specifically for Lake Innes/Lake Cathie estuarine system has been included in the draft OP for 2020/2021. If endorsed, this item would be actioned from July 2020. Threats and issues will be investigated during stage 2, potential solutions will be investigate in stage 3 and 4 with implementation of ideas in stage 5 of the CMP. Stages 3, 4 and 5 will be implemented in due course. During stage 3 and 4 Council will examine costs associated with each option.
7. How is Council going to manage the lake in the future to ensure this doesn't happen again?	The long term solution to the health of the estuary is the investment in the development of the CMP specifically for Lake Cathie/Lake Innes, stages 2, 3, 4 and 5. The CMP will provide a comprehensive and integrated approach to managing the lake by identifying the root causes of disturbance in the estuary and then to implement practices to improve the overall estuarine health and water quality.
8. Will council be considering the social and economic impacts of the recent disasters in future management of Lake Cathie? Eg. The impact on tourism and the wellbeing of the local community.	The long term solution to the health of all coastal areas in the PMH LGA is the investment in the development of the CMP. Specifically for Lake Cathie/Lake Innes, stages 2, and 3 have been included in the draft OP for 2020/21. If the draft is endorsed work would begin in July 2020. The CMP will provide a comprehensive and integrated approach to managing the lake by identifying the root causes of disturbance in each catchment and then will investigate solutions, through both scientific rigour and community engagement. When solutions are decided upon, priority solutions will be implemented as quickly as possible to improve the overall catchment health and water quality.
9. Lake Cathie and Lake Innes Acid Sulphate risk assessment by soil conservation July 19 - When was this report requested by Council?, How was this report funded by Council? And What was the funding split by all stakeholders to have this assessment published.	This study was requested and instigated by NPWS. After discussions with multiple stakeholders including Council, funding was divided amongst the partners including Council. The reason for this study was in response to the recommendations of the 2013 Lake Innes Environmental Assessment report to the Northern Rivers Catchment Authority, Jennifer Hale Aquatic Ecology consultant. This study was recommended in order to fill a knowledge gap that was identified in the report.

Revive Lake Cathie Community Questions - 12 March 2020	Council Response - 2 April 2020
Water Quality/ Marine Life	
1. How long will it be before the water is suitable for swimming in?	Water quality for recreational purposes is monitored and managed by NSW Health. Guidelines can be found at https://www.nhmrc.gov.au/about-us/publications/guidelines-managing-risks-recreational-water . Council can only provide advice regarding water quality suitability for recreation.
2. What is the current state of marine life in the lake system?	Fisheries NSW is the appropriate contact for this information.
3. Has Council been consulting with NSW Fisheries regarding marine life and fish stocks?	Council has been working closely with multiple government stakeholders. Fisheries NSW are kept abreast of the situation by many means including direct from correspondence with Council, community members contacting them directly and Fisheries staff that operate within the region.
4. During our recent bushfires had the lake been tidal would it have lessened the impact on the foreshores and protected the ecosystem and wildlife?	<p>It would be difficult to predict if the water quality would have been much different if the lagoon was open to the ocean or not at the time of the fires. But it is certain that an entrance opening would have provided minimal benefit to the peat fire issue. The reasons for the limited water quality difference is based on the rate of exchange of water. The exchange of water between Lake Cathie and Lake Innes is very limited, as per the Umwelt (2004) report, it is estimated that it would take up to 100 tidal cycles to result in a very small exchange with Lake Innes (p6.3 Umwelt 2004). To provide context an ocean tide range of approximately 1m will drop to 0.6m at the Ocean Drive bridge and 0.2m above the drain at Lake Innes (pA14 Webb Mckeown 1994). This means we would require optimal conditions and very high tides to get enough water into the system to even reach Lake Innes.</p> <p>Also, even if the lagoon was opened, with the current ocean beach building processes it is likely that any entrance opening would have closed within weeks. The open entrance would result in coastal processes driving in sand and shoaling the entrance which would reduce the tidal prism and hence water exchange.</p> <p>As for the peat fires, these were in the Innes swamp. The peat surface layers at approx. 0.8 to 0.9m AHD and Innes swamp is not tidally connected to Lake Innes but is estimated to connect around 2m + AHD (pA2 Webb Mckeown 1994). This water level would not have been reached even if the lagoon was open due to the issues of opening mentioned above.</p>
5. Will council have a strategy for mitigation and revitalization of the lake following the bushfires and water quality issues?	The long term solution to the health of the estuary is the investment in the development of the CMP specifically for Lake Cathie/Lake Innes, stages 2, 3, 4 and 5. The CMP will provide a comprehensive and integrated approach to managing the lake by identifying the root causes of disturbance in the estuary and then to implement practices to improve the overall estuarine health and water quality. Council has sought funding from the NSW state government in the amounts of \$147,500 to undertake studies on Acid Sulphate to better understand its impact on the health of the estuary and also in the amount of \$265,000 specifically for bushfire related issues in the greater catchment area. Council is awaiting decision on these funding requests.
6. Will council be working with government departments to ensure fish stocks and breeding grounds recover?	Council will be working through the development of stage 2 and 3 of the Lake Innes/Lake Cathie specific CMP in 2020/21. As such the aim of this plan is to develop solutions to improve the overall estuarine health. Although Fisheries NSW is in direct control of fish and fish habitat, the work that Council will be undertaking during stage 5 of the CMP may have direct and indirect impact on fish habitat in a positive way.

Revive Lake Cathie Community Questions - 12 March 2020	Council Response - 2 April 2020
Lake Innes	
1. Has council considered Lake Innes as an emergency fresh water source for our LGA?	No, this has not been considered. Lake Innes is managed by the National Parks and Wildlife Service (NPWS) as a nature reserve.
2. What is wrong with reverting Innes Lake back to fresh water. – Council supports the reversion of Lake Innes- is this correct?	Council is working in partnership with Fisheries NSW and the NPWS to investigate the gaps in data regarding the reversion of Lake Innes. Council is not the manager or landowner of either Lake Innes or Lake Cathie and as such has no decision making role in this situation. NPWS, Fisheries NSW and other relevant state organisations will be the decision makers around whether or not Lake Innes is reverted to freshwater.
Councillors	
1. Why did Councillors Alley and Levido vote against opening the Lake last November	It is not appropriate for staff to comment on the voting decisions of Councillors. The role of staff is to implement the decisions of the whole Council.
2. Why did Councillor Turner try to stop the Mayoral minute to open the lake prior to the Council meeting?	No comment.