

# Minutes of Meeting

## Lake Hugh Muntz Stakeholder Group

**Attendees:** City of Gold Coast Councillor Division 12 – Cr Pauline Young (Cr Young)  
City of Gold Coast – Chair Jeremy Wagner (JW), Steven McVeigh (SMcV), Sam Locke (SL), David Russell (DR)  
Griffith University Australian Rivers Institute – Prof David Hamilton (DH)  
Alluvium Consulting – Dr Paul Maxwell (PM)  
Watergum – Rosalinde Brinkman (RB)  
Lake Hugh Muntz Care Group – Phil Nott (PN)  
QLD Triathlon – Jenny Barwick (JB)

**Apologies:** Griffith University Australian Rivers Institute – Prof Michelle Burford  
CoGC Executive Coordinator Waterways – Shannon Hunt  
Merrimac State High School – Chris Eisenhuth  
Nobby Beach SLSC – Nick Marshall  
Surfers Paradise SLSC – David Mackie  
Mermaid Beach SLSC – Lee Murphy  
Healthy Land and Water – Dr Emily Saeck  
CoGC Catchment Management – Naomi Soustal  
CoGC Environmental Health – Tim Roberts  
CoGC Parks and Recreation Services – Peter Thornton

**Location:** Mermaid Beach Community Centre.      **Date / Time:** Thursday 12th Aug 2021 – 4pm to 5pm

**These minutes confirm a record of Lake Hugh Muntz Stakeholder Group decisions as outlined in the Minutes/Actions table below.**

Item	Discussion	Actions	Date for completion
<b>1 Introduction, safety and apologies</b>			
1.1	<b>Welcome and apologies</b> Jeremy Wagner (Chair) Apologies for LHMSG Chair Shannon Hunt	Nil	N/A
1.2	Welcome to all attendees and COVID-19 safety requirements.		
<b>2 Endorse previous meeting minutes &amp; outstanding actions</b>			
2.1	The LHMSG endorsed the previous meeting minutes 10 November 2020 <a href="#">A61786123</a>		
2.2	<b>Outstanding Actions</b> Acknowledgement that a request by PN for a meeting with Alluvium Consulting to discuss various issues was held 17 December 2020.	Nil	N/A
<b>4 Recap of previous lake activities</b>			
4.1	<b>Discussion:</b> <ul style="list-style-type: none"> <li>The City has installed and maintains 66 gully baskets in the stormwater network.</li> <li>The City trialled 3 floating reed beds to reduce nutrients in the lake.</li> <li>The City trialled 36 tonnes of Phoslock<sup>R</sup> in LHM.</li> <li>The City has undertaken numerous projects in the catchment to help trap sediment and improve the condition of the lake surrounds.</li> </ul>	Nil	N/A

**5 Presentation by Alluvium Consulting: Multi-Criteria Analysis (MCA) of available management options**

<p><b>5.1</b></p>	<p><b>Alluvium Consulting – Dr Paul Maxwell</b></p> <p>Presentation of the Multi-Criteria Analysis (MCA) of 31 potential LHM management options.</p> <p>All participants were provided with a bound copy of the Alluvium MCA report.</p> <ul style="list-style-type: none"> <li>• Dr Paul Maxwell emphasised that Alluvium was entirely independent, with no preference for any of the 31 options assessed.</li> <li>• The formal MCA analysis commenced with a determination of the particular problem which needed to be addressed and it was: Mitigating cyanobacterial blooms in LHM.</li> <li>• He explained that there are multiple community values associated with the LHM ecosystem: Environmental, Social, Financial and Feasibility.</li> <li>• LHM is not a static system and is subject to continual change.</li> <li>• At inception, four decades ago, the lake was created by digging into acid sulphate soils which meant that, once inundated, the lake had a very low pH value and no plant life could grow. This created a swimming pool type effect with clear water.</li> <li>• Today's reality is that due to changes in the water chemistry such as increases in salinity due to groundwater intrusion it is now an algae-dominated lake.</li> <li>• The MCA assessment concluded that no single mitigation option stands out. There are trade-offs between all desired values.</li> <li>• Some of the options had very poor evidence to support them.</li> <li>• Sand capping was positively assessed for mitigation purposes but fell sharply on feasibility given it would likely require in excess of 200,000 cu m to achieve substantial mitigation and would need further coverage in later years.</li> <li>• No trial of such a large immersed sand capping initiative has been undertaken.</li> </ul>	<p>Nil</p>	<p>N/A</p>
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	<ul style="list-style-type: none"> <li>PM said the Griffith University studies highlighted groundwater contamination of the lake and that salt was not entering the lake solely from the adjacent canal.</li> </ul>		
<b>6 Participant questions/comments on the MCA report</b>			
<p><b>6.1</b></p>	<p><b>Question 1</b></p> <ul style="list-style-type: none"> <li>PN claimed there has been no assessment of salt inflow to the lake from the groundwater.</li> <li>SMcV highlighted that Griffith University had looked into the inflows by using the water quality data obtained by the vertical profiler. The evidence from this assessment has been provided by Griffith University at past LHMSG meetings.</li> <li>DH from Griffith University responded that the layer of saltier water below the 6-7m mark in the lake is extremely stable and it would be very difficult to mix the lake.</li> </ul> <p><b>Question 2</b></p> <ul style="list-style-type: none"> <li>PN claimed that a major flood some years ago had pushed major volumes of salt water into the lake and a one-way flood flap is the only way to help reduce saltwater flowing into the lake.</li> <li>PM mentioned that the flood flap was one of the 31 potential options (option 5) analysed as part of the MCA but it did not score highly against a number of the criteria such as any positive gains to reduce cyanobacteria growth; it would provide very little change to salinity levels as the groundwater is a major contributor to the salinity of the lake; and there are 16 other stormwater inlets that flow into the lake. By also placing a flood flap on the exchange pipe there would be reduced circulation of the lake which would be a negative outcome for the lake. The flood flap did score positively, however, for the financial value as it was an inexpensive option.</li> <li>DH commented that the data from the vertical profiler indicated there is a direct link to tidal patterns in both the deeper sections and the upper sections of the lake and the blocking of the exchange pipe would not reduce saltwater inflow due to this direct link.</li> <li>SMcV commented that the City wanted all potential options in this MCA. The flood flap option was not supported by Griffith University (discussed previously in LHMSG meetings) and now this analysis of the flood flap in the MCA has also suggested that it is not supported by evidence.</li> </ul>	<p>Nil</p>	<p>N/A</p>

	<p><b>Question 3</b></p> <ul style="list-style-type: none"> <li>• PN also suggested that installing an aerator in close proximity to the exchange pipe and only turning it on during large rainfall events would help reduce high nutrient water to be removed from the lake. He suggested that this would be an easy option to mix the lake during outflows. (Note: This option has been tabled at previous LHMSG meetings).</li> <li>• PM stated that this option would most likely cause issues in the receiving water by transporting potentially low oxygenated water into the canal. This could cause harm to the receiving waters and generate potential fish kills. The mixing of the deeper sections of the lake would also provide excess nutrients in the lake for algae to feed on most likely causing further blooms.</li> <li>• SMcV: Commented that, as discussed in previous LHMSG meetings, there could also be legal issues as the City would be knowingly discharging water with low water quality into receiving waters.</li> </ul>		
<b>7 Report on Phoslock and Planting strategies</b>			
<p><b>7.1</b></p>	<p><b>City of Gold Coast – Steven McVeigh:</b></p> <p><b>Discussion:</b></p> <p><b>Phoslock</b></p> <ul style="list-style-type: none"> <li>• An application of 87 tonnes of Phoslock over the whole of Lake Hugh Muntz was successfully implemented from July 26.</li> <li>• The Phoslock application was divided across three sections of the lake with the deeper sections (western side) receiving larger quantities of the product.</li> <li>• There is cause for optimism as we wait to see the results of this initiative.</li> <li>• Increased monitoring will occur over coming months to help assess the application. Griffith University will be undertaking some sediment sampling in the near future.</li> <li>• The community was thanked for respecting the cessation of any recreation activities during this process.</li> </ul>	<p>Nil</p>	<p>N/A</p>
<p><b>7.2</b></p>	<p><b>Emergent Planting</b></p> <ul style="list-style-type: none"> <li>• Work is underway to implement a trial of planting emergent plants along public foreshores where trees and other rain gardens have already been planted.</li> <li>• This is a scientifically-supported remediation measure but needs community support for expanded planting in front of residential properties.</li> </ul>		

7.3	<ul style="list-style-type: none"> <li>• The difficulties of submerged plantings, as distinct from emergent, were outlined.</li> <li>• These emergent plants will help reduce nutrients in the lake, trap sediment and provide habitat for birds and other wildlife, thus promoting a healthy ecosystem.</li> <li>• Scientific assessment of algal blooms and potential remediation measures will continue.</li> <li>• Griffith University will continue to assist in reporting and analysis.</li> <li>• Water quality monitoring will continue with a comprehensive program implemented by the City. Weekly monitoring at two locations for a month and then fortnightly for two months and then back to monthly.</li> </ul> <p><b>Questions in relation to future management options</b></p> <p><b>Question 1</b></p> <ul style="list-style-type: none"> <li>• PN: Will the City start doing the options from the MCA?</li> <li>• Cr Young: The City is not going to start ticking off all the options in this MCA. The City will only undertake options that are scientifically-backed and offer positive outcomes. The City has already started doing some of the positive options from the MCA such as the Phoslock application, the gully baskets and as demonstrated at this meeting, we are looking into the emergent planting with a number of trials in City parks areas. These options all scored highly in the MCA.</li> </ul> <p><b>Question 2</b></p> <ul style="list-style-type: none"> <li>• PN asked if there was money for future Phoslock applications.</li> <li>• SMcV: The City cannot request funds for another Phoslock application currently as we do not know if any Phoslock will be required and that is why we are undertaking the ongoing monitoring. We are however moving forward with other options such as emergent planting.</li> </ul> <p><b>Question 3</b></p> <ul style="list-style-type: none"> <li>• RB sought clarification on the plant species being considered for mitigation purposes. Advised that current species that have naturally established in the lake provide the best option, river Club-rush <i>Schoenoplectus Validus</i>.</li> </ul>		
<b>8 Where to from here?</b>			
8.1	<p><b>City of Gold Coast – Jeremy Wagner</b></p> <ul style="list-style-type: none"> <li>• All members of the LHMSG had been canvassed about the future operation of the group.</li> </ul>	Date and location of next LHMSG	SL

	<ul style="list-style-type: none"> <li>All agreed that face-to-face meetings as reasonably requested were valuable and a better alternative to formal meetings at a 'remote' venue.</li> <li>It was agreed with participants in the survey of members – and endorsed by this meeting – that an annual meeting of the LHMSG was appropriate with reasonably requested face-to-face meetings supporting this.</li> </ul>	meeting to be determined	
<b>9 Close</b>			
9.1	<ul style="list-style-type: none"> <li>Participants were thanked for their attendance and commitment to maintaining a healthy ecosystem for Lake Hugh Muntz.</li> </ul> <p>Meeting closure at 5:15pm</p>	Nil	N/A