

Table 6: Business Plan

No.	Action/Year	Priority Ranking	Total 10 yr cost \$'000	Total 10 yr capital cost \$'000	Total 10 yr operational cost \$'000	DP1 (2020-2022)			DP2 (2023-2026)				DP3 (2027-2029)			Cost benefit distribution (private vs. Public)	Business Plan Category	
						Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10			
						2020	2021	2022	2023	2024	2025	2026	2027	2028	2029			
<b>Water quality</b>																		
1	Trial modifications to artificial aeration	High	110		110	60	50									100% public	2	
<b>Sediment Management</b>																		
2	Trial sediment treatment	High	220		220			40	170	10						100% public	2	
<b>Bank Erosion</b>																		
3	Beach nourishment	High	260	250	10		50	200			5			5		100% public	2	
4	Riparian vegetation enhancement for erosion control	High	65	20	45		25	5	5	5	5	5	5	5	5	100% public	2	
<b>Catchment Management</b>																		
5	Stormwater treatment/ improvement	Medium	40		40					20					20	100% public	2	
6	Litter management/ recycling	High	50		50	5	5	5	5	5	5	5	5	5	5	100% public	2	
<b>Flooding</b>																		
7	Flood planning	Medium														no additional cost	100% public	1
<b>Flora and Fauna</b>																		
8	Local cane toad management strategy	Medium	55		55			20	5	5	5	5	5	5	5	100% public	2	
9	Riparian vegetation management	Medium	110	30	80		30	10	10	10	10	10	10	10	10	100% public	2	
10	Backfill exposed tree roots	High	56	50	6	50		2			2			2		100% public	2	
11	Aquatic weed harvesting	Medium	10		10	1	1	1	1	1	1	1	1	1	1	100% public	2	
12	Grass species selection and install	Medium	85	85						85						100% public	1&2	
13	Wildlife/ turtle crossing warning signs on Camp Drewe Road	Medium	10	5	5	5				5						100% public	2	
14	Replace boom	Medium	10	10		10										100% public	1	
<b>Community Uses</b>																		
15	Manage increasing use of the western side of the lake	High	745	745			100	645								100% public	2	
16	Review of public safety risk assessment	High	10		10		5				5					100% public	2	
17	Greater acknowledgement of Aboriginal Heritage	High	55	15	40		40	15								100% public	2	
18	Encourage alternative transport to the lake	Medium	515	315	200		295	45	25	25	25	25	25	25	25	100% public	2	
19	Management of future parking arrangements	High														no additional cost	100% public	1
20	Traffic management Camp Drewe Road	Medium	30	30		30										100% public	2	
21	Manage dog access	Medium	10	10			10									100% public	2	
<b>Education</b>																		
22	Education campaign	Fundamental	140	20	120	30	30	10	10	10	10	10	10	10	10	100% public	2	
23	Review blue green algae alert/ lake closure signage	Medium	5	5		5										100% public	2	
<b>Monitoring</b>																		
24	Monitoring program	Fundamental	343	73	270	58	100	35	25	30	20	15	25	20	15	100% public	1&2	
<b>Management and Governance</b>																		
25	Establish an integrated management group	Fundamental														no additional cost	100% public	1
<b>Performance Monitoring and Review of Actions</b>																		
26	Review of CMP progress	Fundamental														no additional cost	100% public	1
27	10 year review of CMP	Fundamental	50		50										50	100% public	2	
<b>Actions to by Other Public Authorities</b>																		
28	Biological control of Salvinia	Medium														no additional cost	100% public	1
<b>TOTALS</b>			<b>2984</b>	<b>1218</b>	<b>1321</b>	<b>254</b>	<b>741</b>	<b>1033</b>	<b>256</b>	<b>211</b>	<b>88</b>	<b>81</b>	<b>86</b>	<b>88</b>	<b>146</b>			

Notes: 1. Years correspond to end of financial year i.e. 2020 is Year 1 (start 1<sup>st</sup> July 2020, end 30<sup>th</sup> June 2021) etc.  
2. Timing is dependent on Ministers approval of CMP and approval of funding where applicable.  
3. Shaded cells - actions with no additional costs allocated as part of this CMP.

4. Business Plan Categories:  
Category 1 – economic analysis complete, action funded under normal operating budget or existing programs and grants and not expected to impact on current resourcing levels.  
Category 2 – economic analysis complete, action subject to funding.

Category 3 – no economic analysis, action subject to detailed costing, economic analysis and funding.



## **Ballina Shire Council**

### Draft Lake Ainsworth CMP Public Exhibition - Submissions Report

Final Report

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Hydrosphere Consulting Pty Ltd  
Suite 6, 26-54 River Street  
PO Box 7059, BALLINA NSW 2478  
[www.hydrosphere.com.au](http://www.hydrosphere.com.au)

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JOB 18-009 LAKE AINSWORTH CMP – SUBMISSIONS REPORT					
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### 1. INTRODUCTION

Hydrosphere Consulting has prepared a draft Coastal Management Program (CMP) for Lake Ainsworth (Hydrosphere Consulting, 2019c) on behalf of Ballina Shire Council (BSC). The draft CMP has been developed in accordance with Stages 1 to 4 of the five stage process for developing and implementing a CMP, as detailed in the *Coastal Management Manual* (OEH, 2018). The completed stages supporting this CMP include the preparation of:

- *Stage 1 Scoping Study* (Hydrosphere Consulting, 2018) which reviewed the status of current issues and management and identifies the focus of the new CMP. It involved detailed review of background information, preliminary risk assessment and stakeholder consultation.
- *Stage 2 Vulnerabilities and Opportunities Study* (Hydrosphere Consulting, 2019a) incorporating detailed studies of the lake and assessment of threats to inform future management. A key part of this stage was community engagement including community survey, targeted stakeholder consultation, media and advertising and public drop-in session 1.
- *Stage 3 Management Options Study* (Hydrosphere Consulting, 2019b) that identified and assessed actions to address coastal management issues in an integrated and strategic manner consistent with provisions in Section 14 and 15 of the CM Act 2016.
- *Stage 4 Draft Coastal Management Program (CMP) for Lake Ainsworth* (Hydrosphere Consulting, 2019c). Preparation of the Draft CMP including public exhibition and public drop-in session 2.

Eight formal submissions and two informal submissions were received during the public exhibition phase. Further details of the exhibition process and the submissions received are provided in the following sections.

### 2. EXHIBITION PROCESS

At the Ordinary Council meeting of 24 October 2019, Council resolved to place the draft CMP on public exhibition. The draft CMP (Hydrosphere Consulting, 2019c) was placed on public exhibition between 29 October 2019 and 6 December 2019 (5.5 weeks). Public promotion of the exhibited plan included:

- Information on Council's 'Documents on exhibition page';
- Information and downloads on the project webpage [www.hydrosphere.com.au/lakeainsworth](http://www.hydrosphere.com.au/lakeainsworth);
- Email notification to stakeholders who had previously registered an interest;
- Media and advertising including: media releases, newspaper articles, radio broadcasts, social media posts, and the BSC Community Connect distributed to Ballina Shire residents.

### 3. BSC COUNCILLOR WORKSHOP

A BSC Councillor workshop was held during the public exhibition phase on 19 November 2019 5:00-6:30pm. Hydrosphere Consulting staff presented the draft CMP and provided further opportunity for Councillors to provide comments or ask questions. One of the key concerns raised by Councillors was that the timing for Action 15: Monitor and manage increasing use of the western side of the lake, starting at Yr2 of the program (2021). This was considered to be too late to address the issues that are currently occurring and was considered to be a very high priority for management with some urgency due to current observations about increasing use of the western side and associated impacts. The monitoring of use following the eastern foreshore improvements put forward by the action was not considered necessary. It was agreed that the draft CMP should be amended to remove monitoring task and bring the timing of this action forward to occur as soon as possible.

**4. COMMUNITY INFORMATION SESSION**

In addition to the initial session, a second information/drop-in session was held at the Lennox Head Community Centre during the public exhibition phase on 20 November 4:45-6:30pm. During the session, the project team was available to answer questions and Hydrosphere Consulting staff presented the draft CMP and then provided further opportunity for attendees to provide comments or ask questions. Approximately 20 community members attended the session.

**5. SUBMISSIONS RECEIVED**

A total of ten (10) submissions were received during public exhibition of the draft CMP. This included eight formal submissions and informal feedback regarding the draft CMP provided by two stakeholders. Submissions were provided by individual members of the community, community groups and government agencies. A summary of submission types is provided as Table 1. Formal submissions received during the public exhibition period are summarised in Table 2 together with a response to the points raised in the submissions and proposed amendments to be made to the draft CMP. Informal feedback, responses and amendments are summarised in Table 3. The original submissions are attached in Appendix 1 (note that personal details have been removed where applicable).

**Table 1: Summary of submissions received by type**

Submission type	Formal submissions	Informal submissions	Total no. of submissions
Individual	3		3
Community Group	4		4
Government Agency	1	2	3
<b>TOTALS</b>	<b>8</b>	<b>2</b>	<b>10</b>

Table 2: Summary of formal submissions, responses and proposed amendments to draft CMP

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
1.	Respondent 1	1.1.	<p>Noted that the 1996 Processes Study found that water flows from the lake through the dunes was significant and would result in subsequent export of soluble components such as phosphates. Independent work undertaken by the respondent in 2015/16 concluded that there has been an almost 50% reduction in flows through dunes and this was attributed to silt build up due to erosion of road base and possibly silt brought to the surface and redistributed by aerators.</p>	<p>Stage 2 of the CMP included an updated water balance model which indicated that groundwater outflows vary significantly from year to year and are governed by the balance of inputs (rainfall, runoff, groundwater inflows) and outputs (evaporation) as well as sea level conditions. There was some indication that groundwater outflows have reduced in recent years and recent sediment sampling indicates expansion of organic-rich muds since 1996, which may account for reduced outflows. Additionally, sea level rise is also expected to gradually reduce outflows from the lake over time due to reduced differential between water level in the lake and sea level.</p> <p>The Stage 2 report notes that the independent study compared two time periods (1995/1996 and 2015/2016) and while a large difference in outflows was observed between these two periods, the intervening years show a high level of inter-annual variation.</p> <p>The Stage 2 report acknowledges that the updated water balance was based on a simplified model due to the absence of groundwater monitoring data. The CMP recommends assessment of current groundwater conditions to allow for more accurate modelling of groundwater outflows and lake water balance (Refer Action 24: Monitoring program).</p> <p>The Stage 2 report also reiterated that the major source of phosphate to the lake is lake sediments. While conditions remain suitable for P release from sediments, any removal of phosphate via outflows will be negated by P released from sediments. Therefore the focus of the CMP is on sediment</p>	<p>Provide additional subsection in Section 2 of the draft CMP 'Snapshot of Issues' to summarise the findings of Stage 2 investigations with regard to the water balance.</p>



Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				management including aerator modifications and sediment treatment.	
		1.2.	Supports trial period without aerator operation as proposed by the CMP. He has reservations about their success due to the disturbance of bottom layers of mud.	Noted	None
		1.3.	Also suggests another option where the aerators are raised off the bottom (i.e. by 1m) to provide aeration without redistributing the bottom silt.	<p>The short-term trial conducted in 2018/2019 as part of Stage 2 found that despite artificial aeration in the lake (12 hours/day), a low dissolved oxygen zone was still detected at the sediment/water interface creating conditions suitable for phosphorus release from sediments to the overlying water. Raising aerators higher in the water column (further from sediments) would further reduce the effectiveness in this respect.</p> <p>Start up of the aerators was observed on the water during the Stage 2 studies. No sediments/organics appeared to be entrained in the surface bubble plume at that time. It is considered likely that most of the localised redistribution of sediments occurred during the early operation of the aerators and that raising the aerators now is unlikely to have a significant benefit.</p> <p>The existing action allows for operational and design modification and could include consideration of aerator elevation if warranted in future.</p>	None
		1.4.	Suggests dredging of bottom sediments along the eastern side of the lake to restore original flows of water through the dunes to the sea.	Dredging was assessed as part of Stage 3 Options Study (Option 14: Sediment removal) and was not progressed due to excessive cost (approx. \$29M to remove organic rich mud layer to a depth of 4m) as well as environmental risks (e.g. management of contaminated sediments, leachate, transport and disposal) and logistical considerations including a lack of space for treatment, truck movements etc.	Provide additional explanation in Section 2.3 to reflect the reasons why dredging is not recommended at this time.



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No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				Whilst smaller-scale dredging and refinement of the fringing sediments could potentially have some benefit, the logistical, environmental and cost factors would still pose significant constraints. The likely effectiveness of this strategy in improving eastward groundwater flow is currently unknown and therefore cannot be justified at this time. Groundwater monitoring proposed as part of CMP monitoring actions will allow for detailed assessment of groundwater outflows from the lake and actions to dredge sediment from the eastern side of the lake should be revisited at that time.	
		1.5.	Additional analysis should be carried out to confirm the results that found that silt is present and also to determine the depth of material that would need to be removed.	Field survey of benthic sediment was conducted at 54 sites around the lake in 2018 to document the location and composition of lake sediments (refer Stage 2 report). This is considered to be the most comprehensive assessment undertaken of lake sediments to date and allowed for comparison with previous sampling carried out as part of the 1996 Processes Study. Action 24 of the CMP includes the assessment of the extent of the organic rich muds every 5 years to track sedimentation rates over time. The Processes Study estimated the organic rich mud sediment depth to be between 4-6m. Further detailed assessment of depths could only be justified if dredging was recommended in the future.	None
2.	Respondent 2: Ballina Environment Society (BES)	2.1.	BES commends the Draft CMP. For the most part it is thorough and utilises scientific knowledge, appropriate planning principles and community consultation well.	Noted	None
		2.2.	BES commends the Management Committee proposal and requests that BES be specifically listed as a stakeholder member of such a committee.	Noted. A number of stakeholders have expressed a desire to be involved in the Integrated Management Group (Action 25). The action provides for	Amend Action 25 and create a task to clearly establish the formal process for member selection, the basis for membership and roles and decision

Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				<p>“representatives of local community groups as relevant” to be included in the management group. It also includes a task to formalise roles within the group.</p> <p>Given the high level of knowledge, interest and involvement of local stakeholder groups and individuals and the reliance of the CMP implementation on community support it is considered beneficial to include community representatives in the Management Group to oversee CMP implementation.</p> <p>In line with BSC’s <i>Community Consultation Policy C14</i> (BSC, 2017) it will be necessary to clearly establish the basis for membership (e.g. skills vs representation), the decision-making processes (e.g. voting vs consensus) and roles and responsibilities at the outset. BSC should also have a defined process for selecting members to the group (e.g. call of expressions of interest, selection criteria, declaration of any conflict of interest etc.)</p>	making processes of the group.
		2.3.	Lake health should be clearly identified as the highest priority in the CMP	<p>The purpose of the Lake Ainsworth Coastal Management Program (CMP) is to set the long-term strategy for the coordinated management of the lake with a focus on achieving the objects of the Coastal Management Act 2016 (CM Act). The purpose of the CM Act is to manage the use and development of the coastal environment in an ecologically sustainable way, for the social, cultural and economic well-being of the people of New South Wales.</p> <p>The draft CMP highlights and prioritises the health of the lake in the following ways but also needs to balance social and economic aspects.</p> <p>The long-term vision stated in Section 1.3.1 is “A scenic, healthy lake and surrounds for safe</p>	Add additional text in executive summary to reflect how the health of the lake is of key importance and it affects all other aspects (community uses, cultural significance, economic flow-on effects etc.)

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No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				<p><i>recreation, environmental values, community and culture</i>”.</p> <p>The top local management objectives stated in Section 1.3.2 are:</p> <ol style="list-style-type: none"> <li>1.to improve and maintain water quality and ecosystem health of the lake and surrounding habitats.</li> <li>2.to reduce threats and improve the resilience of the lake to all current and future threats.</li> <li>3.to protect and enhance the coastal environmental values and natural processes of the lake and enhance natural character, scenic value, biological diversity and ecosystem integrity.</li> <li>4.to encourage and support plans and strategies to improve the health and resilience of the lake and catchment area.</li> </ol> <p>Of the 10 “high” priority Actions in the draft CMP 7 directly relate to addressing key risks to lake health.</p>	
		2.4.	The need to protect and understand the principles in the design of the stormwater protection when considering any organised activities on the foreshore.	Agree that there should be specific criteria to be assessed developed for the lake and surrounds.	Amend Action 5, Task 4 to include specific assessment criteria to be developed for the lake (e.g. stormwater treatment devices in place in foreshore areas and risks of compaction). Include requirement to consult with Council stormwater engineers as part of environmental assessment.
		2.5.	Specific suggestions and/or directions to the problem that the CMP identified that overcrowding is now estimated to be 10x the carrying capacity during peak season	It is acknowledged that overcrowding is an issue, particularly during peak visitation times.  The draft CMP acknowledges the issues relating to high public usage and the need to manage related issues.	None

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No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				<p>The recent closure of the eastern road and redevelopment of the public park area increases the space available for public recreation.</p> <p>The draft CMP is not aiming to reduce public use of the lake but is intended to manage the identified issues relating to increasing use.</p> <p>Several actions in the CMP seek to address issues relating to bank erosion and loss of public amenity on the foreshore beaches.</p> <p>The CMP also recognises increasing use of the western foreshore as an emerging issue and provides an action to ensure that related impacts are managed into the future.</p>	
		2.6.	<p>Parking considerations in the CMP are vague compared with the Connell Wagner Report that articulated specific principles. The suggestion to examine parking management after assessing traffic usage at the completion of the improvement works is sound.</p>	Noted	None
		2.7.	<p>Large events need to include soil compaction information because the predominant expression (by those wanting the markets for example) see litter as the only problem. Avoiding compaction to manage storm water runoff and thereby improve water quality is central to the environmental planning for the parkland. Requiring an environmental assessment for large projects is a strong point in the CMP. BES suggests that medium projects be included and that both large and medium have some minimum definition.</p>	<p>Agree any soil compaction or damage to stormwater treatment devices may reduce treatment performance and should be highlighted as an area to be assessed.</p>	Refer ref #2.4 Also include definition of a 'large' event.
		2.8.	<p>Suggest implementing a no rubbish bins or recycling bins approach.</p>	<p>This approach can be effective in remote areas (e.g. National Parks) but is considered generally to be less effective in populated areas and particularly in areas routinely used for picnicking and BBQs and close to takeaway outlets that generate waste.</p>	None

Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
				For these reasons, it is not recommended for Lake Ainsworth currently.	
		2.9.	BES would like to be specifically named as being included in educational planning	The Integrated Management Group (refer Action 25) will oversee the development and implementation of the educational program. Refer ref # 2.2.	Refer ref # 2.2. Also amend Action 22, Task 2 to remove names of specific stakeholder groups mentioned as examples. Add note that the Integrated Management Group will oversee the educational program.
		2.10.	Supports no dogs on the foreshore. BES calls for increased dog ranger patrols and signage near the exits from the LACP	Noted. The area is currently patrolled several times a day by BSC rangers. Patrols have been increased following recent changes to the dog areas at the lake and focus on education of recent changes. The frequency of on-going patrols will be informed by results of this initial period.  Review of signage will occur as part of Action 22: Education campaign. As the current access to the lake along the southern foreshore is open (no fencing) there are no defined entry/exit points and locating effective signage would be difficult. Education of Holiday Park guests with regards to dogs would best be undertaken by holiday park staff during booking and check-in. Educational material including a map of the no dog areas/ beach access and off-leash areas should be provided to guests with dogs along with verbal reminders on check-in.	Amend Action 21, Task no.3 to note frequency of ranger patrols to be determined by initial period in summer 2019/20.  Add task for educational materials and reminders to be issued to Holiday park guests with dogs regrading new rules.
		2.11.	We support Respondent 1 submission that the role of silt in reducing the loss of phosphates from the lake by reducing outflow below the dunes be investigated.	Refer ref # 1.1	Refer ref # 1.1
		2.12.	The markers that indicate how far south S&R boats could go should be moved further northward so as to	S&R boats are to normally remain outside of 'Priority Swimming Zone' which will be amended as	Refer ref #10.1

## 8.2 Coastal Management Program - Lake Ainsworth, Lennox Head

### Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			interact less with swimmers.	per ref#10.1	
		2.13.	The CMP could recommend that S&R have at least one person with responsibility and sufficient seniority for overseeing Lake Ainsworth matters.	As a key land manager the Lake Ainsworth Sport and Recreation Centre has a current representative on the CMP Steering Committee. And will continue to have membership on the Integrated Management Group going forward.	None
		2.14.	S&R must also produce an educational programme for all who use its facilities.	Elements of the education program may be tailored for delivery to S&R staff, visitors and participants.	Amend Action 22: Education campaign to include packages for delivery to S&R visitors
		2.15.	LACP produce a Plan of Management for the care of Lake Ainsworth	The draft CMP study area includes the Reflections Holiday Park.	None
		2.16.	LACP must have access to professionally qualified advice about its land use and about its educational programme. The site managers must insist on compliance with that educational programme.	Refer ref#2.15	Refer ref#2.15
		2.17.	Given recent bushfire issues, updated planning for a fire might need to be put forward with consultation by RFS and all stakeholders	This was raised during development of the CMP and it was confirmed that bushfire management is outside the scope of the CMP. The Integrated Management Group may liaise with RFS as part of its function.	None

Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
3.	Respondent 3: Lennox Head Residents Association (LHRA)	3.1.	Supports immediate institution of the recommended management group (Action 25) with the reservation that any potential conflict of interest be managed transparently and that in all their actions, taking care of the Lake will demonstrably be their highest priority.	Noted. Refer ref# 2.2	Refer ref# 2.2
		3.2.	Concerned with the apparent dissonance between Action 15 title and its stated outcome/s i.e. managing increase usages vs minimising increased usage.	Noted. The current text should be amended to avoid confusion	Amend Action 15 title
		3.3.	Immediate measures need to be taken by Council to discourage increased use of the western side of the Lake. Concern that by the time the CMP is gazetted a new culture of use of the western side will have become established. Recommend, at the very least, a ranger presence at least 2x a day at unpredictable times, temporary signage re staying on existing paths, no dogs or camping be instituted during daylight saving.	The CMP has a set process for approval and gazettal and funding rounds issued by the state government and therefore is limited in bringing funded actions forward. However, interim measures could be implemented at full cost to BSC if warranted.  Comments passed on the BSC for action.  Also refer to Section 3 of this submissions report where agreement was reached to amend and bring forward Action 15: Monitor and manage increasing use of the western side of the lake to reflect current concerns.	Amend and bring forward Action 15: Monitor and manage increasing use of the western side of the lake to reflect current concerns and urgency and proposed interim management measures.
		3.4.	Action 22: Education Campaign. We draw to your attention that certain key community groups have already begun to take an active role in promoting positive habits amongst lake users. The community has already demonstrated that they trust the messages they receive through these groups over recent years (see examples below).	Refer ref # 2.9.	Refer ref # 2.9.
		3.5.	Action 19: Management of future parking arrangements. We would like to see this framed in stronger terms in that any review should be carried out in the context that the Lake already exceeds its carrying capacity by at least 10x in peak periods. Therefore, when issues	Review of future parking arrangements and/or restrictions on parking will be undertaken with due consideration to environmental, social and economic considerations in line with the vision and management objectives for the lake.	None



## 8.2 Coastal Management Program - Lake Ainsworth, Lennox Head

### Lake Ainsworth CMP – Submissions Report

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			such as environmental considerations vs pressure on parking are in conflict, the environmental issue will always receive the highest priority.		
		3.6.	Management Zones: The Residents' Association have received feedback that the proposed no-go zone for Sport and Rec is too far south and that recreational users and distance swimmers are finding it intrusive (apparently Sport & Rec have been using something similar to these guidelines in latter weeks)	S&R boats are to normally remain outside of 'Priority Swimming Zone' which will be amended as per ref#10.1	Refer ref #10.1
		3.7.	Action 5: Stormwater treatment/improvement: Under long-term maintenance of the stormwater treatment system we would like to see the need to protect all elements of the newly installed system rigorously protected in all activities but especially in assessing applications for large-scale events	Refer ref #2.7	Refer ref #2.7
		3.8.	Action 1: Trial modifications to artificial aeration. We submit our combined support for Investigation into the role of the aerator (including its location) in spreading fine sediment around the eastern side of the lake, possibly reducing outflow below the dunes and hence removal of soluble nutrients such as phosphates and potential management options.	Noted. Refer ref # 1.1	Refer ref # 1.1
		3.9.	Action 2: Trial sediment treatment. We also submit that the use of Phosloc* or similar be delayed at least until this line of investigation is completed	Action 2: Trial sediment treatment is scheduled to occur in Yr3 of the CMP following the trial modifications to artificial aeration and only if it remains warranted (i.e. aerator modifications were not successful in improving the situation)	Amend Action 2 to include text that states that the need for this action will be revisited based on the outcome of Action 1: aerator trials
4.	Respondent 4: Lake Ainsworth Interest Group (LAIG)	4.1.	Maintenance of the state-of-the-art stormwater system on the southern and eastern foreshores ensure protection of all aspects of the system, including infiltration surfaces, when considering applications for large scale public events	Refer ref #2.7	Refer ref #2.7

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No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
		4.2.	Immediate action to prevent a culture of use on the western side of the lake	Refer ref #3.3	Refer ref #3.3
		4.3.	Greater emphasis on preserving the relatively 'untouched' nature of the western side when developing a management plan	Refer ref #3.3	Refer ref #3.3 and amend Section 2.10 to discuss the level of urgency with regard to impacts
		4.4.	More specific inclusion of LAIG in all stages of the education campaign with a view to making use of its proven ability to create and target messages which gain credibility and trust within the community. As currently drafted the composition of a driving group and how decisions on timing, planning, content, style and tone of messages plus mode of delivery is in the hands of undetermined personnel within BSC. Recent history has shown that effective communication with this community has to be nuanced and customised. LAIG have shown themselves to be influential within the community in this respect.	Refer ref # 2.9.	Refer ref # 2.9.
		4.5.	Education in protecting the foreshore vegetation on the western side of the Lake for all Sport & Rec staff and inclusion of appropriate protection measures in their activity program	Refer ref # 2.4	Refer ref # 2.4
		4.6.	Protection of the western foreshore and concern for the carrying capacity of the Lake be the highest priorities in any review of parking carried out in the future	Refer ref #3.3 and ref #3.5	Refer ref #3.3 and ref #3.5
		4.7.	Investigation into the possibility that sediment stirred up by the aerator has contributed to increased phosphate levels by reducing flushing via outflow below the dunes. Dependant on the results of such investigations proposal of management options as appropriate.	Refer ref # 1.1	Refer ref # 1.1

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
5.	Respondent 5: Lennox Head Landcare (LHLC)	5.1.	<p>General comments:</p> <ul style="list-style-type: none"> <li>Impressed to see the thoroughness of investigation into issues affecting the management of the Lake Ainsworth Precinct</li> <li>Support the 5 'Fundamental' actions</li> <li>Support level of emphasis on effective communication with community groups and council staff</li> <li>Support comprehensive listing of funding sources, responsibilities and timeline targets</li> </ul>	Noted	None
		5.2.	Greater emphasis on need to protect the western side of the Lake from people pressure. Including rephrase of Action 15 to be more explicit in minimising increasing use, not just managing increasing use	Refer ref#3.2	Refer ref#3.2
		5.3.	Very significant increase in numbers has been observed this season and immediate work (i.e. temporary barriers etc.) is required to manage use to prevent a new culture becoming established.	Refer ref#3.3	Refer ref#3.3
		5.4.	Lake users are looking for some information and clear directions on what to do/ not to do right now. Community groups are working on spreading the message "cover up, reduce sunscreen, don't pee in the lake, take rubbish with you, stay out of vegetated areas etc." These messages should be incorporated into the campaign.	Agree messages should be incorporated into (and expanded upon) by Action 22: Education Campaign	Amend Action 22 to mention current community messaging and need to carry on and expand on these.
		5.5.	Suggest specifically including LAIG members in the education campaign development. The current action is too vague in this respect.	Refer ref # 2.9.	Refer ref # 2.9.
		5.6.	Addition of education for the 3 land managers (BSC, S&R, Reflections) re importance of minimal disturbance	Elements of the education program may be tailored for delivery to key land managers and their staff.	Amend Action 22: Education campaign to include packages for

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			of root zone of Melaleucas on western side.		delivery to key land managers and their staff.
		5.7.	Greater emphasis on the need for future review of parking (Action 19). Would be particularly disappointed to see formalised parking considered along Camp Drewe Road unless western side management involved effective exclusion fencing along the road and access path to the lake.	Refer ref #3.5	Refer ref #3.5
		5.8.	Addition to reassure us that any environmental assessment of large events include consideration of impact of any compression on effective stormwater treatment	Refer ref #2.7	Refer ref #2.7
		5.9.	Investigation into Respondent 1 proposal that aerator fines are spread by aerator and contributing to reduced outflows from lake.	Refer ref # 1.1	Refer ref # 1.1
		5.10.	Provision of increased water points to maintain turf	There are watering points currently provided at three points along the eastern arm of the lake in vicinity of new turf areas (north end, central and southern end). This is considered adequate to allow for watering with good coverage achieved with long hoses where required.  Watering of turf is essential following turf installation to enable grass to become established. Once established, watering requirements are generally restricted to very dry periods when grass is showing signs of stress.	None
		5.11.	Planting of shade trees along southern foreshore to ensure even distribution of people	Agree further shade would be beneficial to both ecological and recreational values	Amend Action 9 to include task of planting more shade trees along southern foreshore.
		5.12.	Acknowledgement of the need for the Office of Sport to upgrade stormwater management to current best	The Stage 2 report concluded that the water quality monitoring program did not identify any significant pollutant sources from stormwater (Refer Section	Amend Action 5 to include a task under stormwater management for all land managers to take opportunities

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			practice WSUD.	4.2.3). Based on these results, any upgrade of stormwater infrastructure is unlikely to result in a significant improvement to water quality in the lake and therefore there is no urgent driver requiring this work. However, it would be appropriate for land managers to take any opportunities to upgrade infrastructure where appropriate. Any future development (i.e renewal, retrofit or greenfield development) of the site will be required to comply with current stormwater regulations and this is supported by the CMP.	to upgrade infrastructure to current best practice where appropriate.
6.	Respondent 6	6.1.	Do not consider building anymore parking.	Refer ref #3.5	Refer ref #3.5
		6.2.	The timeline proposed for addressing the western side is too far away. We need action NOW, please- Get people into better habits NOW. Start the communication about the western side environmental and indigenous values NOW, and how people can take care of the lake NOW, such as stick to clear walking tracks and don't go off making new ones.	Refer ref#3.3	Refer ref#3.3
		6.3.	jetty & boardwalk would be far more sympathetic to the lake whilst bringing about management of people flow in an environmentally sensitive area	Agree that a jetty/boardwalk would be a low impact option for the western side and may be effective in controlling access however this option will need to be compared to other options considering a broad range of factors including cost.	Amend Action 15 to include specific mention of jetty/boardwalk for western side for consideration in concept design task.
		6.4.	The community is ready to take care of the lake. In fact, our Lovin' Lake Ainsworth FB page indicates the community was ready 2 years ago!  Get some simple messages out there NOW. <ol style="list-style-type: none"> <li>1. Use less sunblock wear a rashie.</li> <li>2. Don't pee in the lake</li> <li>3. Take your rubbish with you.</li> </ol> The community is ready for change & to take care of	Noted. Refer ref # 5.4	Refer ref # 5.4

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			the Lake NOW & visitors need to know there is a change NOW too.		
7.	Respondent 7	7.1.	Action 21: Dog Access. Signage should indicate no dogs allowed and stipulate how much the fine is for breach of this. The easiest solution is to disallow dogs in the area and do as Hydrosphere has directed, that is, encourage dog-walkers to use Camp Drewe Road for their off-leash beach access.	Action 21: Dog Access recommends making all lake foreshore areas and immediate surrounds 'dog free'. Provision of signage is also recommended. This has recently been adopted by BSC.	None
8.	Respondent 8: DPIE Crown Lands	8.1.	If Crown Lands is to be referenced. Our name is as follows: Department of Planning, Industry and Environment – Crown Lands Thereafter... DPIE – Crown Lands	Noted	Check document throughout for consistency.
		8.2.	Comment withdrawn	-	-
		8.3.	To facilitate the implementation of the CMP, it would be prudent to include an action / sub action that aims to streamline the management arrangements and approvals for the lake, refer comment against Action 25.	Refer ref# 8.10	Refer ref# 8.10
		8.4.	Section 1.2.2 Existing management arrangements p. 3 Figure 5 Existing land management responsibility p. 58 Text states that: <ul style="list-style-type: none"> <li>- The southern section of the lake waterbody is Crown land with no appointed trustee.</li> <li>- A small section of the lake bed used for the aerator program is Crown land, held under licence and managed by Council.</li> </ul> It may be more useful to describe the ownership of the waterbody as follows: <ul style="list-style-type: none"> <li>- The southern two thirds of the lake is</li> </ul>	Agree this wording would provide better clarity	Amend as suggested

No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			<p>comprised of submerged Crown land with no appointed Crown land manager – therefore it is managed by DPIE - Crown Lands.</p> <ul style="list-style-type: none"> <li>- The remaining submerged Crown land in the northern part of the lake is managed by NSW Office of Sport.</li> <li>- A small section of submerged Crown land in the lake is used for the aerator program - held under licence by Council.</li> </ul>		
		8.5.	<p>Figure 5 Existing land management responsibility p. 58</p> <p>The legend in Figure 5 includes the following classes:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Crown land (waterway), no trustee appointed</li> <li><input type="checkbox"/> Crown land, no trustee appointed</li> </ul> <p>The term 'trustee' is out of date as under the new Crown Land Management Act 2016, trustees are no longer appointed to manage Crown land, rather a Crown land manager (CLM) is appointed.</p> <p>The term 'no trustee appointed' also gives the impression that no one is managing this Crown land, however this Crown land is managed by DPIE – Crown Lands.</p> <p>Amend the legend as follows:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Crown land (waterway), no trustee Crown land manager appointed, managed by DPIE - Crown Lands</li> <li><input type="checkbox"/> Crown land, no trustee Crown land manager appointed, managed by DPIE – Crown Lands</li> </ul>	Agreed	Amend as suggested
		8.6.	<p>Section 1.4.1 Land managers and government agencies p. 7</p> <p>Text states that:</p> <p>Department of Planning, Industry and Environment (DPIE - Crown Lands)</p>	Agreed	Amend as suggested



No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			<p>DPIE - Crown Lands is responsible for management of the southern portion of the water body. The department is also responsible for appointing the Crown land managers and administering the leases and licences for the rest of the Crown land within the study area.</p> <p>This statement requires clarification.</p> <p>Amend text as follows:</p> <p>DPIE - Crown Lands is directly responsible for management of the submerged Crown land in the southern portion of the lake. The department is also responsible for managing a Crown reserve to the far north of the lake's catchment. DPIE – Crown Lands' appoints Crown land managers and ensures that Crown land is administered and managed in accordance with the Crown Land Management Act 2016. The actions in the CMP that are located on or affect Crown land that is administered by DPIE - Crown Lands, will require authorisations under the Crown Land Management Act 2016 e.g. leases and licences.</p>		
		8.7.	<p>Action 2: Trial sediment treatment</p> <p>Lead Organisation: BSC</p> <p>Support Organisation: EES – Coast and Estuaries, DPI Fisheries</p> <p>The treatment described will have direct impacts on the submerged Crown land comprising the benthic sediments of the lake. As owner / manager of this submerged Crown land, a licence will be required under the Crown Land Management Act 2016 to conduct the works proposed.</p> <p>The CMP acknowledges that approvals from DPI Fisheries will be required to implement the CMP (under the Fisheries Management Act 1994). However, it is not</p>	Agreed	Amend Action 2 to acknowledge approvals will be required under the Crown Land Management Act 2016 to implement this action. Also add DPIE-Crown Lands as a "Support Organisation".

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			<p>acknowledged that approvals will also be required under the Crown Land Management Act 2016.</p> <p>The CMP needs to acknowledge that, under current management arrangements, approvals will be required under the Crown Land Management Act 2016 to implement this and other specific actions.</p> <p>In this context it may be appropriate to nominate DPIE – Crown Lands as a 'Support Organisation' to this action</p>		
		8.8.	<p>Action 3: Beach nourishment with a geofabric container beach sill</p> <p>The works described are likely to have direct impacts on Crown land that the department owns and manages, for example the works may be located on submerged Crown land around the lake's edges, or the beach nourishment sand may be sourced from Crown land. As owner / manager of this submerged Crown land, a licence or some other form of Crown land tenure may be required under the Crown Land Management Act 2016 to conduct the works proposed.</p> <p>The CMP needs to acknowledge that, under current management arrangements, approvals will be required under the Crown Land Management Act 2016 to implement this and other specific actions. In this context it may be appropriate to nominate DPIE – Crown Lands as a 'Support Organisation' to this action.</p>	Agreed	Amend Action 3 to acknowledge approvals will be required under the Crown Land Management Act 2016 to implement this action. Also add DPIE- Crown Lands as a "Support Organisation".
		8.9.	<p>Action 4, Action 9, Action 10, Action 11</p> <p>The works described may have direct impacts on Crown land that the department owns and manages, for example the works may be located on submerged Crown land around the lake's edges.</p>	Agreed	Amend Action 4, 9, 10 and 11 to acknowledge approvals will be required under the Crown Land Management Act 2016 to implement this action. Also add DPIE- Crown

## 8.2 Coastal Management Program - Lake Ainsworth, Lennox Head

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			<p>As owner / manager of this submerged Crown land, a licence or some other form of Crown land tenure may be required under the Crown Land Management Act 2016 to conduct the works proposed.</p> <p>The CMP needs to acknowledge that, under current management arrangements, approvals may be required under the Crown Land Management Act 2016 to implement these actions. In this context it may be appropriate to nominate DPIE – Crown Lands as a 'Support Organisation' to this action.</p>		Lands as a "Support Organisation".
		8.10.	<p>Action 25: Establish an integrated management group</p> <p>The department agrees to support this action. Further, it is recommended that a new sub action be added to the description, with the aim of rationalising the management arrangements for the lake and catchment. This action has the potential to streamline approvals processes under the Crown Land Management Act 2016 and to facilitate more efficient and integrated implementation of the CMP.</p> <p>In terms of priority, this recommended action is seen as 'fundamental' as it clarifies responsibilities and will streamline the implementation of the CMP.</p> <p>Include the following sub action in the action description:</p> <p>3(a) Review options for rationalising the management of Crown land to facilitate more efficient and integrated implementation of the CMP.</p> <p>3(b) Implement actions that will rationalise, integrate and improve the management of Crown land.</p>	Agreed	Amend as suggested
		8.11.	<p>Action 26: Review of CMP progress and monitoring of performance targets</p>	Noted	None

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No.	Stakeholder identifier	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			We agree to support this action		
		8.12.	Action 27: Ten year review of CMP We agree to support this action	Noted	None

**Table 3: Summary of other relevant feedback, responses and proposed amendments to draft CMP**

No.	Stakeholder	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
9.	Respondent 9	9.1.	Noted a heavy reliance on beach replenishment in the CMP and stated that during BSC foreshore improvement works they had some trouble sourcing suitable sand and that this could be a barrier for implementing the CMP. Suggests that the CMP identify suitable sources of sand to avoid this. Any planned scraping of seven mile beach should be identified now to allow works to occur in the future. South Ballina sand may not be suitable especially for the southern exposed beaches as it will blow away in strong northerly winds.	Noted. There are specific criteria for any sand imported to site including natural origin, grain size and shape, colour, clean etc. Section 4, Action 3 of the CMP includes task 1(d) "consideration of sources of nourishment material and associated costs". We agree that it would be beneficial to expand on this task in order to identify long-term source(s) of sand for nourishment of the lake beaches. Seven Mile Beach sand is unlikely to be suitable due to physical properties. DPIE has indicated that any specific source of sand nominated by the CMP would need to be justified by a study of suitability and the use of sand taken from the open coastal system is unlikely to be supported.	Section 4, expand on Action 3 task 1(d) to include a task to review potential sand sources with an assessment of suitability for use at Lake Ainsworth. The review will include an assessment of specific physical criteria including natural origin, grain size and shape, colour, clean etc as well as costs, transport requirements and approval process etc. The aim of the review will be to identify a long-term source of suitable sand for on-going work.
10.	Respondent 10, NSW Office of Sport	10.1.	Concerned the priority swimming zone along the Eastern foreshore runs too far north effectively blocking any watercraft (both ours and the wider public) from accessing the lake from that side. With the priority swimming zone extending so far north	This is a reasonable request given the existing use of the lake by Sport and Rec. Note that passive water craft is not	Amend Section 3, Overall Management Approach, Priority Swimming Zone to extend to the southern end of the most northerly beach on the eastern side,

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No.	Stakeholder	Ref #	Summarised Content/Points Raised	Response to Submission	Proposed Amendment to draft CMP
			<p>I can't see anywhere that watercraft can access the lake. This will unfortunately drive increased unauthorized use to the western foreshore, or push people wishing to put boats on the lake down through our site. Operationally, I would prefer our watercraft have access to an eastern foreshore beach so as not to contribute to any increased use of the western foreshore.</p> <p>Consequently, could we modify the map to show the priority swim zone runs to the southern edge of the most northerly foreshore beach and either a shared zone running from that point onward or no zoning at all from that point forward.</p> <p>This would give us access to the eastern foreshore to run our sailing lessons, will give the general public a launch point for their watercraft and avoid any confusion as to what activities should (and shouldn't) be run at that location.</p>	<p>restricted in the 'Priority Swimming Area', but it is a 'Go-Slow' area for these craft (such as kayaks, canoes and stand up paddle boards etc.) with users to manage their watercraft responsibly and safely around swimmers. This is detailed in Section 3, Table 4 of the draft CMP.</p>	<p>allowing for Sport and Rec use of the most northern beach on the eastern foreshore. Remove S&amp;R no-go markers. Amend text to say S&amp;R craft not to enter swimming zone.</p>

**REFERENCES**

Hydrosphere Consulting (2018). *Lake Ainsworth Coastal Management Program Stage 1 Scoping Study*. Prepared on behalf of Ballina Shire Council and Office of Environment and Heritage.

Hydrosphere Consulting (2019a). *Lake Ainsworth Coastal Management Program Stage 2 Vulnerabilities and Opportunities Study*. Prepared on behalf of Ballina Shire Council and Office of Environment and Heritage.

Hydrosphere Consulting (2019b). *Lake Ainsworth Coastal Management Program Stage 3 Management Options Study*. Prepared on behalf of Ballina Shire Council and Office of Environment and Heritage.

Hydrosphere Consulting, (2019c). *Lake Ainsworth Coastal Management Program Stage 4 Draft Coastal Management Program (CMP)*. Prepared on behalf of Ballina Shire Council and Office of Environment and Heritage.

OEH (2018). *NSW Coastal Management Manual*.

**APPENDIX 1. WRITTEN SUBMISSIONS**