

MINUTES

LAKE ILLAWARRA CMP IMPLEMENTATION GROUP 23 AUGUST 2023



MEMBERS PRESENT

Mayor Chris Homer, SCC (Chair)	Matthew Apolo, SCC staff
Cr John Davey, SCC	Jessica Lintern, SCC staff
Cr Ann Martin, WCC	Allison Broad, SCC staff
Daniel Wiecek, DPE	Chris Stewart, WCC staff
Peter Hawkins, TfNSW	Sarah Payne, WCC staff
Sharon Tomamichel, Community Rep SCC	Trudy Costa, WCC staff
Warren Goodall, Community Rep SCC	Isabelle Ghetti, WCC staff
Colin La Flamme, Community Rep WCC	Chris O'Connor, WCC Staff
Brian Jones, Independent Scientific Advisor	Kevin Gillis, Oak Flats Sailing Club
Nathan Harrison, Sydney Water	Mitchell, Oak Flats Sailing Club
Colin La Flamme, Community Rep WCC	Cr Elisha Aitken, WCC
Jess Whittaker, Community Rep WCC	

Online Attendance

Cr Maree Duffy-Moon, SCC	Julia Palmer, WCC staff
Carla Ganassin, DPE	Graham Towers, DPE
Emily Baonza, Environmental Science Honours Student	Marine Fraser, WCC

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LAKE ILLAWARRA CMP IMPLEMENTATION GROUP 23 AUGUST 2023



ITEM 1 WELCOME AND INTRODUCTIONS

The Chair opened the meeting and welcomed members to Shellharbour City Council.

ITEM 2 APOLOGIES

Apologies were received and accepted on behalf of –

- Cr Lou Stefanovski, SCC
- Cr Linda Campbell, WCC
- Belinda Davies, South East Local Land Services
- Leslie Reid, SCC staff
- Nathan McBriarty, WCC staff

ITEM 3 ACKNOWLEDGEMENT OF COUNTRY

The Chair acknowledged the Traditional Owners of the land and thanked Elders, past, present and emerging for their care of Country, recognising that this land has never been ceded, and always was and always will be Aboriginal Land.

ITEM 4 DECLARATION OF INTEREST

There were no Declarations of Interest declared.

ITEM 5 CONFIRMATION OF PREVIOUS MINUTES AND BUSINESS ARISING

The Minutes from 24 May 2023 were received and accepted.

MOVED by Cr Ann Martin, SECONDED by Sharon Tomamichel.

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LAKE ILLAWARRA CMP IMPLEMENTATION GROUP 23 AUGUST 2023



ITEM 6 PRESENTATION / REPORT - PROJECT OFFICER REPORT

A few copies of the newly completed **Community Engagement and Participation Strategy** were circulated, the final document to be placed in libraries, tackle shops, clubs and other Lake interested places.

Members were provided with an overview of CMP projects by Trudy Costa and Allison Broad including:

- Partnering with UOW with Interprofessional Education Day
- AUSMAP day was held recently. Kits are available for community groups to borrow.
- Lake Walk and Talk

Upcoming events:

- NSW Gone Fishing Day on 8 October 2023 (in conjunction with Fish for Life)
- Burroo Bay Saltmarsh and Bank Restoration Works grant funding has been successful

Danny Wiecek from NSW Department of Planning and Environment gave a verbal update on the CMP action to monitor the areas of saltmarsh to conserve and protect. There has been an expansion in mangroves since the opening of the Lake.

Monitoring will continue and a presentation/report will be brought to the Committee in due course, including longer term projections with sea level rise, blue carbon impacts and possible next steps, such as a Mangrove Management Plan.

Lake Illawarra Estuary Health and Water Quality Report is now available. Of the eleven (11) sites tested nine (9) were beneath trigger values and the Lake received an Overall Grade of B.

CMP Actions update:

- 2 completed
- 15 on track
- 10 progressed but delayed
- 1 yet to start

ITEM 7 PRESENTATION / REPORT – BATHYMETRIC SURVEY

Wollongong City Council's Environment Project Support Officer, Julia Palmer, presented comparison data from the 2008 and 2022/23 bathymetric surveys conducted (Action FB3).

Overall, there appears to be a general shallowing of 0.15m. The report is currently being finalised by WCC and the consultant.

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LAKE ILLAWARRA CMP IMPLEMENTATION GROUP 23 AUGUST 2023



ITEM 8 PRESENTATION / REPORT – ENTRANCE OPTIONS STUDY

Wollongong City Council's Infrastructure Strategy Engineer, Sarah Payne, presented the Lake Illawarra Entrance Channel – Options Study (Strategy 3, Action EC1).

The objective of the study is to reduce erosion and halt/decrease tidal prism in the lake.

Following the opening of the Lake in 2007 there has been an increase in salinity and tidal movement. There is evidence of erosion along the foreshore, for example around the playground at Windang.

The next step is community engagement. Stage 2 will include modelling of options, benefits/costs, multi criteria analysis etc.

Discussion around the bridge occurred with Peter Hawkins explaining that the work that was completed to one third of the pylons was successful. Transport for NSW are currently working on the remaining two thirds to have the same work completed.

ITEM 9 PRESENTATION / REPORT – COMMUNITY REPORT OAK FLATS SAILING CLUB

Members of the Oak Flats Sailing Club (OFSC), Kevin Gillis and Mitchell, provided the Committee with a presentation of photos and events of the Clubs 70+ year history.

The current facilities are shared with the Sudu Dragon Boaters and the Shellharbour City Rowing Club.

In 2024, on January 26, 27 and 28 the OFSC will be hosting the National Championships of the Spiral Class Sailing Program.

The Chair thanked the club for their presentation.

ITEM 10 STATE GOVERNMENT GRANTS – UPCOMING OPPORTUNITIES

Danny Wiecek mentioned that there was some grant funding currently open until end of August.

ITEM 11 GROUP MEMBER UPDATES (ROUND TABLE)

Nil

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LAKE ILLAWARRA CMP IMPLEMENTATION GROUP

23 AUGUST 2023



ITEM 12 OTHER BUSINESS

Community Representative, Warren Goodall, raised the inclusion of a Vision Statement for the Committee, something aspirational. He has some draft ideas to be tabled for discussion at the next meeting that will be forwarded to Trudy/Allison.

ITEM 13 NEXT MEETING

The next meeting of the Implementation Group is scheduled to be held on Wednesday, 22 November 2023 (5:30 to 7:30pm).

ITEM 14 CLOSE

The Meeting closed at 7:28pm.

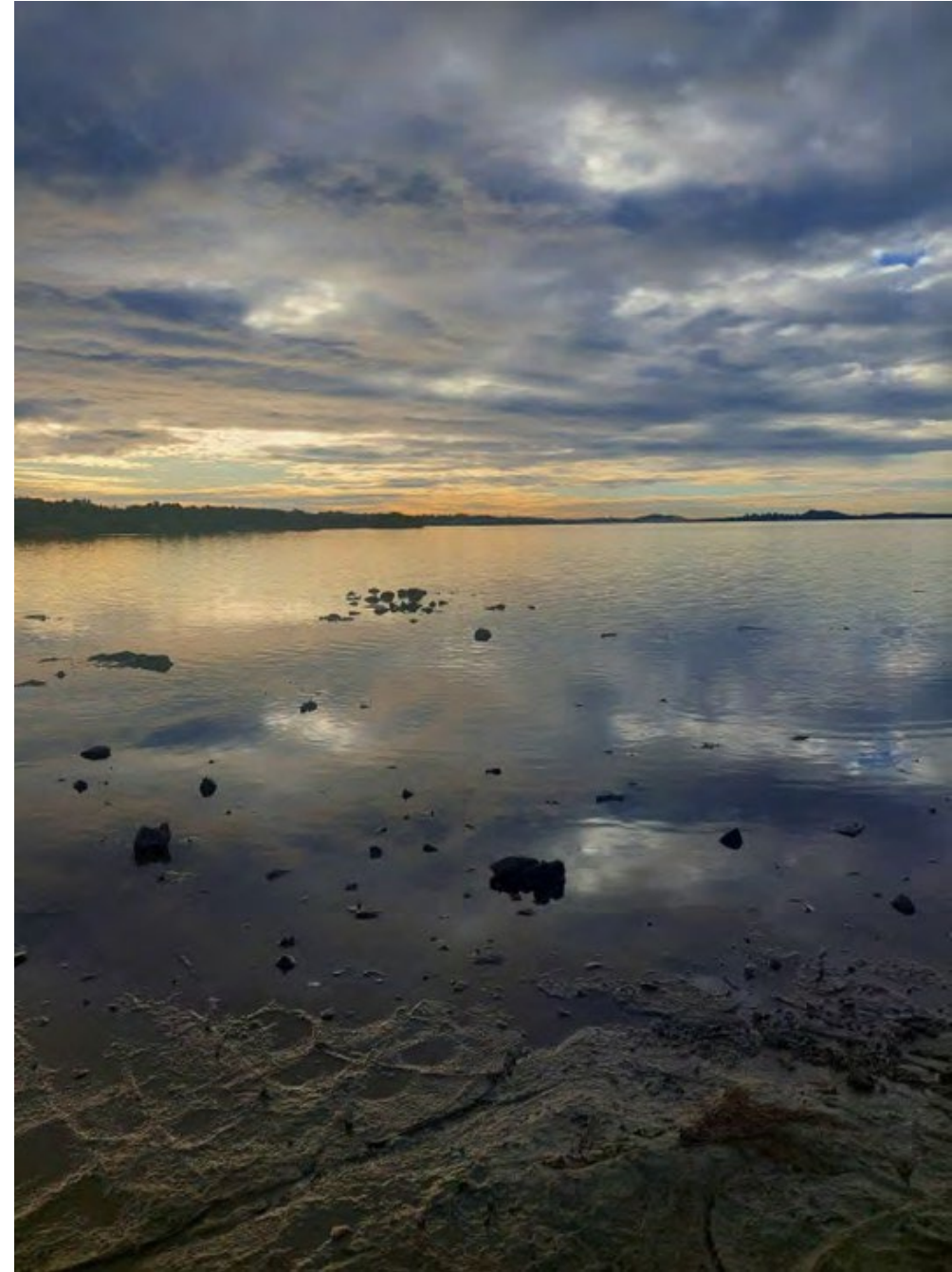
ACTION SUMMARY

Item	Action	Officer	Status
10	Send the gazetted Lake Illawarra CMP for members to refamiliarise themselves with its Strategy Statement and Objectives (section 1.5). Discuss those at the next meeting of the Lake Illawarra CMP and how they guide our approach to the management mangroves.	TC	
11	Discuss with Natural Area teams concerns regarding Cockspur Coral establishing at Hooka Point.	TC	
12	Circulate draft vision statement to IG for discussion at next meeting.		

Project Officers' Report August 2023



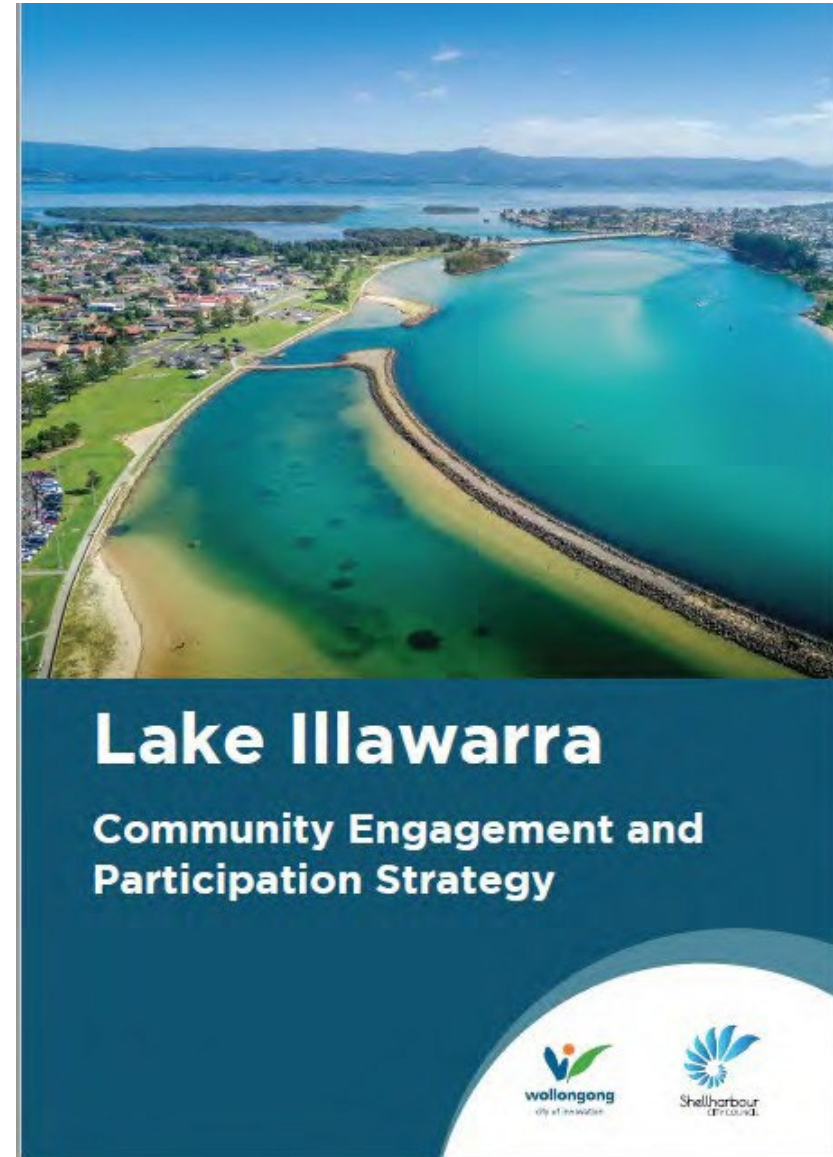
- Overview of the status of the CMP projects and status
 - Community Engagement and Participation Strategy (PM3)
 - Aquatic macrophyte mapping (EV3)
 - Estuary health report card (WQ7)
 - Summary of Year 2 CMP progress (PM2)



Hot off the press.....

Action PM3

Develop and implement a Community Engagement and Participation Strategy that enhances the community's knowledge of, skills in, and commitment to protecting Lake Illawarra.



HOW THE COMMUNITY WERE ENGAGED IN THE DEVELOPMENT OF THIS STRATEGY

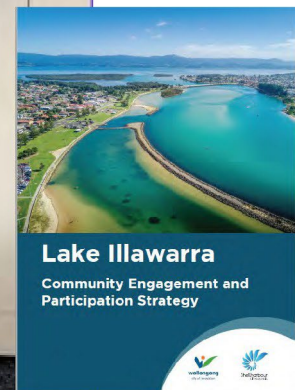
One-On-Ones with
Key Stakeholders


Hotspot Information
Kiosks and Idea Walls


Stakeholder Survey


Community
Workshops


Presentations to the
Implementation Group



1
Lake Illawarra Signage


2
Lake Illawarra Online Hub


3
Hotspot Kiosks


4
Compliance Education Materials


Communications

5
Community Workshops


6
Lake Illawarra Walk & Talks


7
Upskilling Volunteers Citizen Science

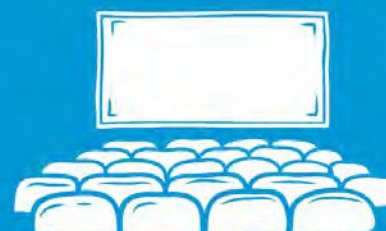

Participation


8
Community Led First Nations Engagement


9
Collaborative LandCare Groups

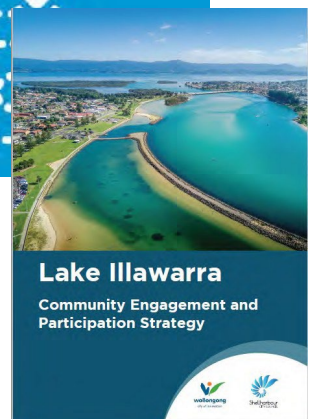

10
UOW Interprofessional Education Day


Partnership

11
Outdoor Cinema by the Lake


12
Lake Illawarra Tourism & Recreation Expo


Events





Lake Illawarra

Community Engagement and Participation Strategy



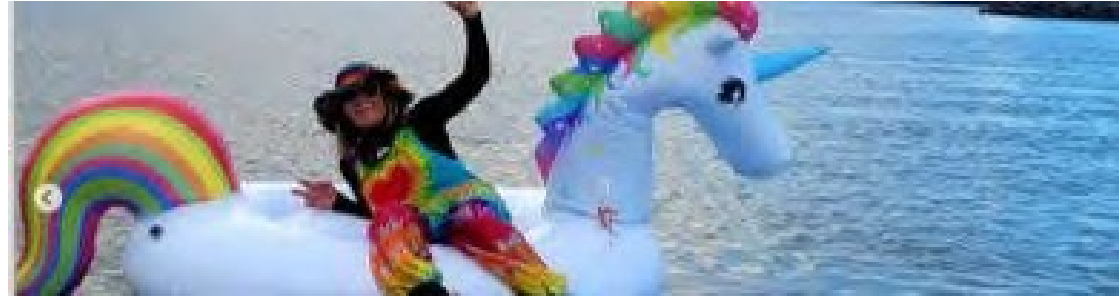
Action ID	Action Details	Locations (see Action Maps also)	Indicative Cost (subject to available funding)	Responsibility, Supporting Organisations	Timeframe (subject to available funding and resources)	Performance Measure	Further Information / References
PM3	<p>Develop and implement a community engagement and participation strategy that enhances the community's knowledge of, skills in, and commitment to, protecting Lake Illawarra.</p> <p>The program should aim to provide information on the ecological, cultural and commercial values of the Lake and to facilitate changes in behaviour of individuals and groups which affect specific threats, e.g. relating to litter and plastics, illegal dumping, species identification and habitat values (saltmarsh, casuarina), cultural heritage. Various avenues for engagement and participation may be used, such as:</p> <ul style="list-style-type: none"> • Development of a logo and standard design theme for signage for use by both Councils • Interpretive signage at key locations to promote specific lake values / habitats • Media announcements (Newspaper, radio, TV, website) • Brochures • Field Days / Market activities / Workshops • Activities in local schools; school holiday programs 	<p>Sites previously identified as potential locations for signage include:</p> <ul style="list-style-type: none"> • Hooker Park • Reddall Reserve • Foreshore Area of Davies Bay • Koona Bay • Mogurah Point • Macquarie 	\$80,000 p.a. for a staff member to develop program and \$20,000 p.a. to implement program (i.e. for materials, signs, staff and other resources required).	WCC and SCC Supporting: DPIE (including Coasts & Estuaries), ILALC, DPI Fisheries,	Year 1: Develop program Year 2 and on an annual schedule of works: Implement program and monitor success of the different activities	<p>A Community Engagement & Participation strategy specific to the Lake is developed for both Councils</p> <p>Various activities and material / media are completed and prepared on a yearly basis.</p> <p>Surveys and other monitoring activities indicate the success or otherwise of various education activities / approaches.</p>	<p>See also EV3 and PM2 for further education initiatives and collaboration for this CMP.</p> <p>Lake Illawarra Estuarine Education Resource (Meryl McKerrow, 2010)</p> <p>As part of the engagement strategy, new and existing platforms should be used including Let's Chat, Shellharbour Connect, SCC/WCC Council website and social media.</p>

Support progress and monitoring of social activation of the lake

Evaluation toolkit to monitor the impact of engagement initiatives

2023-2024 Engagement Program

- Online Hub
- UOW Interprofessional Education Day
- Establish two new community partnerships
- Citizen science training day





Community Engagement and Participation Program (EV3)



Upskilling and training our volunteers with citizen science!

2023-2024 engagement program

- Lake 'Walk & Talk'
- Develop educational materials to support building & sediment compliance
 - supported by a Hotspot Kiosk



Community Engagement and Participation Program (EV3)



Department of
Primary Industries

NSW Gone Fishing Day

DPI Event – Lake Illawarra



- Across 6 NSW Locations; including Lake Illawarra
- A free community recreational fishing events for all ages
- 8 October 2023, from 10:00am – 2:00pm (Sunday)



Aligns with CMP Actions PM3 (Community Engagement & Participation) & RA4 (Tourism)



Powering Communities

Endeavour Energy
community grants program



**Successful
Grant application!**
Burroo Bay Saltmarsh &
Bank Restoration Works





Oak Flats Sailing Club

Oak Flats Sailing Club



Powering
Communities

Endless Energy
community grants program



Project Aims;

- (i) Restore degraded foreshore area in Burroo Bay
- (ii) foster the migration of seagrass wrack & saltmarsh
- (iii) Plant ~1800 low-lying saltmarsh plants

Involves 3 volunteer planting days, weeding, rubbish clean-up, and education events.

Oak Flats Sailing Club



Examples of Salt Marsh



Action EV4

Prepare and implement an
estuarine mapping and
monitoring program





Lake Illawarra Estuary Health and Water Quality Report 2023

Reporting on data May 2022 to April 2023

Prepared by Wollongong City Council

August 2023



This program is supported by the NSW Government's Coastal and Estuary Management Program

Lake Illawarra Estuary Health & Water Quality Report Card 2022-23



Estuary Health Condition Ratings

- A Very Good
- B Good
- C Fair
- D Poor
- E Very Poor

Recreational Water Quality

% of occasions meeting primary and secondary contact recreational water quality guidelines

- A Primary contact
- B Secondary contact

Estuary Health Condition

Water quality, including nutrients and estuary health indicators are measured every month at 11 sites. The estuary health condition grading is based on chlorophyll *a* and turbidity levels from November to the end of April. Results were better than last year with six sites being in a very good condition, three in good condition and two sites rated as fair. These good results could be related to the much lower rainfall we had over this summer (nearly a third less than last summer) with a large amount of rain occurring over winter instead. Despite this it was still the second wettest year total since 2009, and overall, the Lake received a B (good) grade. This shows the resilience of the Lake, but it is important we keep trying to decrease nutrients and sediments coming into the lake for its long-term health.

Estuary health indicators

Chlorophyll *a* is a measure of microscopic algae biomass in water. Excessive input of nutrients from catchment runoff can increase chlorophyll *a* levels, leading to algal blooms and detrimental effects on estuarine plants and animals. Turbidity is a measure of light scattered by suspended particles such as sediment, algae and dissolved material in the water. Having low turbidity levels in the estuary is important for seagrasses, fish and other organisms.

Recreational Water Quality

Three sites were sampled over summer for enterococci levels to give an indication of recreational water quality (safe for boating and watercraft activities only). All sites had a higher compliance meeting the recreational water quality guidelines than last year. This is most likely due to less rainfall over the summer period compared to last year. This means less urban and rural runoff and stormwater coming into the Lake. For estuarine sites it is recommended not to go swimming for three days after rain.

For more detailed information on the monitoring program, please scan the QR code at the end of this report card or visit wollongong.nsw.gov.au/lake-illawarra



This project is supported by NSW Government's Coastal and Estuary Management Program

Overall Grade B



What's Happening?

For more information visit wollongong.nsw.gov.au/lake-illawarra



Funding the Lake Illawarra Coastal Management Program

Since 2020, Wollongong City Council and Shellharbour City Council have attracted more than \$1.5 million in grant funding to implement actions of the Lake Illawarra Coastal Management Program. NSW Government funding bodies include:

- Department of Planning and Environment - Coasts and Estuaries
- Department of Primary Industries - Fisheries
- Environmental Protection Authority
- Local Land Services



Great results for the Luv the Lake Litter Prevention Program

The "Luv the Lake" program was supported by funding from the NSW EPA to deliver a series of litter prevention initiatives. This included two large-scale clean-up events, regular small-scale community clean-ups, litter education campaigns, and increased signage and bins. The program saw an estimated 1,200 kilograms of litter removed from the foreshore and up to a 40% litter reduction at targeted sites. A huge thanks to our community and volunteers who helped us achieve this wonderful result!

Natural Areas Restoration

We have undertaken considerable vegetation restoration around the foreshore of Lake Illawarra and along the creeks in the catchment area. There are now 19 sites in the program covering 90 hectares of vegetation restoration including the planting of 20,000 native plants. These works aim to decrease weeds and improve the biodiversity and condition of native vegetation to reduce erosion of the foreshore areas. A big thank you to all our Bushcare volunteers working to keep our natural areas beautiful!

Bathymetric Survey

Since October, we have conducted bathymetric surveying of Lake Illawarra to measure the depth of the water. Bathymetry involves trawling the entire lake with an echo sounder which sends a beam down and collects data as it bounces back. A report that explains the changes in depth will be available on the Wollongong City Council website later this year and will be used to inform future management options around the lake. Preliminary results indicate we need to continue efforts to reduce sediments coming into the lake.

Community Engagement and Participation

Both councils have been busy working with agency and community stakeholders to develop an Engagement and Participation Strategy for Lake Illawarra. The strategy outlines a suite of activities and initiatives — like walk and talk sessions, community movie nights, a tourism expo and citizen science — to build engagement, education, and action in caring for the lake. It will be adopted and added to council websites in the coming months.



wollongong city of innovation





Grade	Definition
Very Good	The indicator meets the benchmark values for almost all of the time period.
Good	The indicator meets the benchmark values for most of the time period.
Fair	The indicator meets the benchmark value for some of the time period.
Poor	The indicator does not meet the benchmark value for most of the time period.
Very Poor	The indicator does not meet the benchmark value for almost all of the time period.

CMP status update 2022 - 2023

Status	CMP Actions	Total
Complete	FB1, FB3 (ahead of schedule)	2
On track	WQ4, WQ5, WQ6, WQ7, WQ8, CH1, IR4, EC3, EC4, EC5, EV1, EV2, EV3, EV4, RA2	15
Progressing but delayed	WQ1, WQ2, WQ3, WQ9, PM1, PM4, EC1, EV5, FB2, RA1	10
Not started	MF1	1

CMP implementation is progressing well thanks to the extraordinary efforts and commitment of all stakeholders involved

Thank you!



Committee members –
please come along
and participate in community
engagement events!



Lake Illawarra Bathymetric Survey



Background

- Action FB3: Undertake a bathymetric survey of the entire Lake and major tributaries up to the tidal limit
- Community concerns Lake is becoming shallower
- Previous survey in 2008
- Contemporary survey in 2022/23

Lake Illawarra Coastal Management Program 2020 - 2030

September 2020

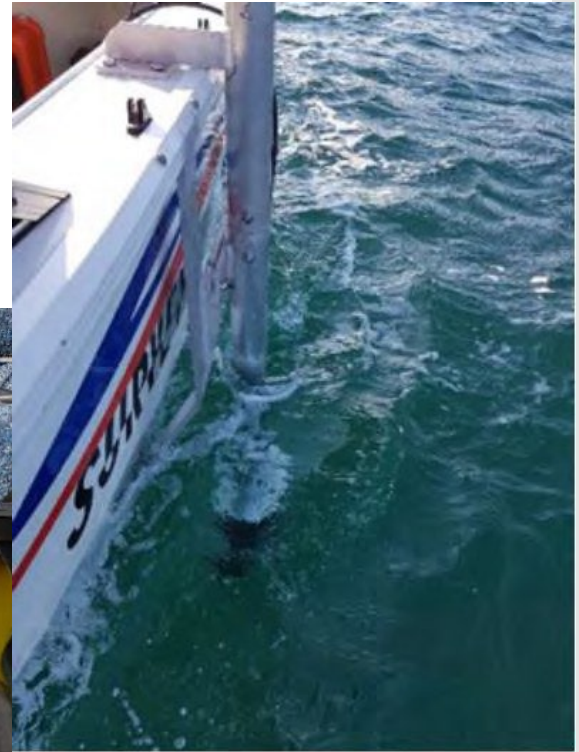


Survey Area

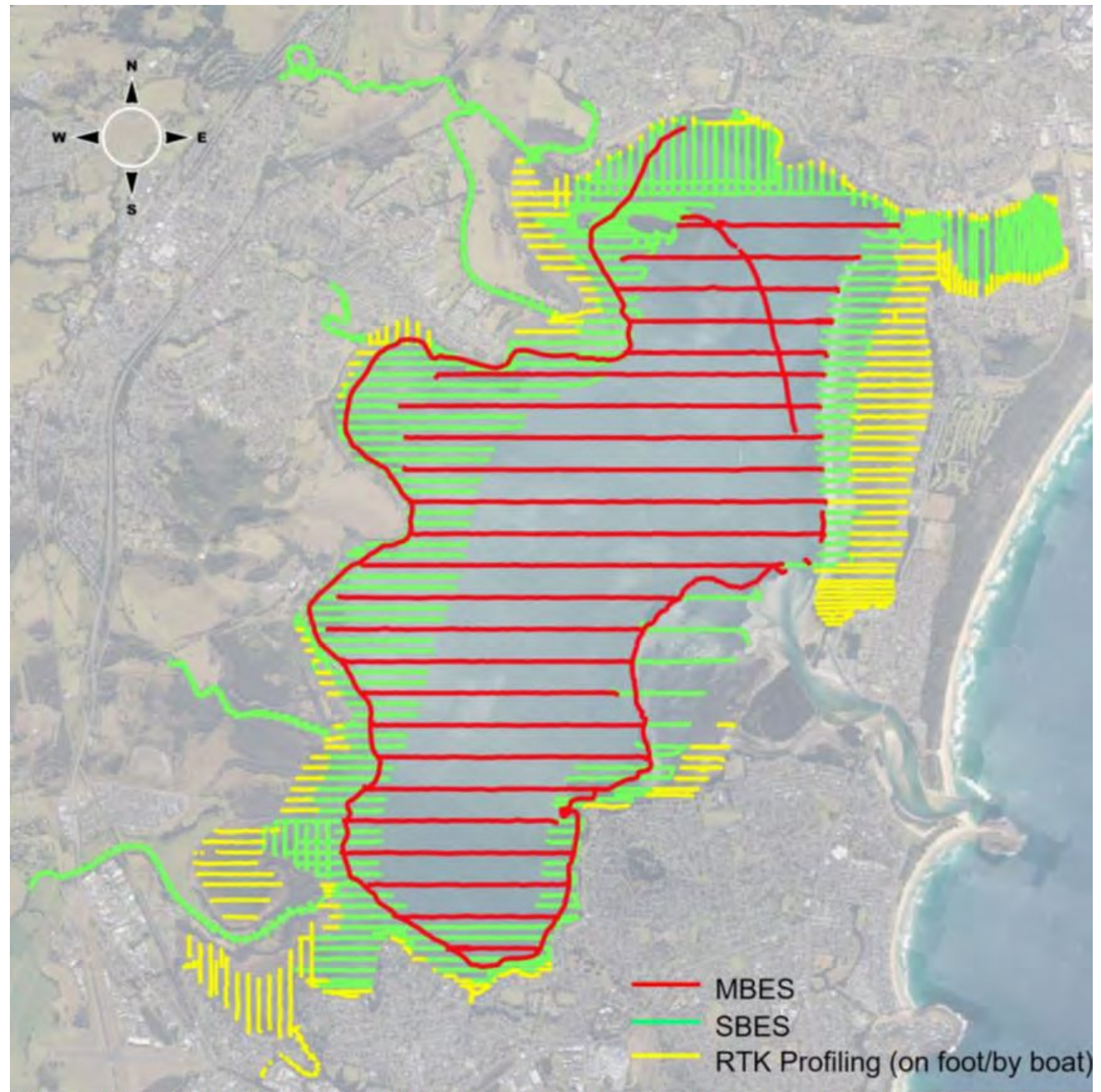


Methods

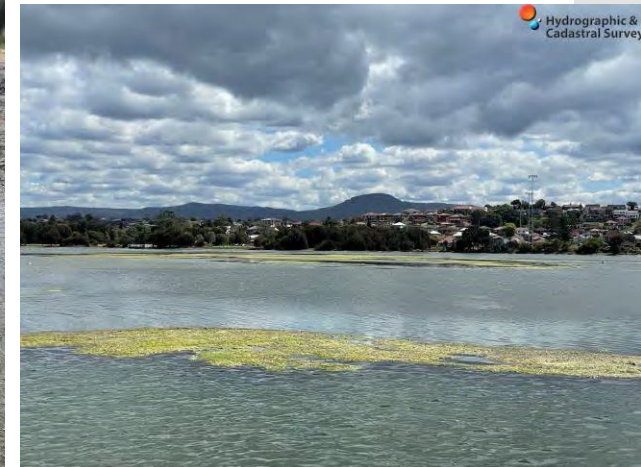
- Four techniques
- Real Time Kinematic (by foot and boat)
- Single Beam echosounder
- Multi Beam Echosounder
- Constraints: high tides, seagrass and sediment types



Methods



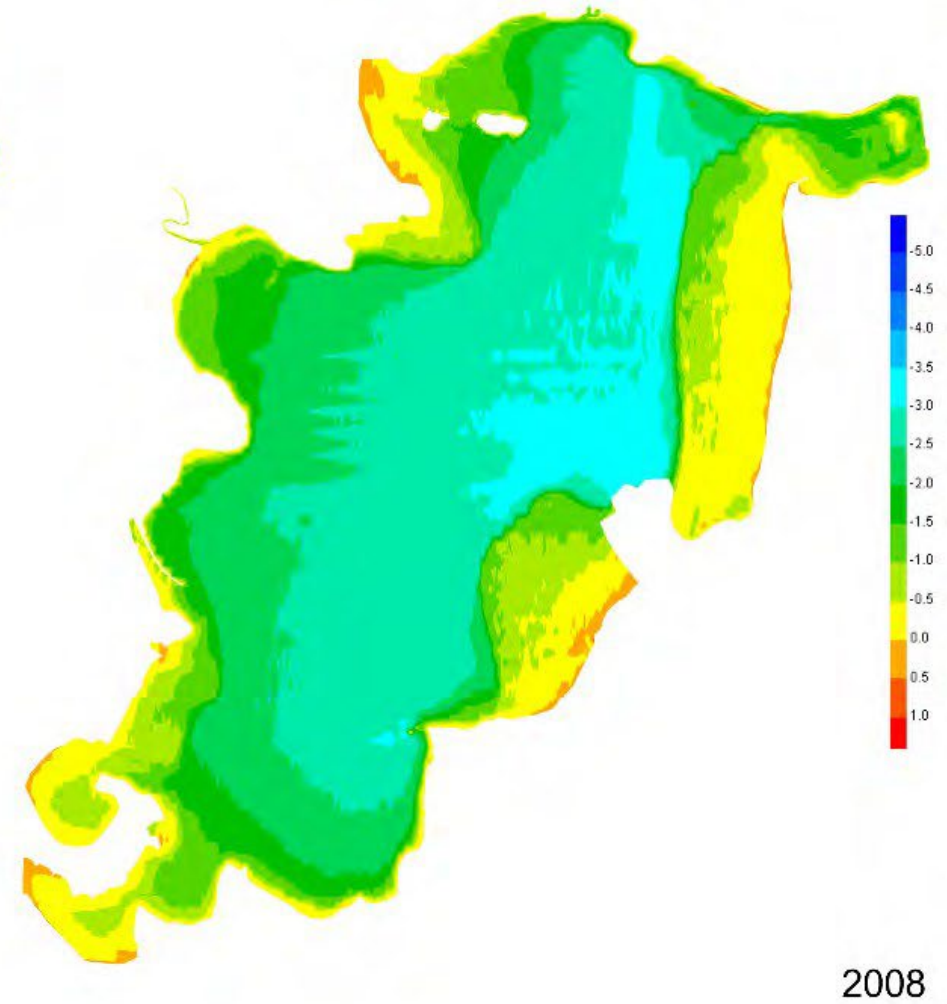
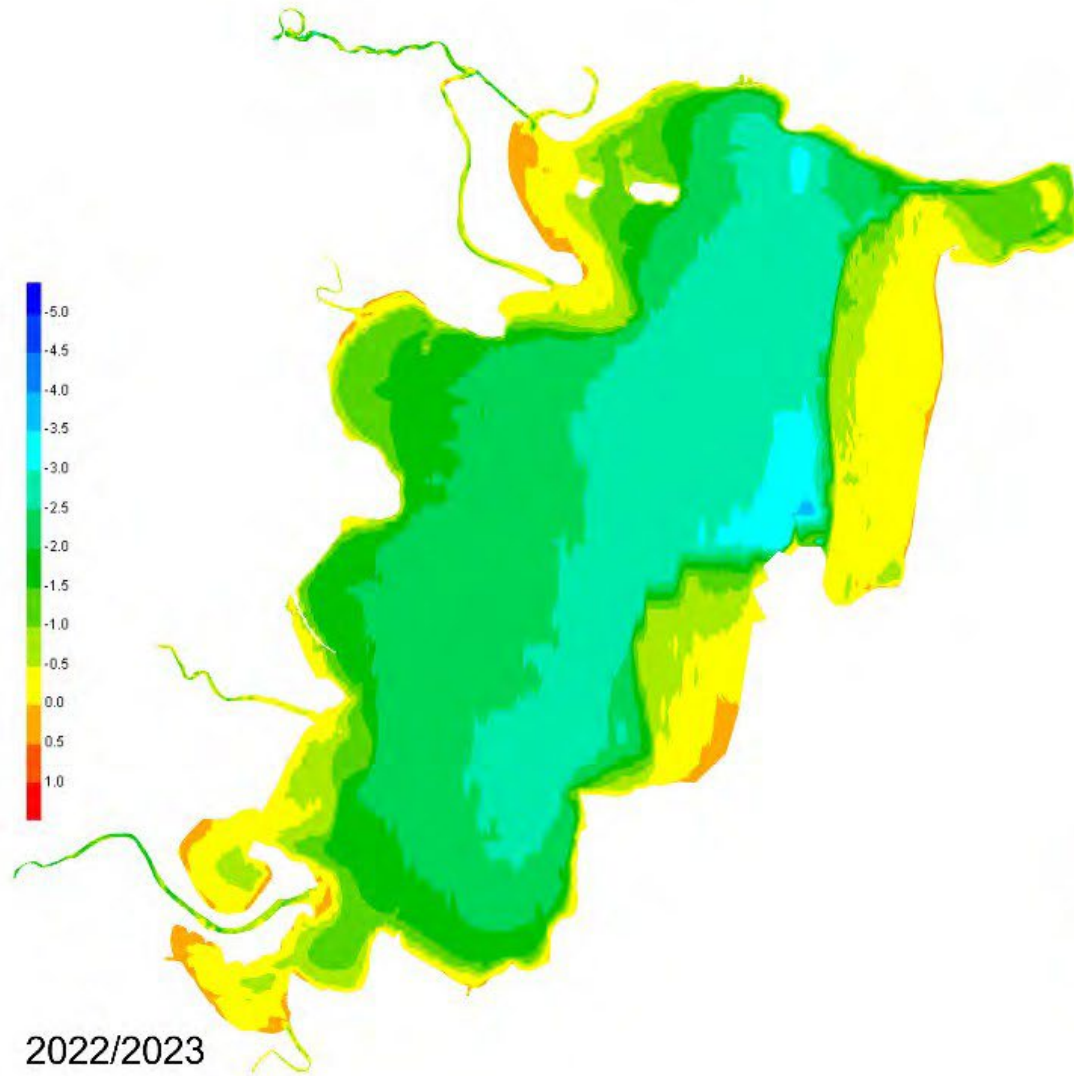
Field Work



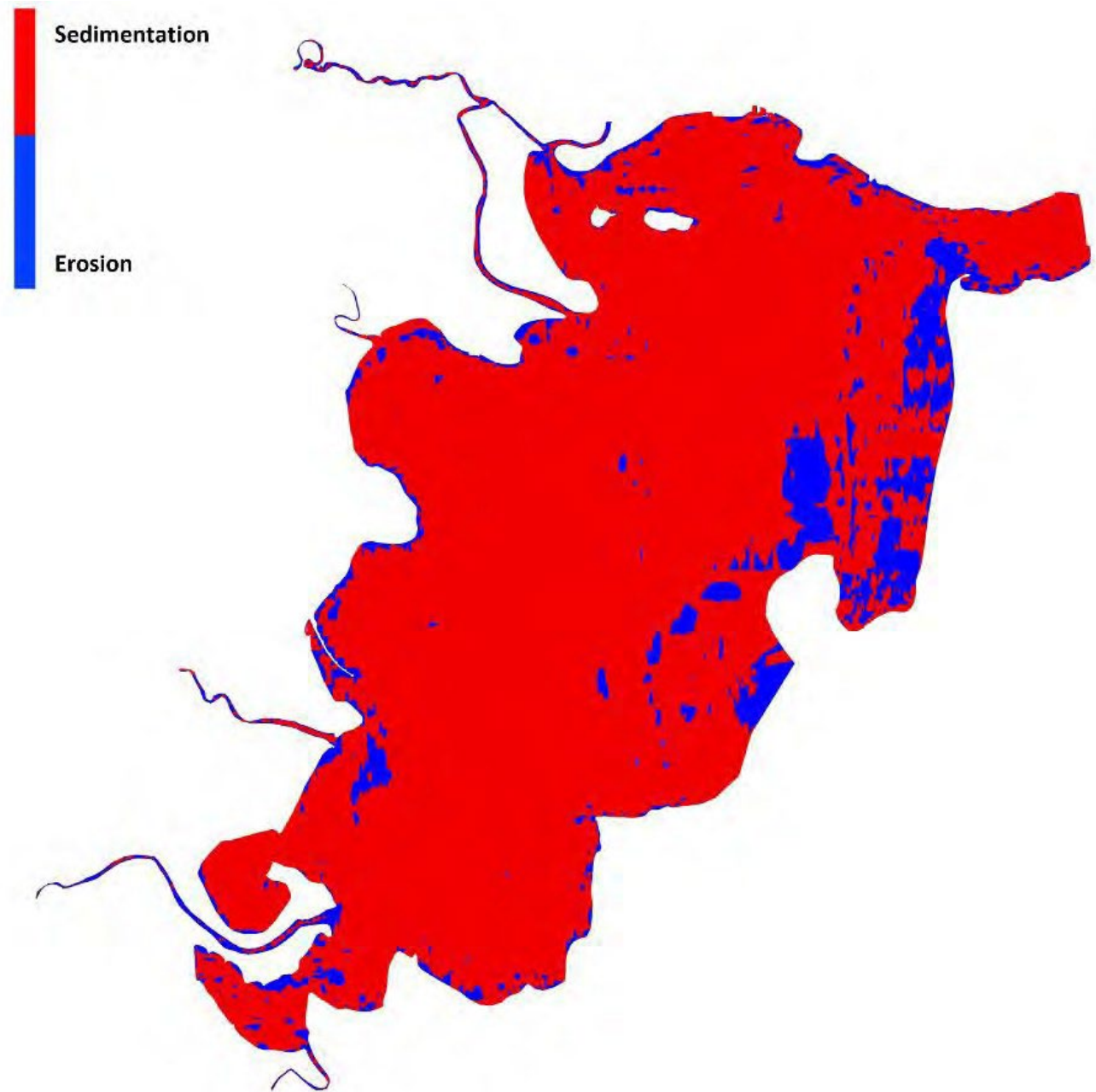
General Results

- Mean difference between 2008 and 2022/23 surveys of 0.15m shallower across the entire Lake dataset
- Further analysis of individual cross sections, for each area defined previously have showed sedimentation/erosion in the order of $\pm 0.30\text{m}$ in the 15 years gap between datasets.
- Within the time span between analysed datasets, it is estimated that the rate of sedimentation/erosion was approx. $\pm 0.02\text{m}$ per year.
- Greater height differences were observed adjacent to creek deltas (i.e. Macquarie Rivulet $\pm 1.00\text{m}$) or near the lake entrance (subject to another study)
- Erosion has occurred along some of the tributary banks reaching $\pm 1.00\text{m}$ in height change over the period between both surveys.
- The level of accuracy of the survey is around 0.1-0.15m

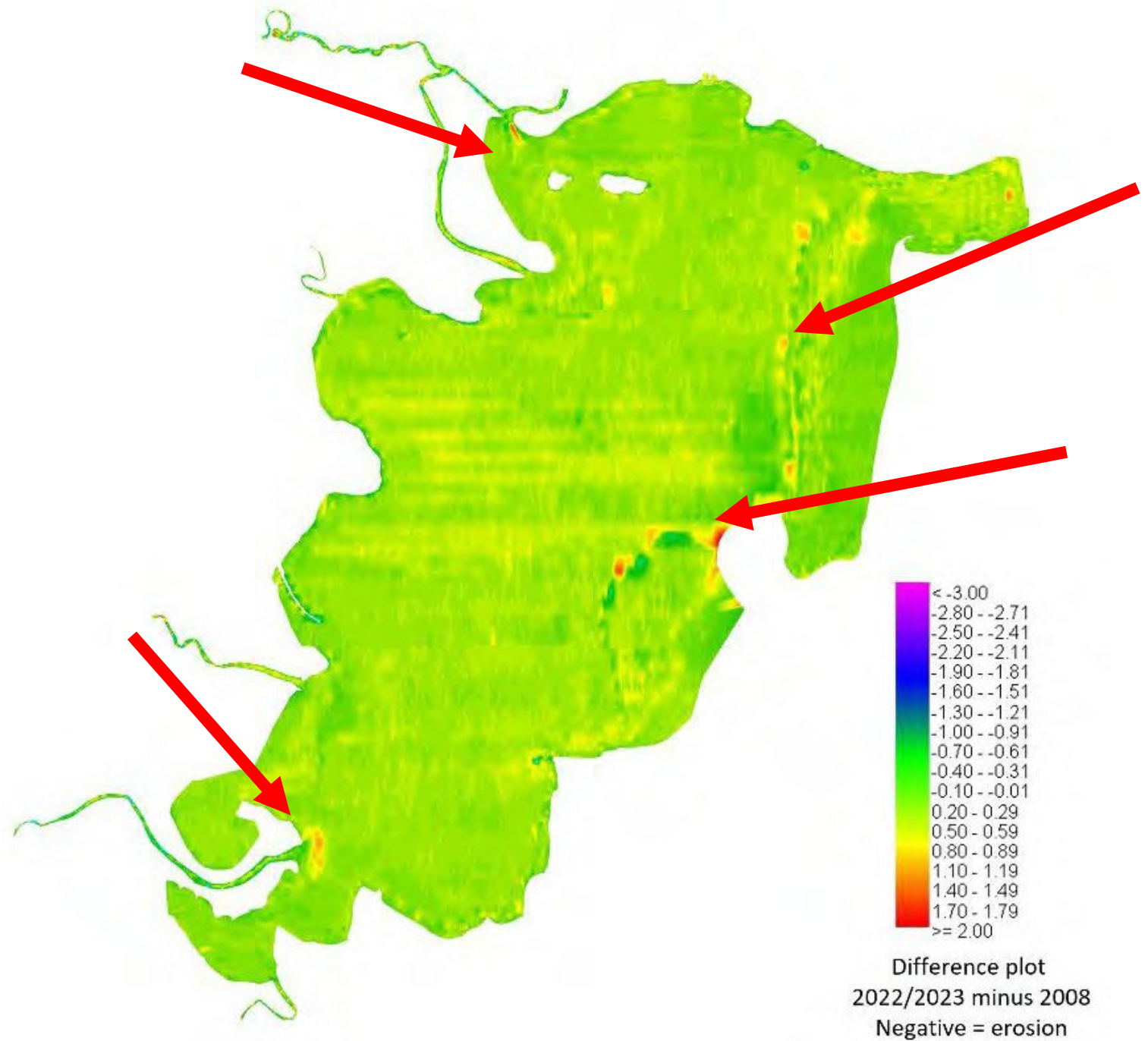
Results of
2022/23 and
2008
bathymetric
surveys



High/low
difference
between 2022-23
and 2008 surveys

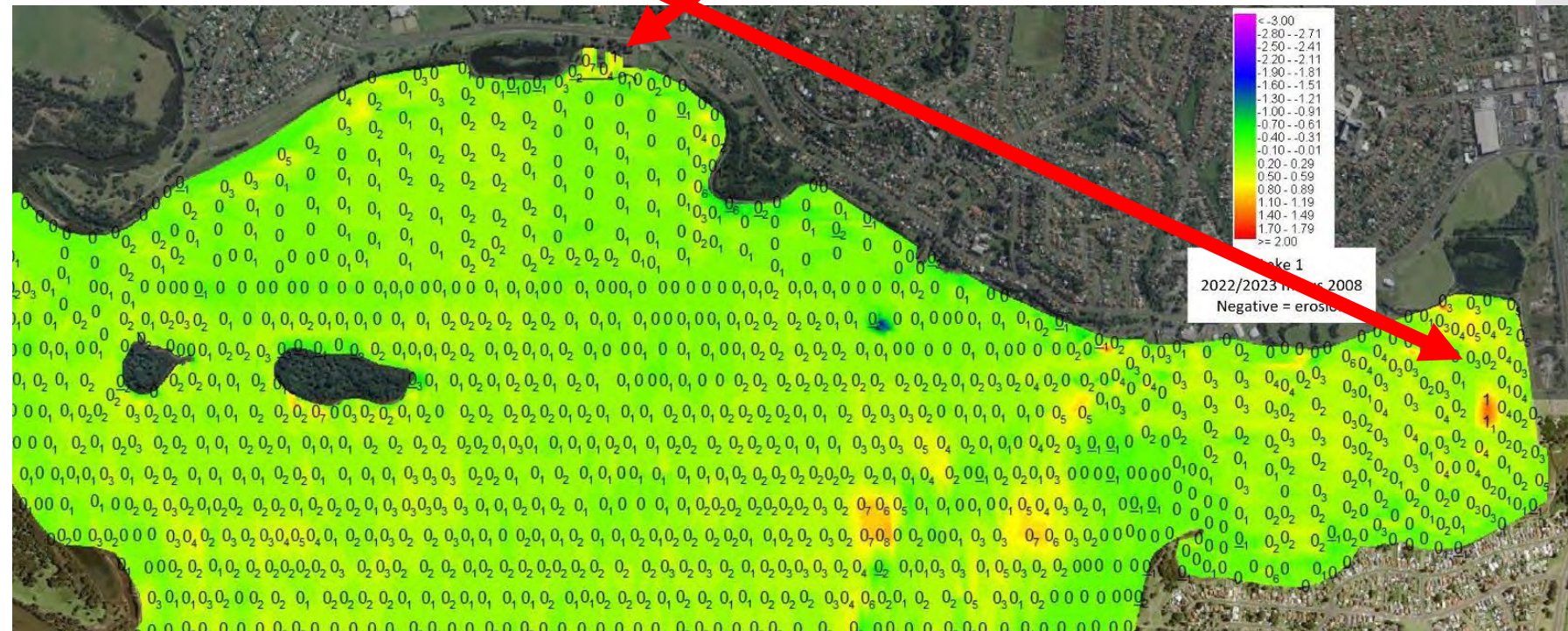


High/low
difference
between 2022-
23 and 2008
surveys



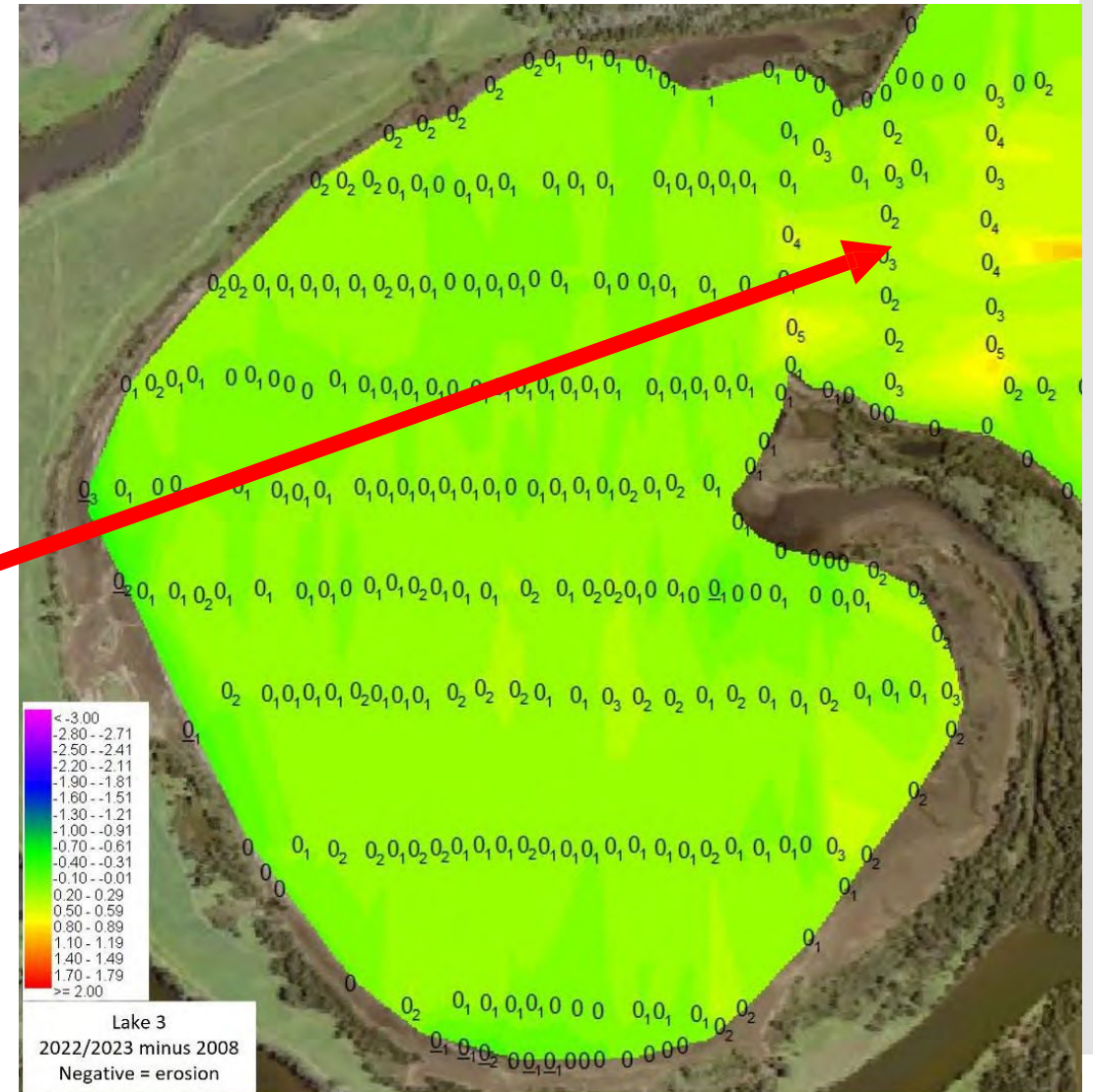
Lake 1 – Warrawong to west of Berkeley Boat Ramp

- Sedimentation trend of approx. 0.2m
- Shoaling noticed within Berkeley boat ramp area
- Shoaling noticed to east



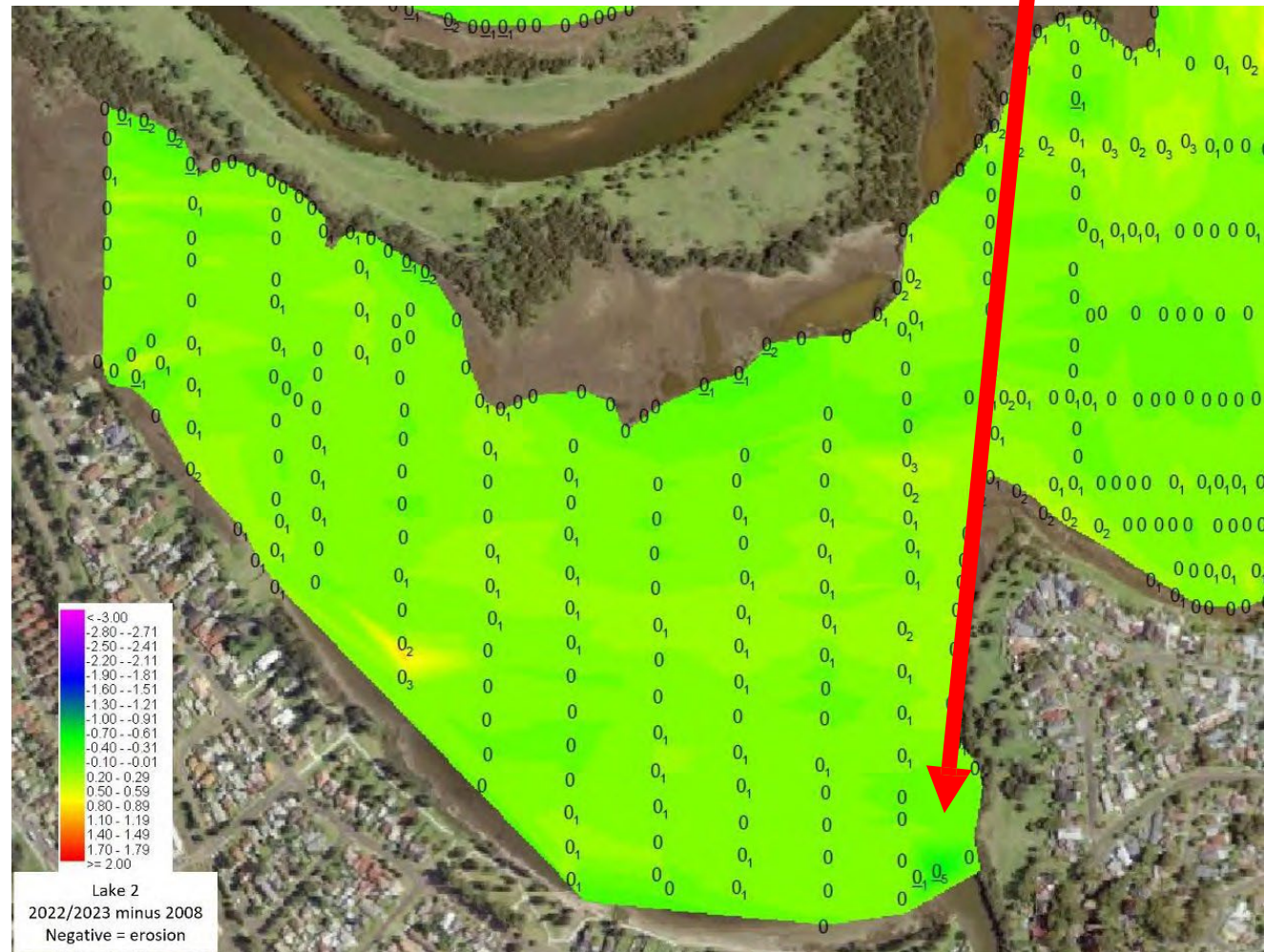
Lake 3 – Haywards Bay

- Sedimentation trend of approx. 0.1m
- Noticeable shoaling area at the mouth of the bay in the order 0.4m, where dense patches of seagrass were found



Lake 2 – Koona Bay

- Sedimentation trend of approx. 0.1m
- Possible deeper area at the mouth of Horsley Creek



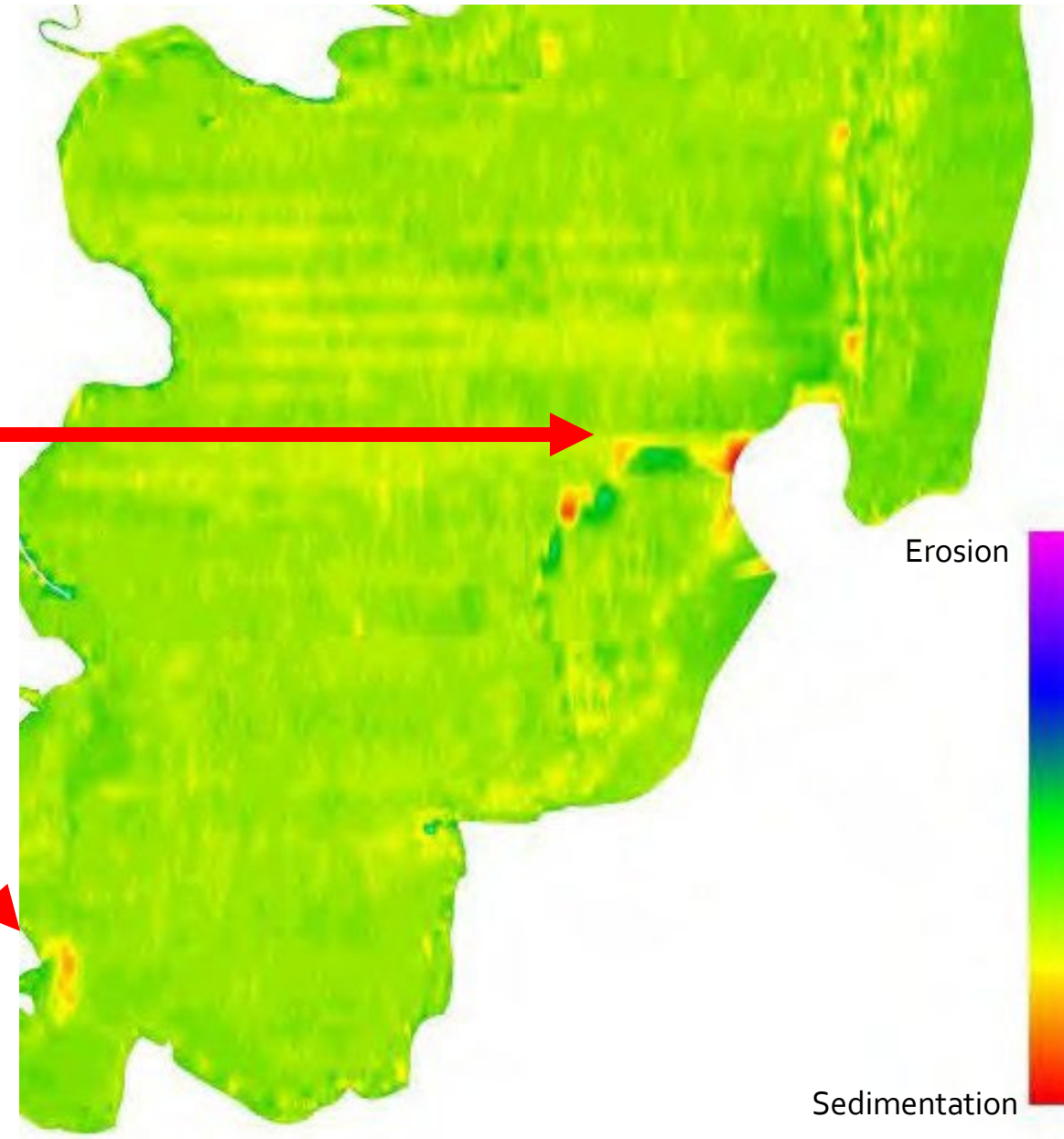
Lake 4 – Muddy Bay North

- Sedimentation trend ranging from 0.2-0.5m adjacent to Brooks Creek inlet and existing jetty in the middle of the bay
- Erosion (deeper area) observed at an area east of existing jetty



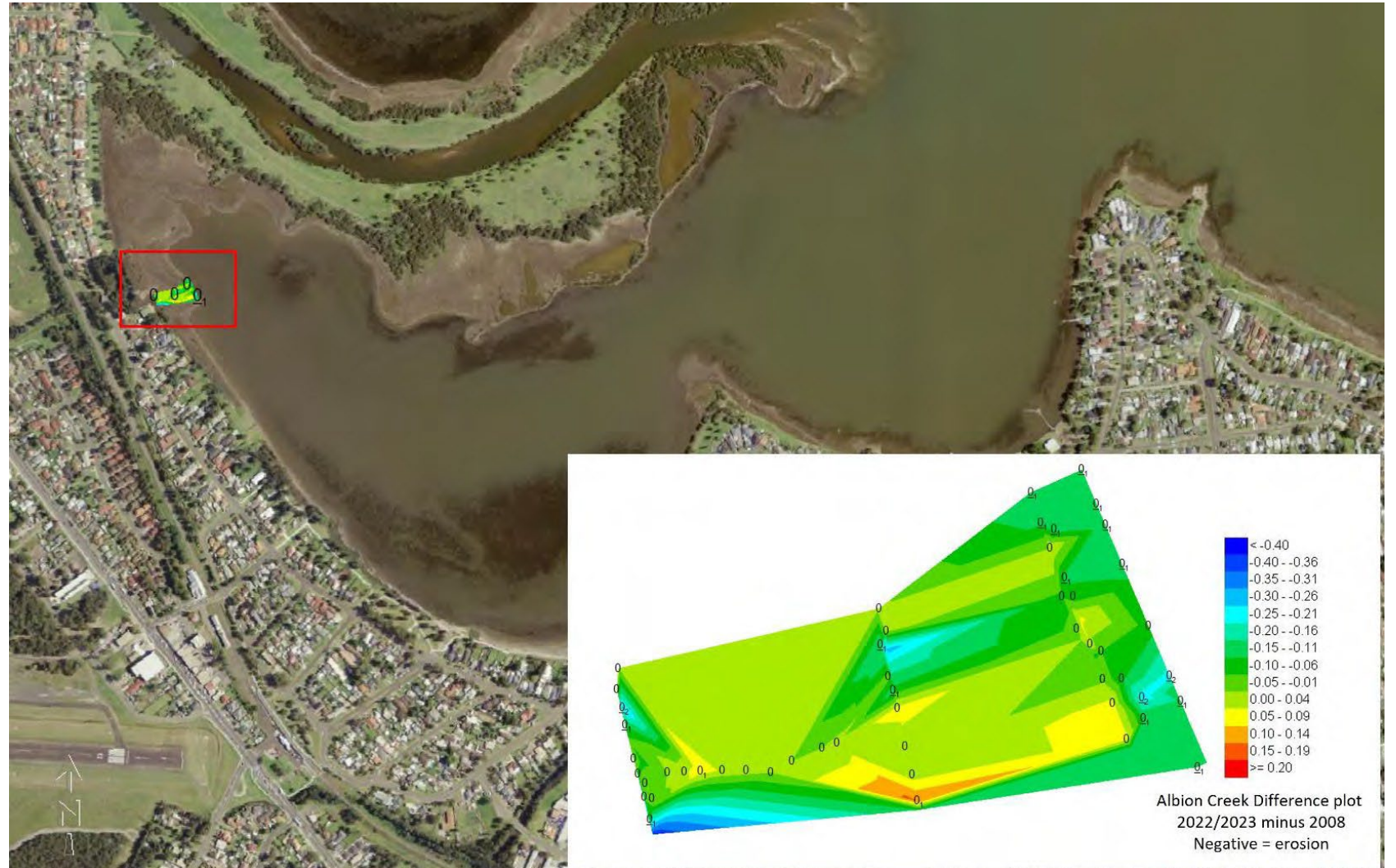
Lake 5 – Lake Centre

- Sedimentation trend of approx. 0.2m
- Greatest shoaling area found adjacent to lake entrance of approx. 2.5m
- Shoaling identified on the delta of Macquarie Rivulet of approx. 1.0m



Albion Creek

- In general, it shows a variation of $\pm 0.15\text{m}$ along the creek
- Potential erosion on banks



Horsley Creek

- Shoaling observed along central section of the creek
- Potential erosion on banks within the top half of the creek



Report

LAKE ILLAWARRA HYDROGRAPHIC SURVEY REPORT

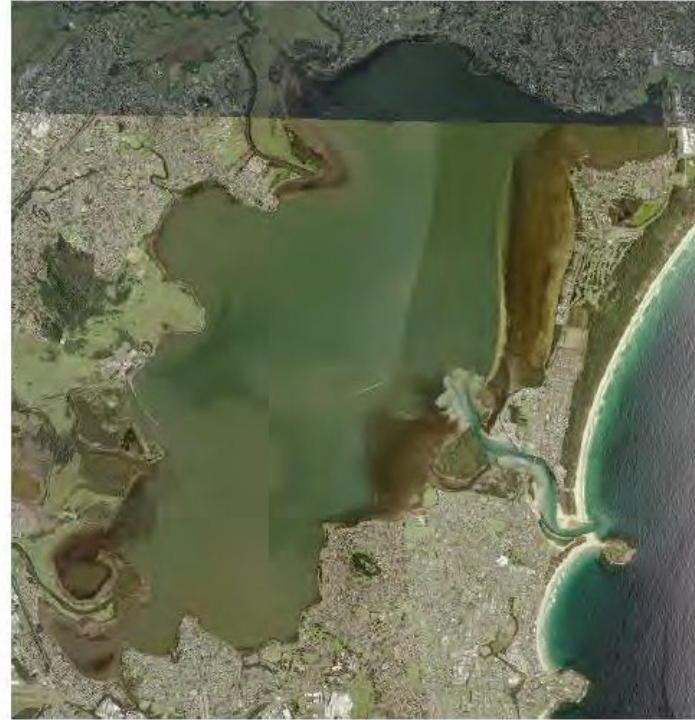


Image: Lake Illawarra (NSW Spatial Services [SIN Maps, 29 Jul 23])

Wollongong City Council



Shellharbour City Council



Next Steps

- Finalise report
- Grant sign off
- Development of summary document for community



Questions





Lake Illawarra

Community Engagement and Participation Strategy





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Mandy Creighton/shutterstock.com

i - Acknowledgement of Country

Wollongong City and Shellharbour City Councils would like to acknowledge the Traditional Custodians of Lake Illawarra, the Aboriginal people of Dharawal Country, and recognise and appreciate their deep connection to this land, waters and the greater community.



Christopher Meder/shutterstock.com

ii - Acknowledgements

This Community Engagement and Participation Strategy was developed by Brooks Community Engagement (BROOKS) in partnership with Wollongong City Council (WCC), Shellharbour City Council (SCC) and the Lake Illawarra Coastal Management Program (CMP) Implementation Group.

Development was led by Jack Brooks, Adriana Pielak, Angela Dela Cruz and Lance Brooks from BROOKS and overseen by a stakeholder working group that included Trudy Costa (WCC and SCC), Allison Broad (SCC), Aimee Beardsmore (DPE), Isabelle Ghetti (WCC), Sue Fletcher (SCC), Jessica Faustini (WCC), Lusiana Vulatha (SCC), Hayden Thomson (WCC), Danny Wiecek (DPE), Renee Windsor (WCC) and Nuria Lahuerta Pineiro (DPE).

Wollongong City Council and Shellharbour City Council have prepared this document with financial assistance from the NSW Government through its Coastal Management Program. This document does not necessarily represent the opinions of the NSW Government or the Department of Planning and Environment.

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1 - Introduction

The Lake Illawarra Community Engagement and Participation Strategy has been developed on behalf of Wollongong City Council and Shellharbour City Council to plan and implement Key Actions of the Lake Illawarra Coastal Management Program (CMP).

This Strategy recognises the vital importance of public engagement and participation in protecting and enhancing Lake Illawarra's natural environment, and is designed to increase community knowledge, develop practical skills, and foster a deep commitment to the lake's sustainable use and preservation.





1.1 Overview and Purpose of the Strategy

The Lake Illawarra Community Engagement and Participation Strategy (hereafter the Strategy) aims to provide the Lake Illawarra Coastal Management Program's Implementation Group and the Wollongong City Council (WCC) and Shellharbour City Council's (SCC) project teams with a road map to implement community engagement initiatives and programs that enhance the community's knowledge, commitment, use of and skills in protecting Lake Illawarra.

Through a number of consultation initiatives, key stakeholders, residents, community groups and members of the Lake Illawarra community provided feedback, suggestions and ideas for ways they, and the wider community, wish to be involved in the future of Lake Illawarra. Through understanding the community's aspirations, values, concerns and ideas, successful engagement strategies have been tailored to fit the unique community context. Stakeholders' input has been integrated into the final Strategy to ensure its feasibility and long-term sustainability.

The Lake Illawarra Community Engagement and Participation Strategy aims to reach the wider Illawarra catchment via inclusive, accessible and sustainable engagement opportunities. It focuses on reaching a wide array of individuals who live close to and/or visit Lake Illawarra, to ensure that all community members, irrespective of their backgrounds, abilities or circumstances, can participate fully in engagement initiatives.

The Strategy places a strong emphasis on interactive engagement, skill-building, ongoing learning opportunities and community partnerships through collaboration. Activities have a focus on bringing residents together with stakeholders from various sectors, including local government, environmental groups, schools and businesses.

The Initiatives seek to:

- facilitate the sharing of knowledge and skills,
- promote awareness about the lake's ecological, cultural and social significance,
- foster stewardship and connection within the community and the lake,
- drive behavioural change across the Illawarra.

The overall goal of the Strategy is to foster a sense of ownership and shared responsibility amongst community members by creating greater opportunities for connection and collaboration around the lake, ensuring its future sustainability and prosperity. Moreover, the Strategy places significant emphasis on sustainability, recognising the importance of creating long-lasting engagement opportunities that can be maintained and continue to thrive. The Strategy is designed to be a long-term strategic plan and is intended to be adapted over time to align with the implementation of the Lake Illawarra CMP until 2030. This Strategy combines a long-term perspective with an adaptive approach, allowing for continuous improvements and adjustments to meet changing circumstances over time.

1.2 The Coastal Management Program (CMP) and Key Actions

In recognition of the importance and complexity of managing the ecological health and social importance of Lake Illawarra, the Lake Illawarra Coastal Management Program (hereafter CMP) was developed and established. The CMP is an integrated, strategic plan designed to address the long-term challenges and opportunities associated with preserving the lake's environmental, social, and cultural values.

Management of Lake Illawarra is primarily the responsibility of WCC and SCC, with support from State Agencies such as the Department of Planning and Environment (DPE), Environment and Heritage Group, DPE - Crown Lands, and Department of Primary Industries - Fisheries.

The development of the CMP involved extensive research and stakeholder engagement prior to 2020. During development of the CMP the community had an opportunity to share their thoughts on Lake Illawarra's environmental, social, cultural, and economic values, along with their perceived threats to the health of the lake via a community survey. The CMP has taken into account scientific studies, community inputs, cultural heritage considerations and legislative requirements to create a long-term Strategy for the coordinated management of the lake.

The CMP encapsulates 9 Management Strategies and 39 Key Actions to maintain and improve the ecological integrity of Lake Illawarra while fostering its recreational and community use.



KEY ACTIONS OF THE CMP ADDRESSED IN THIS STRATEGY:

KEY ACTION PM3

Develop and implement a Community Engagement and Participation Strategy that enhances the community's knowledge of, skills in, and commitment to, protecting Lake Illawarra.

The development and implementation of a Community Engagement and Participation Strategy will aim to inform, consult and involve the community on the ecological, cultural and commercial values of the lake. To fulfil action PM3, unique engagement strategies have been developed to facilitate changes in behaviour and equip the growing population of Illawarra with the necessary knowledge and skills to contribute to the protection and sustainable use of Lake Illawarra.

KEY ACTION EV3

Prepare and deliver an information program for the lake catchment to be incorporated into the community engagement and participation Strategy developed through PM3.

While the primary focus of this Strategy focuses on PM3, it's important to note that this approach incorporates the goals outlined in Key Action EV3, identifying the information and educational needs of the community and highlights priority areas for development of new information materials and educational resources.

SECONDARY ACTIONS

Additionally, this Strategy aims to support the objectives of Actions WQ5, WQ8, EV1, CH1, and MF1, which involve;

- reducing sediment load,
- improving litter management,
- rehabilitating vegetation,
- protecting cultural heritage,
- implementing a fauna management program.

These actions, among others within the CMP, reflect a comprehensive, multi-faceted approach to managing Lake Illawarra. At its heart, the CMP seeks to ensure the long-term sustainability of the lake by actively involving the community in its stewardship, fostering an understanding and appreciation of the lake's unique ecological, social, and cultural values.

1.3 Lake Illawarra

Lake Illawarra is a large estuary system located approximately 80 km south of Sydney and 10 km south of Wollongong. The lake's catchment covers an approximate area of 240 km², with a lake surface area of around 35 km² and an average depth of 2.1m. The lake and its catchment are located within the Wollongong Local Government Area and the Shellharbour Local Government Area (Figure 1).

Originally, the lake was a wave dominated barrier estuary with a flat-bottomed bed. However, between 2000 and 2007, in conjunction with channel dredging and the implementation of training walls, the entrance breakwaters were constructed to keep the Lake continuously open to the ocean. The entrance breakwaters have resulted in major geomorphic, hydrodynamic, and ecological changes to the lake.

Significant residential development, including the Calderwood, Tullimbar, and West Dapto Urban Release Area projects, is forecasted to add about 19,500 households to the catchment over the next 50 years and set to increase the population in the Lake Illawarra catchment by 43,604 people between 2016 and 2036, equivalent to approximately 20% growth across the period.

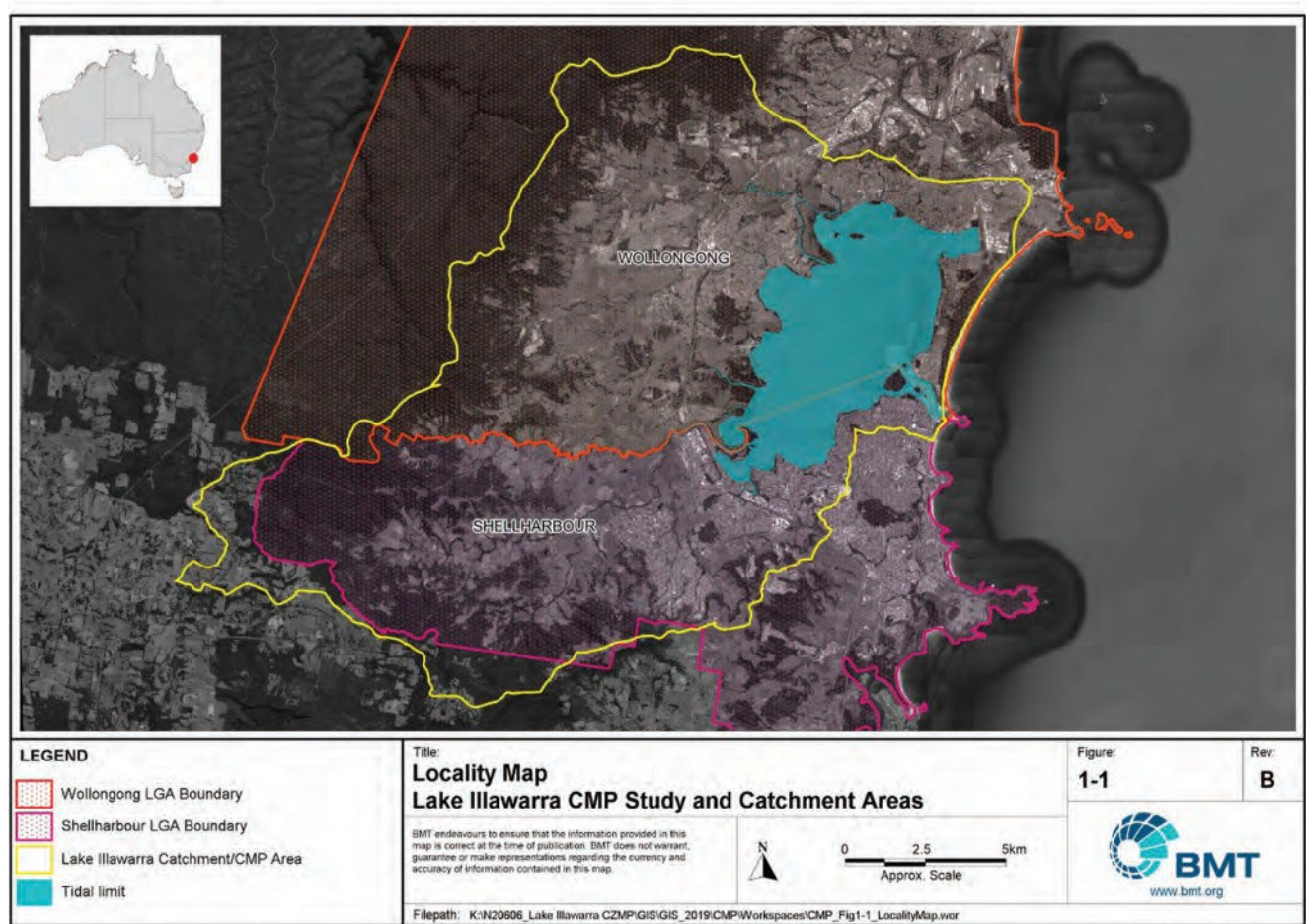


Figure 1: Lake Illawarra catchment and locality map



Phillip Kraskoff/shutterstock.com

1.4 The Lake Illawarra Community

Lake Illawarra lies within the jurisdictions of both the Wollongong City Council and the Shellharbour City Council. Together, these Councils service a combined population of over 300,000 people and encompass diverse communities with distinct cultures, experiences, and relationships with the lake. There are 15,000 residences near Lake Illawarra and over 120,000 people living within 5 km of the Lake Illawarra foreshore. The catchment is about 60% cleared land, including urban, industrial, and rural land uses.

The community within the Catchment area is as unique as the lake itself. It comprises a vibrant mix of residents, businesses, community organisations and educational institutions. Among the residents, there is a significant proportion of young families, retirees, and a growing multicultural community, reflecting the area's appeal as a place of natural beauty and relaxed lifestyle.

The community networks in the catchment area are vast and multifaceted. They include local environmental groups, recreational clubs, boating and fishing organisations, bird-watching groups, local businesses, volunteer organisations and the large local network of the University of Wollongong. Lake Illawarra serves as a hotspot for recreation, nature watching, volunteering activities, and tourism, hosting various events that attract thousands of local and visiting individuals. The lake is a vibrant hub of activity and community engagement.

Currently, community and stakeholder groups play a significant role in the conservation of the lake and its catchment. These groups have an intimate understanding of the lake's values and threats, which makes them an invaluable asset to the development and implementation of this Strategy.



This Strategy aims to foster an inclusive approach, ensuring that all community voices are heard and given the opportunity to learn and contribute to the protection and sustainable use of Lake Illawarra.



2 - Community Consultation and Development Methodology

Community consultation was conducted by BROOKS, with the support of the Project Officers from Wollongong City Council and Shellharbour City Council.

The engagement facilitators from BROOKS employed a multi-faceted approach during the consultation process, recognising the critical importance of incorporating a diverse array of perspectives. This ensured that this Strategy is not only built upon a rich breadth of insight and understanding, but directly informed by those it will serve and impact – the local community.



2.1 Consultation and Development Overview

Throughout 2022-2023, extensive community engagement and stakeholder consultation was undertaken for the development of this Strategy. It was the first time the community engagement had been conducted since the public exhibition of the CMP in 2020.

The first stage of the development of the Strategy focused on creating a comprehensive Community Engagement Best Practices Case Study of environmental and sustainability projects across NSW, Australia, and North America. These case studies highlight unique and innovative approaches to community engagement and education regarding environmental initiatives. This valuable resource serves as a guide for the planning and implementation of engagement initiatives for the lake, identifying practical recommendations to tailor engagement efforts and maximise community involvement.

In order to capture a diverse array of opinions and insights, the consultation process utilised five different engagement methods. This enabled the collection of valuable input and feedback from various sections of the Illawarra community.

HOW THE COMMUNITY WERE ENGAGED IN THE DEVELOPMENT OF THIS STRATEGY

**One-On-Ones with
Key Stakeholders**

**Hotspot Information
Kiosks and Idea Walls**

Stakeholder Survey

**Community
Workshops**

**Presentations to the
Implementation Group**

The chosen engagement techniques are based on the principles and framework of the International Association of Public Participation (IAP2) and were intentionally selected for their ability to consult a diverse network of unique stakeholders while simultaneously sharing important information regarding the project. These techniques minimise resource consumption, align with the core values of IAP2, and foster long-term community participation from a diverse range of community members.

"ENGAGING AT EVERY STEP"

2.2 Community Engagement Best Practices Case Study

BROOKS developed a collection of case studies that explore community engagement and participation strategies from various NSW, Australian, and international environmental and sustainability projects. This case study report showcases the unique ways that different environmental projects have engaged their local communities and draws out a series of important key insights;

KEY INSIGHTS

- **Engaging the community** goes beyond simple consultation; it requires a range of strategies that are tailored to the local context and specific community needs.
- **The most successful projects** were the ones that created genuine opportunities for community involvement, project ownership, and empowerment.
- **A variety of different approaches to community engagement** such as educational workshops, training programs, volunteer groups, community events, and online platforms worked best in reaching a higher number of community members and groups.
- **Having a representative out in the community**, sharing information is an effective way to connect with new stakeholders and build awareness.
- It's important to **reach unique stakeholders** via different communication channels, in particular utilising online engagement tools.
- Stakeholders that were given the **responsibility to lead or collaborate** on initiatives had greater chance for long term success. This responsibility was not given to stakeholders immediately but was built up over time, reflecting the importance for building strong community partnerships.
- **Citizen science serves a dual purpose**: it engages stakeholders by deepening their comprehension of environmental issues and potential solutions, while simultaneously conferring a significant benefit to the environment and resources of the project teams.
- There is a need for **long-term community engagement strategies** that create sustained community involvement and project ownership over time - it is not a quick immediate process.
- **The case studies demonstrated the critical importance of anticipating potential challenges and risks** during the planning phase. Projects that included a planned for risks with accompanying mitigation strategies found greater success in implementing their objectives.
- Case studies showed that **many projects experienced delays due to unanticipated complications or poor planning**. To avoid this, our implementation plan includes a realistic, well-structured timeline and budget that allows for potential obstacles.

2.3 One-On-Ones with Key Stakeholders

Twenty-four individual consultations were held with key stakeholders representing various community organisations and the CMP Implementation Group. These consultations were tailored to address each stakeholder's unique needs, interests and areas of expertise to foster an environment of open discussion of Lake Illawarra's past, present and future. These one-on-ones helped inform the Strategy by presenting a number of engagement challenges and opportunities to consider.

KEY INSIGHTS

- There is a **need to improve communications** concerning Lake Illawarra to include multiple mediums and platforms to reach a diverse population in the community.
- There was a near **consensus on the need to improve water quality**, indicative of the community's commitment to preserving the lake's natural resources.
- However, the suggested methodologies for achieving improved water quality varied significantly.
- There is a strong community **desire for enhanced signage**, not limited to compliance and safety but extending to informational, storytelling, and cultural facets that resonate with the lake's rich heritage.
- The **community issues surrounding the entrance channel** were a significant concern for a number of stakeholders.
- Yet, **it was acknowledged that this issue falls outside** the scope of the current engagement Strategy, requiring further, focused attention of the CMP.
- There is a **strong demand for greater collaboration** with the First Nations community, creating opportunity for community-led engagement initiatives for Lake Illawarra.
- It was suggested that this Strategy takes a long-term approach to engaging the local community to build trust, and ensure any Strategy is community-led.
- Calls for **greater community education** surrounding the crucial role vegetation plays within the lake ecosystem.
- Need for **targeted education in the construction industry** to help reduce sediment input into the lake.
- There exists **potential for collaboration and partnership** with key community groups in conservation and recreation activities around the lake.
- There is a **need to promote the economic value of Lake Illawarra** to the wider community.
- **Create opportunities for individuals** to experience the lake firsthand, developing a connection that extends beyond mere observance. Foster a sense of ownership and shared responsibility among community members.
- **Promote the economic value** of Lake Illawarra to the wider community, illustrating the lake's contributions to the local economy and its potential for future growth.
- Members **encouraged the development** of inclusive, accessible and unique and creative ways to engage.

The one-on-one participants included representatives from local government, Councillors, environmental organisations, University of Wollongong, community groups, businesses and more.

2.4 Hotspot Information Kiosks

Two Hotspot Information Kiosks were conducted at two locations in the Illawarra. These pop-up kiosks served as an opportunity to inform and educate passers-by about the lake's ecological, social and cultural value, the work of the CMP, and opportunities for future community engagement. The two pop-up kiosks were delivered in April 2023 at;

- Reddall Reserve during the Shellharbour Rocks the Lake Festival,
- Crown Street Mall in Wollongong during the school holidays.

The Kiosk featured three engagement activities that aimed to inform, consult and involve stakeholders in talking about the lake.

INFORMATION AND EDUCATION

The kiosks provided an interactive platform for education and the promotion of the CMP. Project Officers from both Councils were present to answer questions and speak with stakeholders about Lake Illawarra, sharing key information about the CMP and the lake. Visual infographics outlining the CMP management strategies and 39 Actions were displayed to attract attention and further educate passers-by about the project.

ACTIVITIES

Arts and crafts activities provided children the opportunity to learn about marine life in and around Lake Illawarra. These activities allowed Project Officers to connect with parents and discuss the CMP and provided opportunities to engage and share current knowledge and connection to the lake.

IDEA WALLS

The Idea Walls allowed passers-by to provide their input into the lake's future regarding this Strategy. Participants were asked to write down their ideas for the lake around education and engagement programs and activities. This public display allowed passers-by the opportunity to read and engage with over 70 submissions from other members of their community.



2.5 Stakeholder Survey

A stakeholder survey was completed by 183 participants to assess community knowledge, interest and awareness of the lake. The survey sought participant's feedback on their use of Lake Illawarra, knowledge and awareness of the CMP, opportunities for future learning, barriers to engagement, interest in potential engagement strategies and ideas for new strategies.

SURVEY QUESTIONS

The questions asked during the survey were carefully designed to gather specific information and opinions that would contribute to a comprehensive understanding of the community's knowledge, interest, aspirations, and concerns related to Lake Illawarra. Targeted questions sought to identify key issues, uncover potential opportunities, and gather input on specific strategies or initiatives that could be integrated into the overall Strategy.

1. How do you currently use/interact with Lake Illawarra?
2. On a scale of 1 to 5 how aware would you say you are in regard to the Lake Illawarra Coastal Management Program?
3. As part of the Lake Illawarra Coastal Management Program, the CMP is implementing a number of actions for the lake regarding sediment load, litter, bank vegetation, cultural heritage and fauna management. On a scale of 1-5, how would you rate your awareness of the following;
 - a. Sediment load to the lake
 - b. Litter management
 - c. Bank vegetation
 - d. Cultural heritage
 - e. Fauna and biodiversity
4. Which of these CMP actions would you be most interested in being involved in to help improve the lake?
5. What would you say is your biggest challenge in participating in the protection and preservation of Lake Illawarra?
 - a. Lack of information and awareness about Lake Illawarra programs
 - b. Lack of time to volunteer or participate in activities
 - c. Lack of interest
 - d. Distance from Lake Illawarra
6. Which of the following Lake Illawarra events, activities or programs would you consider attending?
 - a. Clean-up days (seaside scavenge)
 - b. Foreshore rehabilitation projects
 - c. Luv the Lake Expo (expert panel discussion, Q&A's, guest speakers)
 - d. Lake festival (Rides, Live Music, Entertainment)
 - e. Interpretive tours (nature walks, wildlife tours)
 - f. Educational workshops
 - g. Outdoor Cinema (along the foreshore)
 - h. Water sports competitions and activities
 - i. Lake Illawarra Volunteer Committee
 - j. Other (please specify): _____
7. What other ideas do you have that could help protect and preserve Lake Illawarra?

SURVEY DATA

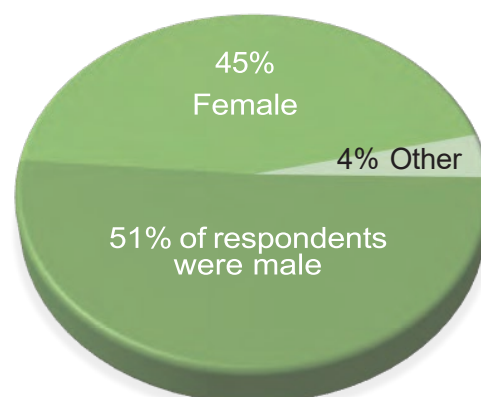
The survey responses provided valuable data and perspectives that helped shape the strategic direction of the engagement strategy and ensure that it aligns with the priorities and desires of the Lake Illawarra community.



- **A total of 183 survey interviews were conducted**



- **Average Age of 45**



- **35 Unique postcodes represented**

KEY INSIGHTS

- **40% of respondents walk or run** around the lake.
 - There is a great opportunity to connect and engage with these stakeholders who use the lake foreshore frequently with effective signage.
- There is a great **need to better promote the work of the CMP**, as the community's average awareness of the CMP (on a scale of 1 to 5) was 1.7.
- Stakeholders are **interested in learning more** about and getting involved with;
 - fauna Management and biodiversity (48%),
 - promoting cultural heritage (42%),
 - improving litter management (42%).
- 50% of respondents cited a **lack of information and awareness** as their biggest challenge in participating in the preservation and use of Lake Illawarra.
- 60% of respondents expressed **interest in attending Lake Illawarra community events**.
 - Events build awareness, connection and long-term commitment.
- People who live in the north of the catchment often shared that they have no reason to visit or want to visit the lake. Some said this was due to distance or a **lack of interest** in Lake Illawarra.

2.6 Community Workshops

A total of 55 community stakeholders participated in two Lake Illawarra community workshops to inform the development of this Strategy. These workshops targeted key focus areas for future Lake Illawarra engagement and facilitated collaborative brainstorming sessions on potential educational initiatives, participation programs, community events and community partnerships.

The workshops were considered a resounding success by the project team. Attendance at the workshops exceeded expectations, with 20 participants initially expected. These workshops were the first to be held since the public exhibition of the CMP in 2020, indicating high community interest and willingness to invest in the lake's future.

A key factor contributing to the workshops' success was the active involvement of the project team, who worked as individual table hosts to facilitate small roundtable discussions. This approach ensured that all attendees had an equal chance to voice their ideas and opinions, and fostered a collaborative and inclusive environment. The project team's involvement also provided community members with the opportunity to interact directly with the individuals responsible for implementing the strategies they were helping to develop, grounding the engagement process in a community-centric approach.

KEY INSIGHTS

- Stakeholders provided a number of unique ideas for signage regarding compliance, safety, ecology and storytelling opportunities, as well as identifying potential locations and signage features.
- A number of participants identified community organisations and networks to partner and collaborate with for future engagement, including OzFish, Illawarra Ramblers, Shellharbour SUP, Hooka Point Landcare and UOW School of Earth, Atmospheric and Life Sciences.
- A number of communications strategies were brought forward, calling on the need for an online space for information to be shared with the community as many felt unaware of where they can find out about activities, events and programs for the lake.
- Participants provided ideas for unique features, locations and timings for five potential engagement strategies surrounding community events, clean up days, citizen science programs, guided tours and a Lake Expo.
- Participants valued having their voices heard and contributing actively to the future of Lake Illawarra, sharing their ideas for how to engage their community and to highlight the importance of a collaborative process for participants.
- There is strong community desire for continued engagement through regular forums, with many participants expressing interest in annual or biannual workshops.



93% of participants expressed interest in attending future workshops related to Lake Illawarra engagement opportunities.

2.7 Presentations to the CMP Implementation Group

The community engagement consultants were in regular communication with the Lake Illawarra CMP Implementation Group, presenting the findings, progress and drafts of the Strategy. This constant dialogue ensured that all engagement efforts aligned with the broader objectives and actions outlined in the CMP, thus securing the success of this Strategy.

PRESENTATION 1

In the initial presentation to the CMP Implementation Group, the consultants shared a comprehensive case study report and provided a strategic road map for their engagement approach, showcasing a commitment to an inclusive, participatory process for Lake Illawarra.

PRESENTATION 2

In the second presentation, the CMP Implementation Group were presented a detailed analysis of the engagement conducted and how it would inform the development of these engagement strategies. It was made clear that these strategies weren't fixed strategies but rather evolving frameworks, poised to adapt and grow in response to emerging community needs, environmental shifts, and feedback from ongoing engagement activities. Notably, the engagement strategies presented received extremely positive feedback from the CMP Implementation Group.

This reaffirms the value of a collaborative and community-centric approach, setting a promising course for the effective implementation of the Lake Illawarra Community Engagement and Participation Strategy.



Through the CMP Implementation Group, the community's voice continues to be a driving force in the ongoing development and implementation of this Strategy.

2.8 Community Consultation - What We Heard

Throughout the consultation period to develop this Strategy the following key pieces of feedback were highlighted throughout the engagement conducted;

ECOLOGICAL CIRCLE

- Stop illegal dumping
- Builders sediment control
- Facilitate citizen science
- Protect biodiversity
- Accessible information
- Engaging information
- Connect with Universities
- Opportunities for stewardship
- Involve schools
- Promote fish populations
- Preserve seagrass
- Vegetation Benefits

SOCIAL CIRCLE

- Bring people together
- Promote cultural heritage
- Support recreation
- Creative storytelling
- Restore jetties
- Promote sustainable fishing
- More swimming areas
- Bring back events
- Celebrate the Illawarra
- Social clean-up days
- Better Access
- Affordable watercraft use

OVERLAP OF ALL THREE CIRCLES (Ecological, Social, Economic)

- Improve communications
- Effective and creative signage
- Regular community workshops
- Partner with community
- Social media presence
- Fun Educational materials
- Community-led engagement
- First Nations Engagement
- Engage Culturally and Linguistically Diverse (C.A.L.D.) communities
- Volunteer Eco Tours

ECONOMIC CIRCLE

- Support local entrepreneurship
- Improve Infrastructure
- Promote Lake businesses
- Regulate commercial fishers
- Activate the foreshore
- Promote Lake tourism
- Create employment opportunities
- Corporate Partnerships
- Educational Tourism
- Water sport rentals
- Lakeside restaurants
- Fundraising opportunities

2.9 Other Key Concerns for the CMP

During the engagement process, community members and stakeholders shared with the engagement team other areas of interest that fall outside the scope of the Lake Illawarra Community Engagement and Participation Strategy.

While these areas hold significant interest for the CMP and might be integrated into other Key Actions, they have not been specifically developed for this Strategy. However, these suggestions, ideas and concerns have been duly recorded in this section and forwarded to the Project Officers for evaluation.

THE ENTRANCE CHANNEL

Community members and key CMP stakeholders have raised concerns about the condition and management of the entrance channel. This topic falls under CMP Strategy 3 (Manage the Entrance Channel) with several relevant management actions included. Relevant community updates will be provided as the actions are implemented.

DREDGING

The topic of dredging has been a recurring theme throughout the engagement process, with stakeholders expressing interest in exploring the potential benefits and impacts of this procedure on Lake Illawarra. Dredging falls under Key Actions RA5 and RA6 and is currently being implemented. Bio-dredging, a treatment being trialed overseas that involves accelerating the natural decomposition process of organic matter in sediment by adding beneficial bacteria, has also been raised as an option to further investigate alongside traditional dredging. This may or may not have further application for the lake.

JETTIES RESTORATION

The issue of jetties restoration was raised by various stakeholders during the engagement process. There is a clear community interest in maintaining and restoring these structures due to their historical significance, recreational value, and potential role in local tourism. While not directly related to the current engagement Strategy, this concern points towards the need to preserve Lake Illawarra's recreational assets. Maintaining foreshore infrastructure falls under Key Action RA1.

TRANSPORT TO THE LAKE

Efficient and eco-friendly transport links can encourage more visitors to the lake, boost local tourism, and reduce environmental impacts. While this issue doesn't directly connect to our current engagement Strategy, it reflects the broader community concern for sustainable tourism and accessibility. There is potential for the CMP Implementation Group to collaborate with local transport authorities to improve public transport links, exploring the feasibility of cycling routes, and encouraging environmentally friendly transport options like electric vehicle charging stations near the lake.

ACCESSIBILITY ALONG THE FORESHORE

The accessibility of the Lake Illawarra foreshore has been highlighted as a significant concern. This includes both physical accessibility for individuals with mobility issues, and broader access for the community to enjoy the lake and its surroundings. Although this aspect lies outside the current Strategy's immediate scope, it indicates a clear community desire for inclusive and equitable access to Lake Illawarra's natural resources. There lies an opportunity to develop a comprehensive accessibility plan that considers various needs such as wheelchair access, child-friendly amenities, and secure access points to the foreshore.

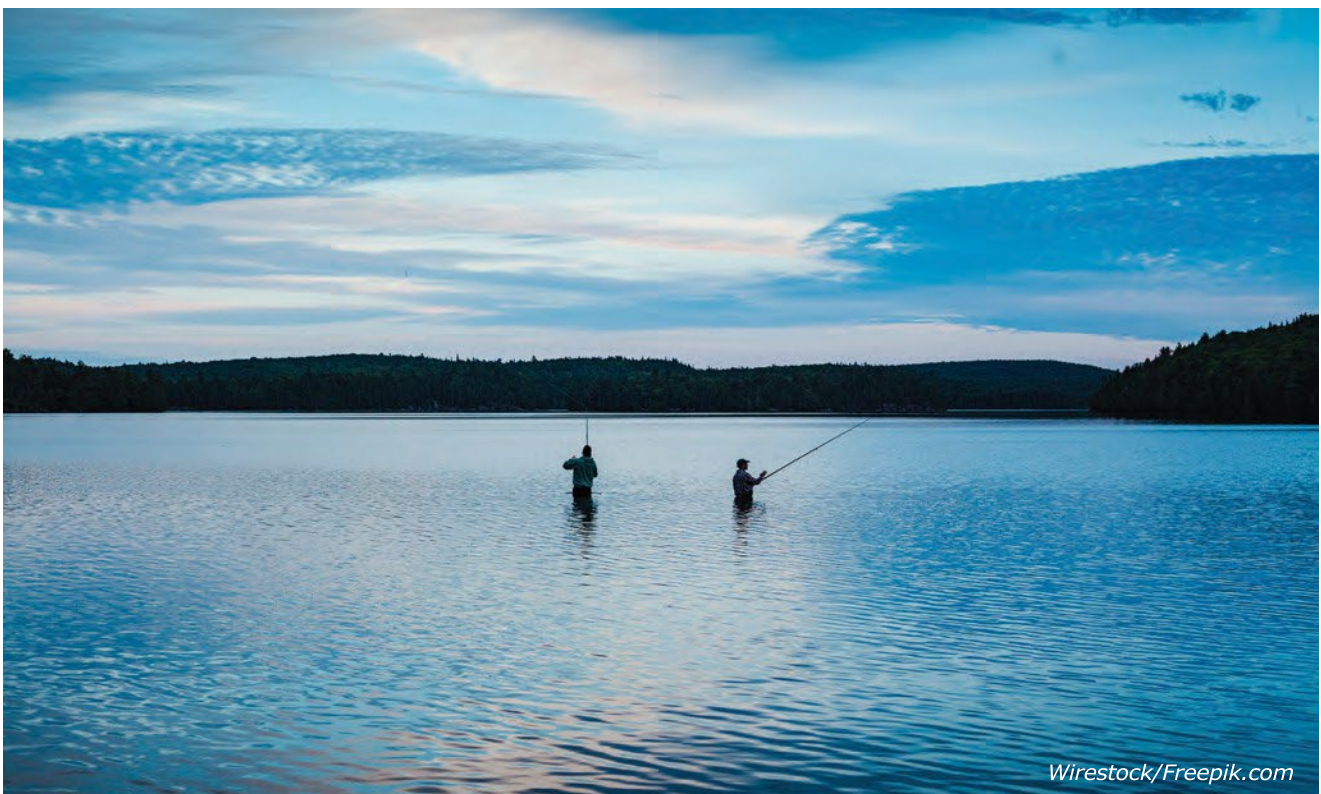
COMMERCIAL FISHING

There have been suggestions to ban commercial fishing in Lake Illawarra from community members. Stakeholders concerned about the sustainability of fish populations and the health of the aquatic ecosystem have voiced this. This idea is beyond the scope of this project, however, indicates a strong community interest in sustainable fishing practices and protecting Lake Illawarra's biodiversity.

COCKLE HARVESTING

Cockle harvesting is another area brought up by the community, hinting at the community's broader concern for the lake's aquatic life. While no specific engagement Strategy was developed for this area of interest, Lake signage and hotspot kiosks could address sustainable shellfish harvesting regulations and community education around the ecological role of cockles in the future.

Each of these insights may present potential avenues for future engagement with the Lake Illawarra community.





3 - Community Engagement and Participation Strategy

This section will outline the engagement objectives, key focus areas, and recommended strategies for the Lake Illawarra Community Engagement and Participation Strategy. Each of these strategies and objectives have been informed by the community consultation process conducted by BROOKS in partnership with Wollongong and Shellharbour City Councils.



3.1 Engagement Principles

This Strategy has been developed in accordance with the guiding principles and values of IAP2. IAP2 is a global organisation that promotes and advances the practice of public participation and community engagement. It provides resources, training, and support for organisations, including government bodies and Councils, to engage the public in a meaningful and effective way.

Seven Core Principles for Effective Community Engagement



CAREFUL PLANNING AND PREPARATION

Ensure that the engagement design, community research and strategic planning serve both a clearly defined purpose and meet the needs of all participants.



INCLUSION AND DIVERSITY

Equitably incorporate diverse people, voices, ideas, and information to lay the groundwork for quality outcomes of the democratic process.



LISTENING AND LEARNING

Help all involved listen to each other, explore new ideas unconstrained by predetermined outcomes, learn and apply information in ways that generate new options, and rigorously evaluate public engagement activities for effectiveness.



COLLABORATION AND FINDING SHARED PURPOSE

Support and encourage all participants to work together to advance the common good.



OPEN TRANSPARENCY AND TRUST

Be clear and open about the process, maintaining consistent communication and interactions with the community. When possible, provide a public record of the organisers, sponsors, outcomes, and range of views and ideas expressed.



IMPACT AND ACTION

Ensure each participatory effort has the potential to make a difference, and that participants are aware of that potential.

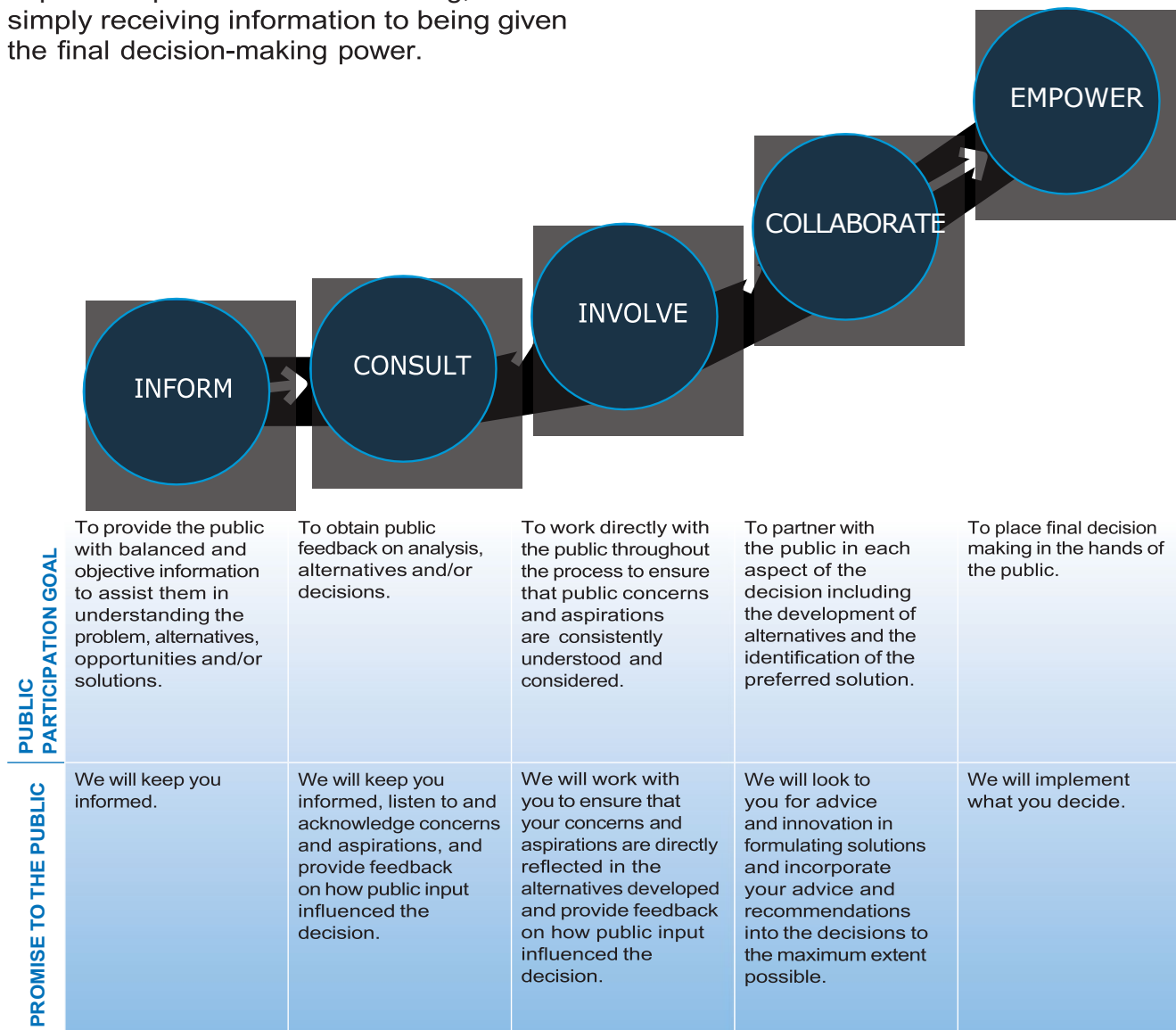


SUSTAINABLE ENGAGEMENT AND PARTICIPATORY CULTURE

Promote a culture of participation with quality programs and initiatives that support ongoing public engagement.

SPECTRUM OF PUBLIC PARTICIPATION

Each Strategy utilises IAP2's Public Participation Spectrum of Engagement to determine the appropriate level of public participation for the chosen initiative. It identifies five levels of participation: Inform, Consult, Involve, Collaborate, and Empower. Each level signifies an increasing degree of public impact on decision-making, from simply receiving information to being given the final decision-making power.



3.2 Engagement Objectives

These engagement objectives serve as the guiding principles for future engagement and provide a clear direction for each initiative. The objectives will help guide the Project Officers' implementation of this Strategy by encouraging genuine community participation that promotes knowledge-sharing and facilitates the collaboration of sustainable engagement initiatives for Lake Illawarra.



Promote Community Awareness: Enhance community understanding of the ecological, cultural, and social values of Lake Illawarra.



Develop Knowledge and Skills: Equip community members with the skills and knowledge necessary to actively participate in the preservation and sustainable use of Lake Illawarra.



Foster Stewardship and Commitment: Encourage a sense of ownership and responsibility within the community towards the Lake's wellbeing and future prosperity.



Facilitate Active Participation: Increase opportunities for community involvement in events, volunteer programs, environmental initiatives, and decision-making processes pertaining to Lake Illawarra.



Enhance Community Appreciation: Develop the community's appreciation and commitment to the ecological, social, historical and cultural value of Lake Illawarra



Strengthen Community Partnerships: Foster collaborative partnerships between different community stakeholders, including local government, businesses, schools, environmental groups, and residents to promote collective action towards the Lake's ecological, social and recreational sustainability.



Inclusive Engagement: Ensure the engagement Strategy is inclusive and represents the diversity of the community. This could involve specific initiatives targeted at underrepresented groups involved in the lake.



Drive Behavioural Change: Inspire positive behavioural change within the community through awareness campaigns, educational programs, and other engagement initiatives that highlight the importance of environmentally friendly practices.



Evaluate and Improve: Establish a robust framework for monitoring and evaluating the effectiveness of the engagement Strategy, allowing for continuous learning and improvement to ensure long-term success.

3.3 Strategy Focus Areas

Following the comprehensive engagement process, the thirteen engagement strategies and initiatives have been categorised into four primary focus areas: strategic communications, participation activities, collaborative partnerships, and community events.

Each of these focus areas plays a pivotal role in fostering successful information dissemination, encouraging active involvement, fostering collaboration, and delivering impactful experiences.

STRATEGIC COMMUNICATIONS

This area underscores the importance of well-structured and impactful communication as a key instrument in fostering community awareness and knowledge. Serving as the foundation of engagement efforts, strategic communications aim to inform and educate the broader community about Lake Illawarra and its significance.

PARTICIPATION ACTIVITIES

These activities are specifically designed to actively involve community members, cultivating a deep-seated bond with Lake Illawarra. They encompass a range of hands-on experiences, fostering a sense of ownership and responsibility towards the lake's conservation.

COLLABORATIVE PARTNERSHIPS

Establishing valuable community partnerships will help garner widespread community support for initiatives concerning Lake Illawarra. Partnerships allow for collaboration on projects, the sharing of information and resources to achieve the common goal of enhancing the community's wellbeing.

COMMUNITY EVENTS

Events provide a unique opportunity to bring people together, foster connections, and create memorable experiences that deepen understanding and inspire action. By strategically designing and hosting events that highlight the significance of Lake Illawarra, we can effectively engage a broader audience and raise awareness.



4 - Strategies Overview

STRATEGIC COMMUNICATIONS

1. Lake Illawarra Signage Development and Management Plan
2. Lake Illawarra Online Hub
3. Hotspot Information Kiosks
4. Resourcing Compliance Officer with Educational Materials

PARTICIPATION ACTIVITIES

1. Annual Community Workshops
2. Lake Illawarra: Walk and Talks
3. Upskilling Existing Community Networks with Citizen Science

COLLABORATIVE PARTNERSHIPS

1. Community Led First Nations Engagement
2. Check in with CMP Implementation Group Members
3. Developing New Community Partnerships

COMMUNITY EVENTS

1. University of Wollongong Interprofessional Education Activity Day
2. Lake Illawarra Outdoor Cinema
3. Lake Illawarra Tourism and Recreation Expo





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4.1 Lake Illawarra Signage Development and Management Plan

The Signage strategy aims to create a comprehensive plan for the delivery of informative, educational and engaging signage for the lake foreshore. Signage will seek to engage lakeside visitors through visual infographics to enhance knowledge, promote environmental awareness and foster a deeper appreciation for Lake Illawarra's significance via;

- safety and compliance signage,
- directional information signage,
- ecological education,
- cultural and historical storytelling with interpretive signage.

TYPES OF LAKE ILLAWARRA SIGNAGE

Safety and Compliance Signage

- No Swimming
- No Camping
- Dog leash and off leash rules around the lake
- Additional Compliance Signage
- Report Illegal Dumping
- Cockle harvesting limits
- Fishing Tackle Litter

Directional Information Signage

- Lake Illawarra Bike Trail
- Boat Launch, Jetty Locations and access points
- Safe to Swim - Lake Illawarra Sitemap
- Service and Facility Signage
- Lake Illawarra Attractions
- Promotional banners/billboards
- Cultural trail

Ecological Education

- Visual history of the lake as an ecosystem
- Water quality information display, QR codes link to current water assessments
- Native foreshore and aquatic vegetation communities and their benefits
 - The Role of Seagrass; The Role of Mangroves; The role of Casuarinas
- Fish, marine life and shorebird species identification
- Wider catchment's influence on the lake
- Harvesting Guides

Cultural and Historical Storytelling and Interpretive signage

- Opportunities for First Nations Storytelling
- Cultural place names
- Heritage Trail
- Historical site information detailing;
 - History of the Hooka Point Bush Care
 - Industry associated with the lake

Note: These are suggestions for signage that were gathered for the Lake Illawarra Signage Development and Management Plan during the community consultation period and during the development of the CMP. Actual signage is to be determined following the approval of the Development and Management plan.

POTENTIAL LOCATIONS TO TARGET

Wollongong City Council

- Hooka Point
- Tallawarra Point
- Macquarie Rivulet
- Purry Burry Point
- Wollomai Point
- Kanahooka Park
- Kully Bay East Park

Shellharbour City Council

- Reddall Reserve
- Picnic Island
- Foreshore Area of Davies Bay
- Koon Bay
- Mogurah Point
- Oak Flats Ski Way Park
- Koon Bay Reserve



Figure 2: Map of Lake Illawarra showing suggested locations for signage that were gathered through community consultation. Actual signage is to be determined following the approval of the Signage Development and Management Plan.

4.2 Lake Illawarra Online Hub

Recognising the necessity of digital communications for Lake Illawarra, this Strategy proposes the collaboration with both Councils' communications teams to build Lake Illawarra's online presence. The Online Hub will share vital information and present opportunities for community involvement digitally. This will include the development of a Lake Illawarra Logo, Lake Illawarra webpages on both Council's respective websites, and the creation of a Lake Illawarra content calendar for Council's communication teams to draw from.

FEATURES TO BE CONSIDERED FOR THE WEBPAGE GATHERED DURING THE COMMUNITY CONSULTATION PERIOD.

Lake Illawarra Branding: Establishing a strong and recognisable brand for Lake Illawarra will enhance communication and awareness for the lake.

Event Calendar: The comprehensive event calendar will promote and highlight activities and events around Lake Illawarra.

Activity Guide: A detailed activity guide will encourage residents and visitors to explore and engage in recreational opportunities, driving active participation in Lake Illawarra.

Articles and Report Archive: The accessible report archive will provide valuable information, research and articles regarding the lake's ecological, social and economic value, enabling the community to make informed decisions and actively participate in issues related to Lake Illawarra.

History and Culture Information: Sharing the rich history and cultural significance of Lake Illawarra will foster a sense of pride and connection among community members, increasing awareness, knowledge, and commitment to preserving and celebrating the lake's heritage.

'My Lake Experience' Community Stories: Featuring personal stories from community members will create a sense of belonging, inspire others to share their experiences, and build a stronger community bond around Lake Illawarra.

Ecological Learning Videos: Educational videos about the lake's ecosystem will share with the community updates on the work being done and encourage community members to contribute to conservation efforts.

Citizen Science Updates: Regular updates on citizen science initiatives will encourage community involvement and participation in scientific research.

Photo Galleries: Visual representations of Lake Illawarra's natural beauty through photo galleries will create a strong visual impact, sparking interest, fostering awareness, and encouraging active participation and exploration of the lake's surroundings.

4.3 Hotspot Information Kiosks

Pop-up information stalls will educate the wider community about key Lake Illawarra issues. These Kiosks are a vibrant and engaging educational hub designed to raise awareness and stimulate action on important environmental issues. The kiosk offers a range of interactive activities, educational materials and information displays, staffed by knowledgeable Project Officers who are on hand to answer any questions.

The kiosks will revolve around a specific issue related to CMP Key Actions that include litter reduction, water quality and pollutants, foreshore protection and revegetation, plants and animals of Lake Illawarra, stormwater and sediment control (targeted for builders and developers) and Lake Illawarra cultural heritage.

LAKE ILLAWARRA HOTSPOT INFORMATION KIOSK FEATURES

Project Officers: Skilled personnel will man the kiosks to provide valuable knowledge about Lake Illawarra and its ecosystems. They will facilitate the kiosk's activities, answer visitor's questions, and ensure the kiosk's smooth operation.

Educational Materials: The kiosks will provide the public with a variety of learning resources such as brochures, pamphlets, or handouts that share detailed information about the lake and the importance of its conservation.

Information Displays: The kiosks will engage passers-by through informative and engaging visual aids such as charts, infographics, and display boards. This will aim to capture the attention and interest of the public in high pedestrian areas.

Interactive Activities: Engaging, hands-on experiences will be designed to educate visitors about Lake Illawarra in a fun and accessible way. These could include games, demonstrations, quizzes, and interactive displays related to local flora and fauna, pollution control, and other environmental topics.

Idea Walls: Spaces where visitors can contribute their thoughts, ideas, or experiences relate to the lake's conservation. This could include suggestions for litter reduction, experiences with local fauna, or ideas for community involvement.

Activity Calendar: A schedule of events, activities, workshops, and programs taking place around Lake Illawarra that stakeholders can learn about and participate in.

4.4 Resourcing Compliance Officers with Education Materials

This strategy aims to inform and educate builders, developers, and construction site managers about the necessary compliance actions for the impact of sediment loads on the lake and implementing erosion controls onsite. A comprehensive plan has been formulated to equip compliance officers with essential educational materials for this purpose. The long-term vision includes partnering with TAFEs in the Illawarra and organising a Builder's Breakfast BBQ to further educate builders on the environmental impacts of their projects.

EDUCATIONAL MATERIALS FOR RESOURCING COMPLIANCE OFFICERS

Site Sediment Compliance FAQs: A comprehensive document answering frequent questions about site compliance, addressing common misunderstandings and offering clarity on complex issues. It will be regularly updated based on evolving regulations and user feedback.

Educational Brochure: An easily comprehensible brochure elaborating on best practices for site compliance, enriched with diagrams or illustrations for clearer understanding. It will be available in multiple languages to cater to a diverse demographic of builders.

On-Site Sediment Control Banner: Eye-catching and informative signage to be displayed on building sites, highlighting best practices and potential consequences of non-compliance with regulations.

Builder's Breakfast BBQ: A casual event bringing together local builders and compliance officers to share insights about site sediment control practices. It serves as an interactive platform to discuss common challenges, share success stories, and learn from each other.

Online Tutorials, Instructional Videos and Webinars: A series of online learning modules offering in-depth knowledge on sediment control. These digital resources would include webinars and instructional videos, fostering self-paced and flexible learning.

Connection with TAFE: A collaboration with local TAFE institutes to incorporate a module on site sediment control in their courses. The compliance officers can provide guest lectures or practical demonstrations, bringing first-hand expertise into the learning environment.

Additional Educational Materials: A certification or badge system can also be introduced to motivate builders to complete these resources.

These materials will not only provide guidance on site sediment control, but also promote a culture of compliance among builders, leading to a more sustainable construction environment.

Note: Materials and activities will be developed in collaboration with WCC and SCC compliance teams.



4.5 Community Workshops

Building on the successful community workshops, an annual Lake Illawarra workshop will continue to foster connections with the community, gather feedback, share CMP updates, and explore innovative engagement strategies. This Strategy will ensure ongoing community involvement, amplifying the CMP's impact and fostering collaborative partnerships for the lake.

COMMUNITY WORKSHOP AGENDA

WELCOME AND INTRODUCTION

- Overview of the workshop objectives and agenda
- Safety, respect and housekeeping announcements

Exercise 1: ICEBREAKER

- Introduction round
 - Introduce name
 - Participants share why they are at the workshop
 - Brief icebreaker game/activity about participants memorable experiences they have had on Lake Illawarra in the past year

Exercise 2: ENGAGEMENT REVIEW

- Presentation - Summary of past and current community engagement strategies
- Group discussion - Reflect on these activities, discuss what has worked well, what could be improved for the future

Exercise 3: WORLD CAFE

- Introduction of the World Café engagement concept
- Formation of small groups for discussion (each group will focus on a different topic)
- Rotate topics among groups, summarising the previous group's points before adding their own. Topics can range from current engagement strategies to potential new strategies for Lake Illawarra
- Whole group discussion - Summarise and synthesise key points from each table

Exercise 4: COMMUNITY PARTNERSHIPS

- Introduction - Importance of developing new community partnerships
- Breakout groups - Discuss potential partnerships, why these would be beneficial, and steps to develop these relationships for specific strategies
- Sharing - Each group presents their partnership ideas

Exercise 5: NEW IDEAS

- Idea brainstorming - Participants suggest new engagement strategies or additional activities to build upon the current strategies and initiatives
- Group discussion - Explore feasibility and potential impact of each idea
- Voting - Participants can vote on the most promising ideas

WRAP-UP

- Recap of the key points from the workshop
- Next steps and follow-up actions
- Thank participants for their time and contributions



4.6 Lake Illawarra ‘Walk and Talks’

This biannual participation program brings together guest speakers and attendees for casual ‘Walk and Talks’ held by the lake. These sessions allow participants to interact with expert guest speakers to gain a deeper understanding of specific topics related to Lake Illawarra.

These interactive sessions will alternate between being targeted for children and the general public, providing an inclusive and educational opportunity for younger participants to actively explore and connect with Lake Illawarra. The ‘Walk and Talks’ will not only enhance participants’ knowledge and awareness, but also foster a lifelong appreciation for the lake, nurturing a sense of stewardship and environmental responsibility.

SUGGESTED WALK AND TALKS

“The Rich Aquatic Life of Lake Illawarra” with experts from Ozfish Illawarra Chapter

Activity: Cast netting demonstration and talk for children about the different fish species in the lake. This will be held during the school holidays.

Informational Talk: Discuss the importance of maintaining healthy aquatic ecosystems and the role of fish in these systems.

“Understanding our Water” with UOW researcher and water catchment expert

Interactive Component: Engage in a hands-on exploration of the lake’s water quality with UOW’s resident sedimentologist.

Educational Dialogue: Delve into understanding the importance of water quality, factors affecting it, and its direct impact on the lake’s ecosystem.

“Spotlight on Native Bird Species” with a local ornithologist

Activity: Bird watching tour along the lake’s edge, identifying and learning about the different native bird species.

Informational Talk: Talk about the role of birds in the lake’s ecosystem and the importance of bird conservation.

“Explore the Flora of Lake Illawarra” with Growing Illawarra Natives

Activity: Guided tour identifying and discussing various plant species, their uses, and adaptations.

Informational Talk: Explain the importance of plant biodiversity for lake Illawarra’s ecosystem.

“Lake Illawarra through the Lens” with a local nature photographer

Activity: Guided photo walk where participants can learn tips and tricks for capturing the natural beauty of the lake.

Informational Talk: Discussion about the importance of visual storytelling in raising environmental awareness.

“The History and Culture of Lake Illawarra” with a local historian

Activity: Walk along the foreshore learning about significant cultural sites.

Informational Talk: Share stories and discuss the cultural significance of the Lake to the local Indigenous people.

“The Impact of Climate Change on Lake Illawarra” with a local climate scientist

Activity: Interactive demonstration of how climate change impacts local ecosystems

Informational Talk: Explain the science of climate change and its potential impacts on Lake Illawarra.

All the Walk and Talks should include a short introduction about Lake Illawarra’s overall ecosystem to provide context for each specific topic.

Please Note: These walk and talk examples are suggestions only and can be changed or adapted depending on the needs of the CMP and community.



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4.7 Upskilling Existing Community Networks with Citizen Science

This Strategy focuses on harnessing existing community networks by integrating simple and fun citizen science monitoring into their existing work. The Project Officers will meet and connect with local schools, community organisations and volunteer groups active in and around the lake, (i.e. Illawarra Ramblers, Landcare) to connect with their interests and find opportunities for citizen science. In collaboration, the Project Officers will upskill the volunteers in straightforward and interesting scientific monitoring processes.

POTENTIAL CITIZEN SCIENCE ACTIVITIES

- **Water Quality Monitoring:** Engaging in water quality monitoring initiatives allows existing volunteer networks to contribute valuable data on the health and conditions of Lake Illawarra's water.
- **Litter Clean-Up and Analysis:** Volunteer networks can assist in identifying litter hotspots, conducting clean-ups and litter audits, and contributing to targeted prevention and mitigation strategies for maintaining the cleanliness and health of the lake.
- **Use of Scientific Mobile Apps:** Utilising scientific mobile apps will enable efficient data collection and provide valuable insights for monitoring and management purposes. Examples could include Climatewatch, Plantnet and iNaturalist.
- **Birdwatching and Monitoring:** Involving volunteers in birdwatching and counting activities to gather data on bird populations, their habitats, and migration patterns. Volunteers could be trained to take part in the Birdlife Australia 'Aussie Bird Count' or similar initiatives.
- **Photographic Surveys of Flora and Fauna and Environmental Conditions:** Enables the documentation of species diversity and distribution, and the state of ecologically important areas for informing conservation actions. Coastsnap photo posts could encourage community members to monitor bank foreshore condition using their phones.
- **Planting Native Vegetation:** Volunteer networks can participate in native vegetation planting programs, contributing to the restoration and preservation of Lake Illawarra's ecosystem, enhancing habitat quality, and supporting biodiversity conservation.
- **Invasive Species Tracking:** Engaging volunteers in tracking invasive species using platforms such as the Feralscan to facilitate early detection and response, contributing to the effective management and control of invasive species' impacts on Lake Illawarra's ecological balance.
- **Fish Population Surveys:** Involving volunteers in fish population surveys and training fishers to support recreational fishing research provides crucial data on fish species diversity and abundance, supporting sustainable fisheries management.
- **Tree Vandalism Reporting:** Encouraging volunteers to report incidents of tree vandalism promotes the protection and preservation of the lake's vegetation, contributing to the provision of shade and habitat for wildlife.
- **Microplastic Observation:** Monitoring the presence and distribution of microplastics in the lake using the AUSMAP citizen science methodology will help managers identify sources of these pollutants and develop strategies to minimise microplastic leakage into the lake.

By involving volunteers in these simple citizen science activities, we can foster a sense of ownership and stewardship for Lake Illawarra, while also collecting valuable data to inform conservation efforts.

4.8 Community-led First Nations Engagement

This Strategy provides a plan for engaging the First Nations community effectively to build long-term relationships and partnerships for Lake Illawarra. Project officers will work with the Council Reference Committees to meet and connect with First Nations representatives to ensure any engagement efforts for the lake are community-led.

First Nations Community Organisations to Meet and Connect with Regularly

- Wollongong City Council Aboriginal Reference Group
- Shellharbour City Council Aboriginal Advisory Committee
- Illawarra Local Aboriginal Land Council
- Coomaditchie United Aboriginal Corporation
- Shellharbour Aboriginal Community Youth Association (SACYA)
- Illawarra Aboriginal Corporation
- Cultural Development Public Art – Wollongong City Council
- Other First Nations Organisations
- Woolyungah Indigenous Centre - University of Wollongong

This Strategy is about building connections with the Illawarra's First Nations community, to ensure all engagement is community-led. As well as the organisations listed above, over the course of the CMP the Project Officers will meet with Elders, Traditional Owners, Community Leaders, Local Artists and other First Nations Stakeholders.

4.9 Check-in with CMP Implementation Group Members

This Strategy expands upon the quarterly CMP Implementation Group meetings and involves regular check-ins between the Project Management Team and individual CMP Implementation Group members and other key stakeholders. The check-ins serve as a strategic tool for fostering a stronger connection between the Project Management Team and key stakeholders. These sessions aim to facilitate open dialogue, synchronise efforts, address any concerns, and progress the CMP's objectives in a cohesive and coordinated manner.

Each Year, the Project Team will Check In with

- Wollongong City Council representatives
- Shellharbour City Council representatives
- Representatives from the Department of Planning and Environment
- Representatives from NSW Department of Primary Industries - Fisheries
- Representatives from the Environment Protection Authority (EPA)
- Community representatives
- Local Indigenous community representatives
- Representatives from local environmental and conservation groups
- Representatives from the local business and tourism sector
- Local education sector representatives (e.g., University of Wollongong)
- Other key stakeholders

4.10 New Community Partnerships

This initiative sees the Project Officers identify and connect with community organisations and businesses active in the Illawarra to collaborate and partner on potential lake initiatives. By meeting with organisations that have a large reach in the Illawarra, the Project Officers will help educate a wider network of stakeholders and foster newfound commitment to the lake's future.

ORGANISATIONS TO CONNECT WITH

Environmental Groups <ul style="list-style-type: none"> • Oz Fish Illawarra • Environmental Education Centre 'The Farm' • Seabird Rescue • Illawarra Birders • Growing Illawarra Natives 	Bushcare and Landcare <ul style="list-style-type: none"> • Hooka Point Bushcare • Budjong Creek Bushcare • Green Connect • Illawarra intrepid Landcare • Landcare Illawarra • Kelly Street Bushcare
Sporting and Recreational Clubs <ul style="list-style-type: none"> • Surfrider Foundation • Lake Illawarra Sailing Club • Illawarra Yacht Club • UOW Pulse • Lake Illawarra Fishing (Facebook) • Real Fishing Illawarra (Facebook) • Port Kembla AFL club • Sailability 	Schools and Universities <ul style="list-style-type: none"> • Windang Public School • Oak Flats Public School • Lake Heights Public School • Lake Illawarra High School • Berkeley Public School • Dapto High School • Lake Illawarra South Primary School • UOW
Other Community Organisations <ul style="list-style-type: none"> • Coomaditchie VAC • Vietnamese Association of Wollongong • Dapto Lions Club • Dapto Cubs / Scouts / Venturers • Boomerang Bags Illawarra • The Tinkerage Shellharbour • Healthy Cities Illawarra • South32 • Multicultural Communities Council, Illawarra • Illawarra Historical Society 	Existing Council Groups <ul style="list-style-type: none"> • Rise and Shine • Neighbourhood Forums • WCC Aboriginal Reference Group • SCC Aboriginal Advisory Committee • WCC Cycling Advisory Groups • WCC Sports and Facilities Reference Group • WCC Walking, Cycling and Mobility Reference Group • Wollongong Heritage Reference Group. • SCC Public Art Advisory Panel • SCC Sports Assistance Advisory Committee • SCC Active Recreation Working Party









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4.11 UOW Interprofessional Education Day

This initiative is a collaboration between the Project Officers and the University of Wollongong's School of Earth, Atmospheric and Life Sciences (SEALS). Together they will host students in a scientific problem-solving workshop, that focuses on the CMP's goals of protecting and preserving Lake Illawarra. This workshop will gain new innovative ideas for Lake Illawarra as well as sparking students' interest in scientific communications and critical thinking using a local case study.

ACTIVITY DAY FEATURES

The University of Wollongong Interprofessional Activity Day presents an opportunity for students to creatively engage with a series of CMP actions pertinent to Lake Illawarra. The core of the day's agenda will be to employ interdisciplinary problem-solving skills to address key actions, while simultaneously developing effective strategies for communicating their solutions to the wider community. This dual focus on both solution development and scientific communication is intended to enrich students' understanding of community engagement.

	Water Quality Improvement: Students will delve into Lake Illawarra's current water quality data and work collaboratively to devise practical solutions for improvement. They will then construct compelling communication messages that stress the vital role clean water plays for both humans and wildlife in the region.
	Habitat Restoration: Emphasising key local habitats such as mangroves, wetlands, or dunes, students will brainstorm restorative measures. The communication strategies they develop will underline the essential function these habitats perform for biodiversity and the health of the ecosystem.
	Sediment Control: Tasked with mitigating sediment runoff into the Lake, students will explore both engineering and public education strategies. Their communication messages will focus on the detrimental impact sedimentation can have on water clarity and aquatic life.
	Sustainable Recreation: Focusing on promoting sustainable recreational activities around Lake Illawarra, students will communicate the twin benefits of eco-friendly recreation for both people and the environment.
	Climate Change Adaptation: Given the potential impacts of climate change on coastal areas, students will create adaptive strategies to help Lake Illawarra prepare for predicted challenges such as rising sea levels or increased storm intensity. They will then design educational messages about the local effects of climate change and the importance of adaptive management.
	Public Engagement and Education: Students will design innovative public engagement campaigns that build awareness about the issues faced by Lake Illawarra. This could take the form of social media campaigns, educational signage, or community events.



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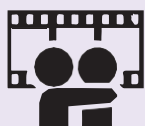
4.12 Lake Illawarra Outdoor Cinema

This summertime event aims to bring families together along the foreshore for an enjoyable Lake experience. The event features environmental-themed short films and various Lake-centric activities to enhance community awareness before the main family-friendly feature film. This community event will bring a wide variety of stakeholders to the lake to appreciate its ecological, recreational and social value.

EVENT FEATURES



Film Selection: “Finding Nemo”, set in the colourful depths of Australia’s Great Barrier Reef, or “Moana”, a tale of adventure across the Pacific Ocean, both bring forth engaging narratives centred around aquatic ecosystems and marine life, making them an excellent fit to ignite interest and conversation about Lake Illawarra’s marine environment.



Pre-Show Short Films: Before the main feature begins, screen a series of short eco-focused films. These could be informative or inspiring documentaries about marine life, pollution, conservation, etc.



Hotspot Information Kiosk: Set up interactive kiosks where people can learn more about Lake Illawarra’s ecology. For instance, a mini-aquarium featuring local species, interactive displays about pollution and its effect on aquatic life, or a DIY recycling workshop.



Marine-Themed Costume Contest: Encourage attendees, especially kids, to come dressed in marine-themed costumes. Give out prizes for ‘Best Dressed’, ‘Most Creative’, etc.



Short Lake Illawarra Walk and Talks: Invite local environmentalists or marine biologists to give short, engaging talks about the importance of preserving aquatic ecosystems



‘Adopt-a-Fish’ Initiative: Partner with OzFish to launch an ‘Adopt-a-Fish’ program. Attendees can ‘adopt’ a fish species native to Lake Illawarra, contributing towards its conservation.



Finding Nemo Trivia: Before the screening, hold a ‘Finding Nemo’ trivia contest. This fun activity could educate attendees about the movie’s themes and the actual species it features.



Craft Corner: Set up a craft corner where kids can make their own marine-themed crafts using recycled materials, teaching them about reuse and recycling.



Cleanup Pledge: Invite attendees to take a pledge to participate in a future lake clean-up activity. This could be done with a large signing board where attendees sign their names as a promise to attend.



Post-Movie Discussion: After the movie, facilitate a short discussion or Q&A session about the environmental messages in the film. Use this as an opportunity to talk about how these themes apply to Lake Illawarra.



Photobooth: Set up a photo booth with marine-themed props and backgrounds. Photos could be shared on social media, promoting the event and raising awareness about Lake Illawarra.



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4.13 Lake Illawarra Recreation and Tourism Expo

This event invites local recreational activity groups, businesses, and community organisations to showcase the services and activities they provide to Lake Illawarra. Attendees can explore various water-based and lakeside recreational opportunities, creating a buffet-style display of Lake Illawarra programs and activities that cater to all interests and ages. This event will bring awareness of all the lake's opportunities and provide businesses and organisations the chance to gain new members, customers and volunteers.

EVENT FEATURES



Recreation Booths: Provide a space for Local businesses, recreational clubs, NGOs, or councils to engage with attendees and recruit volunteers. The booths will showcase the activities they offer around Lake Illawarra, and could include interactive displays, guided nature walks, and expert talks about local flora and fauna.



Tourism Information Kiosks: Kiosks providing information about local tourist attractions, lodging, restaurants, and events. They can also distribute maps, brochures, and discount vouchers.



Live Demonstrations: Arrange for live demonstrations of various recreational activities such as paddleboarding, kite flying, fishing, etc. This would engage attendees and inspire them to try these activities.



Kids' Corner: An area with fun and educational activities for children like fauna face painting, storytelling, nature-themed crafts, and a mini obstacle course.



Lake Workshops: Run workshops on topics such as bird watching, nature photography, eco-friendly practices, or local history.



Fitness Sessions: Connect with local fitness groups to conduct outdoor yoga or tai chi sessions by the Lake, promoting health and wellness.



Photography Competition: Organise a photography contest with categories like 'Best Lake Landscape', 'Best Wildlife Shot' etc., and exhibit the entries at the expo.



Local Food and Beverage Stalls: Local restaurants, cafés, and food trucks could set up stalls to offer a taste of local flavours, promoting the local gastronomy scene.



Local Artisan Market: A section dedicated to local artisans selling handmade crafts, artwork, or local produce, encouraging support for local businesses.



Live Entertainment: Local bands, dance troupes, and performers could provide entertainment throughout the day, showcasing the area's artistic talent.



5 - Long-Term Sustainability of the Strategy

The Lake Illawarra Community Engagement and Participation Strategy sets forth a comprehensive, adaptable, and inclusive road map aimed at creating a sustainable future for Lake Illawarra. By integrating the key aspects of ecological preservation, social connectivity, and economic prosperity, this Strategy serves to unify the community's efforts and enhance their collective stewardship of this precious asset.

This Strategy is more than a plan; it is an invitation to the community to join in shaping a vibrant, sustainable future for Lake Illawarra. It underscores the CMP's commitment to a collaborative, respectful, and inclusive approach, recognising that the value of Lake Illawarra lies not only in its natural beauty but also in the spirit and unity of its community.





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5.1 Sustainability of the Engagement Initiatives

The Strategy is designed to be a long-term strategic plan to align with the implementation of the Lake Illawarra CMP until 2030. Recognising the dynamic challenges and opportunities posed by the community and the environment, it outlines a set of initiatives and adaptive approaches that will allow for continuous improvements over time to meet changing circumstances. The Strategy also takes into account the fluid nature of public engagement and the gradual nature of change within a community. It understands that shifts in behaviour, advancements in community knowledge and the enhancement of skills are not immediate, but develop gradually with consistent and dedicated engagement efforts.

The CMP embodies a deep commitment to reflect and enhance the ecological, social, and economic value of Lake Illawarra. This engagement Strategy has been designed to reflect all three of these core values. It aims to foster an understanding of environmental threats through educational initiatives and designs a wide range of programs and activities that promote recreational and economic opportunities for Lake Illawarra.

As an adaptive plan, it is geared to respond to the changing needs of the community, the shifting ecological state of Lake Illawarra, and the feedback generated from engagement activities. By incorporating a process for continual learning and adaptation, the Strategy remains relevant, practical, and capable of achieving its long-term objectives. This commitment to sustainability will ensure that the Lake Illawarra Community Engagement and Participation Strategy remains a feasible long-term approach to effective community engagement and participation for many years to come.

5.2 Council's Partnership

The development of this Strategy has been a concerted effort led by Brooks Community Engagement, in partnership with Project Officers from Wollongong City Council and Shellharbour City Council.

This process was further enhanced by the valuable support provided by representatives from the Department of Planning and Environment and the CMP Implementation Group, infusing a broader perspective and further expertise into the Strategy formulation. The responsibility for the execution and actualisation of this Strategy will be shouldered by the dedicated Project Officers from both Councils, ensuring that the Strategy's objectives are met in a manner that resonates with the unique needs of each community.

Throughout this Strategy, it's important to acknowledge the collaborative commitment of both Wollongong City Council and Shellharbour City Council to work in unison through the Coastal Management Program. However, as independent Local Government Areas (LGAs), there may be additional engagement opportunities presented to each Council as part of LGA-wide engagement initiatives that require independent action that benefits Lake Illawarra. This recognition does not detract from their joint effort, but instead acknowledges the operational realities of their respective jurisdictions. In all cases, the best interests of Lake Illawarra and its surrounding communities will remain the guiding principle behind every decision.

5.3 Project Officers

Project Officers from both Wollongong City Council and Shellharbour City Council serve crucial roles in implementing the Lake Illawarra Community Engagement and Participation Strategy.

As the primary drivers and champions of these strategies, the Project Officers act as intermediaries between the CMP implementation group, the Councils, and the community.

Their roles involve a broad range of tasks in activating this Strategy and supporting the education and engagement of the community effectively. These include coordinating each Strategy's implementation, assessing its effectivity, and collecting and analysing ongoing public feedback.

The Project Officers will play a crucial role in making sure the community's voice is heard and integrated into the implementation of CMP actions for the lake.

The specific strategies have been developed in collaboration with the Project Officers to ensure they are practical and sustainable in the long run.

Each initiative is designed not only to address the needs of the community, but also to align with the unique skills and local knowledge and capabilities of the Project Officers. Their familiarity with the local environment and their established relationships with community members make them particularly well-suited to facilitate community engagement and ensure the Strategy's long-term sustainability.

As Project Officers, they embody the spirit of this Strategy and play a pivotal role in fostering a community that is informed, involved, and empowered in shaping the future of Lake Illawarra.

5.4 Summary of Key Points

The Lake Illawarra Community Engagement and Participation Strategy represents a comprehensive approach to preserving and enhancing the unique ecological, social, and economic values of Lake Illawarra. The Strategy champions a multi-faceted approach, combining education and communications, active participation, meaningful collaboration, and impactful events. Through continual engagement and collaboration with stakeholders, it is intended to facilitate a shared sense of ownership and responsibility, thereby fostering a strong community bond with the lake.

Introduction

Starting with a robust introduction that outlines the background to the Coastal Management Program, the Strategy describes the Lake Illawarra community, and its unique context and history, and the key engagement principles that will guide the Strategy.

Consultation Overview

An overview of the extensive community consultation undertaken to develop the Strategy provides the necessary insight into how public participation and stakeholder input laid the foundation for each Strategy.

Community Engagement and Participation Strategy

This section outlines the engagement objectives, key focus areas, and recommended strategies for the Lake Illawarra Community Engagement and Participation Strategy. Each of these strategies and objectives have been informed by the community consultation process conducted by BROOKS in partnership with Wollongong and Shellharbour City Councils.

Strategies Overview

This breakdown of each of the initiatives provide a clear explanation of the 13 engagement strategies. The breakdown includes an overview of potential features relating to each specific initiative.

Long-term Sustainability of the Strategy

This Strategy puts forward a comprehensive, adaptable, and inclusive road map aimed at creating a sustainable future for Lake Illawarra. By integrating the key aspects of ecological preservation, social connectivity, and economic prosperity, this Strategy serves to unify the community's efforts and enhance their collective stewardship of this precious asset.

Inevitably, the success of this Strategy is contingent upon active community involvement and the commitment of all stakeholders. Through embracing the spirit of collective endeavour, it is believed that Lake Illawarra can continue to flourish as an ecological haven, a social hub, and an economic driver for generations to come. As we move forward with the implementation of these strategies, we anticipate witnessing a transformation that reflects the aspirations, values, and strengths of the Illawarra community.

In essence, the Lake Illawarra Community Engagement and Participation Strategy is a dynamic, inclusive, and comprehensive plan that serves as a road map for a sustainable future for Lake Illawarra and its community.

5.5 Call to Action from the Engagement Team

This Strategy provides the framework; your actions will fuel its Implementation.

The Lake Illawarra Community Engagement and Participation Strategy embodies the determination of the CMP Implementation Group, Wollongong City Council and Shellharbour City Council to work alongside the community in safeguarding the future of Lake Illawarra.

You, the members of the CMP Implementation Group, are the champions of this Strategy. Your active participation, your willingness to listen, and your desire to contribute are what will drive this initiative forward. The CMP has done a fantastic job in assembling a team of smart, passionate, and capable individuals who bring a wealth of knowledge and expertise to the table, and now the real work begins.

Sustainable, genuine community engagement is not magic, it doesn't appear out of thin air... It takes time... It is a process. This journey needs to be embraced together. For as a group, you've taken the first step in developing a plan for engaging your community. Now go out and take the next one!

The Engagement Team,
Brooks Community Engagement

Estuary Health & Water Quality Report Card 2022-23

Overall Grade



B

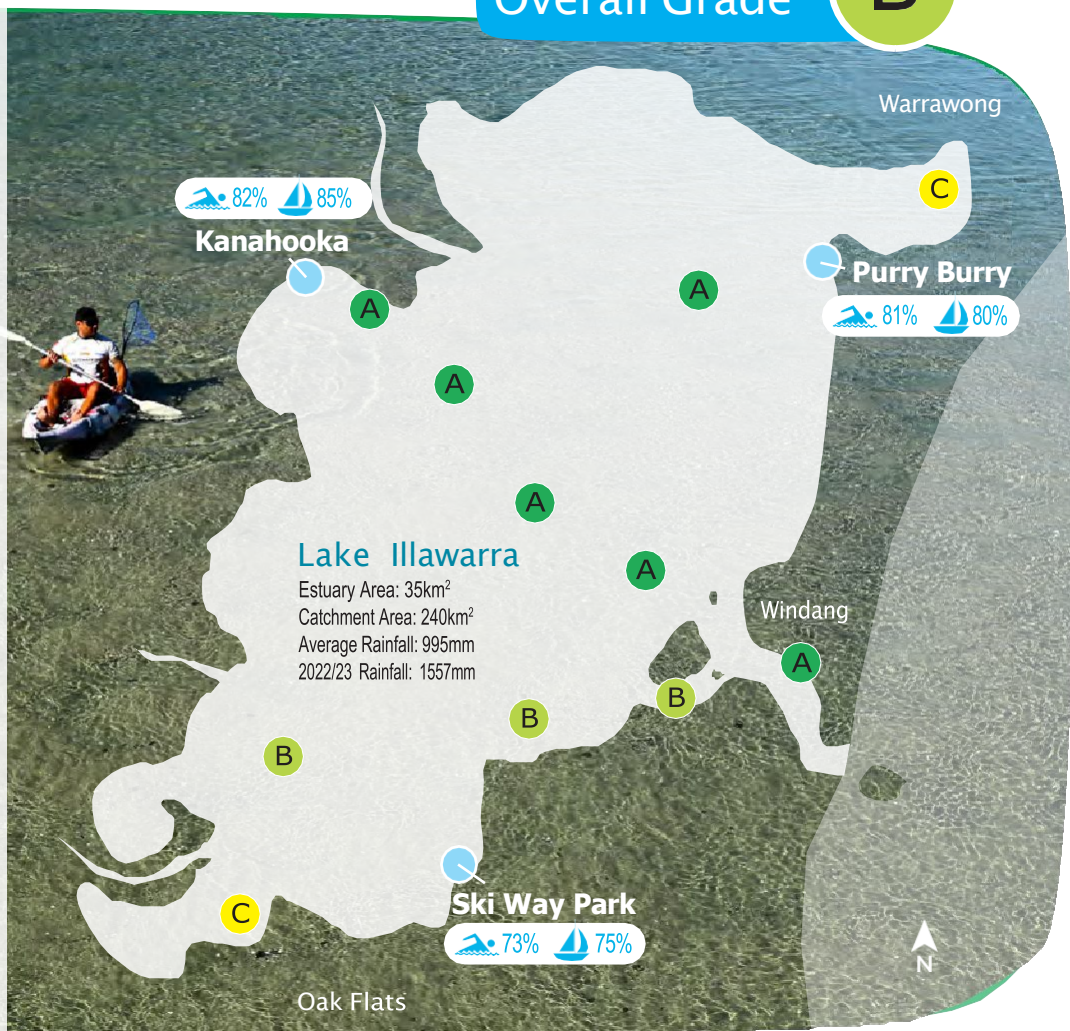
Estuary Health Condition Ratings

- A** Very Good
- B** Good
- C** Fair
- D** Poor
- E** Very Poor

Recreational Water Quality

● % of occasions meeting primary and secondary contact recreational water quality guidelines

-  Primary contact
-  Secondary contact



Estuary Health Condition

Water quality, including nutrients and estuary health indicators are measured every month at 11 sites. The estuary health condition grading is based on chlorophyll *a* and turbidity levels from November to the end of April. Results were better than last year with six sites being in very good condition, three in good condition and two sites rated as fair. These good results could be related though to the much lower rainfall we had over this summer (nearly a third less than last summer!) with a large amount of rain occurring over winter instead. Despite this it was still the second wettest year total since 2009, and overall, the Lake received a B (good) grade. This shows the resilience of the Lake, but it is important we keep trying to decrease nutrients and sediments coming into the lake for its long-term health.

Recreational Water Quality

Three sites were sampled over summer for enterococci levels to give an indication of recreational water quality for primary (safe for swimming) and secondary contact (safe for boating and watercraft activities only). All sites had a higher compliance meeting the recreational water quality guidelines than last year. This is most likely due to less rainfall over the summer period compared to last year. This means less urban and rural run-off and stormwater coming into the Lake. For estuarine sites it is recommended not to go swimming for three days after rain.

For more detailed information on the monitoring program, please scan the QR code at the end of this report card or visit wollongong.nsw.gov.au/lake-illawarra

Estuary health indicators

Chlorophyll *a* is a measure of microscopic algae biomass in water. Excessive input of nutrients from catchment runoff can increase chlorophyll *a* levels, leading to algal blooms and detrimental effects on estuarine plants and animals.

Turbidity is a measure of light scattered by suspended particles such as sediment, algae and dissolved material in the water. Having low turbidity levels in the estuary is important for seagrasses, fish and other organisms.

What's Happening?

For more information visit
wollongong.nsw.gov.au/lake-illawarra



Funding the Lake Illawarra Coastal Management Program

Since 2020, Wollongong City Council and Shellharbour City Council have attracted more than \$1.5 million in grant funding to implement actions of the Lake Illawarra Coastal Management Program. NSW Government funding bodies include:

- Department of Planning and Environment - Coasts and Estuaries
- Department of Primary Industries - Fisheries
- Environmental Protection Authority
- Local Land Services



Natural Areas Restoration

We have undertaken considerable vegetation restoration around the foreshore of Lake Illawarra and along the creeks in the catchment area. There are now 19 sites in the program covering 90 hectares of vegetation restoration including the planting of 20,000 native plants. These works aim to decrease weeds and improve the biodiversity and condition of native vegetation to reduce erosion of the foreshore areas. A big thank you to all our Bushcare volunteers working to keep our natural areas beautiful!



Great results for the Luv the Lake Litter Prevention Program

The "Luv the Lake" program was supported by funding from the NSW EPA to deliver a series of litter prevention initiatives. This included two large-scale clean-up events, regular small-scale community clean-ups, litter education campaigns, and increased signage and bins. The program saw an estimated 1,200 kilograms of litter removed from the foreshore and up to a 40% litter reduction at targeted sites. A huge thanks to our community and volunteers who helped us achieve this wonderful result!

Bathymetric Survey

Since October, we have conducted bathymetric surveying of Lake Illawarra to measure the depth of the water. Bathymetry involves trawling the entire lake with an echo sounder which sends a beam down and collects data as it bounces back. A report that explains the changes in depth will be available on the Wollongong City Council website later this year and will be used to inform future management options around the lake. Preliminary results indicate we need to continue efforts to reduce sediments coming into the lake.

Community Engagement and Participation

Both councils have been busy working with agency and community stakeholders to develop an Engagement and Participation Strategy for Lake Illawarra. The strategy outlines a suite of activities and initiatives — like walk and talk sessions, community movie nights, a tourism expo and citizen science — to build engagement, education, and action in caring for the lake. It will be adopted and added to council websites in the coming months.

