

# Lake Illawarra Coastal Management Program (CMP) 2020-2030 Snapshot









# What is the Lake Illawarra Coastal Management Program?

Lake Illawarra is a highly valued natural resource within the Illawarra region, and is extremely important from an ecological, social, economic and cultural perspective.

The Lake Illawarra Coastal Management Program (CMP) is a long-term strategy for the coordinated management of the Lake. It includes a set of actions to reduce threats to the Lake.

The actions are to be implemented by a range of land managers over the next 10 years.

## Why has it been developed?

Prior to July 2014, the Lake Illawarra Authority (LIA) had primary responsibility for managing the Lake, including most of its assets.

When the LIA was disbanded, LIA land and assets were transferred back to the State Government and to local Councils.

These organisations agreed that the effective management of the Lake will be best achieved by working together under a CMP that is supported by the community, all agencies and both Councils.

The CMP that has been developed provides a long term strategy and actions for the next 10 years to help improve the lake; protect its values and address its threats.

The CMP has been prepared in accordance with the mandatory requirements of the Coastal Management Act 2016 and the NSW Coastal Management Manual in collaboration with relevant stakeholders, with funding and technical support provided under the NSW Government Coastal Management Framework.

The Lake Illawarra Estuary Management Committee was established to oversee the development of the CMP. It included representatives from both Councils, relevant state government agencies, the local community, the Aboriginal community and Independent Scientific Advisors.

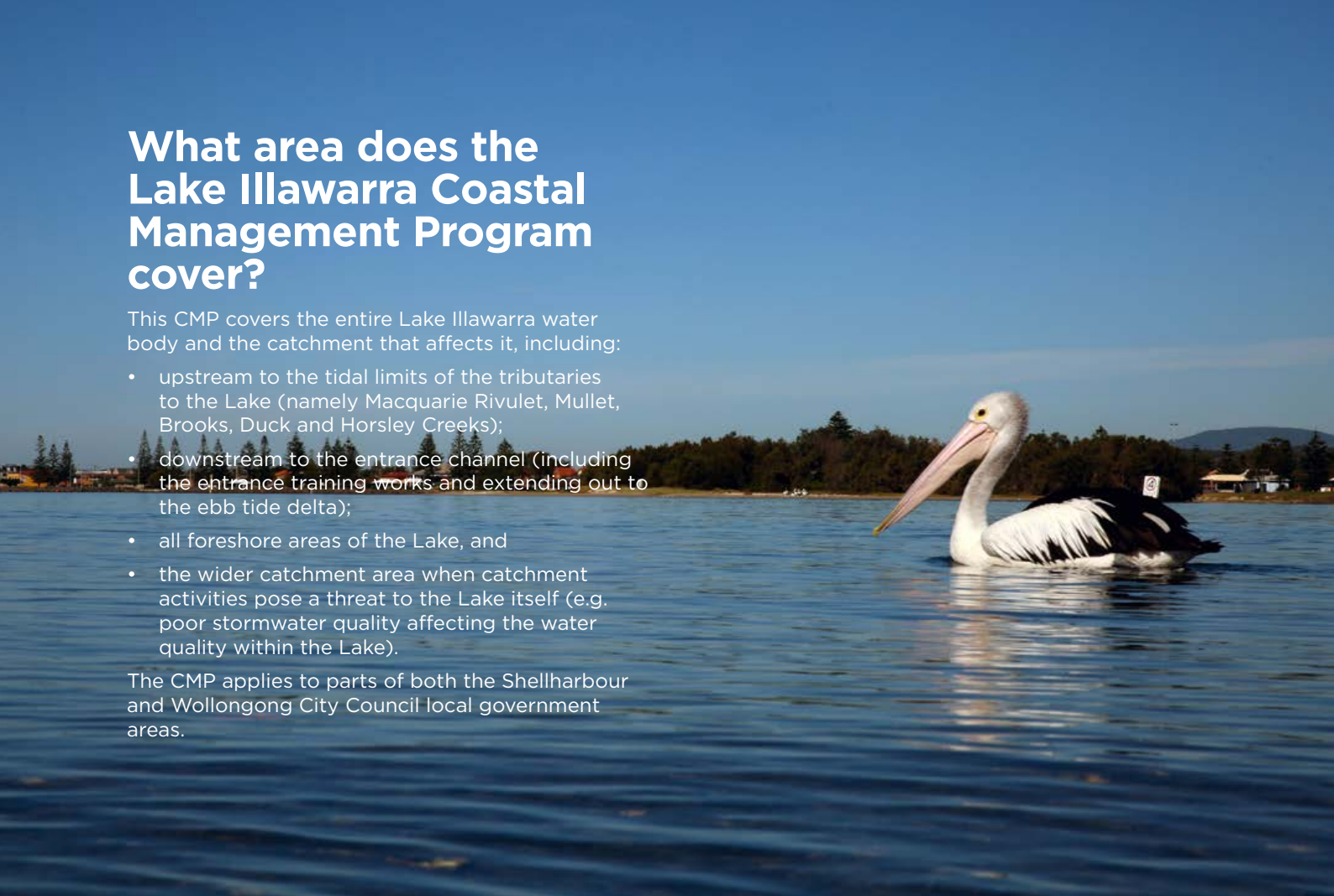


# What area does the Lake Illawarra Coastal Management Program cover?

This CMP covers the entire Lake Illawarra water body and the catchment that affects it, including:

- upstream to the tidal limits of the tributaries to the Lake (namely Macquarie Rivulet, Mullet, Brooks, Duck and Horsley Creeks);
- downstream to the entrance channel (including the entrance training works and extending out to the ebb tide delta);
- all foreshore areas of the Lake, and
- the wider catchment area when catchment activities pose a threat to the Lake itself (e.g. poor stormwater quality affecting the water quality within the Lake).

The CMP applies to parts of both the Shellharbour and Wollongong City Council local government areas.



*Area covered by the Lake Illawarra CMP*

## What are the values and uses of Lake Illawarra?

Lake Illawarra's values and uses were identified through surveys and discussions with the community, as well as using existing scientific information for the Lake, as follows:

- Water quality
- Views / how the Lake looks
- Native wildlife
- Access to Lake foreshore
- Recreational facilities
- Healthy vegetation in the lake
- Foreshore activities
- In-water activities
- Natural bushland / foreshore vegetation
- Tourism
- Recreational fishing
- Heritage / cultural Values
- Commercial fishing

## What are the threats to Lake Illawarra?

Threats relate to activities that directly or indirectly impact the values and uses that have been identified for the Lake.

Threats to Lake Illawarra were initially identified through community and stakeholder consultation. The identified threats were then assessed using a risk rating that considered the frequency of the threats, and the environmental, social and/or economic consequences of the threats both now and into the future (beyond 2040). Future threat ratings in the table below show risk ratings if CMP actions are not implemented, these risk ratings can be reduced through implementing the actions in the CMP.



Identified Threats to Lake Illawarra	Risk Rating	
	Now	Future
Water pollution	Very High	Very High
Catchment development	Very High	Very High
Changes due to entrance channel opening	Very High	Very High
Loss of estuarine vegetation	High	High
Wetland degradation	High	High
Litter, plastics and marine debris	High	High
Contaminated sediments	High	High
Inappropriate / degraded / insufficient infrastructure	High	High
Loss of tangible and intangible cultural heritage	High	High
Foreshore development encroaching public land	Medium	Very High
Loss of riparian habitat	Medium	Very High
Foreshore and bank erosion	Medium	High
Climate change	Medium	High
Park management practices impacting adjacent natural areas	Medium	Medium
Commercial fishing*	Medium	Medium
Inefficient/ Incorrect Lake management	Medium	Medium
Introduced species	Low	Medium

\*Commercial fishing is managed by DPI Fisheries and changes to local fishing regulations are beyond the scope of this CMP.



## How were actions developed?

The CMP prescribes 39 specific actions under nine management strategies designed to address the threats to the Lake (see table on next page).

These actions have been selected from an audit of the previous management plans for the Lake, recommendations developed during the CMP process, and from community and agency input including a formal exhibition period. Actions were put through a multi-criteria analysis process which examined the ability of the action to mitigate the threat and a cost-benefit assessment to determine feasibility and effectiveness.

## How will actions be implemented?

A range of organisations are directly responsible for implementing the CMP, including Wollongong City Council and Shellharbour City Council as well as State Government agencies such as Crown Lands and Property NSW. Each agency has made the commitment to consider the actions in their forward planning and budgeting processes.

For Councils this will be through their yearly Operational Plans and four yearly Delivery Programs.

## How will actions be funded?

Wollongong City Council and Shellharbour City Council have budget allocations to assist with implementing actions to achieve the environmental goals and objectives of their respective Community Strategic Plans. As the Lake Illawarra CMP actions fall largely under these environmental goals and objectives, the existing budgets of the Councils may fund some of the actions, particularly in the CMP's first year until grant funding can be secured.

There is a range of other funding opportunities available for all stakeholders to fund the implementation of the CMP including various state and federal grant programs.



# Management Actions

## Strategy 1: Improve Water Quality (WQ)

WQ1	Implement a Risk Based Stormwater Management Framework for the Lake Illawarra catchment
WQ2	Upgrade existing stormwater quality management measures, or install new devices, which may include water sensitive urban design or other design that will improve water quality as well as enhance habitat and natural values
WQ3	Review and prioritise maintenance and cleaning regime for existing stormwater quality devices
WQ4	Design and implement targeted catchment input monitoring as required for developments resulting in a large-scale change or intensification of land use
WQ5	Reduce sediment load to the Lake by improving compliance with erosion & sediment controls for development sites.
WQ6	Reduce the impact of sewer overflows
WQ7	Implement water quality monitoring programs for estuary health, recreational use and physico-chemical and bacteriological indicators in the Lake and its catchment
WQ8	Improve litter management
WQ9	Investigate and manage potential pollution sources including contaminated sites that contribute to poor water quality in the lake

## Strategy 2: Improve Planning and Management Arrangements for the Lake (PM)

PM1	Commence integration of key objectives and strategies from the CMP into relevant planning and policy documents of both Councils
PM2	Provide ongoing coordinated management of the Lake, which will require ongoing support for existing staff resources
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
PM4	Establish a Lake Illawarra Asset Management Working Group that provides coordination services for agencies that manage assets around the Lake Illawarra foreshore

## Strategy 3: Manage the Entrance Channel (EC)

EC1	Investigate and finalise options to manage erosion and accretion changes in the entrance channel
EC2	Undertake small scale works (e.g. beach scraping, re-shaping etc) to maintain swimming areas
EC3	Undertake emergency works or small scale no-regrets actions as required to mitigate known risks to property and public safety
EC4	Monitor changes to the entrance channel
EC5	Monitor and maintain existing entrance channel infrastructure, with any works to be informed by EC1-EC3 and EC4

## Strategy 4: Protect and Rehabilitate Estuarine and Riparian Vegetation (EV)

EV1	Rehabilitate vegetation and manage public access along foreshores and banks of the Lake, its tributaries, islands and broader low-lying areas
EV2	Undertake targeted action to control damage to foreshore vegetation, including seagrasses
EV3	Prepare and deliver an information program for the Lake Catchment
EV4	Prepare and implement an estuarine macrophyte mapping and monitoring program
EV5	Develop and implement a program to enhance opportunities for estuarine vegetation migration

## Strategy 5: Maintain and Improve Recreational Amenity (RA)

RA1	Manage foreshore and waterway recreational infrastructure
RA2	Construct new sections of shared pathway to complete the pathway linkage around the Lake
RA3	Investigate the opportunities of public access along the foreshore and amend the acquisition layers of the relevant Council Local Environmental Plans if applicable
RA4	Build on the Tourism opportunities for Lake Illawarra
RA5	Conduct small scale dredging to improve public recreational outcomes and to improve the functionality of stormwater outlet infrastructure
RA6	Investigate the need for and viability of larger scale dredging of bays and the entrances to creeks or other measures to improve recreational amenity and access within the Lake where sedimentation and/or the changed nature of the entrance channel has negatively impacted on recreational use

## Strategy 6: Protect and Promote Cultural Heritage (CH)

CH1	Protect and promote cultural heritage in and around the Lake and its catchment
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## Strategy 7: Manage Foreshore and Bank Erosion (FB)

FB1	Undertake a bank condition assessment and determine and implement erosion control measures
FB2	Implement Environmentally Friendly Seawall Guidelines or similar for new and upgraded foreshore protection works
FB3	Undertake a bathymetric survey of the entire Lake and tributaries up to the tidal limit

## Strategy 8: Prepare for Inundation Risks (IR)

IR1	Update Asset Management Plans for all publicly owned and managed assets to clearly identify asset at risk from inundation over future timeframes, including tidal inundation
IR2	Prepare a whole of Lake Foreshore Adaptation Plan for public (community and environmental) lands
IR3	Incorporate tidal inundation mapping into strategic land use planning documents
IR4	Undertake water level and condition monitoring for all lake inundation events
IR5	Investigate novel solutions to manage inundation risks to assets such as stormwater, sewer, and water; cycleways, roads and bridges, etc

## Strategy 9: Protect and Manage Key Fauna (MF)

MF1	Develop and implement a fauna management program including shorebirds, fish and other fauna
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## How will we know if implementing the CMP is making a difference?

A mandatory CMP reporting and review process will track implementation and performance against the performance measures set for each action.

In addition, each Council produces an Annual Report documenting their progress in implementing their Delivery Program and Operational Plan, and so, CMP actions will be evaluated and reported on a yearly basis through this process.

One of the actions in the CMP is an estuary health monitoring program to identify if the implementation of actions is leading to improvements. The CMP will be reviewed in 5 - 10 years with these results in mind.

## Working together

Ongoing stakeholder collaboration is critical to ensure the coordinated management of the Lake and its surrounds into the future and effective implementation of the CMP. A stakeholder reference group is proposed to provide advice to the Councils and agencies on the CMP implementation.

Community members can provide support by attending events, joining in education activities, and even volunteering for Bushcare or Landcare. Education activities and other events aim to celebrate the things we value about the Lake, and to address any potentially damaging behaviours in and around the Lake. Community involvement is vital to support these activities, and ensure the success of the CMP.

### For more information contact:

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This snapshot is a summary of the Lake Illawarra Coastal Management Program (CMP). The CMP was drafted by consultants BMT, overseen by a Project Management Team consisting of staff from Wollongong and Shellharbour City Councils and DPIE - Coasts & Estuaries. It's development was funded by State and Local Governments and overseen and supported by The Lake Illawarra Estuary Management Committee.

