

Shoalhaven's open coastline is separated into the following primary sediment compartments:

1. The northern sediment compartment is centred around the Shoalhaven River Estuary, which encompasses Seven Mile Beach at Shoalhaven Heads, Culburra, Warrain and Currarong beaches.
2. Jervis Bay compartment encompassing Callala and Collingwood beaches.
3. A compartment between Bannisters Point and Jervis Bay, encompassing Narrawallee Beach.
4. A compartment between Warden Head and Bannisters Point, encompassing Ulladulla Harbour, Collers and Mollymook Beaches.

A more detailed delineation of sediment compartments has been developed in a research project funded by the Australian Government through the Department of the Environment and managed by NCCARF. The project was led by NCCARF and Bruce Thom and the participants were Colin Woodroffe, Andrew Short, Chris Sharples, Nick Harvey, Matt Eliot and Ian Eliot. Scientists have divided the Australian coast into 359 discrete units, or sediment compartments, within which there are broadly homogeneous features that may include geology, landform types, near-shore currents and sediment availability and movement. A compartment might be, for example, a bay lying between two headlands. CoastAdapt provides descriptions and information for each sediment compartment around Australia. The compartment approach provides a spatial framework that integrates driving forces with landform type and condition to support and improve coastal risk assessments at regional scales under conditions of climate change.

A map showing the sediment compartments for the Shoalhaven coast is provided in Figure 1-2.

Land tenure on the coastline is almost entirely in public ownership in the form of National Parks, NSW Crown reserves or Local Crown reserves.

4.2.1 Natural and built asset values

Coastal lakes and estuarine creeks along the Shoalhaven coastline provide a diverse, healthy and productive aquatic habitat of high ecological value. There are extensive areas of several endangered ecological communities and roosting, feeding and breeding habitat for migratory shorebirds.

The beaches and headlands provide significant visual amenity benefits to Shoalhaven's coastline landscape and contribute to the cultural character of the region. Locals use the coastal environment for a number of recreational activities including swimming, diving, surfing, fishing and hiking.

The coastal zone supports activities such as tourism and fisheries, which form a substantial portion of Shoalhaven's economy.

Owing to the productive nature of the land and its proximity to the sea, there are many sites with significant Aboriginal heritage value. Along the coast this includes middens, burial sites, artefacts and ceremonial areas. Several rock platforms and headlands are listed in the National Heritage List.

4.6.2 Environmental values

A diverse range of habitats lie within Lake Conjola, which include seagrass beds, saltmarsh, shoals, wetlands and rocky outcrops. In a 1985 Lake Conjola study, three seagrass beds were recorded in the lake. Seagrass communities were last reported to be in poor status in 2010 with a 68% loss in seagrass area from 1985 to 2006. Previous studies have attributed this decline to the increase in recreational boating over shallow seagrass beds.

Lake Conjola provides for several hundred species of finfish, crustaceans (crabs, shrimps and prawns), molluscs (octopus, oysters, clams etc) and other invertebrates. These are all species that occur widely along the coastline of south-east Australia, with none specifically unique to Lake Conjola.

Aboriginal people have utilised the resources of the South Coast region for the last 20,000 years, particularly the Lake and coastline areas. Lake Conjola is situated within the lands of the Wanda Wandian speaking people and the Budawang/Murramarang tribes of the Dhurga language group. Conjola National Park contains a large number of Aboriginal sites including burials, middens, campsites, rock shelters and grinding grooves.

4.6.3 Challenges

Challenges at Lake Conjola include water quality, flooding, entrance management, sedimentation of the entrance area, navigability for recreational craft, and preservation of Aboriginal heritage and shorebird nesting areas.

The water quality in Lake Conjola is affected by a number of factors, which include catchment inflows, point source pollutants, tidal water exchange and internal lake processes. Issues of elevated faecal coliform levels, turbidity, change in salinity and decrease in oxygen levels have been raised by the community. The community perceives that water quality deteriorates when the entrance is closed.

The potential sources of sedimentation in Lake Conjola include the following: aeolian transport of barrier dune sands, fine catchment soil carried via flooding or storms, coarser sediment from bank erosion transported down tributary streams, estuary bank erosion from wind and boat wake, human influence and natural channel meandering and marine sand carried into the inlet channel by tidal exchange when the entrance is open.

There are three primary causes of flooding in Lake Conjola: intense rainfall with subsequent runoff into the lake, severe ocean conditions such as tidal forces and storm surges or a gradual rise in lake level during long periods of entrance closure. The Council's Flood Risk Management Study concluded that the nature of the entrance had little impact on major catchment flood events, which will occur regardless of the entrance's state.

Lake Conjola Recovery Process - Socio-Economic Factors

Material Source: Advisian Worley Group Shoalhaven CMP Scoping Study Draft Report November 2019

Various extracts therein...

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... Table 5.4 – Highest priority issues as rated by questionnaire respondents

Lake Conjola / Berringer Lake / Pattimore's Lagoon... Issues of most concern... 1. Entrance Management; 2. Poor water quality; 3. Sand build up/siltation/shoaling; 4. Flooding; 5. Beach accretion/sand build up. Page 99 of 179

...7.3 Recommended priority for CMPs

In consideration of the risks, complexities and existing level of development of coastal management at the various estuaries and the open coast of the Shoalhaven, the recommended priority and groupings for development of the CMPs is given below: 1. Develop a CMP for the Open Coast (high priority) 2. Develop a CMP for Lake Conjola (high priority) Page 152 of 179

...Appendix B B.6.6 Cultural/Social Values

Lake Conjola is highly valued for the recreational and tourism opportunities offered by its natural features. The lake provides for numerous coastal recreation activities such as power boating, skiing, sailing, canoeing, swimming, fishing. As a result, there is substantial economic dependence in the local community on the income generated by recreational use and tourism of the lake. Page 44 of 78

... Appendix D RPS Consultation Outcomes Report 7.1 Feedback on priority issues in the region

Health of Lake Conjola

The integral relationship between the health of Lake Conjola and tourism was emphasised during both the workshop and community information sessions. Most stakeholders wanted the entrance to be dredged on an ongoing basis. This in turn would help 'flush the lake' and improve water quality, boat access, swimming conditions and overall amenity to the lake which is integral to people wanting to visit Lake Conjola... Stakeholders emphasised that the health of the Lake was important and when the Lake is undergoing signs of stress or flooding this impacts on the wellbeing of residents and businesses. Many stakeholders wanted Council to realise the emotional impact the health of the Lake has on them and implications of delayed action in improving the condition of the Lake's health. Page 20

Funding sources

In addition, one stakeholder wanted improved local amenities to help facilitate local business needs including local caravan parks, tourist accommodation and restaurants. This particular business

owner felt that Lake Conjola was not living up to its full potential and felt that an increased focus on Lake management and spending on local infrastructure would help the community thrive. Page 21

... Appendix G First Pass Risk Assessment Table 6 – Existing risks rated High or Extreme relating to Coastal Vulnerability CMA

No.116 Consequences ... public amenity, psychological impact Page 30 of 65