



Jervis Bay Marine Park: zoning plan review report Executive Summary



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Glossary

ascidian: sea-squirt

assemblage: a community of species occupying a particular habitat or area at a particular time

barrens habitat: area where sea urchins have overgrazed kelp beds

bathymetry: depth of the seabed

benthic: living on the seabed

bioregion: an ecologically-based area characterised by natural features and environmental processes that influence the functioning of ecosystems

bioturbated sand: sand disturbed, stirred up and mixed with other organisms

bivalve: mollusc with two shells such as an oyster, mussel or clam

demersal: found on or near the bottom of a sea

ecosystem: a dynamic combination of plants, animals and micro-organic communities and their environment interacting as a functional unit

echinoderm: marine invertebrate, such as a starfish or sea urchin, with an internal calcareous skeleton and often spines

geomorphology: study of landforms and the processes that shape them

glendonite: very large, well-formed crystals that formed in marine mud under the cold climate that existed when Australia was part of the supercontinent, Gondwana

infauna: fauna living in the sediment

intermediate beaches: moderately sloping beaches

macroinvertebrates: invertebrate species that can be seen with the naked eye

pelagic: associated with the surface or middle depths of the open sea

plankton: microscopic animals or plants that drift in the sea

polychaetes: segmented marine worms with bristles along the body

purse seining: a method of fishing with a net where the top of the net is floated at the ocean's surface and the bottom of the net is held under the water by lead weights. A wire that is threaded through the bottom of the net can be tightened to close the bottom of the net, trapping the fish inside (source: Australian Fisheries Management Authority)

sessile: attached by the base, generally to the seabed

surrogates: components related to biological diversity that are more easily measured or mapped than biological diversity itself

syngnathiformes: species characterised by their elongated snouts, fused jaws, the absence of pelvic fins, and by thick plates of bony armour covering the body. Such species include seahorses and pipefish.

Executive summary

NSW marine parks aim to conserve marine biodiversity, maintain ecological processes and provide for a range of sustainable uses of the marine environment. Jervis Bay Marine Park on the south coast of NSW and Solitary Islands Marine Park on the mid-north coast of NSW were the first marine parks to be set up in NSW. Jervis Bay has long been recognised as an area with outstanding natural values, including its extraordinary array of marine habitats and biodiversity, and as an area rich in Aboriginal and European cultural heritage. It is also of social and economic importance to the community.

The zoning plan, which commenced in 2002, protects the important natural and cultural values of the marine park, while providing for a range of sustainable uses including beach activities, swimming, surfing, commercial and recreational fishing, scuba diving, whale and dolphin watching, sailing, boating, research and other activities.

The *Marine Parks Act 1997* requires that zoning plans are reviewed after the first five years of operation, and then every ten years. The purpose of the review is to determine whether the zoning plan for the marine park remains appropriate for meeting the objects of the Act. A set of 14 criteria, based on the national and state criteria for zoning marine protected areas, has been used to assess the zoning plan. The NSW Marine Parks Authority initiated the review of the Jervis Bay Marine Park zoning plan in March 2008, with a period of public consultation undertaken from March to June 2008. There were 41 stakeholder meetings and information sessions and 680 submissions were received.

This report presents the results of the first review of the Jervis Bay Marine Park zoning plan.

Since the zoning plan was implemented, research and monitoring have provided new information on the marine park. Projects have investigated its biodiversity, habitats and ecosystems, as well as ways in which it is used by the local community and visitors. The research has allowed more detailed maps of the marine park to be developed, including maps of subtidal reefs and estuarine vegetation.

New information shows that all habitat types in the marine park are represented in sanctuary zones, although only 8% of the total area of rocky reef at intermediate depths (20– 60 metres) is included in sanctuary zones.

During community consultation as part of the review of the zoning plan, a number of issues were raised, including:

- the level of protection provided by the sanctuary zones
- the level of protection provided to threatened species, including the grey nurse shark, Australian and New Zealand fur seals and various shorebirds
- the adequacy of boating facilities in Jervis Bay
- the impacts of commercial fishing occurring in the marine park
- the availability of access to rock fishing sites
- protection of Aboriginal cultural heritage sites.

The review has found that the zoning plan is generally appropriate for meeting the objects of the *Marine Parks Act 1997*. However, opportunities to fine-tune and improve the effectiveness of the zoning plan exist, based on new information that has become available since the zoning plan commenced in 2002, including the information provided during the review consultation period.

Key findings and issues include:

- **comprehensiveness, adequacy and representativeness**
 - Most habitats and ecosystems are well represented and replicated in sanctuary zones, with the exception of intermediate rocky reefs. Opportunities should be explored to increase the representation and replication of intermediate rocky reefs in sanctuary zones.
 - Preliminary observations appear to show an increase in abundance and diversity of species in shallow rocky reef sanctuary zones. The current network of sanctuary zones encompasses important ecosystem linkages that allow species to move between habitats used throughout their life cycle. The current distribution of sanctuary zones in the marine park should be maintained.
- **protective zoning for species and areas of high conservation value**
 - The marine park contains several areas of high conservation value and that provide habitat for threatened species. Opportunities should be explored to:
 - manage the impact of purse seining and lift netting on areas with high conservation value
 - reduce the impact of anchoring, mooring and propeller damage on seagrass beds
 - improve the representation of reef in sanctuary zones which may additionally protect the black cod, eastern blue devil fish and grey nurse shark.
- **maintaining ecological processes and buffering key habitats**
 - All sanctuary zones with the exception of Crookhaven Bight are surrounded by habitat protection zones. Some zones are relatively small and have limited internal buffering.
 - Opportunities should be explored to maintain or improve the buffering of key habitats by including whole areas of continuous habitat in sanctuary zones where possible.
- **limiting the complexity of zoning**
 - most zones in the marine park have straight boundaries or are defined by distinctive landmarks. Some zone boundaries, however, are defined by the distance from shore, which cannot be marked and can be difficult to identify.
 - opportunities should be explored for improving the manageability of zones that include rounded or specified 'distance off shore' boundaries.
- **maintaining consistency with management of areas adjacent to the marine park**
 - The Jervis Bay Marine Park boundary adjoins Booderee National Park, Jervis Bay National Park, Crown reserves and lands managed by the Shoalhaven City Council and the Department of Defence. Options should be explored to increase complementary zoning and management with adjacent land managers.
- **sustainable resource use, and social and economic factors**
 - Jervis Bay Marine Park is an important focus of social, cultural and economic activities in the Shoalhaven Region.
 - Most local residents support the marine park and sanctuary zones.

- Thirty-four percent of visitors to the region identify the marine park as the sole reason for their visit.
- The range of recreational uses that exist in the marine park should continue to be provided for.
- **protecting cultural and historical sites**
 - The marine park contains a number of shipwrecks and other maritime heritage that are generally well protected under existing legislation.
 - Further consultation with Aboriginal communities is required to identify areas of cultural and economic significance to Aboriginal people, and to improve management arrangements for cultural resource use.

Finalising the review

This review report will be provided to the Jervis Bay Marine Park Advisory Committee for comment, as required under the *Marine Parks Act 1997*. The NSW Marine Parks Authority will provide the report, and any comments from the advisory committee, to the Minister for Climate Change and the Environment, and the Minister for Primary Industries, for their consideration. On the basis of the review report and advisory committee comments, the Ministers will direct the NSW Marine Parks Authority to:

- prepare a draft zoning plan to amend or replace the zoning plan, or
- continue with the current zoning plan.

The Ministers may also direct the NSW Marine Parks Authority to take other actions that do not require any changes to the zoning plan, to address issues identified in this report.

If the Ministers decide that a draft zoning plan is to be prepared, this will occur in consultation with the Jervis Bay Marine Park Advisory Committee and be subject to further public consultation, including a three-month public exhibition period.

The Jervis Bay Marine Park Operational Plan 2003 supports the zoning plan, by outlining the scheme of operation for the marine park including the management of development activities within and adjacent to the marine park. It identifies how the Marine Parks Authority works with other agencies, local government, research institutions and community groups to conserve biodiversity in the marine park.

Should any changes to the zoning plan be made as a consequence of the review, the operational plan will be subsequently reviewed to ensure it is consistent with, and supports, the zoning plan.