

PROPOSALS FOR AQUATIC RESERVES AT JERVIS BAY

D. Leadbitter & D.A. Pollard

Fisheries Research Institute,
P.O. Box 21,
Cronulla, N.S.W. 2230.

INTRODUCTION

Jervis Bay is a large, marine-dominated embayment located about 180 km by road to the south of Sydney. The Bay displays a wide array of ecosystems, such as subtidal rocky reefs, extensive seagrass beds, mangrove stands and a variety of soft-bottom habitats. In addition, Jervis Bay offers considerable amenity in terms of its scenic beauty, clear waters and predominantly undeveloped shores.

Although these ecosystems are generally not unique, it is unusual to find such a large area containing a wide variety of aquatic and coastal habitats remaining relatively undisturbed despite its close proximity to several major urban centres. This situation can, at least in part, be attributed to the presence of the Royal Australian Navy, which owns and/or has used large tracts of land bordering the Bay for many years.

Past development interest in Jervis Bay has been sporadic. During the early 1970's plans for a vast industrial complex (including Australia's first nuclear power station) were mooted. Spirited public opposition, a government inquiry and a subsequent economic downturn led to the (at least temporary) demise of these plans, which would have changed Jervis Bay into another industrial port like Botany Bay.

Changing attitudes regarding the natural environment and its potential for less damaging uses have now resulted in another potential development phase. Jervis Bay has been promoted as a recreational area for the urban inhabitants of Sydney, Canberra and Wollongong. However, such recreational development is by no means benign, the impacts being gradual and cumulative. The need for careful management is readily apparent.

As early as 1944 it was recognised that Jervis Bay had considerable conservation values when the pioneer conservationist Myles Dunphy proposed the establishment of a National Park on the Beecroft Peninsula. Although no park has been declared to date, a nature reserve on the Bherwerre Peninsula, to the south, was gazetted by the Department of the Capital Territory in 1971. A small marine extension to this reserve, which is managed in sympathy with the terrestrial area, was declared over Commonwealth waters in the Bay in 1976 (Department of the Capital Territory 1979).

The Australian Littoral Society emphasised the conservation values of the Jervis Bay area over ten years ago and provided a general description of the Bay's flora and fauna in a special issue of its journal *Operculum* (Pollard 1973).

In 1975 the first formal recommendation for the establishment of marine reserves was made by the Commonwealth Government's Standing Committee on Environment and Conservation in the report following its enquiry into the proposed industrial and urban development of Jervis Bay. There have subsequently been several proposals by other organisations, including the Division of Fisheries, for marine reserves in this area.

Under Section 16A of the Fisheries and Oyster Farms Act, 1935 (1979 Amendments), the Minister for Agriculture and Fisheries is empowered to declare areas of marine and estuarine waters to be Aquatic Reserves. The legislation is flexible in order to encompass and address the wide range of usages made of aquatic environments. However, in order to broadly aid public awareness of the overall objectives of a particular Aquatic Reserve, three categories of reserve are presently being considered. The first and second of these include an aquatic sanctuary, usually a small area in which tight restrictions on fishing and the removal of aquatic life are enforced, and an aquatic refuge, usually involving an area of intermediate size in which selected restrictions on activities deemed damaging to fish or their habitats are enforced. The third category, applicable to the proposed Jervis Bay Aquatic Reserve, is an aquatic park, usually a large area in which a wide variety of activities may be permitted by means of zonation.

The opportunity to successfully manage such a large aquatic area as Jervis Bay, containing as it does a wide variety of relatively undisturbed coastal ecosystems, is unique. An Aquatic Reserve would be a vital link in any overall plan for the conservation of Jervis Bay's resources for the future.

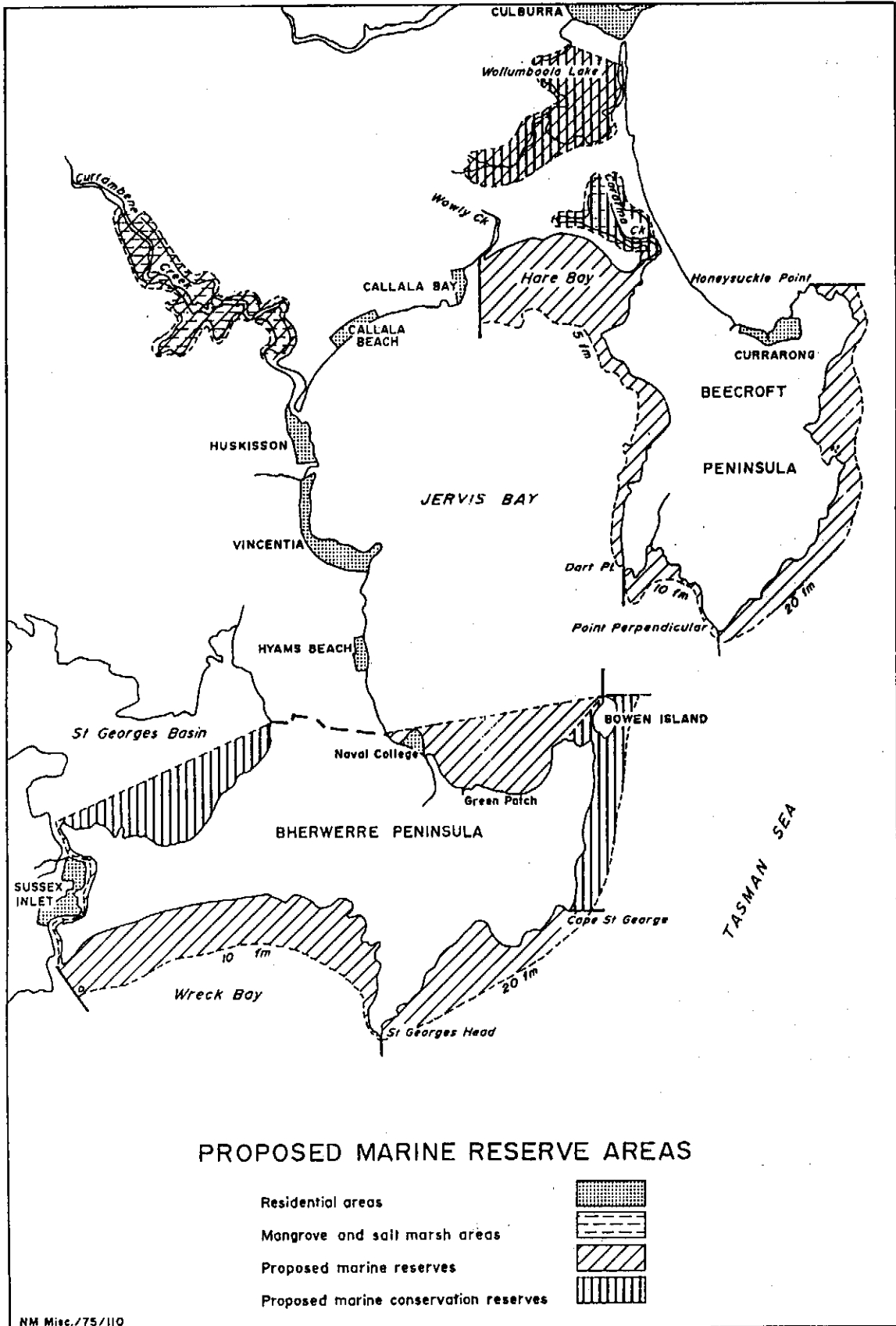


Figure 1. Marine reserve areas proposed by the House of Representatives Standing Committee on Environment and Conservation, 1975.

BACKGROUND TO THE AQUATIC RESERVE PROPOSAL

Although the natural environment of Jervis Bay had long been recognised as being unique, beautiful, and requiring protection and preservation, it was not until 1975 that the first formal recommendation for the dedication of a marine reserve in the area was made. The Standing Committee on Environment and Conservation was asked in 1974 to examine and report on:

- "(1) the extent to which industrial and urban development of the Jervis Bay area is compatible with its use as a recreation and ecological reference area"; and
- "(2) the measures which should be taken to preserve the littoral environment of the Bay." (Anon. 1975).

The Committee's report stressed that the use of Jervis Bay as a commercial port and industrial centre could not be justified. Two of its recommendations were directly relevant to the creation of aquatic reserves, viz.:

- "19. The Australian Government waters of Jervis Bay be dedicated as a marine reserve and that the waters indicated on Map No. 6 (reproduced here as Figure 1) be considered for dedication as a marine conservation reserve."
- "20. The Australian Government propose to the Government of New South Wales that the areas indicated on Map No. 6 be considered for dedication as marine reserves and marine conservation areas and that agreement be sought as to a co-ordinated management policy in respect to these reserves." (Anon. 1975).

The report did not attempt to determine exact boundaries for the proposed reserve areas or to set down management guidelines. It stated that the decision to create the recommended reserves lay with the State Government, the only exception being the area of Australian Government waters over which the Minister for the Capital Territory had, and still has, authority. However, the point was made that various activities, including the use of high-speed boats, spearfishing, angling, and commercial fishing, should probably be subject to licensing. In the case of commercial fishing, the Committee saw the catching of pelagic fish only as being acceptable in the reserve area.

In addition, the Committee recommended that conservation reserves be created wherein the taking of any plant or animal, the damaging of geological features, and pollution of the environment, would be prohibited. It was suggested that these totally protected areas should be located within the marine reserve areas and chosen so as to cause the least possible disruption to existing activities.

The publication of the report caused some concern amongst the commercial fishermen on the South Coast who fished not only for pelagic fish in the Jervis Bay area, but also for prawns, abalone, squid, and lobsters. It was also anticipated that amateur prawn fishing and ocean angling might be detrimentally affected if the proposed recommendations were implemented.

In 1976, the Department of the Capital Territory prohibited the carrying of spears and spearguns in the Jervis Bay Nature Reserve, including the 800 ha of adjacent waters inside the Bay. In addition, it was stated that the Department proposed to extend the Jervis Bay Nature Reserve to include the territorial ocean waters to the south of Jervis Bay; that is, to three miles offshore and adjacent to the ocean coastline of the Capital Territory. Strict controls on exploitation of marine life were to be introduced in the Bay waters adjacent to the Nature Reserve, including:

- ◇ no commercial fishing except for tuna bait (yellowtail)
- ◇ no seaweed harvesting
- ◇ no line fishing except at Greenpatch Beach
- ◇ no spearfishing
- ◇ no collection of shellfish or marine littoral life
- ◇ some collection of marine life for educational and scientific purposes.

The proposal to extend the Nature Reserve to include territorial waters rekindled conflicts initiated in 1967 regarding responsibilities for fisheries in the Jervis Bay area. In that year, the Australian Capital Territory Fishing Ordinance had been introduced by the Commonwealth's Department of the Interior, without prior reference to either the Commonwealth or State fisheries authorities. The ordinance resulted in there being three sets of fishing regulations in force in the area, causing considerable confusion and concern to both amateur and commercial fishermen. Although negotiations to cede to New South Wales the powers and title to these territorial seas have been undertaken, at the time of writing the problem had not been resolved.

In 1979, the Department of the Capital Territory released the "Jervis Bay Nature Reserve Draft Development and Management Plan" (Department of the Capital Territory 1979) in which, among other issues, the proposed management strategy for the 800 ha of marine waters adjacent to the Territory inside the Bay was outlined. These waters were zoned Natural (Marine) and divided into two categories. In Category A areas, sessile organisms and shellfish were to be protected but controlled recreational and commercial fishing allowed. In Category B areas, all fish and sessile organisms were to be protected.

Meanwhile, since the early 1970's and in response to the threat of large scale industrial development at Jervis Bay, the Division of Fisheries had been collecting and collating information regarding fishing and related activities in the area. Although the need for an aquatic reserve in Jervis Bay was recognised by the State Government and a basic plan prepared, little action was undertaken towards implementing the dedication of a reserve. This was due to three major factors, namely:

- ◊ the Division of Fisheries was not given the legislative power to declare Aquatic Reserves until 1979,
- ◊ the problems of Commonwealth/State jurisdiction proved to be difficult to resolve, and
- ◊ the preparation of management plans for a number of other Aquatic Reserves in the State was considered at that time to be of higher priority than of that for Jervis Bay.

Since 1981, the Jervis Bay Protection Committee, and later the Shoalhaven City Council, have been pressing for the declaration of an Aquatic Reserve in Jervis Bay. Conflicts between commercial fishermen, anglers and spearfishermen increased public debate on the matter.

As a result of : (i) the resolution of the first and third factors described above, and (ii) the continuing land/resource use conflicts and public interest in Jervis Bay, a draft management plan for an Aquatic Reserve in Jervis Bay is presently being prepared.

THE CURRENT PROPOSAL

The draft management plan currently being prepared by the Division of Fisheries for a proposed Aquatic Reserve in and adjacent to Jervis Bay is being completed with the assistance of a grant from the Australian National Parks and Wildlife Service under its States Cooperative Assistance Program.

The intended planning procedure relating to the preparation and distribution of this management plan and the dedication of the Aquatic Reserve is as follows:

- ◊ The draft plan is to be published and distributed widely in order to encourage comments from interested members of the public. A period of two months is to be allocated for this process.
- ◊ Any necessary modifications to the plan resulting from suggestions forwarded by interested parties will be incorporated into the final plan.
- ◊ The final plan will be forwarded to the Minister for Agriculture and Fisheries who will be requested to gazette a regulation formalising the Aquatic Reserve under Section 16A of the Fisheries and Oyster Farms Act, 1935 (as amended 1979).

The draft plan of management will be based on careful consideration of a large number of factors affecting the environment of the Jervis Bay area. Such an extensive body of information will necessitate the publication of a rather lengthy report so the overall plan of management will be presented in two volumes, the first summarising the pertinent issues and detailing the proposed management strategies, and the second detailing the background information needed to gain a better understanding of the reasons for the options proposed.

Interested individuals and organisations will be invited to contribute comments on the draft plan when it is published and it is suggested that both sections of the planning document (Part A - Draft Management Plan, and Part B - Resources and Justification) be read in conjunction with each other so that a full understanding of the reasons for the management strategies suggested can be obtained. Following receipt and consideration of submissions and comments from the public, a final management plan for the area (based on Part A) will be prepared.

In general, the preferred option amongst those presently being considered by the Division of Fisheries would be to declare the entire Bay and some of its adjacent waters an Aquatic Reserve, which area would then be zoned to take into account both its existing (e.g. fisheries) uses and its conservation and other values. Such zonation would provide, for instance, for both commercial (e.g. netting) and recreational (e.g. angling, spearfishing) fishing areas, passive recreation (e.g. scuba diving) areas, and include "core" and "buffer" areas designated in relation to the protection of the best examples of the Bay's marine and estuarine habitats and their associated flora and fauna.

REFERENCES

- Anon. (1975). Development pressures on Jervis Bay. *Seventh Report of the House of Representatives Standing Committee on Environment and Conservation*. A.G.P.S., Canberra.
- Department of the Capital Territory (1979). Jervis Bay Nature Reserve - Draft Development and Management Plan. *Conservation Series No. 4*, A.G.P.S., Canberra.
- Pollard, D.A. (Ed.) (1973). Jervis Bay - the future? *Operculum (Special Issue) 3*, 1-64.