

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

1975—Parliamentary Paper No. 258

**House of Representatives
Standing Committee on
Environment and Conservation**

**Report on
Development Pressures on
Jervis Bay**

*Brought up and
ordered to be printed 14 October 1975*

THE GOVERNMENT PRINTER OF AUSTRALIA
CANBERRA 1976

c Commonwealth of Australia

Printed by F.D. Atkinson,
Government Printer of Australia

HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON ENVIRONMENT AND CONSERVATION

The Committee was appointed on 23 July 1974 by resolution of the House of Representatives on the motion of the Hon. Moss Cass, M.P., Minister for the Environment and Conservation, to inquire into and report on:

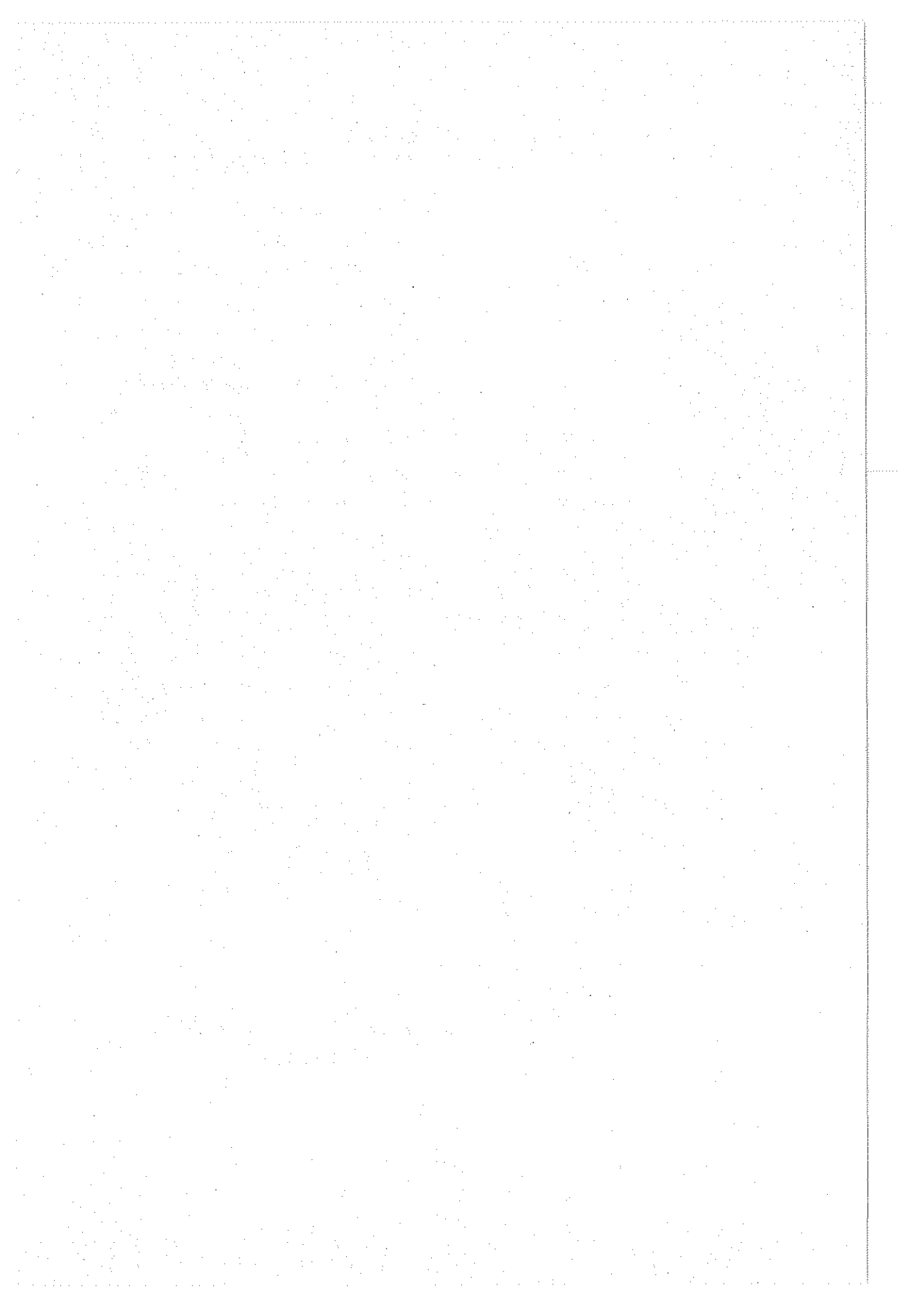
- (a) environmental aspects of legislative and administrative measures which ought to be taken in order to ensure the wise and effective management of the Australian environment and of Australia's natural resources, and
- (b) such other matters relating to the environment and conservation and the management of Australia's natural resources as are referred to it by -
 - (i) the Minister for the Environment and Conservation, or
 - (ii) resolution of the House.

The terms of reference are identical with those of the Standing Committee on Environment and Conservation of the Twenty-eighth Parliament which ceased to exist when the Parliament was dissolved on 10 April 1974.

TERMS OF REFERENCE

To examine and report on:

- (1) the extent to which the 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.



MEMBERSHIP OF THE COMMITTEE

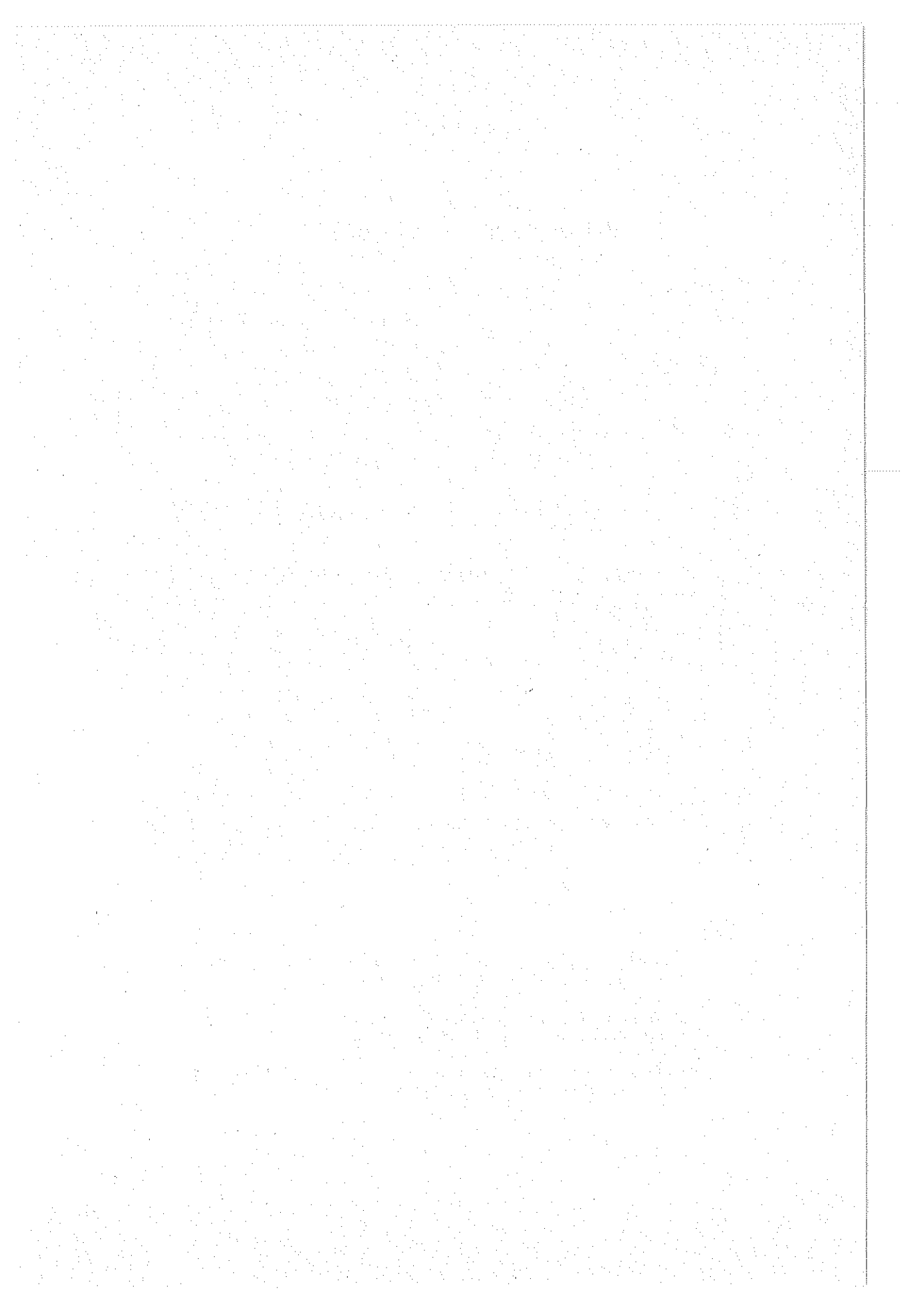
Chairman	Dr H.A. Jenkins, M.P.
Members	Mr J.C. Hodges, M.P., Mr A.W. Jarman, M.P., Mr J.C. Kerin, M.P., Mr A.H. Lamb, M.P., Mr P.F. Morris, M.P., The Hon. I.L. Robinson, M.P.
Clerk to the Committee	Mr M. Adamson

MEMBERSHIP OF THE SUB-COMMITTEE

Chairman	Mr J.C. Kerin, M.P.
Members	Mr P.F. Morris, M.P., The Hon. I.L. Robinson, M.P.
Clerk to the Sub-committee	Mr P.G. Bush

NOTES

1. Mr Hodges replaced Mr I.B.C. Wilson, M.P. after the latter withdrew on 16 April 1975.
2. Mr Jarman replaced Mr J.W. Bouchier, M.P. after the latter withdrew on 16 April 1975.
3. Mr Wilson was also a member of the Sub-committee until he withdrew on 21 November 1974.



CONTENTS

<u>Chapter</u>		<u>Page</u>
	FINDINGS	ix
	RECOMMENDATIONS	xi
I	INTRODUCTION	1
II	BACKGROUND TO THE INQUIRY	3
	- Jervis Bay	3
	- Need for this Inquiry	4
	- Steelworks and Associated Development	4
	- Atomic Power Station	5
	- Sewerage Effluent	6
	- Fishing Rights	6
	- Beecroft Peninsula	7
	- Summary	7
	- Terms of Reference	7
III	INDUSTRIAL DEVELOPMENT	9
	- Jervis Bay - Its Place in National Coastal Land Use	9
	- Jervis Bay - The Port	11
	- Environmental Impact of Port Facilities at Jervis Bay	13
	- Jervis Bay - Site for Heavy Industry	14
	- Impact of Heavy Industrial Development at Jervis Bay	15
	- Social Environment	16
	- Industrial Development and the Jervis Bay Nature Reserve	17
	- Light Industry	17
	- Conclusion	18
	- Atomic Power Station	19
IV	JERVIS BAY - RECREATION AND SCIENTIFIC REFERENCE AREA	21
	- Scientific Reference	22
	- Recreation	22
	- Jervis Bay Area Management Plan	23
	- Access and Facilities - Guidelines	24
V	URBAN DEVELOPMENT IN NEW SOUTH WALES AREAS OF JERVIS BAY	27
	- Present Development	27
	- Subdivision Pressures	27
	- Resumption of Existing Development	31
	- Environmental Impact Statements	32
	- Huskisson - Vincentia Sewerage Scheme	32

VI	MANAGEMENT OF AUSTRALIAN GOVERNMENT LAND AND WATERS	35
	- The Jervis Bay Territory	35
	- Present Management	35
	- Commercial and Residential Leases at Sussex Inlet North	36
	- Fireclay Leases	38
	- Bowen Island	38
	- Camping Areas	39
	- Permanent Scientific Research Facilities in the Territory	39
	- H.M.A.S. Creswell	41
	- Beecroft Peninsula	45
	- Co-ordination of Land-Use Planning	47
VII	NATURE AND MARINE RESERVE AREAS	49
	- Management Data	49
	- Boundaries and Management of Reserves	51
	- Management Guidelines	51
	- Access to Reserves	52
	- Management Responsibility	53
	- Conservation Reserves	53
	- Public Education Measures	53
	- Proposed Reserves	54
	- Recreation Reserve: Beecroft Peninsula - Lake Wollumboola	54
	- Marine Reserve: Currumbene Creek	55
	- Recreation Reserve: Bherwerre Peninsula - Bowen Island	56
VIII	JERVIS BAY AND THE NATIONAL ESTATE	59
	- A Jervis Bay Management Trust	59
	- The Australian Heritage Commission	59
	- Jervis Bay - National Heritage Area	61
	- Financial Assistance to Local Government	62
	- Co-ordination of Management	62
<u>Appendix</u>		
I	LIST OF WITNESSES	65
II	MAPS	71
	- The Shoalhaven Shire of New South Wales	71
	- Jervis Bay in the Shoalhaven Shire	72
	- Land held by Australian Government at Beecroft Peninsula	73
	- Jervis Bay District Vegetation and Land-Use	74
	- Australian Government Territory - Jervis Bay	75
	- Proposed Marine Reserve Areas	76
III	LIST OF EXHIBITS	77

FINDINGS

The Committee finds that:

1. Although Jervis Bay has the potential for development as a deep water port, its use for such purposes cannot be justified in the light of the development potential of the existing major ports in New South Wales and the environmental degradation which would result in the Bay. (para 41)
2. A decision to develop Jervis Bay as a heavy industrial port would be essentially pre-emptive of other options for land-use in the area considered in this Inquiry. (para 51)
3. Substantial environmental degradation would necessarily result from the establishment of heavy industry at Jervis Bay and that such industry would not contribute meaningfully to the development of the Shoalhaven Shire. (para 52)
4. The effective management and preservation of Australian coast-line resources is hampered by the lack of co-ordinated national coastal land-use policy developed by the Australian and State Governments in consultation with local government. (para 55)
5. The Jervis Bay area's primary value as a national resource lies in its development potential for recreation and scientific reference purposes with sound management planning to safeguard the environment and retain the natural landscape and atmosphere. (para 75)
6. The discharge of treated sewerage into Jervis Bay is not in accordance with sound management principles of the Bay as a centre for tourism, recreation and preservation of the natural environment. (para 96)

7. The continued usage of the leases at Sussex Inlet North for the letting of holiday accommodation and caravan park facilities is incompatible with the management of the area as a restricted access nature reserve. (para 103)
8. A natural sciences research and study centre would be a most desirable asset at Jervis Bay, but considers that such a facility should be accessible to any tertiary institution. (para 115)
9. Large-scale expansion of naval facilities at Jervis Bay would not be compatible with the management of the Jervis Bay area as a natural recreation area and would pose a threat to the viability of the Jervis Bay Nature Reserve. (para 123)
10. The environmental quality of Australian Government land on Beecroft Peninsula has been degraded through lack of appropriate management measures. (para 134)
11. The Jervis Bay area is a valuable ecological reference area and considers that substantial areas of its land and waters should be reserved for both controlled recreation and sporting uses, while appropriate sections of the reserved areas should be zoned and strictly controlled as nature conservation reserves. (para 153)
12. The Jervis Bay area is an important part of the national estate and that its effective protection and preservation as such will be dependent on its management as an integrated unit. (para 172)
13. The co-ordination of development and management programs in the Jervis Bay national estate area and the involvement of the public in these programs would be facilitated by the provision of a regional environmental extension officer. (para 177)

RECOMMENDATIONS

The Committee recommends that:

1. Funds be provided by the Australian Government to finance study by all levels of government of national coastal resources and to develop a policy for the future management of these resources. (para 55)

2. Australian Government involvement in any proposal to establish port or heavy industrial facilities at Jervis Bay be subjected to an environmental impact study under the terms of the Environment Protection (Impact of Proposals) Act 1974-1975; and

If it can be conclusively demonstrated that a more suitable alternative site exists elsewhere in Australia the Australian Government not support the proposal. (para 55)

3. The Australian Government revoke plans to establish a nuclear power station at Jervis Bay, and the agreement to reserve land at Murrays Beach for use by the Australian Atomic Energy Commission be terminated. (para 58)

4. The Australian Government provide funds for the development of a long-term comprehensive Jervis Bay Area Management Plan to be developed and implemented in consultation with the Government of New South Wales and the Shoalhaven Shire Council. (para 75)

5. The Australian Department of Environment fund the detailed assessment of alternative sewerage disposal methods for the Huskisson-Vincentia sewerage scheme and that the Australian Government subsidise (if necessary) any such scheme which is found to be economically viable and environmentally preferable to the current scheme. (para 96)

6. Leases currently being negotiated by Mr Thurbon and the Australian Railways Union be renewed for a period of 10 years only in each case and that the conditions of such leases specify that no enlargement of the capacity of the leases will be permitted. (para 103)
7. On the expiry of these leases the land be restored to its natural state and the leaseholders compensated for loss of assets. (para 103)
8. On the expiry of the leases on Blocks 9 and 11 held by Mrs J.P. Ellmoos and Mrs A. Junk respectively, the leaseholders be permitted to remain on the lease sites as private residents only, during their lifetimes. (para 103)
9. On the death of the leaseholders, the Christians Minde area be set aside as a day visitor area and site of historical interest and be managed accordingly. (para 103)
10. All other current leases at Sussex Inlet North not be renewed on expiry, the sites restored to their natural state and the leaseholders compensated for loss of effects. (para 103)
11. The leases on Blocks 51 and 53 be terminated no later than 12 months from the date of this Report. (para 108)
12. Green Patch camping area be extended away from the beach towards Jervis Bay Road, and the existing camping area between the access road and Telegraph Creek be revegetated.
(para 111)
13. To avoid the further alienation of natural bushland the site excavated for the proposed atomic power station at Murrays Beach be utilised for the establishment of a Natural Sciences Research and Study Centre, with facilities being provided on a leasehold basis to interested institutions. (para 115)

14. Any proposal to develop naval facilities at Jervis Bay be subjected to an environmental impact study in accordance with the terms of the Environment Protection (Impact of Proposals) Act 1974-1975; and
If it can be demonstrated that a more suitable alternative site for such development exists the Australian Government not agree to the proposal. (para 123)
15. The research study recommended in paragraph 96 in relation to the Huskisson-Vincentia sewerage scheme be extended to include the desirability of upgrading the sewerage treatment system at H.M.A.S. Creswell and investigate the feasibility of connecting this system to the Huskisson-Vincentia scheme. (para 126)
16. The Australian Government land at Beecroft Peninsula be managed as a recreation and nature reserve on an agency basis by the Department of the Capital Territory on behalf of the Department of Defence and in accordance with the requirements of that Department. (para 134)
17. Until the results of relevant marine biology research programs are available, the current management approach to seaweed collection and bait-fishing in the proposed marine reserve areas should continue. (para 144)
18. The Jervis Bay Nature Reserve be extended to include all areas of the Jervis Bay Territory not presently reserved for use by the Department of Defence. (para 163)
19. The Australian Government waters of Jervis Bay be dedicated as a marine reserve and that the waters indicated on Map No. 6 be considered for dedication as a marine conservation reserve. (para 163)

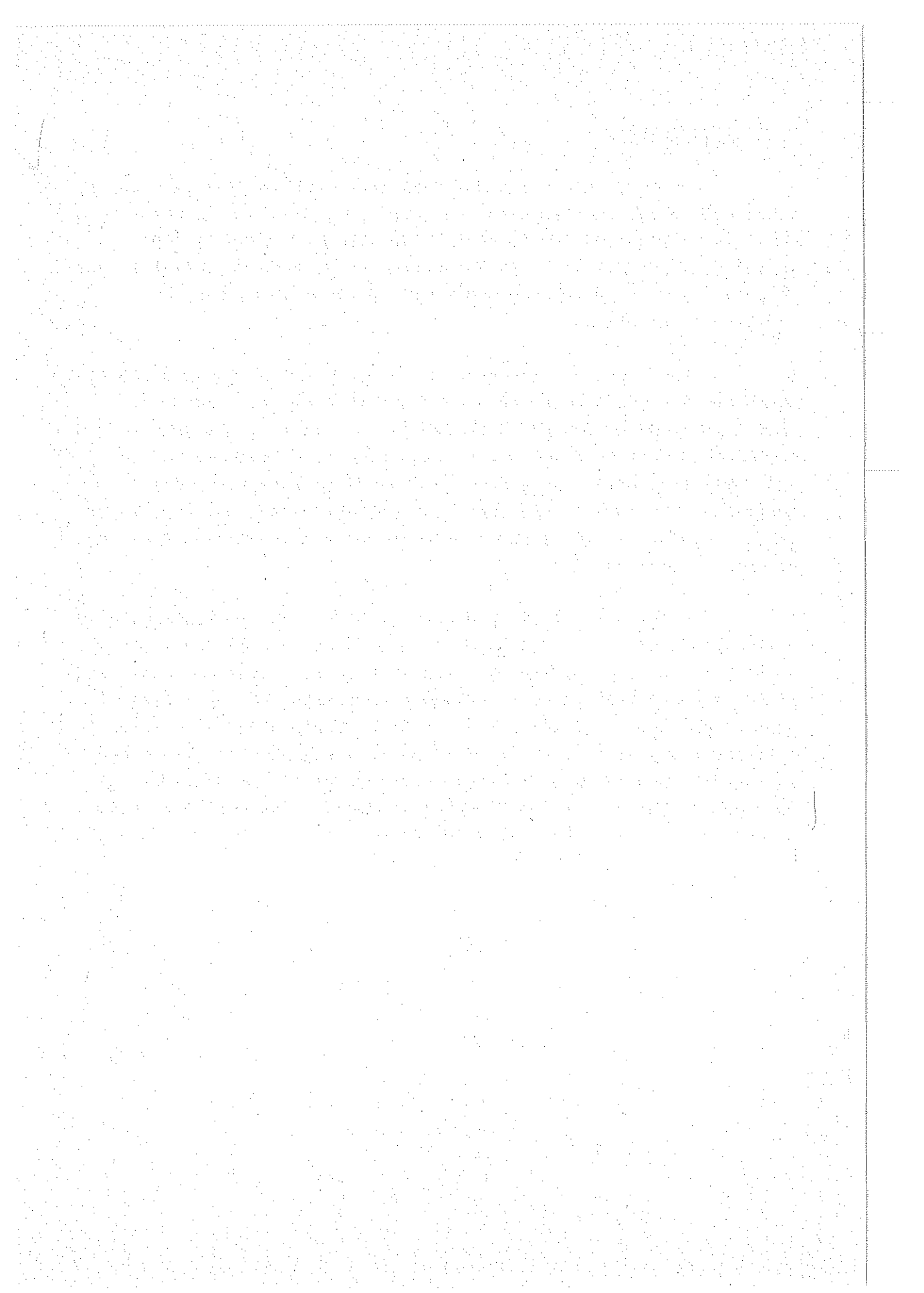
20. The Australian Government propose to the Government of New South Wales that the areas indicated on Map No. 6 be considered for dedication as marine reserves and marine conservation reserves and that agreement be sought as to a co-ordinated management policy in respect to these reserves. (para 163)
21. In accordance with Section 25 of the Australian Heritage Commission Act 1975 the Jervis Bay area be entered forthwith on the list of places that might be entered in the Register of the National Estate. (para 172)
22. In accordance with Sections 22 and 24 of the same Act, the Australian Heritage Commission take appropriate action to have the Jervis Bay area entered on the Register of the National Estate. (para 172)
23. An officer of the Australian Heritage Commission be appointed as regional environment extension officer in the Jervis Bay area and that he be provided with such facilities as are required to ensure the effective co-ordination of development and management policies and the dissemination of information related to these policies. (para 177)

I INTRODUCTION

1. On 24 October 1974 the Committee resolved that an Inquiry into development pressures on the Jervis Bay area be conducted by a sub-committee comprising Mr Kerin (Chairman), Mr Morris, Mr Robinson and Mr Wilson. The Committee on 31 October 1974 resolved that the terms of reference for the Inquiry be those set out earlier in the preface.

2. The terms of reference were advertised nationally during November 1974 and submissions were invited from organisations, individuals and government departments. A total of 36 written submissions were received and 45 witnesses gave evidence to the Sub-committee, either in a personal capacity or representing Australian Government Departments, local government, private enterprise, tertiary institutions, conservation groups and sporting and scientific organisations.

3. A list of witnesses appearing before the Sub-committee is given at Appendix I. Two days of inspections of the Jervis Bay area were conducted by the Sub-committee by motor vehicle, boat and helicopter and 1028 pages of evidence were taken during 6 days of public hearings, 3 of which were held in Canberra and 3 in Nowra. Evidence given at the public hearings is available for inspection in Hansard proof form at the Committee Office of the House of Representatives and at the National Library. One corrected copy of the evidence is held by the Committee.



II BACKGROUND TO THE INQUIRY

Jervis Bay

4. Jervis Bay is a major embayment situated on the coast of New South Wales approximately 200 kilometres south of Sydney. The Bay is formed by two peninsulas, the Beecroft Peninsula on the northern side and the Bherwerre Peninsula to the south, and measures approximately 15 kilometres north-south and 8 kilometres east-west with a 3 kilometre-wide entrance. The Bherwerre Peninsula together with Bowen Island constitutes the Jervis Bay Territory which is part of the Australian Capital Territory while the greater part of Beecroft Peninsula, formerly leased from the New South Wales Government for defence purposes, was purchased by the Australian Government in December 1974. Two smaller areas on this peninsula are also part of the Australian Capital Territory.

5. These areas of Australian Government land have remained substantially undeveloped and the only noticeable intrusion on the landscape of the Bay are the Jervis Bay Village, naval college and associated facilities of H.M.A.S. Creswell in the Jervis Bay Territory.

6. The balance of the Jervis Bay area is within the Shoalhaven Shire and approximately 60% of the New South Wales land adjacent to the foreshores is zoned by the Shoalhaven Shire Council for village development, the major centres being those of Vincentia, Huskisson and Callala Beach.

7. Despite this development the Bay has generally retained its natural appearance, and its white sand beaches, clear waters, and spectacular headlands form an embayment of outstanding scenic amenity only 70 minutes drive from Wollongong and 2½ hours from Sydney.

8. Housing in the Jervis Bay area has been predominantly for holiday purposes or for the permanent residences of retired people. Increasingly, the area is attracting residents who work

in the Nowra-Bomaderry district but prefer to live on the coast, while there is an increasing demand for tourist and recreation facilities both on a day-use and longer-term basis. Data provided by the Department of the Capital Territory on visitor usage of picnic and camping facilities in the Jervis Bay Territory indicate that most campers come from Sydney and to a lesser extent Wollongong, while most day visitors come from Wollongong and the Shoalhaven Shire.

9. There is no industrial development in the Jervis Bay area at the present time.

Need for this Inquiry

10. In 1969 two announcements were made which generated public interest in and reaction to governmental planning with respect to the future usage and development of Jervis Bay.

Steelworks and Associated Development

11. The most significant proposal, announced in August 1969 by the New South Wales Government, was that the Armco Corporation in association with Bethlehem Steel, Kaiser Steel and CRA-RTZ (Hammersley Iron) would be conducting a feasibility study on the establishment of a steelworks on a 6,500 acre holding adjacent to Callala Beach, with a view to producing semi-finished steel products for export to the United States. It was, however, not until August 1972 when newspapers released details of the Maunsell Report¹, a confidential study prepared for the New South Wales Department of Public Works, that public opinion hardened on the issue and action groups formed to lobby against the industrial development of the Bay.

12. The Report envisaged the establishment of a 4,000Mw power station (possibly nuclear powered) on the northern shore of the Bay to provide power to the steelworks and a number of

1. The Report on Jervis Bay Port Study - May 1972, Maunsell and Partners Pty Ltd, Consulting Engineers in association with P.E. Consulting Group (Australia) Pty Ltd.

ancillary industries. These were a petrochemical industry, a chemical industry, aluminium smelters, woodchip industry, quarrying and copper refining. Extensive rail, road, harbour and housing facilities to service all these developments were examined.

13. The scope of the development considered in the Report and the secrecy with which it was prepared and withheld from the public, including the Shoalhaven Shire Council, aroused resentment among local residents and people generally who were concerned that alternative uses of the Bay were not being fully examined and that public involvement in planning was not being permitted.

14. In October 1974 the Australian Steel and Mining Corporation Pty Ltd (the Armco Corporation-Kaiser Steel partnership) informed the Prime Minister, the Hon. E.G. Whitlam, Q.C., M.P., that planning to establish a steelworks at Jervis Bay had been discontinued for economic reasons and because of the Corporation's view of the general tenor of the Australian Government's policies aimed at limiting foreign investment in Australia. The Shoalhaven Shire Council was advised in similar terms that they should proceed with planning on the assumption that the steelworks would not be built.

15. The Corporation's stated intention to retain its land holdings at Jervis Bay gave opponents to the steelworks proposal little reason for complacency and it is significant that after six years of speculation this Inquiry represented the first forum provided by Government to attempt to examine in public the options for the future development of Jervis Bay.

Atomic Power Station

16. The second major announcement made in 1969 was the proposal by the Australian Government to establish a 500Mw nuclear power station at Murrays Beach on Bherwerre Peninsula, A.C.T. Despite vocal public reaction to the proposal a large site was excavated and a first-class access road constructed to link the site with the New South Wales road system while studies were made

by the Australian Atomic Energy Commission to assess the impact of the power station on the surrounding environment.

17. In June 1971 this issue was partly defused by an announcement of the Minister for National Development, the Hon Reginald W.C. Swartz, K.B.E., E.D., M.P., that because of rising costs the Government had decided to defer for twelve months a decision to construct the power station. No further decision on the future of the site had been made public before the commencement of this Inquiry and the retention of the site by the Commission is seen as a continuing threat to the environment of the Jervis Bay region.

Sewerage Effluent

18. Although the steelworks and atomic power station issues dominated local and national interest in the area, other development proposals were judged by local citizens as potentially damaging to the natural state of the Jervis Bay waters and foreshores. Perhaps the most contentious of these issues were the plans of the Shoalhaven Shire Council to pump treated sewerage from the developing areas of Huskisson and Vincentia into the Bay waters at Plantation Point.

19. Working with limited resources, the Council commissioned a somewhat inconclusive environmental impact statement² on the scheme which was published in December 1972, and construction of the scheme using a Pasveer channel system has commenced. The effects of the effluent on the Bay's marine ecology lack conclusive scientific evaluation.

Fishing Rights

20. The proposal by the Department of the Capital Territory to establish a marine nature reserve in the Australian Government waters of the Bay, south of a line drawn between the northern tip of Bowen Island and H.M.A.S. Creswell, was of particular concern to

². Environmental Impact Statement - Huskisson Sewerage Scheme, Jervis Bay, New South Wales, Shoalhaven Shire Council, December 1972.

commercial fishing interests. Such action was seen as endangering the viability of the south coast and South Australian tuna fleets which traditionally use these waters as their major source of live bait. Prohibition of bait-fishing and other professional fishing activities was seen as a possible implication of the creation of the reserve. There is a current ban on the taking of Gracillaria seaweed for commercial purposes from the beds in the Commonwealth waters as it is the view of the Department of the Capital Territory that the practice is harmful to the marine environment.

Beecroft Peninsula

21. The use of the Beecroft Peninsula for defence purposes including the naval bombardment practice areas, and the lack of management facilities in areas of public access were other causes of concern to conservationists who advocated the dedication of the Peninsula as a national park.

Summary

22. The issues outlined above represented a combined threat to the value of Jervis Bay as an area of considerable natural beauty and amenity for tourist, recreational, and scientific interest purposes in close proximity to major population centres. This Committee recognised the need for comprehensive public examination of proposed land and water use in the Bay region in an attempt to identify the way in which the Bay's resources should be managed to derive the greatest ultimate benefit for the Australian community. The Inquiry is a further case study by this Committee into the problems posed by land-use pressures on areas of high scenic amenity, complementary to the current Inquiry being conducted by the Committee into the Mount Macedon and Dandenong Ranges areas of Victoria.

Terms of Reference

23. For the purposes of the Inquiry, the Committee determined that the Jervis Bay area referred to in its first term of reference

would mean the area from the entrance to Lake Wollumboola in the north to Sussex Inlet in the south, including the waters and catchment areas of Lake Wollumboola and Jervis Bay, and the Beecroft and Bherwerre Peninsulas and Bowen Island and their neighbouring waters.

24. The Committee recognised from the outset that the responsibility for the planning and management of a major part of its defined area of interest lies with the Government of New South Wales and the Shoalhaven Shire Council and that this would limit the extent to which the Australian Government could act to directly implement the recommendations made in this Report. It is evident, however, that the Australian Government owns or controls significant areas of land and water in the area and would be remiss if it did not attempt to define the future usage of Jervis Bay in the national context. The Committee considers the information and views derived from this Inquiry as being of value to all governing bodies with an interest in the Jervis Bay region. It has sought solutions to management problems which would alleviate financial pressures on local government and ensure that the closest co-operation in land-use planning and financial assistance exists between the New South Wales and Australian Governments with respect to the development of the region.

III INDUSTRIAL DEVELOPMENT

25. Jervis Bay's potential for industrial development was described in 1917 as follows:

"It is no stretch of imagination to assert that Jervis Bay, its foreshores and the land contiguous thereto, offer opportunities for establishing industrial enterprises unparalleled on the Continent of Australia. The topography of the country surrounding the waters in vast areas is such as offers no engineering difficulties in the handling of all heavy industries such as iron and steel, ship building on the largest scale, ore-smelting, refrigerating plants and a host of such kindred industries."³

26. There can be little argument that the Bay and its hinterland are eminently suited for development as a site for heavy industry, based on a deep water port. The issue of whether the potential of the Bay for development as a commercial port and as a site for heavy industry should be realised or whether it should be managed towards other objectives is fundamental in deciding the future role of Jervis Bay in the national context.

Jervis Bay - Its Place in National Coastal Land-use

27. Witnesses representing the Department of Environment and the Department of Urban and Regional Development referred to the need for the development of a national coastal land-use policy as a component of a total land-use policy to be developed by the Australian Government acting in consultation with the State Governments.

28. The coastal land-use policy as envisaged in the Report of the Committee of Inquiry into the National Estate⁴ would be

³. Extract from land sale notice - Jervis Bay City Estate - 1917.

⁴. Australian Government Publishing Service, Canberra 1974.

based on a comprehensive study of the coast-line of Australia to define appropriate areas for various forms of usage, including urban and industrial development, recreation and nature reserves. From this survey the detailed policy of coastal land-use, protection and management would be developed, recognising that much of the expertise in land-use planning lies with the State and local government bodies and that the development of a national policy will involve compromise between conflicting interests at all levels of government. However, the Committee recognises that without such a policy framework, rational multi-objective planning for the irreplaceable and limited asset which is our coast-line, cannot take place.

29. It is recognised that major decisions on coastal land-use will need to be made before a coastal land-use policy can be formulated. Any such decision should be subjected to an environmental impact study and to open public inquiry, so that all aspects of a proposal can be evaluated by the public in full possession of the facts. Interested community groups, public advisory bodies, and local government should be closely involved in the decision-making process.

30. The Committee considers that such examination of any coastal development proposal in relation to the establishment of port or industrial facilities should include an assessment of alternative sites throughout the State and the nation, in accordance with the developing national land-use policy.

31. The need for a national land-use policy is stated in the Fourth Report of the Australian Advisory Committee on the Environment⁵ and this Committee recognises that the principles of multi-objective assessment and planning of land values as described in that report have not been applied in determining desirable forms of land-use in the Jervis Bay area and elsewhere on the Australian coast. Evidence available to this Committee indicates that the decision to locate the steelworks at Jervis Bay was based

⁵. Australian Government Publishing Service, Canberra 1975.

on a feasibility study which compared possible port sites within New South Wales considering only such factors as depth of port, suitability of adjacent land and access to power and natural resources. The statement by the Director of the New South Wales Department of Decentralisation and Development, Mr W.A. Butterfield, that "a port with a depth of 60' in effect removed from consideration all other ports"⁶, indicates the narrow approach taken to the selection of Jervis Bay for such usage.

32. The Committee considers that major planning decisions must be based on thorough research into all feasible types of land-use and the relative evaluation of both the short and long-term benefits to the community of each type of usage, including environmental, social, economic and regional and national considerations. Under no circumstances should planning be based solely on an assessment of economic advantage. The Jervis Bay steelworks project is seen by this Committee as an example of the lack of co-ordinated multi-objective land-use planning at the State and Federal Government levels.

Jervis Bay - The Port

33. The waters of Jervis Bay have a depth of 40 metres at the entrance and 22 metres in the centre of the Bay. From this depth the bottom rises fairly evenly to the shore, the 6 fathom line coming closest to the southern side at the Darling Road naval anchorages and to the north-eastern side of Montague Roadstead. The line is some 1,500 metres offshore at Huskisson and as the creeks entering the Bay are small, siltation is negligible. Although the Bay has been described in the following terms;

"This magnificent harbour which contains 120 square miles of anchorage, is the finest upon the Eastern Coast of Australia, and may well be claimed to be the noblest haven in the world."⁷

6. From the address entitled "Government Policy and the Jervis Bay Development", Oct 1971, Australian National University Press 1971.

7. Ibid.

the development of major port facilities at Newcastle, Port Jackson, Botany Bay and Port Kembla, necessarily brings into question the need for a further major port on the New South Wales Coast.

34. The weight of evidence given to the Committee on this issue indicates that expansion of existing ports is more economic and sound in terms of coastal land-use given the other uses for which the resources of the Bay can be managed. The Illawarra Regional Advisory Council of the New South Wales Department of Decentralisation and Development stated in evidence that:

"... any significant increase in maritime facilities, south of Botany Bay, should be concentrated at Port Kembla."

Further evidence provided by the Council indicates that plans to reclaim land off the foreshores at Port Kembla, using slag from the steel industry, would provide sufficient land to service additional deep water berths to be provided to the north of the existing northern breakwater. In this area 21 metres of water are available without dredging and 26 metres are available by dredging in the immediate vicinity of the docks. The Council pointed out that the land reclamation scheme would allow the provision of protected moorings necessary for the continuous unloading of most bulk materials and finished products, whereas the same protection could not be afforded shipping at the proposed port site in Jervis Bay without the construction of extensive breakwaters.

35. The Council argued that Port Kembla has the potential for significant harbour and industrial development in a location linked with the New South Wales transport systems giving access to the major markets and industrial areas. Improved road access to the south-eastern regions of the State by a new road via Johnson's Spur to Robertson would facilitate usage of Port Kembla as a cargo outlet for primary produce.

36. The Committee recognises that limitation on development of existing ports through the lack of available adjacent land is a major incentive to industry and government to consider alternative sites such as Jervis Bay and Port Stephens. If the problem of unavailability of land can possibly be overcome by the proposed Port Kembla harbour development referred to above, the Committee is unable to see any advantage in economic terms in creating additional maritime and associated support facilities elsewhere on the south coast of New South Wales.

Environmental Impact of Port Facilities at Jervis Bay

37. All available evidence indicates that environmental degradation would be an inevitable consequence of commercial shipping activities in the Bay. Pollution would in the first instance be mainly visual with the impact on the landscape of extensive breakwaters and wharves together with the associated clearing of land at the harbour site. The major problems would, however, be associated with physical pollution in the form of spillages and discharges into the water from ships, disturbances to the sea bed through the extensive dredging which would be required, and turbidity caused by the movement of large ships and tugs through the water.

38. The impact of foreign matter, particularly oil, would be aggravated by the lack of flushing action in the waters of the Bay. Fed by only a number of small creeks, the Bay does not have the limited ability to discharge pollutant materials to the open sea as occurs in the river-fed harbours of Newcastle, Port Jackson and Botany Bay. Studies which have been conducted on water movement between the ocean and the Bay and on currents within the Bay indicate that no significant water circulation or replacement occurs. While the Committee recognises the need for more extensive research into water movement in the Bay, it is evident that water currents would not disperse more than minimal deposits of pollutants. The problem is exaggerated by the clear waters and white sand sea-bed which makes any discolouration immediately obvious.

39. A joint planning study by the State Planning Authority of New South Wales and the Shoalhaven Shire Council to assess the impact on the area of the steelworks-port proposal stated:

"... deterioration of the present natural conditions of parts of the Bay itself could be expected.

Investigations of the situation at both Port Kembla and Newcastle have shown that natural biological conditions in port waters have been very substantially degraded by pollution from shipping and industry."⁸

40. While evidence was given to the Committee that technology is developing to a stage where ships can be berthed and docked in contained areas so that pollutants are prevented from entering the surrounding waters, the Committee considers that such a sophisticated system could not be implemented in the foreseeable future and that its cost would be prohibitive on the scale of operations of a major industrial port.

41. In summary, the Committee finds that although Jervis Bay has the potential for development as a deep water port its use for such purposes cannot be justified in the light of the development potential of the existing major ports in New South Wales and the environmental degradation which would result in the Bay.

Jervis Bay - Site for Heavy Industry

42. Jervis Bay can be considered in geographical terms to be a suitable site for the establishment of a heavy industrial complex. Flat cheap land adjacent to the Bay is the major attraction for industry and given a favourable Government attitude to providing or assisting with the necessary infrastructure of water, power, road, rail and port facilities it would be difficult to find

⁸. Nowra-Jervis Bay, N.S.W. A Strategy for Development - a joint planning study by the S.P.A. of New South Wales with the Shoalhaven Shire Council - December 1970, p.34.

a new heavy industrial site with the same potential for development in New South Wales.

43. However, the Committee asserts that before any decision is taken to realise the potential of the area as an industrial site, extensive research needs to be conducted into the alternative uses of the area, based on sound biophysical and socio-economic data. The evaluation of the area would necessarily include the establishment of its relative value for each purpose to other sites in the nation.

44. Until resources permit such appraisal, the conservation of the area or its management for types of use which do not preclude its adaptation to other forms of usage is considered to be the most desirable approach to land-use for the Jervis Bay area.

Impact of Heavy Industrial Development at Jervis Bay

45. The majority of evidence placed before the Committee maintained that heavy industry would irretrievably degrade the natural environment of Jervis Bay as it exists today while contributing little to the social development of the Shoalhaven Shire.

46. While the Committee accepts that modern technology has substantially reduced the level of pollution by industry, it is undisputed that significant pollution would occur. The joint planning study by the State Planning Authority and the Shoalhaven Shire Council stated that:

"Studies completed to date together with evidence from the Port Kembla steelworks situation suggest that a zone of significant air pollution centred on a Jervis Bay Steelworks might possibly extend over an area of about 60 square miles. Certain types of urban development, particularly for intensive residential purposes, would clearly be undesirable within any part of such a pollution zone. Some of the existing village developments

on the north-western side of Jervis Bay would therefore need to be resited, and restrictions would probably have to be imposed on further residential development in some other adjoining areas."⁹

Social Environment

47. In assessing the social implications of the steelworks development, the joint planning study recognised that steelworks-port complexes are capital-intensive with a relatively small work force component and that much of the employment generated by the industry would be in the labour-intensive metal processing industries in Sydney and perhaps Melbourne. This view was supported by the Illawarra Regional Advisory Council and the Jervis Bay Planning and Protection Committee who referred to the social problems caused in the Wollongong-Port Kembla area by the lack of tertiary employment opportunities, particularly for women.

48. Studies on potential urban development areas to house the work force attracted to the area revealed considerable restraints on land available for housing. The industrial pollution zone referred to and the noise pollution zone from the airfield at H.M.A.S. Albatross, eliminate significant areas of otherwise suitable land while a substantial safety zone would be needed for the proposed power station at Red Point, should it be nuclear powered. Other large areas are unsuitable because of swampy conditions and problems related to the disposal of sewerage and wastes. To these can be added the Australian Government land for which urban development is not envisaged. The net effect of the limitations on land available for housing due to these factors would be the extension of the impact of development associated with the industry over a substantial area of the Shire, further limiting options for alternative land-use in the region.

49. The joint planning study was also inconclusive on the relative merits of the Nowra-Jervis Bay region over other regions

⁹. Ibid, p.34.

of New South Wales as a site for urban and industrial development and suggested that further intensive studies would be necessary to establish State development priorities.

Industrial Development and the Jervis Bay Nature Reserve

50. The effect of industrial development on the management programs for the Australian Government areas of Jervis Bay must be considered if any integrated land-use program for the area is to be realised. Representatives of the Australian Littoral Society and the Department of the Capital Territory stated that heavy industrial development and commercial shipping in the Bay would inevitably compromise the value of the Jervis Bay Nature Reserve and the proposed marine reserve in Australian Government waters. Pollution from industry, shipping and the inevitable pressure on open spaces produced by the rapid increase in local urban development would lead to a degradation of the natural features of the Bay environs and a requirement for stringent controls on access to land areas if the Nature Reserve was to be maintained in reasonable condition. Similar conditions would apply to the area surrounding Lake Wollumboola which the National Parks Association of New South Wales wishes to have dedicated as a national park.

51. The Committee finds that a decision to develop Jervis Bay as a heavy industrial port would be essentially pre-emptive of other options for land-use in the area considered in this Inquiry.

52. The Committee finds that substantial environmental degradation would necessarily result from the establishment of heavy industry at Jervis Bay and that such industry would not contribute meaningfully to the development of the Shoalhaven Shire.

Light Industry

53. The Committee concurs with the view expressed by the Shoalhaven Shire Council that there is no rationale for the establishment of light manufacturing industry adjacent to the Bay unless it was to occur in association with a heavy industry-port complex. The light industrial area developed by the Council in

association with the New South Wales Department of Decentralisation and Development at South Nowra and the existing light industrial area at Bomaderry should satisfy regional development needs, in locations with less impact on the scenic and recreational features of the region. In addition these sites are readily accessible to the major centre of population and within reasonable commuting time for employees who elect to live in the coastal areas. They are also adjacent to established road and rail links to the markets and industrial areas of Wollongong, Sydney and Newcastle. The expenditure required to extend the railway to the Jervis Bay area to service light industry alone could not be justified.

54. Proposals to establish service industries and water-oriented industries such as a fish cannery or boat-building would need to be considered on their merits but little demand is anticipated for such development.

Conclusion

55. The Committee finds that the effective management and preservation of Australian coast-line resources is hampered by the lack of a co-ordinated national coastal land-use policy developed by the Australian and State Governments in consultation with local government.

The Committee recommends that:

Funds be provided by the Australian Government to finance study by all levels of government of national coastal resources and to develop a policy for the future management of these resources.

Australian Government involvement in any proposal to establish port or heavy industrial facilities at Jervis Bay be subjected to an environmental impact study under the terms of the Environment Protection (Impact of Proposals) Act 1974-1975, and

If it can be conclusively demonstrated that a more suitable alternative site exists elsewhere in Australia the Australian Government not support the proposal.

Atomic Power Station

56. The proposed Australian Government-financed 500Mw nuclear power station at Murrays Beach was intended to provide demonstration and training opportunities for staff who would later be available to develop similar stations for the State Governments. The siting of the reactor was something to be questioned. This was indicated in a speech by the Minister for National Development, The Hon. Sir Reginald W.C. Swartz, K.B.E., E.D., M.P. in August 1971 when he stated that:

"... the project would be a valuable means of developing, in a practical context, standards and criteria for reactor siting ..."

57. The choice of the Murrays Beach site was criticised before the Committee by witnesses including the representatives of the Illawarra Regional Advisory Council who saw little logic in the construction of a nuclear power station adjacent to some of the nation's major coalfields and a highly developed coal powered and hydro-electric grid system. It was also suggested that restrictive zoning in the case of nuclear accident would preclude the effective management of land within a radius of some miles. The power station proposal would entail the construction of support facilities including a water tower, a breakwater into the Bay and some housing facilities in the Territory, while a major pressure on the resources of the Nature Reserve would be created by an influx of sightseers, estimated by the Australian Atomic Energy Commission at some 500,000 visitors per year. The Committee sees the decision to construct the nuclear power station as being pre-emptive of other options on land-use in the same way that heavy industrial development would be.

58. Having considered the information provided by the Australian Atomic Energy Commission on the suspected environmental impact of the station, the Committee finds that Jervis Bay is not a suitable site for an atomic power station and proposes that should the Australian Government decide to construct such a reactor it should be located away from urban and recognised recreational areas.

The Committee recommends that:

The Australian Government revoke plans to establish a nuclear power station at Jervis Bay, and the agreement to reserve land at Murrays Beach for use by the Australian Atomic Energy Commission be terminated.

IV JERVIS BAY - RECREATION AND SCIENTIFIC REFERENCE AREA

59. The Committee has stated that it considers non-use or multi-purpose land-use in the Jervis Bay area as the appropriate management policy until alternative land-use proposals can be fully evaluated. Working from this viewpoint the Committee left itself the task of assessing the remaining options for the administration of the area and sought in evidence views on the role which should be accorded to the Bay to fully realise its potential value to the Australian community.

60. Witnesses generally agreed that while the area as a whole could not justifiably be described as unique in terms of its ecology or visual characteristics it is valuable in the sense that it contains a variety of typical east coast land forms, vegetation types, estuarine, marine and terrestrial ecosystems and coastal scenery, all in a relatively undisturbed state. Added to its representative nature is the fact that it is situated adjacent to the major urban growth areas of New South Wales and offers the city-dweller recreation opportunities in attractive natural surroundings without the inconvenience of long-distance travel.

61. It was argued that few such areas exist within easy reach of Wollongong and Sydney and that its value as 'lung-space' for these urban areas would increase as crowding of the limited recreation amenities closer to the cities occurred.

62. It was asserted that Jervis Bay is one of a diminishing number of such assets in New South Wales. Because of the limited development to date, and the large areas of Australian Government and Crown Land, it was considered eminently suitable for preservation and controlled development as a public recreation reserve and scientific reference area. Alternatively, the value to the Australian community of another coastal industrial city in the Newcastle-Sydney-Wollongong chain was considered highly questionable.

63. Witnesses also pointed out that to manage Jervis Bay as a natural recreation and scientific reference area would mean that future options on land-use would be open and capable of re-assessment in the light of changing national priorities and planning needs while heavy industrial development would close these options.

Scientific Reference

64. Various authoritative witnesses including representatives of the School of Applied Sciences at the Canberra College of Advanced Education, and Sir Rutherford Robertson, Director of the Research School of Biological Sciences at the Australian National University attested to the value of the Jervis Bay area for scientific research purposes providing that the present natural state of the environment could be maintained. Sir Rutherford stated that Jervis Bay was the only suitable location for a marine science research station south of Heron Island as it was the only bay or estuary of scientific significance without considerable development. The value of research currently conducted at Jervis Bay was illustrated by reference to research being conducted by the Department of Neuro-biology into vision, using marine organisms collected at the Bay, including a particular type of fish which cannot be found elsewhere on the coast.

65. This evidence was supported by the views of the Australian Littoral Society and the Committee recognises the need to safeguard the qualities of the Bay which make it valuable for scientific research in the long term interest of the community. The value of such research and its practical applications are further discussed later in this Report.

Recreation

66. The Shoalhaven Shire Council area is a popular area for tourism and the industry provides a substantial input to the regional economy. The Shire's permanent population of approximately 33,000 is outnumbered at the ratio of 2:1 by holiday-

makers at the height of the summer season. Although no figures are available for the Jervis Bay area an indication of its popularity is gained from the Shire Council's estimate that the population of the area to be serviced by the Huskisson-Vincentia sewerage scheme swells from 1,200 in winter to 2,800 in the summer months. The area is popular for holiday homes and the 1971 census indicated that 39.9% of all homes at Huskisson and 64.8% at Currarong were for this purpose. Improved access to the area by the upgrading of the Princes Highway south of Wollongong and the possible upgrading of Trunk Route 92 from Canberra via Braidwood and Sassafras would undoubtedly increase tourist activity and demand for subdivision lots.

67. Increasing usage of the area for recreation purposes implies strain on local resources, particularly land and water, and will test the capacity of the Shire to provide the infrastructure and facilities necessary to ensure that environmental degradation does not occur. Although the Committee accepts that the Bay and its hinterland are large enough and the landforms varied enough to accommodate all forms of sport currently practised in the area, management techniques such as zoning of particular areas for different activities will be required for reasons of safety, the convenience of the public and the protection of the natural environment.

Jervis Bay Area Management Plan

68. The Committee recognises that an integrated, co-operative planning approach will need to be developed to realise the full potential of the resources of the Jervis Bay area. The plan will need to take into account the priorities of the three levels of government involved in the administration of the area and should be developed to cover all aspects of urban development, transport, recreation, tourism, scientific research and national parks and reserves. Continued reference will be made to this Area Management Plan and the question of financing its development and implementation is considered in Chapter 8 of this Report.

Access and Facilities - Guidelines

69. Increasing usage of the Bay for recreation will lead to a demand for improved access to the waterfront and for facilities such as camping and picnic areas, boat ramps, toilet and shower blocks and club houses. The provision of such facilities would increase usage and thus demand for further facilities. Therefore the Committee believes that as part of the basis for the Area Management Plan, a study should be commissioned to determine the carrying capacity of the various beaches and other recreation sites in the area with a view to establishing an order of priority for the provision of access and facilities and a cut-off usage point beyond which no further access or facilities will be provided. Such a policy would necessarily be linked with the scale and location of urban development.

70. It is envisaged that quite different scales of usage would be determined for different areas. Huskisson, Vincentia and Callala Beach may be considered as suitable for intensive use while the less developed beaches which are mainly within the Australian Government land areas may be managed to permit less intensive use or substantially restricted access. In all cases access roads, tracks and public facilities should be designed and situated so that they are screened from the waters of the Bay and do not intrude upon the landscape. The Committee believes that day-use of land adjacent to the water is preferable to urban development as it guarantees public access to the shoreline and with the relatively short annual periods of peak usage allows regeneration of vegetation.

71. The provision of club-houses for sail and motor boats will need to satisfy stringent criteria for design and location if it is accepted that they require direct access to the water. These buildings should be designed to blend with their surroundings, should not exceed one storey, and where possible clubs should be required to share a building to minimise development on waterfront sites. Under no circumstances should such building be permitted on the foredune areas.

72. From the foregoing it will be apparent that the Committee favours low-key and unsophisticated recreation development at Jervis Bay, based on the preservation of the natural appearance and atmosphere of the area. While high-standard housing and some controlled resort development is not excluded from consideration the main potential and value of the area is seen in providing a contrasting environment to the bustle of city life for the residents of the major urban areas. Major high-rise resort development of the type seen at the Gold Coast would be totally incompatible with this concept of the Bay's role and it is doubtful if the capital expenditure required for such development would be justified by the relatively short tourist season.

73. These points are given as basic guidelines only as the detailed management plan for Jervis Bay would need to be integrated within a framework of recreation planning for the surrounding region. Although planning on this scale is in its early stages and much of the basic information on the leisure requirements of the Australian population is lacking, steps are being taken to remedy the situation. The Australian Department of Tourism and Recreation is sponsoring in association with the Regional Organisation of Councils the preparation of the Illawarra Regional Leisure Plan, a study of total leisure requirements for the region. Information made available through this study which will include the Shoalhaven Shire, should permit the precise role of Jervis Bay to be evaluated in perspective with other recreation facilities in the region.

74. The Committee is concerned that within the constraints imposed by divided control of the area, the area considered in this Inquiry should be managed as a unit. It will therefore be essential in the development of the Area Management Plan, that land-use planning decisions in the New South Wales and Australian Government areas of Jervis Bay should be complementary and integrated. While somewhat informal and irregular contacts exist between the Shoalhaven Shire Council and the Departments of the Capital Territory and Defence, more formal consultative chains of

communication will need to be established between all levels of government to ensure co-ordinated planning of the area.

75. The Committee finds that the Jervis Bay area's primary value as a national resource lies in its development potential for recreation and scientific reference purposes with sound management planning to safeguard the environment and retain the natural landscape and atmosphere.

The Committee recommends that:

The Australian Government provide funds for the development of a long-term comprehensive Jervis Bay Area Management Plan to be developed and implemented in consultation with the Government of New South Wales and the Shoalhaven Shire Council.

V URBAN DEVELOPMENT IN NEW SOUTH WALES AREAS OF JERVIS BAY

76. This Chapter assumes that Jervis Bay will not be developed for port or industrial purposes. The Area Management Plan will necessarily include a policy on urban development evolved along the broad guidelines set out in this Chapter to ensure the preservation of the natural appearance and atmosphere of the Bay area. The Committee sees urban development as being potentially as destructive to the natural environment as industrial development and urges the introduction and enforcement of a policy of shoreline preservation and protection of the landscape of the Bay area.

Present Development

77. The existing situation is one of deepening strip development on the southern side of Currumbene Creek from Huskisson to Vincentia and at Hyams Beach and beachfront villages at Callala Beach and Callala Bay to the north. The New South Wales Government has dedicated as Crown Land a reserve area of 100 feet above high water mark in a substantial section of the southwestern area of the Bay while in the northern and north-western areas private property extends to the high-water mark. The Shire Council is responsible for the care, control and management of the Crown Land and as the responsible planning authority has control over development in the New South Wales area. Vincentia is the main urban growth centre at present with proposals by Realty Realisation Pty Ltd to establish a major recreation resort including a large artificial lake and extensions to the existing 9-hole golf course.

Subdivision Pressures

78. The Committee has noted the observations made by the State Planning Authority of New South Wales on the pressures being placed on local government resources by the increasing demand for subdivisions in resort areas. The Authority stated that:

"The rapid growth of coastal subdivisions has created several significant planning problems. ... design and construction standards have in the past been very poor, and combined with the inevitable destruction of natural environment involved in subdivision, this has led to a serious deterioration in the quality of coastal landscapes. The problem is made worse by the common location of older subdivisions on prominent headlands."¹⁰

79. The product of these pressures is evident at Jervis Bay with houses constructed on the foredunes of Callala Beach and approaching the shoreline at Vincentia. Such development is intrusive by nature and detracts from the enjoyment of the area by the majority of its users. A more serious threat is to the stability of the dunes themselves. Their unsuitability as a construction base was demonstrated in the storms of June 1974 when the beach-front houses at Callala Beach came close to being washing into the Bay. Since studies on the role of frontal dunes in protecting against beach erosion and on foreshore recession have established that the dune acts as a storage area to feed the beach berm under what would otherwise be erosion conditions, this type of development is considered unacceptable by the Committee in both aesthetic and practical terms.

80. As a general principle, the Committee considers that no housing development should occur within 100 metres of the highwater mark and that under no circumstances should the frontal dune be levelled or interfered with in any way which would influence its role in the beach structure.

81. Behind this line, it is considered that improvements in zoning and environment protection measures are needed to ensure that urban development does not dominate the Bay surroundings and

¹⁰. Illawarra Plan - Landscape and Recreation; State Planning Authority of New South Wales, September 1974, p.11.

skyline. The need for such planning was recognised in the Illawarra Plan - Landscape and Recreation which stated inter alia that:

"The quality of coastal scenery is often dependent upon a backdrop of hills or forests further inland."¹¹

The Report went on to propose:

"That consideration needs be given now to a speedy and general extension of landscape protection measures to include key areas of the hinterland."¹²

82. Clearing of land for development at Vincentia and Hyams Beach are already intrusions on the landscape as viewed from the Bay and the Committee sees a real need for stronger control measures for landscape protection to be implemented in these areas. Examination of subdivided areas around Jervis Bay leads the Committee to agree with the conclusion of the State Planning Authority, that:

"Although the quality of urban development has improved considerably in recent years, and this improvement has been evident in Southern Illawarra, standards set by local councils continue to emphasise engineering specifications rather than environmental design. Similarly, many developers pay only lip-service to genuine landscape architecture and the planned preservation of natural features, relying instead on cosmetic planting of trees and shrubs after damage, often irreparable, has been done. In resort subdivisions, the difficulties of achieving an attractive urban landscape are compounded by the fact that many residential blocks

¹¹. Ibid, p.21.

¹². Ibid, p.21.

remain empty and unattended long after the subdivision has been completed."¹³

83. It is desirable that strict limits be placed on development on hillsides surrounding the Bay so that housing is restricted to the lower hillside and the more elevated areas retained in their natural state. Housing should, wherever possible, be screened from the Bay by native trees to preserve the Bay's basic value as a place for escape from the pressures of urban life. This would preclude Council approval of raised or multi-storeyed dwellings and other buildings.

84. The Committee also considers that, although proposals were made in evidence that no urban development should be permitted to remain within one kilometre from the shores of the Bay, it would suffice to restrict urban development adjacent to the Bay to those areas on which building has already occurred. The purpose of this would be to locate new subdivisions away from the Bay behind the first line of hills on the southern side and behind natural vegetation on the low-lying areas on the eastern side.

85. The Committee shares the concern of the State Planning Authority at existing township and village zones in the areas of the Shoalhaven Shire examined in this Inquiry. The Authority has stated that:

"When the Shoalhaven Shire Interim Development Order was prepared Council sought to have all established coastal settlements recognised by township or village zones. The boundary of the township or village was determined by the extent of subdivision and also included undeveloped land because the Council wished to provide for the growth of all settlements. As a result several areas of important landscape qualities

13. Ibid, p.25.

were designated for future subdivision and therefore extension of the Coastal Lands Protection Scheme over such areas should be considered."¹⁴

The Committee proposes that the Interim Development Order be amended with respect to areas adjacent to and visible from the Bay, to ensure that no further subdivision in these areas is permitted and the largest possible area retained for public use, and would support the extension of the New South Wales Coastal Lands Protection Scheme to cover these areas.

86. The same principles apply to use of land adjacent to the Bay for camping and caravan parks and day-use areas. While the Committee considers that this form of land-use is less intrusive than permanent housing, it maintains that such facilities should be located where they do not break into the landscape of the Bay. Loss of outlook from the parks is not considered a debit when it is suffered to guarantee the retention of the natural features which make the area attractive to campers.

87. Policies of this nature are considered sufficient to guarantee the future integrity of the Bay as a recreation asset and it is not the intention of this Committee to attempt to set out detailed management guidelines as that is more appropriately the task of professional planners with experience in environmental design.

Resumption of Existing Development

88. Nevertheless, there are some points which should be made with reference to existing development. The first is that the housing at Callala Beach and Vincentia which does not comply with the guidelines for beach protection set out above should be acquired by the Shire Council and the beach zone restored to its natural state. It is considered that the acquisition of the

¹⁴. Ibid, pp. 21-22.

existing residential blocks should take place at the end of 10-years from the date of this Report, except in the case where the house is the principal private dwelling of the current owners. In this case the owners should retain their existing leases during their life time or until such time after the expiry of the 10-year period as the house is no longer the principal private dwelling. The question of financing such acquisition is considered in Chapter 8 of this Report.

Environmental Impact Statements

89. Secondly, any proposal to significantly amend the natural environment in the catchment area of Jervis Bay should be subjected to an environmental impact statement by the Shire Council, funded by the development agency putting forward the proposal. This situation arises in the case of the proposed excavation and remodelling of natural swampland behind Vincentia which now drains into the Bay via Moona Moona Creek, to create an artificial lake for recreation and town landscaping purposes. The Committee has strong reservations about proposals of this nature and suggests that until the precise role of the swamp in the ecology of the area is determined and the implications of any modification to it fully evaluated, it should remain in its natural state.

90. Evidence before the Committee indicated that some of the least attractive natural features can be among the most productive in the ecological system of a region. Swamps and mangrove areas on creeks and estuaries have been prime targets for removal because of their lack of aesthetic appeal, while their value as habitat for wildlife and in the food chain is now being recognised and evaluated. The protection of these features of the Bay region is further discussed in Chapter 7 of this Report.

Huskisson - Vincentia Sewerage Scheme

91. Paradoxically it was the announcement by the Shoalhaven Shire Council of plans to pump triple-treated sewerage from the

proposed Huskisson-Vincentia sewerage scheme into the waters of Jervis Bay that gained a reaction from local residents that the steelworks proposal had failed to do.

92. The Jervis Bay Anti-Pollution Committee and others argued that not only would the discharge of the effluent into the Bay have an undefined, though certainly damaging effect, but would also be seen as the first significant violation of the natural environment of the Bay and thus be used as the excuse or justification for further violations. The Anti-Pollution Committee urged the Council to consider alternative disposal methods such as pumping the effluent to the Vincentia golf-course for watering the fairways or to pine plantations for irrigation. On investigating the proposals the Council found them either impractical or too expensive and had an environmental impact statement on the sewerage project prepared by its engineers.

93. The impact statement examined the possibility of providing an ocean outfall for the effluent but concluded that with the present and anticipated population figures such a scheme would be prohibitively expensive without significant government assistance. This costing included a scheme to link the St Georges Basin villages to the Jervis Bay villages. The report suggests that when the total number of rateable blocks rises from the figure of 2,728 in 1972 to an estimated 5,910 in the year 2,000, the ocean outfall proposition may be realisable, depending on the subsidy level available and the acceptable level of rating. The present scheme could then be connected to the ocean outfall pipeline.

94. The scheme is designed for a maximum population of 3,000 and is capable of developing to accommodate 12,000. Arguments against the scheme are that the effectiveness of the system cannot be guaranteed; that the level of nutrients deposited in the Bay and their ultimate effects on the marine ecosystems are unknown, that in times of overload, breakdown or industrial trouble raw sewerage will enter the Bay and that the water movement in the Bay is insufficient to disperse the deposited

nutrients. On the other hand it is evident that dangers to personal health and to the environment exist because the clay soil of Huskisson is not suitable for septic systems and effluent is already finding its way into the Bay. Testing of the Bay waters at several locations around Plantation Point is being conducted to monitor pollution and the Council maintains that appropriate upgrading of the scheme will ensure that no environmental degradation occurs.

95. The Committee shares the concern of the local residents and of the Shire Council that the effluent will be placed in the Bay and recognises that the ocean outfall scheme may not readily attract additional government finance when the priority for such a proposal is assessed on the national level.

96. The Committee finds, in principle, that the discharge of treated sewerage into Jervis Bay is not in accordance with sound management principles of the Bay as a centre for tourism, recreation and preservation of the natural environment.

The Committee recommends that:

The Australian Department of Environment fund the detailed assessment of alternative sewerage disposal methods for the Huskisson-Vincentia sewerage scheme and that the Australian Government subsidise (if necessary) any such scheme which is found to be economically viable and environmentally preferable to the current scheme.

VI MANAGEMENT OF AUSTRALIAN GOVERNMENT LAND AND WATERS

The Jervis Bay Territory

97. In accordance with Section 4 of the Seat of Government Act 1908 approximately 73 square kilometres of land and water at Jervis Bay, comprising Bherwerre Peninsula and Bowen Island, and the area of water south of the line drawn from the northern tip of Bowen Island to Captains Point, were ceded to the Commonwealth in 1915 to provide access to the sea for the National Capital. The Department of the Capital Territory is the main management authority controlling the Jervis Bay Nature Reserve, which was dedicated in 1971 to comprise some 60% of the peninsula, and the balance of the Territory with the exception of the land used by the Department of Defence for the naval college at H.M.A.S. Creswell and the associated airfield and facilities.

98. Development in the Territory is restricted to the Jervis Bay Village adjacent to H.M.A.S. Creswell, the naval college and base facilities, the aboriginal settlement of 160 residents at Wreck Bay and camping and picnic facilities run by the Department of the Capital Territory to the east of the naval college. Some private residences and holiday camps are located on the northern side of Sussex Inlet and an annex of 78 hectares of the Canberra Botanic Gardens is situated in the Nature Reserve. Some holiday cottages are also located on a lease at Bowen Island.

Present Management

99. The submission and supporting evidence given to the Inquiry by the Department of the Capital Territory detailed the departmental attitude to land-use in the Jervis Bay Territory and the Committee was favourably impressed by the appropriate and effective control and restoration procedures in operation. The continuance and development of the present management philosophy in the Territory is seen as guaranteeing a balance of resources in the area, between the Australian Government and New South Wales portions of Jervis Bay both prior to and subsequent to implementation of the total Area Management Plan referred to in the previous

chapters. There are however some specific issues raised in evidence on which the Committee wishes to comment and make recommendations.

Commercial and Residential Leases at Sussex Inlet North

100. Several private leases exist on the northern (A.C.T.) shore of Sussex Inlet. Of these, the leases held by Mr A. Thurbon and the Australian Railways Union provide holiday cabins and caravan park facilities while leases held by the Ellmoos family at and around Christians Minde provide rental accommodation in holiday flats. Access to the waterfront leases is by a track which is barely suitable for use by ordinary motor vehicle or by boat from Sussex Inlet, N.S.W.

101. The future of the lease sites has been the subject of protracted negotiations between the owners who wish to have the leases renewed and the Department of the Capital Territory which has shown reluctance to agree to new leases on the grounds that the private holiday camps and residences are an intrusion into the Nature Reserve and are incompatible with its management for this purpose. The Department would prefer to see the leases closed and returned to their natural state with the possible exception of certain buildings around Christians Minde which were constructed in the 19th Century by the original settlers in the area and which might be retained for their historic interest in an area set aside for day visitors to the Reserve.

102. The Committee has examined the evidence placed before it by leaseholders and by the Department and considers that delay in stating a firm policy on the future of the leases is detrimental to both parties. The problem is exacerbated by the offer of a 25-year lease renewal to the Australian Railways Union while other leases are being negotiated on the basis of 10-year terms.

103. Having inspected the leases at Sussex Inlet North the Committee finds that their continued usage for the letting of holiday accommodation and caravan park facilities is incompatible

with the management of the area as a restricted access nature reserve.

Consequently, the Committee recommends that:

Leases currently being negotiated by Mr Thurbon and the Australian Railways Union be renewed for a period of 10 years only in each case and that the conditions of such leases specify that no enlargement of the capacity of the leases will be permitted.

On the expiry of these leases the land be restored to its natural state and the leaseholders compensated for loss of assets.

On the expiry of the leases on Blocks 9 and 11 held by Mrs J.P. Ellmoos and Mrs A. Junk respectively, the leaseholders be permitted to remain on the lease sites as private residents only, during their lifetimes.

On the death of the leaseholders, the Christians Minde area be set aside as a day visitor area and site of historical interest and be managed accordingly.

All other current leases at Sussex Inlet North not be renewed on expiry, the sites restored to their natural state, and the leaseholders compensated for loss of assets.

104. In arriving at these recommendations the Committee was anxious to safeguard the rights of the leaseholders and to ensure that adequate notice of intention not to renew the leases be given. The Committee can see no justification for variations in the period of the lease offered to the Australian Railways Union and has recommended accordingly.

105. The Committee considers that it is in the best interests of the Reserve and of the individual tenants that each lease include a provision for 'tenants rights'. The leaseholders should be permitted to carry out necessary improvements to and maintenance of buildings and facilities to ensure that the leases do not become run-down prior to the date of expiry, in the knowledge that they will be adequately compensated for their expenditures.

106. The Committee recognises the need for regular supervision of the Sussex Inlet North area and considers that a Reserve ranger should be based at Christians Minde to protect against misuse of the area.

Fireclay Leases

107. The two leases totalling approximately 2.4 hectares held by Mr S.J. McCarthy adjacent to the naval airfield are used for the extraction of fireclay and revegetated when clay stocks are depleted. The leases are renewed on a quarterly basis.

108. It is considered that clearing of land for mining is incompatible with the management of the area as a Nature Reserve.

The Committee recommends that:

The leases on Blocks 51 and 53 be terminated
no later than 12 months from the date of this
Report.

Bowen Island

109. The Committee supports the intention of the Department of the Capital Territory not to grant renewal of the holiday camp lease on Bowen Island when it expires in 1977 but considers it desirable that one cottage should be retained as a base for scientific study on the island and for the residence of a Reserve ranger as required.

Camping Areas

110. The National Parks Association of the Australian Capital Territory cited the camping and picnic area at Green Patch as an example of inappropriate siting of these facilities. The camping area is located on a knoll behind the beach and picnic facilities are constructed along the base of the knoll with a tarred access road leading to the beach area. The Association was of the opinion that the camping area was located in too conspicuous a position and detracted from the beauty of the natural landscape.

111. The Committee agrees with this criticism and considers that more recent development such as the picnic area at Iluka provides an example of more appropriate location of facilities in an attractive area with controlled access ways to the beach and behind the frontal dunes which provide a screen between the day-use area and the Bay. The Committee is aware that the Department of the Capital Territory will be adopting planning policies in sympathy with the views of the National Parks Association of the Australian Capital Territory and future camping and day-use areas will be located away from the frontal dune areas and out of sight of the Bay.

The Committee recommends that:

Green Patch camping area be extended away from the beach towards Jervis Bay Road, and the existing camping area between the access road and Telegraph Creek be revegetated.

Permanent Scientific Research Facilities in the Territory

112. The Jervis Bay area is an ideal location for field study research facilities for the natural sciences and is utilised as such by the School of Applied Sciences of the Canberra College of Advanced Education (C.C.A.E.) and the Research School of Biological Sciences of the Australian National University (A.N.U.). Other tertiary institutions are known to conduct field trips to the area on an ad hoc basis.

113. The C.C.A.E. has established the first stage of its field station on a two-acre site at the Jervis Bay Village providing accommodation for 24 persons and some teaching facilities, while the A.N.U. is negotiating with the Department of the Capital Territory for a 4-hectare lease between Bristol Point and Scottish Rocks for a permanent marine research station. At the request of the Committee a draft plan of the research station was prepared for consideration by the Committee. Among the features required by the centre were access to the waterfront, jetty and boathouse, residential accommodation for 50 persons, garages for 10 vehicles and freshwater and saltwater treatment plants and reservoirs. It was also proposed that the station could be used as a public display centre for marine biology and a film theatre for 100 persons, a museum and aquarium were considered desirable.

114. The Committee was disturbed to note that the proposed 4-hectare site had been increased to approximately 10 hectares in the draft plan prepared. While the Committee has been made aware of the need for research in the natural sciences with particular reference to the Jervis Bay area, and concedes that Jervis Bay is a desirable site for a marine research station, it is concerned at the prospect of the alienation of at least 4 hectares of natural bushland for this purpose. It is equally concerned at the possible impact on the surrounding area of the number of visitors who might be attracted to the marine biology display at the station and sees this attraction as contrary to the accepted management practice of the Territory. Committee members were also disturbed that the lease proposal had been under discussion since October 1972 and that in the intervening period no request had been made of the A.N.U. to provide draft layout, plans and specifications of the research station facilities.

115. Having considered the available evidence the Committee finds that a natural sciences research and study centre would be a most desirable asset at Jervis Bay, but considers that such a facility should be accessible to any tertiary institution.

The Committee recommends that:

To avoid the further alienation of natural bush-land the site excavated for the proposed atomic power station at Murrays Beach be utilised for the establishment of a Natural Sciences Research and Study Centre, with facilities being provided on a leasehold basis to interested institutions.

116. The Committee accepts that limited accommodation will be required on the site for permanent staff and for persons engaged in research requiring 24 hour surveillance, but proposes that all other accommodation be provided adjacent to the C.C.A.E. dormitories at the Jervis Bay Village or in the established villages in New South Wales. Planning of the centre should be the responsibility of the Department of the Capital Territory in consultation with the Australian Department of Education but would necessarily act in consultation with the two institutions already discussed and with others who wish to lease space in the centre.

117. The Murrays Beach site has several advantages in that it is in a sheltered position immediately adjacent to the proposed marine reserve area, is provided with an admirable access road and makes use of an area already denuded of natural vegetation and topsoil. A line of trees remains between the site and the waters edge which would serve as a screen for the low-profile buildings of the centre.

118. The Committee has reservations about the construction of a jetty in the marine reserve but concedes that the centre would have difficulty in functioning without such access. The provision of a boatshed is seen as an undesirable proposition and the possibility of using the facilities of H.M.A.S. Creswell or private facilities at Huskisson for docking should be investigated.

H.M.A.S. Creswell

119. Conflicting evidence was received on the desirability of the naval presence at Jervis Bay. The Illawarra Regional

Advisory Council suggested that the Navy was an asset to the area in that it broadened the economic base of the Shire, provided scope for the development of technical support industries such as aircraft maintenance and construction, and had served to protect Jervis Bay against undesirable commercial development. The Council went on to suggest that the defence establishment at Jervis Bay should be increased through the transfer of defence forces from Sydney and other capital cities. The establishment of naval docking facilities within the Bay for ship repair and maintenance was also proposed to relieve congestion at Garden Island, and with strict pollution controls this activity was seen by the Council to be compatible with the Bay environment.

120. On the other hand the National Parks Association of the Australian Capital Territory took the view that the continued location of the naval base at Jervis Bay could not be justified and questioned the logic of developing another major naval base on the east coast of Australia for ships and submarines of limited range, when our likely zone of operation will be to the north. The Association also suggested that the naval airfield in the Territory which is used for the launching of pilotless target missiles should be phased out with the development of longer-range missiles to fly from H.M.A.S. Albatross at Nowra.

121. Evidence given by the Department of Defence indicates that Jervis Bay is seen as the alternative major east coast naval facility to Garden Island. Preliminary costings have been made to assess the feasibility of developing an operations and maintenance base as a partial relocation from Garden Island and of developing a refit base should a total relocation become necessary. The cost of total relocation was estimated at 1,600 million dollars. Estimates of land requirements in the Territory were provided and assuming the development of all the facilities listed in Annex 1 to the Department of Defence submission, the total land required would be 1,400 hectares, virtually eliminating the Jervis Bay Nature Reserve. It was emphasised that these plans were contingency plans only and that no firm planning was

being undertaken by the Department to establish any of the facilities referred to in the Bay.

122. The implications of this scale of development for the environment of Jervis Bay and for its management as a natural recreation area as envisaged earlier in this Report are self-evident. The major problems are seen to be the resumption of part or all of the Jervis Bay Nature Reserve for naval development, and the pressures placed on the environment by the influx of naval personnel, families and civilian support staff. Extensive wharves, docks and other facilities on the waterfront would seriously detract from the scenic qualities of the Bay and present a threat to water quality.

123. The Committee finds that large-scale expansion of naval facilities at Jervis Bay would not be compatible with the management of the Jervis Bay area as a natural recreation area and would pose a threat to the viability of the Jervis Bay Nature Reserve.

The Committee recommends that:

Any proposal to develop naval facilities at Jervis Bay be subjected to an environmental impact study in accordance with the terms of the Environment Protection (Impact of Proposals) Act 1974-1975.

The Committee further recommends that:

If it can be demonstrated that a more suitable alternative site for such development exists the Australian Government not agree to the proposal.

124. Meanwhile, the Committee can see no reason why the 612 hectares of land reserved for naval use north of Stony Creek Road should not be managed in sympathy with the Jervis Bay Nature Reserve by the Department of the Capital Territory as is presently

the case. The Department has developed amenities at Iluka and Green Patch in the reserved area and this is seen as a desirable form of land-use and management until such time as a defence requirement for the land can be demonstrated.

125. The Committee expresses its concern at the disclosure that naval ships at anchor in the Bay discharge raw sewerage while chlorinated effluent from the naval college buildings is also released in the same waters. Navy witnesses stated that in accordance with the 1973 International Maritime Consultative Organisation (I.M.C.O.) conventions concerning pollution at sea, attempts are being made to redesign the older ships to allow for sewerage treatment. The problem does not arise with the newer ships which are fitted with sewerage treatment systems. The Committee considers that this matter of sewerage treatment facilities in older ships should be accorded priority by the Department of Defence to meet the requirements of the I.M.C.O. conventions.

126. The chlorinated effluent from H.M.A.S. Creswell is tested every four months by officers of the Department of the Capital Territory and the results of these tests have always been favourable in terms of public health. However, the possible effects on the marine environment of the surrounding area have been ignored and the Committee views this sewerage discharge into the Bay in the same light as the proposed Shire Council scheme at Huskisson-Vincentia.

The Committee recommends that:

The research study recommended in paragraph 96 in relation to the Huskisson-Vincentia sewerage scheme be extended to include the desirability of upgrading the sewerage treatment system at H.M.A.S. Creswell and investigate the feasibility of connecting this system to the Huskisson-Vincentia scheme.

127. The Committee also noted that the existing picturesque buildings of H.M.A.S. Creswell are being replaced with more mundane brick structures and considers that the same principles expressed in the previous chapter covering urban development in the New South Wales areas of the Bay should apply to the naval college facilities.

Beecroft Peninsula

128. A map of the Beecroft Peninsula illustrating the extent of the Australian Government's land holdings is at Appendix 2, (Map No. 3) to this Report.

129. The Peninsula contains the Beecroft Bombardment and Air Weapons Range which has been used by R.A.N. ships and aircraft to practice functional roles in support of land operations since about 1950. Once again, attitudes to the use of the Peninsula for this purpose vary considerably. The Navy stated in evidence that the environment in the Peninsula suffers minimal damage from the bombardment as this is limited to one small area and that restriction of public access to the Peninsula has provided significant protection to the natural features of the area.

130. The National Parks Association of New South Wales which has been lobbying for the dedication of the Beecroft Peninsula-Lake Wollumboola area as a national park expressed strong reservations concerning the continued use of the bombardment range but agreed that defence restrictions on public access have afforded the area a substantial degree of protection.

131. Other witnesses before the Committee supported the view expressed by Navy witnesses that greater damage was caused to the Peninsula by lack of effective management procedures and uncontrolled access at times when the range was opened to the public. Lack of road and track maintenance caused severe erosion problems while health problems were created by the failure to control camping and picnicking as no garbage or toilet facilities exist on the Peninsula.

132. The Committee does not see the continued use of the Beecroft Range as being incompatible with its management as a recreation and nature reserve and accepts that tenure of the land by the Australian Government (a tenure which will only continue while the land is required for defence purposes) is a desirable barrier to commercial development pressures in the area.

133. It is evident however that the Department of Defence does not have the expertise to institute an appropriate management plan for the Peninsula and the Committee sees considerable advantage in transferring management responsibility for the area to the Department of the Capital Territory. The Navy would of course retain ultimate control of access to the range area but would be relieved of responsibility for environmental protection measures.

134. The Committee finds that the environmental quality of Australian Government land on Beecroft Peninsula has been degraded through lack of appropriate management measures.

The Committee recommends that:

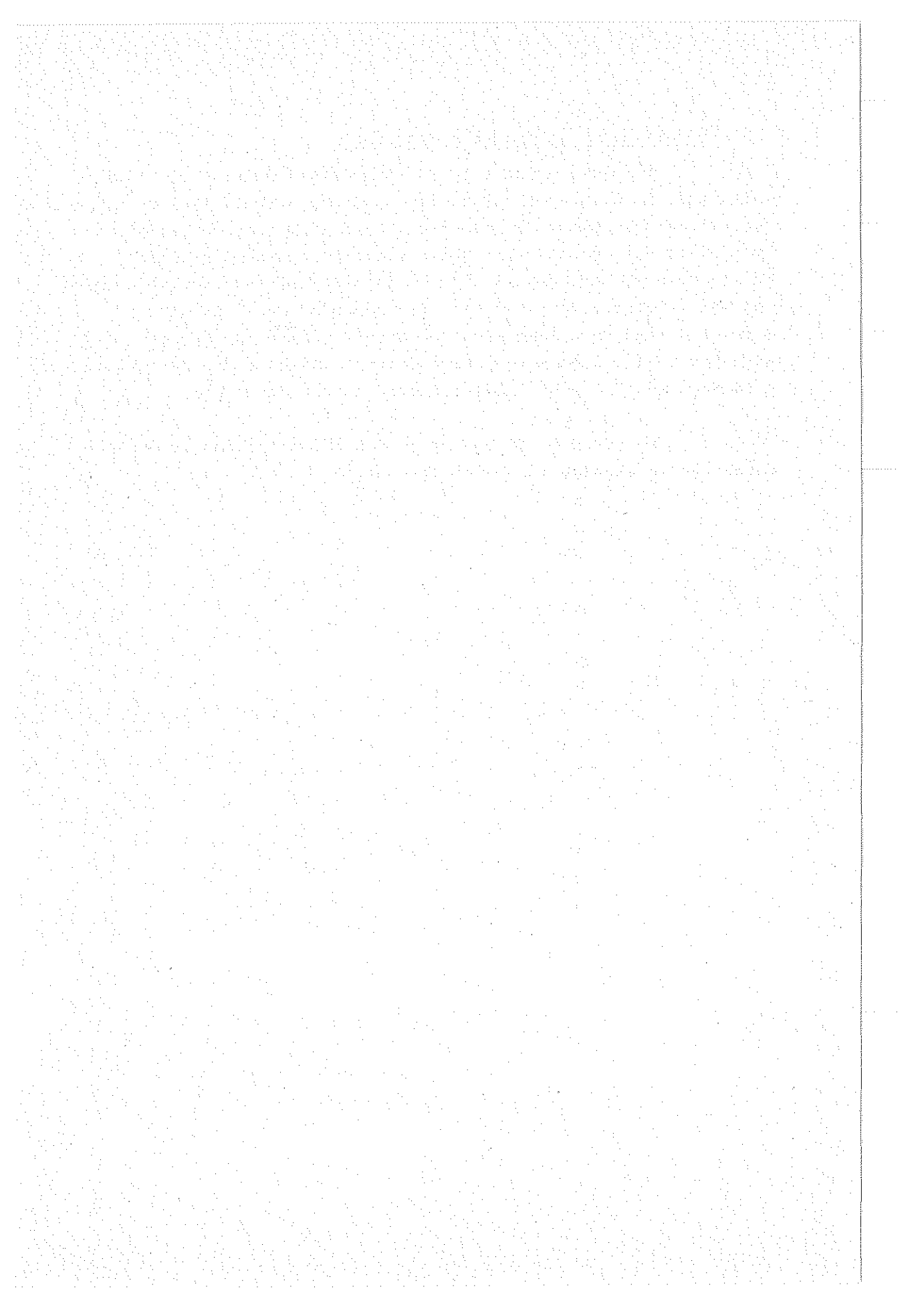
The Australian Government land at Beecroft Peninsula be managed as a recreation and nature reserve on an agency basis by the Department of the Capital Territory on behalf of the Department of Defence and in accordance with the requirements of that Department.

135. To this end it will be necessary for the Area Management Plan to include the Beecroft Peninsula area. The experience gained by officers of the Department of the Capital Territory in managing the Jervis Bay Territory with its Nature Reserve and their knowledge of recreation requirements and facilities in the area should facilitate the development of a balanced scale of usage of the two peninsulas which form Jervis Bay.

Co-ordination of Land-Use Planning

136. It became evident to the Committee during this Inquiry that there is a lack of basic communication between the two major Australian Government Departments with policy responsibility in the Jervis Bay Territory. While informal contacts between officers in the area exist, a need is seen for more active communication at policy levels in the two Departments. It is also suggested that this communication should, where appropriate, be extended to the Shoalhaven Shire Council which is the responsible planning authority for areas adjacent to the Territory.

137. The question of co-ordination of activities is further developed in Chapter 8 of this Report.



VII NATURE AND MARINE RESERVE AREAS

138. The Committee, believing it is desirable to preserve the Jervis Bay area as a natural recreation and scientific reference area, examined proposals made by witnesses that significant sections of the area under consideration should be dedicated as national parks and nature reserves both on land and in the waters in and around the Bay. The Committee recognises the potential of the area for this usage and earlier in the Report has made recommendations which will ensure that substantial land masses are reserved for recreation use and for scientific purposes. Further to the findings and recommendations made with respect to Australian Government land, the Committee considers that suitable areas of New South Wales land should be reserved to complement the management approach to be taken by the Department of the Capital Territory.

139. In addition the Committee has examined evidence placed before it on the need for the reservation of sections of the estuarine, littoral and sublittoral zones of the Bay for the preservation and study of aquatic habitats and their biota and agrees that such reserves would be both desirable and compatible with other envisaged land-use.

Management Data

140. In attempting to reconcile conflicting evidence on certain issues related to marine ecosystems in the Bay the Committee was restricted by the limited research which had been undertaken in the natural sciences with regard to these matters and it is evident that lack of knowledge of the functioning and inter-relationship of ecosystems hinders efforts to develop policies for the sound management of land and water resources.

141. To illustrate this point we refer to two issues related to the proposed marine reserve in the Australian Government waters between Bowen Island and Captains Point which were discussed before the Committee. The first was a commercial seaweed

collection operation which had been discontinued through the withdrawal of permission to the operators to gather the weed in Australian Government waters. The weed (Gracillaria) which is exported in dried form to Japan for use as an ingredient in food preservatives and other products grows in abundance along the boundary of the waters and having matured, breaks off and collects in a sea-bed depression in the Australian Government waters. The decision to withdraw approval for the operation was made because of a lack of information on the precise role of the weed in the ecology of the Bay, although it is recognised that removal of the seaweed represents a change in habitat and food supply for certain types of marine life. While the Committee agrees that the responsible course of action in such circumstances was taken by the Department, it is obviously preferable to be able to base such decisions on a detailed knowledge of the environmental effects of removing the weed.

142. The second issue was that of the use of the same waters as a source of bait for the tuna-fishing fleets operating off the south coast of New South Wales. Representatives of the fishing industry were concerned that the dedication of their traditional bait-fishing waters as a marine reserve could mean loss of access for the fleet which would jeopardise the viability of the tuna-fishing operation. The industry witnesses suggested that the bait-fishing as it is practised in Jervis Bay could not affect the integrity of a marine reserve as only pelagic fish were caught and the method of netting them left the sea-bed undisturbed. It was stated that the waters had been fished in this way for many years with no apparent effect on the populations of bait fish. Once again no expert knowledge of the possible effects of the bait-fishing on marine ecosystems was available to the Committee and evidence indicates that little research has been conducted into such matters.

143. The establishment of the marine research station at Murrays Beach would provide impetus to research in the Jervis Bay area and it is considered that it would be in the interests of

scientists at the centre to undertake research programs into such fundamental questions as the effects of seaweed harvesting and bait-fishing on the local marine ecosystems. In this way sound environmental management policies could be developed and the value of the proposed marine reserve area for research purposes, safeguarded.

144. The Committee recommends that:
Until the results of relevant marine biology research programs are available, the current management approach to seaweed collection and bait-fishing in the proposed marine reserve areas should continue.

Boundaries and management of Reserves

145. The Committee accepts that it does not have the competence to determine exact boundaries of the reserve areas or usage patterns within the reserves but recognises the expertise of witnesses who prepared detailed submissions to the Committee on these matters. Recommendations on the reserves set out below are designed to define areas of obvious potential and value as recreation and conservation reserves. Their boundaries and management policies would be fixed by the appropriate authorities of the New South Wales Government and the Australian Government, acting in consultation with the Shoalhaven Shire Council as part of the Area Management Plan. Finance of the purchase of private land required to establish the terrestrial reserves and for reserve management is discussed in Chapter 8 of this Report.

Management Guidelines

146. While the Committee does not propose to set down management plans for the reserves some general guidelines are considered appropriate. The Committee considers that until such time as detailed research has been undertaken in the reserve areas identified below, undue restrictions on recreational use and access should be avoided. At a later date and in the light of more detailed knowledge of the ecology of the reserve areas it

may be considered appropriate to restrict or prohibit certain professional, recreational and sporting activities such as the use of high-speed power boats, spearfishing and angling or commercial fishing. The Committee has considered evidence placed before it on the environmental impact of these activities and considers that restrictions and prohibitions should be uniformly applied. For example, if it is determined that a certain area of a marine reserve should be set aside because of its particular suitability for underwater photography or scientific research, then any restriction on fishing should apply equally to spearfishermen, anglers and commercial fishermen.

147. It is proposed that such activities as angling and spearfishing would be permitted in the marine reserves subject to the conditions determined by the management authorities. Control would be by means of a licence purchased for a minimal fee and subject to revocation for infringement of the regulations. Each licence-holder should be provided with a map of the boundaries in which he would be permitted to fish and with a copy of the relevant regulations.

148. Commercial fishing should also be subject to licencing at a minimal charge and the Committee sees the catching of pelagic fish only as acceptable in the reserve areas. No other form of commercial fishing would be acceptable and should licence-holders be found to retain other than travelling school fish their licences would be revoked. Under these strict controls such fishing would also be permitted in the marine conservation reserves discussed below.

Access to Reserves

149. The Committee does not believe that there is a need at this stage for the total protection from public access of any of the land reserve areas by regulation but recognises that access can and should be controlled through management policies, such as the closing of roads and trails and restrictions on the use of all-terrain vehicles. Decisions to restrict access by regulation

should be based on a defined need for this degree of protection of particular ecosystems and land forms.

Management Responsibility

150. Any decision to create the marine reserves recommended below would rest with the State Government with the exception of the area of Australian Government waters between Bowen Island and Captains Point for which the Minister for the Capital Territory has management responsibility and authority. In recommending the establishment of marine reserves the Committee is mindful of the difficulties of enforcing restrictions on recreational and sporting activities related to the water and adequate resources would need to be provided if management of the reserves is to be effective.

Conservation Reserves

151. The Committee has defined certain conservation reserve areas in its recommendations on marine reserves in which total protection measures are envisaged. These measures would include the prohibition of the taking of fish, crustacea, molluscs, sea shells, or any other plant or animal life or the removal or destruction of any geologic feature. Pollution or contamination of the waters in any manner would be prohibited. These areas are limited within the reserve areas and are chosen so as to cause the least disruption to present recreational, sporting and commercial patterns of activity. Such zoning would need to be ratified and amended where necessary when a total management approach is developed.

Public Education Measures

152. Public education is a valuable means of reducing damage to the environment of the reserves and extending appreciation of their value both for recreational and for scientific purposes when retained in their natural state. As it is anticipated that public information centres would be established at the entrance to the reserves on Beecroft and Bherwerre Peninsulas, it will be

possible to inform people entering the reserves of their responsibilities in relation to conservation measures. The value of audio-visual displays in the centres and at camping and picnic areas, and guided nature observation tours by rangers as are available in the Jervis Bay Nature Reserve is recognised and it is considered that these practices should be developed and extended to apply to all reserve areas. There is perhaps some scope for similar activities in the marine reserves, such as organised snorkelling or diving parties in areas of particular scenic interest.

153. The Committee finds that the Jervis Bay area is a valuable ecological reference area and considers that substantial areas of its land and waters should be reserved for both controlled recreation and sporting uses, while appropriate sections of the reserved areas should be zoned and strictly controlled as nature conservation reserves.

Proposed Reserves

154. While it is not intended to discuss in detail the evidence received on the merits of various areas as reserves the Committee considers that the areas described in paragraphs 155 to 163 below should be considered by the responsible government authorities for dedication as recreation reserves and conservation reserves. The proposed reserves are shown on Map No. 6 at Appendix II.

Recreation Reserve: Beecroft Peninsula-Lake Wollumboola

155. The Committee has already made recommendations concerning the management of Australian Government land on Beecroft Peninsula as a recreation and nature reserve area.

156. Several submissions were received on the need to preserve the Beecroft Peninsula-Lake Wollumboola area. The most comprehensive was that of the National Parks Association of New South Wales which conducted an eighteen-month survey into the suitability of the area as a national park, culminating in July

1974 in a proposal to the New South Wales Government for its dedication as such. The area covered by their proposal includes the estuarine system of Lake Wollumboola and the mangrove and salt-marsh areas of Cararma Creek which were recommended by the Australian Littoral Society for dedication as marine conservation reserves.

157. The Committee includes in this reserve the waters and weed beds of Hare Bay east of the outlet of Wowly Creek and the waters from that Bay extending around Beecroft Peninsula to Honeysuckle Point at the depths indicated on the map. The areas of particular scientific value as indicated in evidence are shaded and their zoning as conservation reserves as described in paragraph 151 above should be considered by the controlling authorities. These areas include the estuarine system of Lake Wollumboola, the greater part of the Lake itself and the mangrove and salt-marsh areas of Cararma Creek.

Marine Reserve: Currambene Creek

158. The Shoalhaven Conservation Society and the Australian Littoral Society provided convincing evidence of the need to conserve areas of representative temperate zone mangrove swamps for research purposes as it is now recognised that mangrove swamps play a vital role in the marine food-chain and are a valuable wildlife habitat for a variety of terrestrial, marine and amphibian species. The Australian Conservation Foundation is actively promoting protection of mangrove swamps and has stated that authority for the removal or modification of mangrove swamp areas should only be given after "weighing the immediate need to utilise the particular area against the risks of long-term damage to the environment over a much wider area that is likely to follow the removal of a critical and highly productive element of the coastal complex".

159. The Committee views with concern the zoning by the Shoalhaven Shire Council of a significant area of the eastern bank of Currambene Creek for village development and suggests that this

usage would involve loss of stability of the creek banks and have a significant effect on the value of the area as a wildlife habitat and breeding area. In any event the need to subdivide the land is questioned.

160. It is therefore proposed that a substantial section of mangrove swamps be set aside as a marine reserve to ensure that no clearing of the mangroves, dredging, deposit of sewerage, drainage from septic tanks, or dumping of wastes would occur. While it is considered acceptable that boating and angling should be permitted within the reserve, controls should be introduced on boats capable of producing significant bow waves.

Recreation Reserve: Bherwerre Peninsula-Bowen Island

161. The Committee considers that the Jervis Bay Nature Reserve should be extended to include Bowen Island and all of the Jervis Bay Territory not presently reserved for use by the Department of Defence.

162. In addition the Australian Government waters of Jervis Bay, the New South Wales waters to the east of Bowen Island and extending around Bherwerre Peninsula, through Sussex Inlet and including the southern portion of St Georges Basin are proposed for dedication as marine reserves to the depths indicated on the map. Indicated on the map are those areas considered appropriate for conservation reserves as described in paragraph 151 above.

163. The southern section of St Georges Basin was described to the Committee as "almost a pristine estuarine system at the moment (which) should be retained not only as a productive area but also as an important scientific area for future research", apparently one of the few such areas remaining in New South Wales.

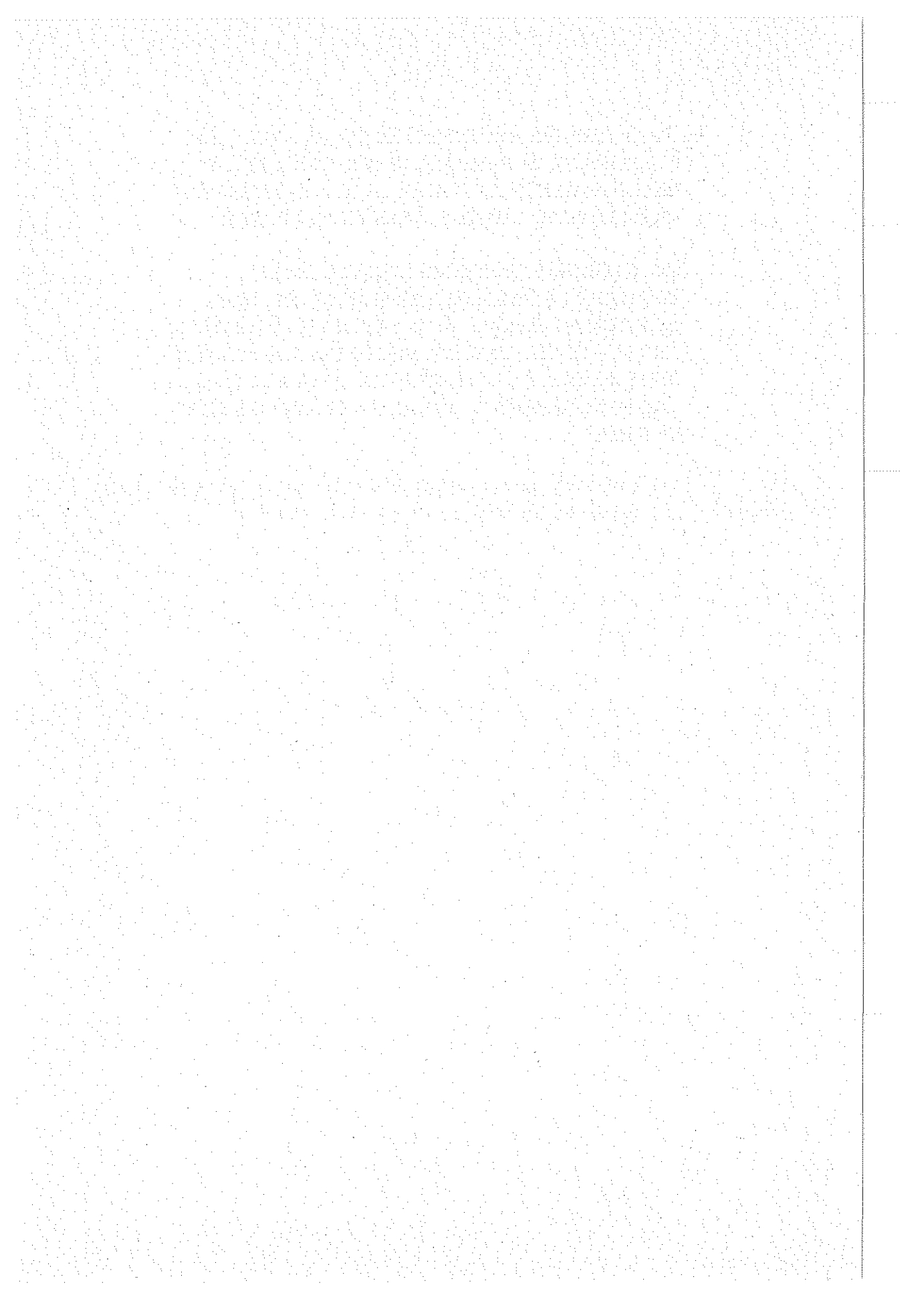
The Committee recommends that:

The Jervis Bay Nature Reserve be extended to include all areas of the Jervis Bay Territory not presently reserved for use by the Department of Defence.

The Australian Government waters of Jervis Bay be dedicated as a marine reserve and that the waters indicated on Map No. 6 be considered for dedication as a marine conservation reserve.

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 reserves and that agreement be sought as to a co-ordinated management policy in respect to these reserves.

164. The question of the finance and co-ordination of these proposals is discussed in Chapter 8 of this Report.



VIII JERVIS BAY AND THE NATIONAL ESTATE

A Jervis Bay Management Trust

165. Earlier in this Report, various conclusions, findings and recommendations have been determined without specific reference to proposed methods of administration or of financial assistance needed to realise the integrated management of the area for the purposes proposed by this Committee. This Chapter details the Committee's findings on these.

166. The Committee, being aware of the administrative difficulties involved in attempting to co-ordinate development at the three levels of Government, has considered various proposals made in evidence concerning the establishment of a management trust to take responsibility for the future development of the Jervis Bay area. Opinions as to the composition and powers of such a trust varied, but the aim of each was to ensure that all development planning in the area would be subjected to public scrutiny, criticism and perhaps some measure of control. While the Committee recognises that avenues for public involvement in land-use planning must be provided to avoid a recurrence of the circumstances surrounding the Jervis Bay steelworks proposal, it considers that the formation of a Jervis Bay Trust would be a limited response to the problem.

167. Without the power to alleviate financial pressures on local government to approve inappropriate development the Trust would be reduced to the role of critic, and would have neither the power nor the resources to finance measures considered necessary for the proper administration of the area.

The Australian Heritage Commission

168. In determining the appropriate form of control mechanism for the area, the Committee reassessed recommendations made earlier in this Report and concluded that the supervisory body would need to have the authority and resources to:

1. Commission the Jervis Bay Area Management Plan, as detailed in previous Chapters of this Report;
2. assist with the implementation and further development of the Plan;
3. directly finance the acquisition of private property for the establishment of proposed reserve areas and historic sites;
4. directly finance the restoration and conservation of the natural features of the area;
5. have access to information at government level covering development proposals;
6. be empowered under legislation to require an environmental impact study on such proposals;
7. provide a public forum for grievances relating to such proposals;
8. manage as a trust, money and property bequeathed to it for the benefit of the Jervis Bay area;

169 It is evident that the appropriate form of control for the Jervis Bay area could only be guaranteed through the offices of the Australian Heritage Commission, established in June 1975, as a result of recommendations made in the Report of the Committee of Inquiry into the National Estate. Whereas the direct powers of the Commission to call for environmental impact statements and other information are limited to areas of involvement of Australian Government departments and authorities, its functions are sufficiently wide-ranging as to be able to offer substantial assistance to State and local government, organisations and persons in co-operative ventures related to the national estate.

Jervis Bay - National Heritage Area

170. The Committee has examined the Report of the National Estate and considers that the Jervis Bay area satisfies the criteria for classification as part of the national estate as defined in paragraphs 2.7 and 2.8 of that Report, comprising features of the natural and man-made environment, including areas of archaeological and scientific interest.

171. The value of the Jervis Bay Territory and adjoining areas as part of the national estate is recognised in Chapter 8 of the Report of the National Estate. The quotation from the submission to that Inquiry by the National Parks Association of the Australian Capital Territory also refers to the suitability of nearby areas for preservation:

"These include the most southerly occurrence of the littoral rain forest and the mangrove swamp on Jervis Bay, and the extensive coastal heaths on Beecroft Peninsula."¹⁵

172. The Committee finds that the Jervis Bay area is an important part of the national estate and that its effective protection and preservation as such will be dependent on its management as an integrated unit.

The Committee recommends that:

In accordance with Section 25 of the Australian Heritage Commission Act 1975 the Jervis Bay area be entered forthwith on the list of places that might be entered in the Register of the National Estate.

In accordance with Sections 22 and 24 of the same Act, the Australian Heritage Commission take

¹⁵. Report of the Committee of Inquiry into the National Estate. Australian Government Publishing Service, Canberra 1974, p.25.

appropriate action to have the Jervis Bay area entered on the Register of the National Estate.

Financial Assistance to Local Government

173. In earlier Chapters of this Report the Committee has made suggestions and recommendations concerning land-use at Jervis Bay and recognises that the inclusion of these areas in the national estate may increase financial pressures on the Shoalhaven Shire Council. The Committee supports the conclusion of the Report of the National Estate in this regard when it recommended that:

"... it should be competent for local governing authorities to seek help from the Australian Government through the Grants Commission for extra costs incurred in taking special measures to conserve and present the National Estate;

the Grants Commission should obtain advice from the National Estate Commission where help of this kind is sought;

the local governing authorities should be able to approach the National Estate Commission for help with particular projects."¹⁶

174. The registration of the Jervis Bay area as part of the national estate is intended to provide the means of relieving development pressures on the Shire Council and to permit its planning officers to develop the area along socially desirable, environmental and aesthetic guidelines rather than in response to economic pressures.

Co-ordination of Management

175. Reference has been made in paragraphs 136 and 137 above

¹⁶. Ibid, p.290.

to the need for improved channels of communication between the various planning and management authorities responsible for the Jervis Bay area. This problem takes on new dimensions with the registration of the area in the national estate and the Committee sees considerable merit in the concept of the provision of regional environmental extension officers as proposed in the Report of the National Estate:

"Their functions would be to advise planners and developers on the National Estate or on environmental considerations in the particular area and to bring to notice any likely effects on the environment of proposed developments. They would also be able to help people wishing to appear before mining wardens courts or other tribunals and courts. They would act as a point of contact for local people wishing to arrange for conservation of their property; and generally would provide a point of information and advice on environmental matters."¹⁷

176. The Committee sees the appointment of such an officer on the staff of the Australian Heritage Commission as providing an essential link between management authorities and the public. It is envisaged that the officer would be resident in the area, although his responsibilities may extend to other parts of the national estate in the region.

177. The Committee finds that the co-ordination of development and management programs in the Jervis Bay national estate area and the involvement of the public in these programs would be facilitated by the provision of a regional environmental extension officer.

The Committee recommends that:

An officer of the Australian Heritage Commission

¹⁷. Ibid, pp. 116-117.

be appointed as regional environment extension officer in the Jervis Bay area and that he be provided with such facilities as are required to ensure the effective co-ordination of development and management policies and the dissemination of information related to these policies.

August 1975

(H.A. JENKINS)
Chairman

APPENDIX I

LIST OF WITNESSES

ADAMSON, Mr G. Assistant Secretary
Facilities, Policy and Programming
Defence Facilities Division
Department of Defence
CANBERRA. A.C.T.

AVERY, Mrs E.F. Secretary
Jervis Bay Anti-Pollution Committee
VINCENTIA. N.S.W.

BEAZLEY, Mr H.C. Accountant
Ulladulla Fishermen's Co-operative
Society Ltd
ULLADULLA. N.S.W.

BLAKEY, Professor K.A. Member
Illawarra Regional Advisory Council
WOLLONGONG. N.S.W.

BOND, Mr K. Chairman
Illawarra Regional Advisory Council
WOLLONGONG. N.S.W.

BOYD, Mr D.K. Committee Member
Preserve Jervis Bay Committee
Callala Beach Progress Association
CALLALA BEACH. N.S.W.

CATFORD, Mr A.R. Committee Member
National Parks Association of New
South Wales Inc
BROADWAY. N.S.W.

CURTIS, Mr P.M. Regional Executive Officer
Illawarra Regional Advisory Council
WOLLONGONG. N.S.W.

DAVIS, Mr C.H.C. First Assistant Secretary (Lands)
Department of the Capital Territory
CANBERRA. A.C.T.

DRIVER, Mr L.A.F. Chairman
Australian Fishing Industry Council
of New South Wales
EDEN. N.S.W.

ELLIOTT, Mr M.A. Senior Biologist
Conservation and Agricultural Branch
Department of the Capital Territory
CANBERRA. A.C.T.

EVANS, Mr W.R.	Town Planner Shoalhaven Shire Council NOWRA. N.S.W.
FURNESS, Mr K.G.	President Shoalhaven Conservation Society NOWRA. N.S.W.
GARDINER, Mr R.H.	President Jervis Bay Anti-Pollution Committee VINCENTIA. N.S.W.
GILLIAN, Mr E.J.	Graduate Clerk Policy Branch Department of Environment CANBERRA. A.C.T.
GILPIN, Dr A.	Director Strategy Division Department of Urban and Regional Development CANBERRA. A.C.T.
GJEDSTEDT, Mrs J.	Assistant Secretary Jervis Bay Planning and Protection Committee COLEDALE. N.S.W.
HARSANT, Mrs E.J.	Box 45 NOWRA. N.S.W.
HATFIELD, Mr F.A.	Assistant Secretary Resources Appraisal Branch Water and Soils Division Department of Environment CANBERRA. A.C.T.
HEATON, Mr J.H.	Director Nowra District Fishermen's Co- operative Ltd NOWRA. N.S.W.
HICKS, Mr J.W.	Manager Jervis Bay Nature Reserve Department of the Capital Territory JERVIS BAY. A.C.T.
HUTCHINGS, Dr P.A.	Vice-President New South Wales Division of the Australian Littoral Society SYDNEY. N.S.W.
IVANOVICI, Ms A.M.	Australian National University Skindiving Club CANBERRA. A.C.T. and

	Australian Underwater Federation BRISBANE. QLD.
JACKSON, Mr A.F.	Vice-President Jervis Bay Anti-Pollution Committee VINCENTIA. N.S.W.
KNIGHT, Mr J.	Member of Staff Registrar Property and Plans Division Australian National University CANBERRA. A.C.T.
McCLELLAND, Captain A.J.	Director of Naval Project Co- ordination Royal Australian Navy CANBERRA. A.C.T.
McLENNAN, Mr G.J.	Secretary Shoalhaven Ex-Servicemen's Amateur Fishing Club, and South Coast Division of the N.S.W. Amateur Fishing Clubs' Associa- tion; Publicity Officer Nowra Sportfishing Club; Member State Committee for Sport Fishing NOWRA. N.S.W.
McROBERTS, Mr B.J.	Director Pacific Seaweeds (NSW) Pty Ltd MILTON. N.S.W.
MOULD, Mrs N.N.	'Ellmoos' SUSSEX INLET NORTH. A.C.T.
NEWELL, Mr B.S.	Assistant Secretary Atmospheric and Marine Branch Department of Environment CANBERRA. A.C.T.
RAVELL, Councillor G.W.	Secretary Shoalhaven Professional Fishermen's Association, Crookhaven River Oyster Farmers' Association, and Shoalhaven Rivers' Protection Committee NOWRA. N.S.W.
RIDGE, Mr L.J.	President Callala Beach Progress Association and

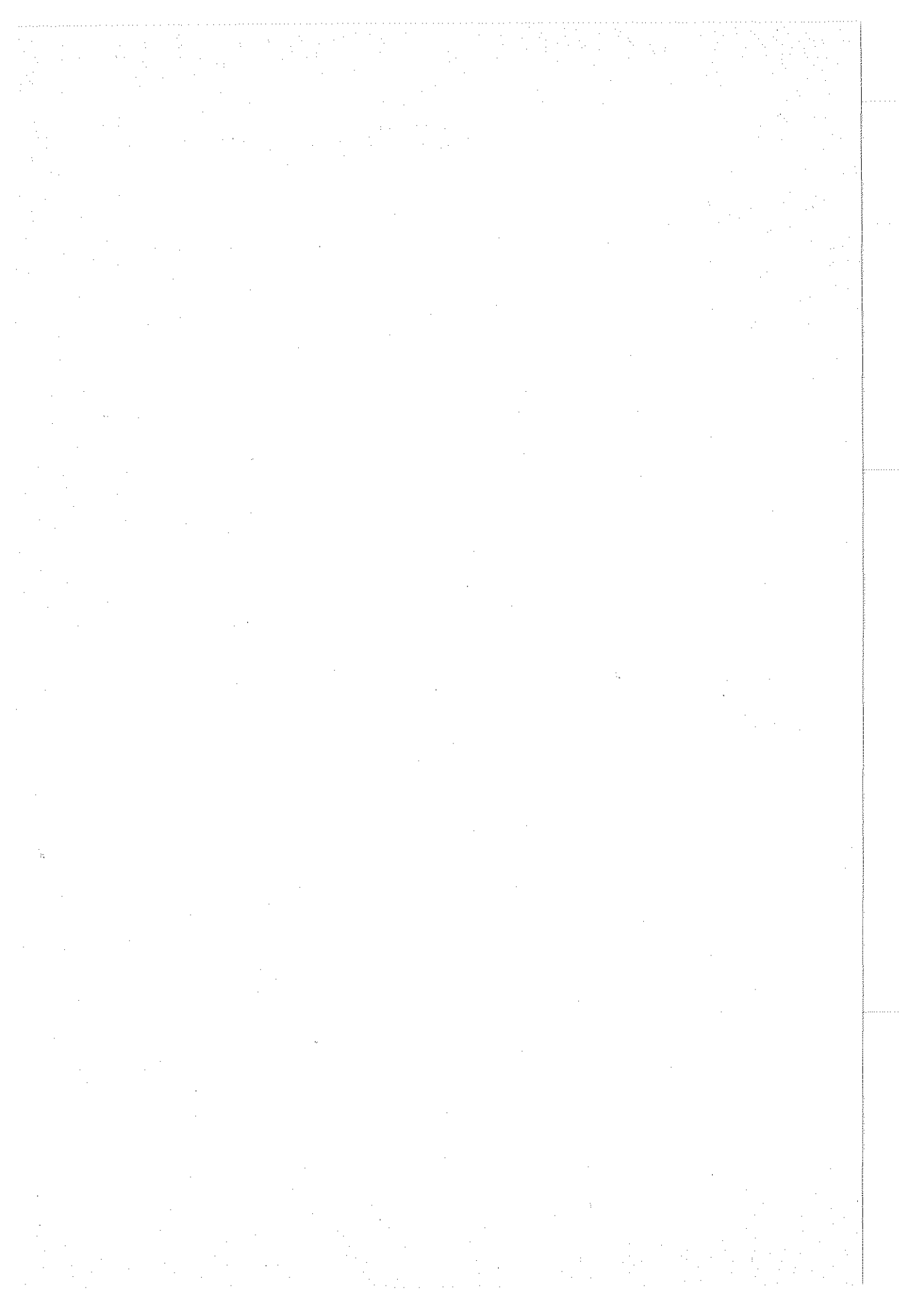
	Chairman Preserve Jervis Bay Committee CALLALA BEACH. N.S.W.
ROBERTSON, Commodore A.J.	Commanding Officer Royal Australian Navy H.M.A.S. Albatross JERVIS BAY. A.C.T.
ROBERTSON, Professor Sir Rutherford N.	Director Research School of Biological Sciences Australian National University CANBERRA. A.C.T.
ROBINSON, Councillor S.R.	Acting Shire President Shoalhaven Shire Council NOWRA. N.S.W.
RUDMAN, Dr P.	Principal Lecturer in Biology School of Applied Science Canberra College of Advanced Education CANBERRA. A.C.T.
SMITH, Miss M.J.	Assistant Secretary Jervis Bay Anti-Pollution Committee VINCENTIA. N.S.W.
STEINKE, Mr J.	Research Director Illawarra Regional Advisory Council WOLLONGONG. N.S.W.
TAYLOR, Mr J.	Secretary Shoalhaven Industrial Council NOWRA. N.S.W.
THURBON, Mr A.L.	'Lumeah' SUSSEX INLET NORTH. A.C.T.
TOON, Mr J.G.	Planning Consultant and Advisor Realty Realizations Ltd TURRAMURRA. N.S.W.
WALLINGTON, Mr C.E.	Head School of Applied Science Canberra College of Advanced Education CANBERRA. A.C.T.
WATSON, Mr W.R.	Immediate Past President National Parks Association of the Australian Capital Territory Inc CANBERRA. A.C.T.

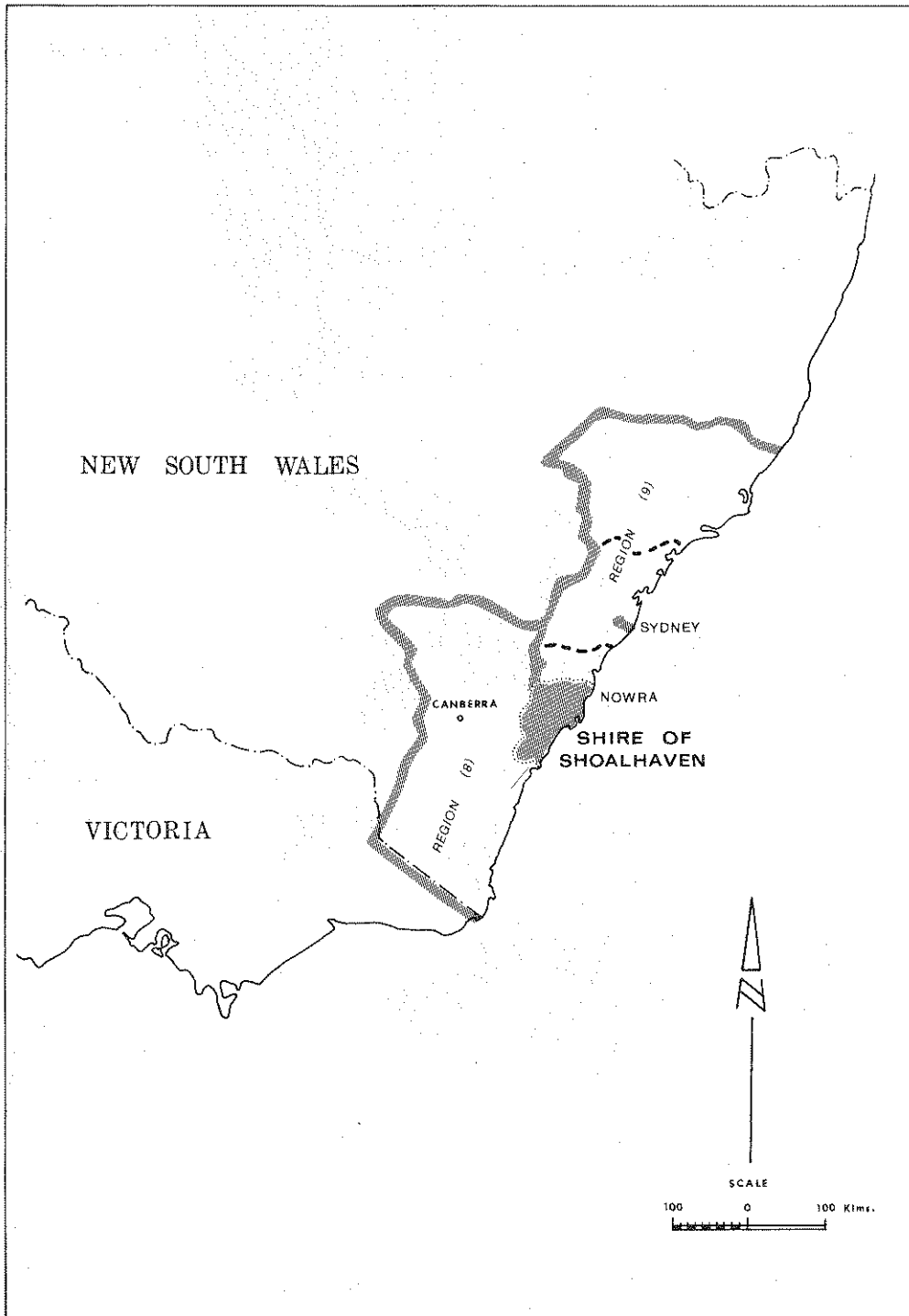
WEATE, Ms P.B.

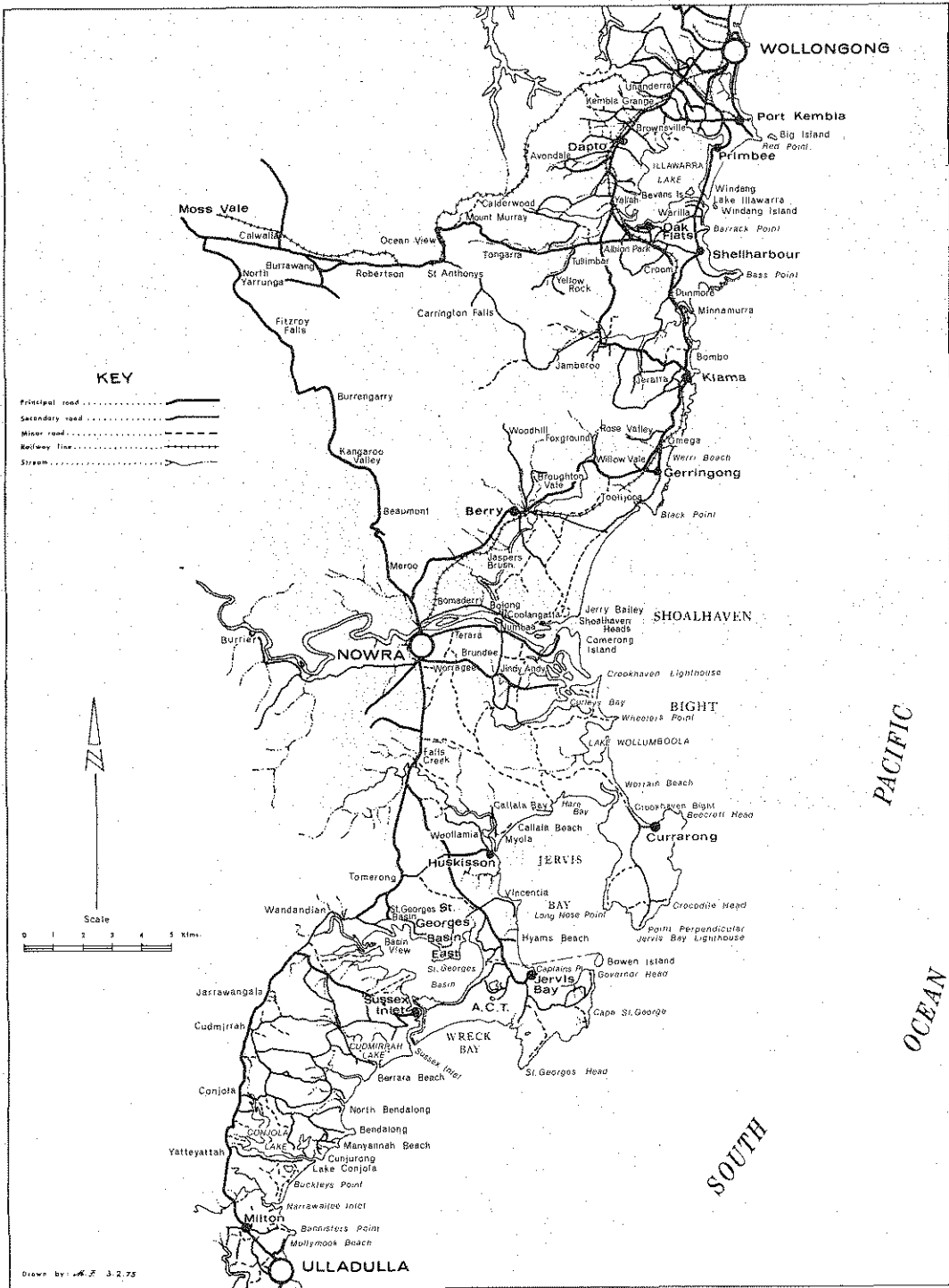
Secretary
New South Wales Division of the
Australian Littoral Society
SYDNEY. N.S.W.

WHALAN, Mr P.J.

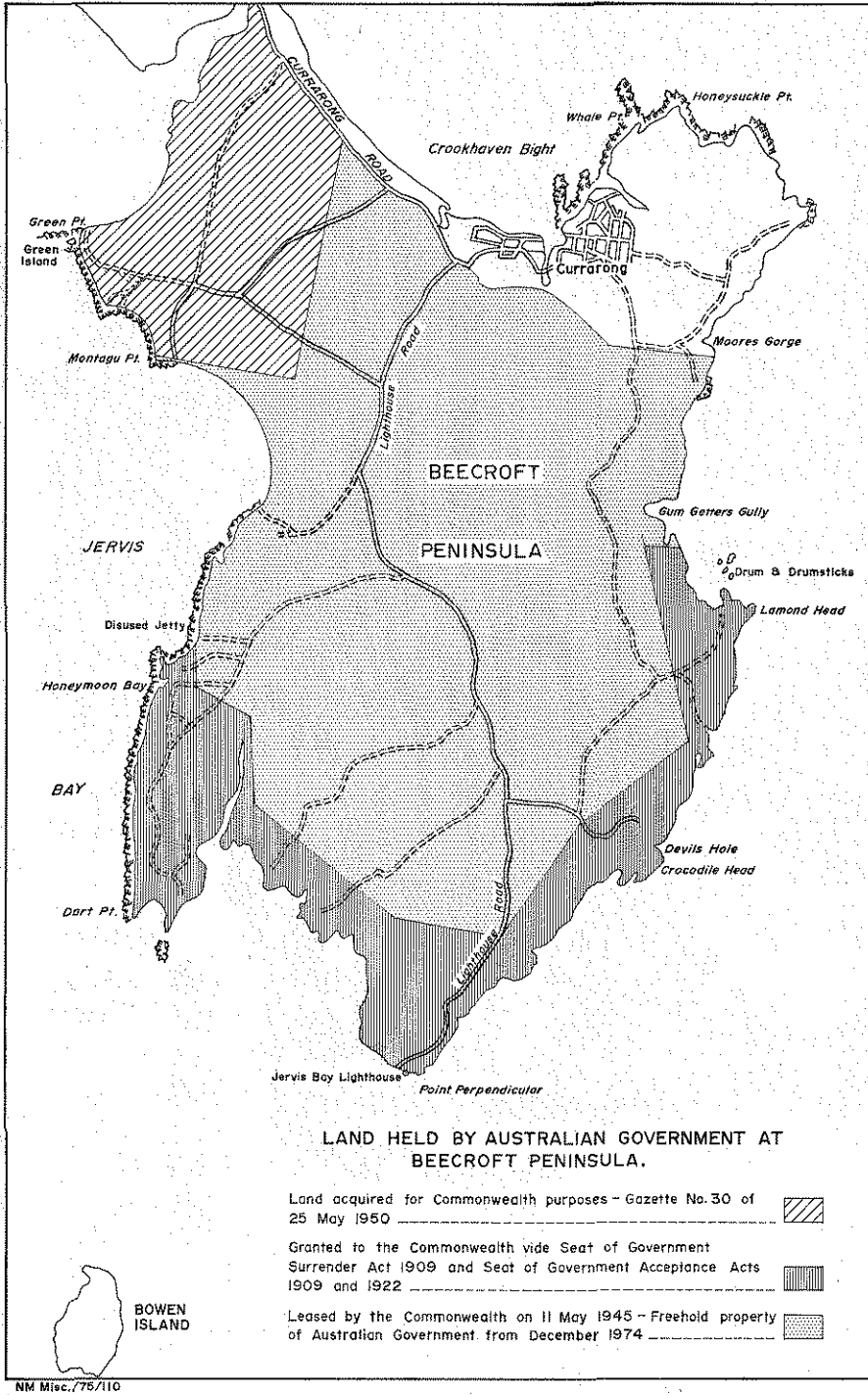
President
New South Wales Division of the
Australian Littoral Society
SYDNEY. N.S.W.



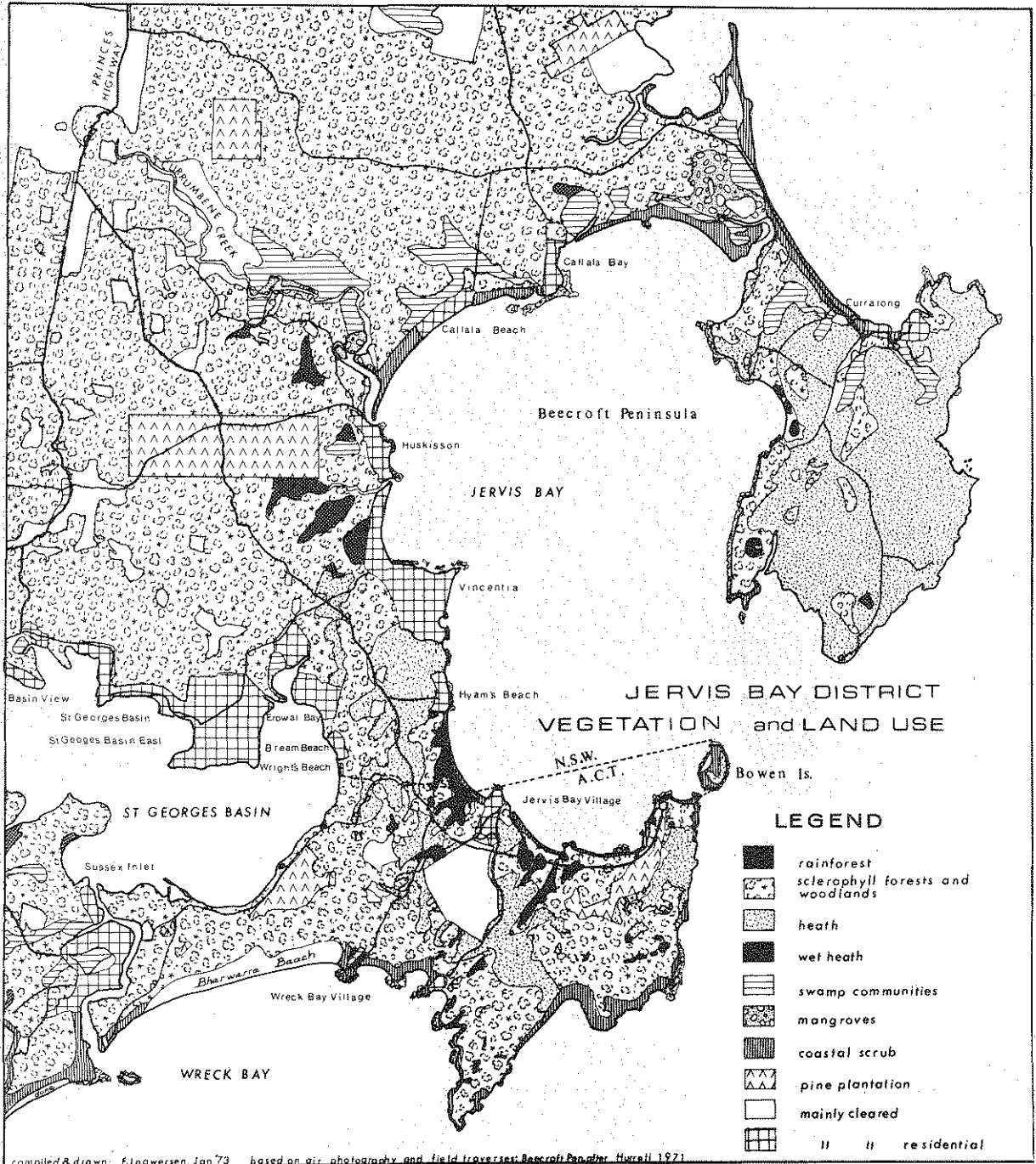




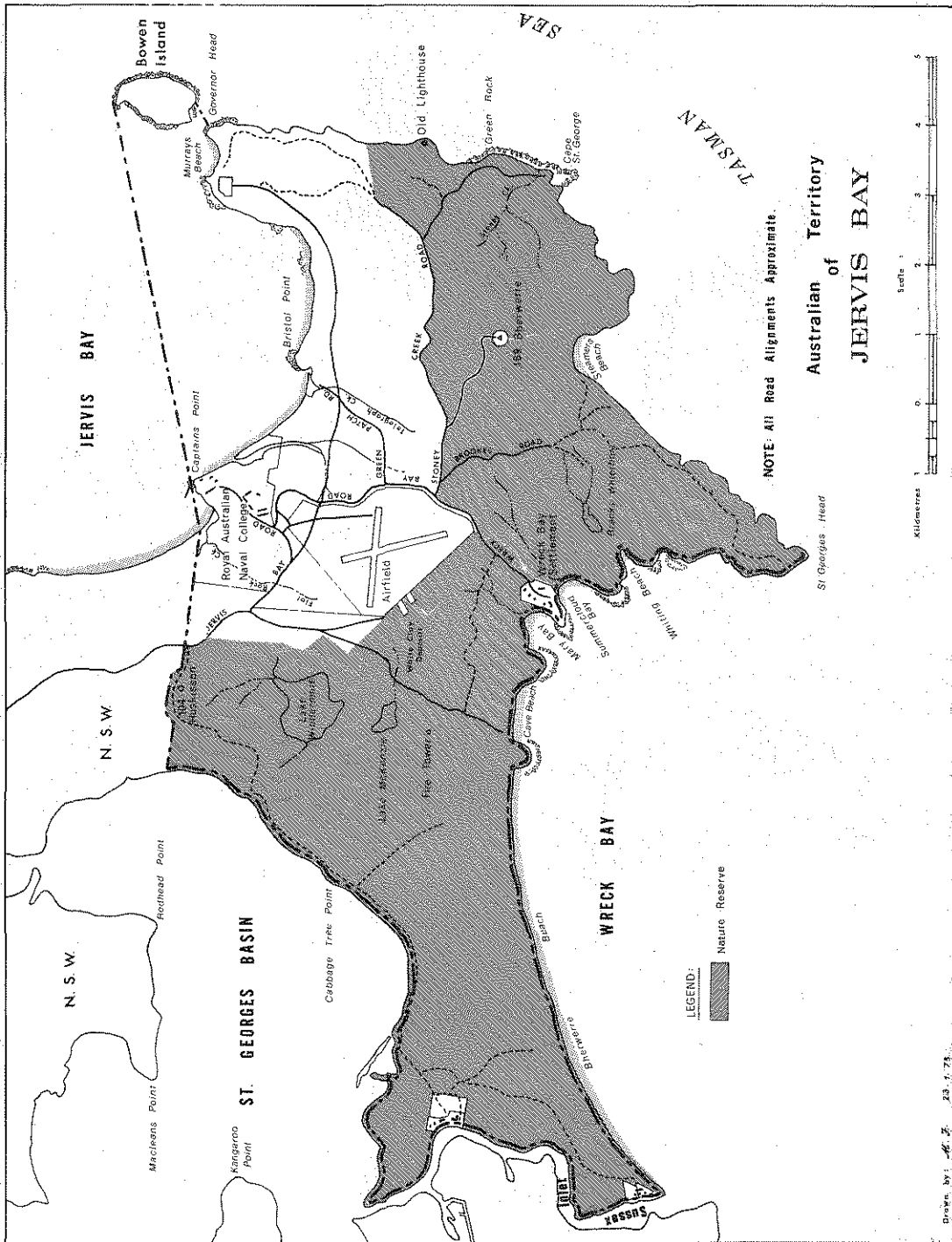
Jervis Bay in the Shoalhaven Shire



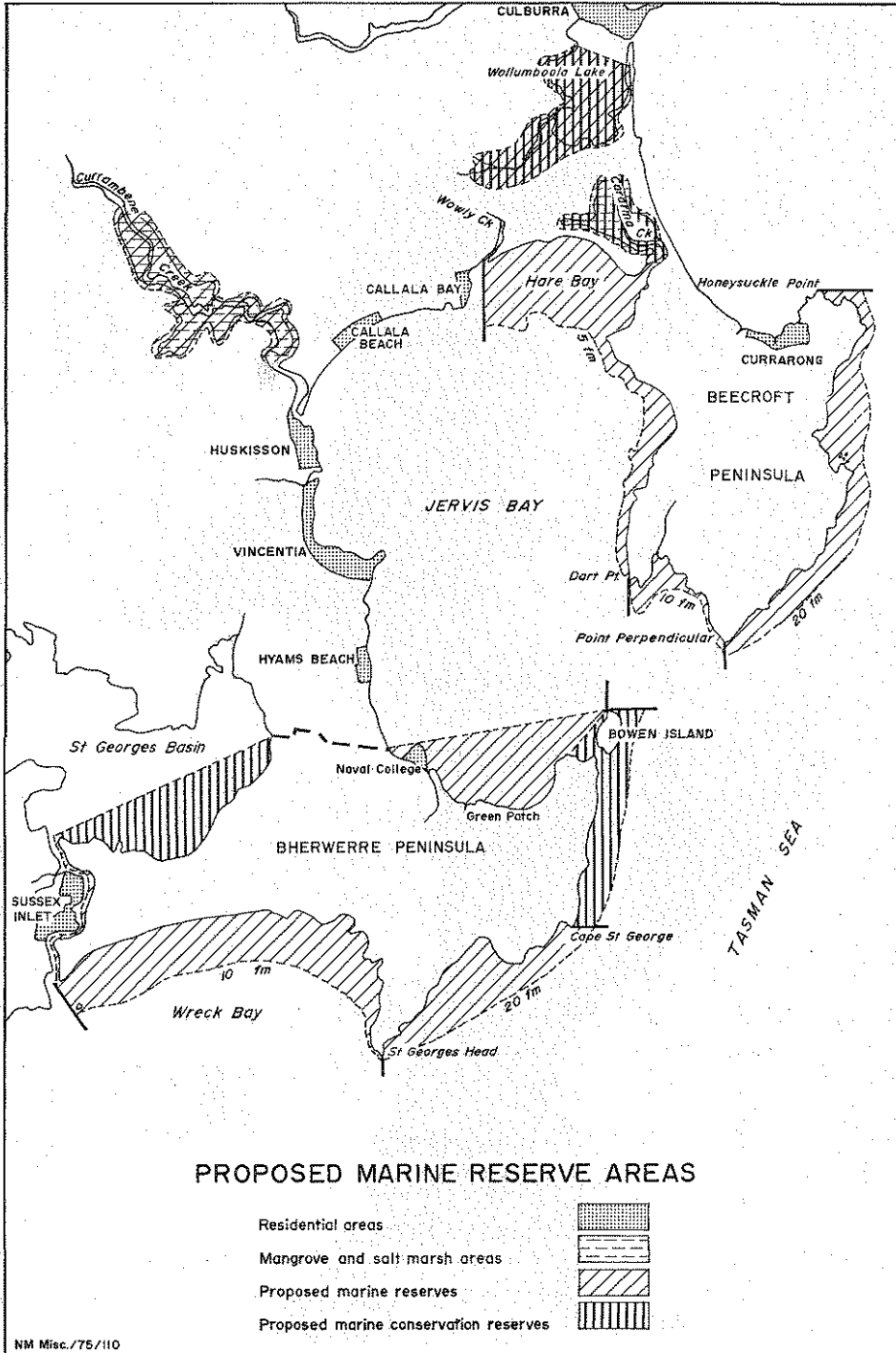
Land held by Australian Government at
Beecroft Peninsula



Jervis Bay District Vegetation and Land-Use



Australian Government Territory - Jervis Bay



Proposed Marine Reserve Areas

LIST OF EXHIBITS

No.

1. SHOALHAVEN SHIRE COUNCIL
 - a. Supplementary Information No. 1 - 'Investigations into Current Environmental Control Data'.
 - b. Supplementary Information No. 2 - 'Protection of Coastal Lands'.
2. AUSTRALIAN LITTORAL SOCIETY

Map of Jervis Bay
3. ULLADULLA FISHERMEN'S CO-OPERATIVE SOCIETY LTD

List of capital costs and crew of boats.
4. DEPARTMENT OF THE CAPITAL TERRITORY

Volume of photographs.
5. JERVIS BAY PLANNING AND PROTECTION COMMITTEE

Sundry documents supplied by Committee.
6. CANBERRA COLLEGE OF ADVANCED EDUCATION

Papers prepared by students.
7. DEPARTMENT OF URBAN AND REGIONAL DEVELOPMENT

Paper entitled 'Environmental Control within an Integrated Steelworks' by A.F. Elsey.
8. AUSTRALIAN NATIONAL UNIVERSITY SKINDIVING CLUB
 - a. Document entitled 'A Preliminary Analysis of Australian Spearfishing Data', by P. Saenger and G. Lowe.
 - b. Document entitled 'Government Policy and the Jervis Bay Developments', by W.A. Butterfield.
 - c. Book entitled 'Australia's Ocean of Life', by Stephe Parish. Published in Australia, 1974, by Wedneil Publications, Newport, Victoria.

