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Service
Bouddi National Park: draft plan
of management.

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BOUDDI NATIONAL PARK



DRAFT Plan of Management

National Parks and Wildlife Service
New South Wales



National Parks & Wildlife Service



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Bouddi National Park: draft plan
of management

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PUBLIC REPRESENTATIONS PROCEDURES

This draft plan of management will be available for public review over the period

18TH JUNE TO 14TH AUGUST, 1982

During this period, written representations in connection with the draft plan may be made to the Director of the National Parks and Wildlife Service by any interested person or organisation.

Correspondence should be addressed to:

The Regional Planning Officer,
National Parks and Wildlife Service,
P. O. Box 95,
PARRAMATTA. 2150

Representations received within the specified period will be referred to the National Parks and Wildlife Advisory Council for its consideration. Any recommendations by the Council as a result of its review of representations received, will be submitted to the Minister together with the draft plan. The Minister will consider the advice of the Council before adopting the plan.

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SYNOPSIS

Bouddi National Park was initially reserved as a state park under the National Parks and Wildlife Act, 1967 and presently comprises 1,159 hectares. Approximately 260 hectares were originally notified in 1937 as a Reserve for Public Recreation, encompassing a ribbon-like stretch of coastline 400 metres wide between MacMasters Beach and Putty Beach. The area assumed the status of a national park by amendment to the National Parks and Wildlife Act in 1974. It reached its present area through additions since 1967.

Bouddi National Park is currently subject to a plan of management which was adopted in 1969. This document is a draft plan which will be recommended to the Minister as a substitute plan for the 1969 plan following public exhibition and consideration by the National Parks and Wildlife Advisory Council.

The park is located on the coast immediately east of Gosford and is readily accessible to the urban populations of the Central Coast and northern Sydney. It will be managed to provide for their recreational and educational needs subject to an overall requirement to protect natural environments and Aboriginal sites in the park.

Bouddi National Park is unique because it incorporates the only offshore area in New South Wales reserved as national park to conserve marine natural systems. The Bouddi National Park Marine Extension was reserved on the 12th November, 1971 following agreement with New South Wales State Fisheries on the management of the marine plant and animal communities.

FEATURES OF A PLAN OF MANAGEMENT

A plan of management is a document, produced as part of an on-going planning process, that provides a set of guidelines for the management of a particular Service area over a certain period.

The plan of management is in two parts :

PART A : MANAGEMENT RESOURCES. This section :

- * lists the functions and planning requirements of the National Parks and Wildlife Service under the National Parks and Wildlife Act, 1974. These provide the statutory framework for preparation of the plan.
- * defines the location, boundary and contained area.
- * indicates the purpose(s) for dedication of the area.
- * summarises the natural and cultural resources of the area and provides an assessment of their conservation values.
- * examines the various responsibilities and influences affecting the resources and evaluates, in relation to the Service's conservation responsibilities and powers, their impact on the resources over time as a consequence of their use and management.

This analysis highlights management issues and provides the basis for later decision making documented in the SCHEME OF OPERATIONS.

PART B : SCHEME OF OPERATIONS. This section :

- * presents the basis of management and objectives of management for the area.
- * details management strategies and practices (i.e. works, studies, etc. to be undertaken in accordance with particular strategies).
- * indicates relative priorities for management practices in a plan implementation tabulation.

PART A

MANAGEMENT

RESOURCES

NATIONAL PARKS AND WILDLIFE SERVICE :

FUNCTIONS AND PLANNING REQUIREMENTS :

The National Parks and Wildlife Act, 1974, lays down a general charter of functions for the National Parks and Wildlife Service and specific planning requirements which together provide a framework for the preparation, implementation and review of this Plan of Management.

Functions :

The functions of the Service are as follows :

1. The acquisition of areas in their natural condition to conserve samples of a complete range of the State's natural environments.
2. The acquisition of areas that are the sites of buildings, objects, monuments or events of national significance.
3. The management of resources contained within the Service's park, reserve and site system, constituting the Service estate.
4. The development of facilities throughout the Service estate to permit appropriate use and enjoyment by the public.
5. Wildlife management throughout the State.
6. Protection and preservation, throughout the State of Aboriginal sites and objects.
7. The promotion of public awareness, understanding and appreciation of wildlife, national parks, and historic conservation, and the importance of these to the overall quality of man's environment.

Planning Requirements :

Section 72 of the Act provides inter alia that the Director shall prepare a plan of management for each national park. Section 72(4) of the Act requires the application of certain principles to the preparation of a plan of management, as follows :

"(4) In the preparation of a plan of management referred to in this section, regard shall be had to the following objectives -

- (a) the conservation of wildlife;

- (b) the preservation of each national park, nature reserve, wildlife refuge or game reserve and the protection of the special features of the park, reserve or refuge;
- (c) the prohibition of the execution of any works adversely affecting the natural condition or special features of each national park or nature reserve;
- (d) the preservation of each historic site and the preservation of any historic structure or object or any relic or Aboriginal place on each national park, historic site, nature reserve, Aboriginal area, wildlife refuge or game reserve;
- (e) the encouragement and regulation of the appropriate use, understanding and public enjoyment of each national park and historic site by the public;
- (f) the regulation of the appropriate use of each nature reserve and Aboriginal area;
- (g) the appropriate use of each national park, historic site or nature reserve by any lessee, licensee or occupant of land therein;
- (h) the preservation of each national park, historic site or nature reserve as a catchment area;
- (i) the protection of each national park, historic site, nature reserve or Aboriginal area against fire and erosion;
- (j) the setting apart of the whole or part of a national park or nature reserve as a wilderness area, and
- (k) utilisation of land acquired or occupied, or proposed to be acquired or occupied, pursuant to sections 145, 146 or 147".

The National Parks and Wildlife Act, 1974, requires that a plan of management be prepared for each national park. A plan of management includes a written scheme of operations for the protection of the natural and cultural features of the park, and provides for the encouragement and regulation of the appropriate use of the park.

The procedure for the preparation of a plan of management specified in the Act (section 75) involves five stages. The Director prepares a plan of management. It is published and placed on public exhibition for at least one month. Any person may make representations about the plan. The plan and copies of all representations from the public are referred to the National Parks and Wildlife Advisory Council for Council's consideration and advice to the Minister. The Minister may adopt the plan after considering the comments of the Council or he may refer the plan back to the Director and Council for further consideration before adoption.

LOCATION, BOUNDARY AND AREA

Bouddi National Park is situated on the Central Coast of New South Wales approximately 70km to the north of Sydney and 19km south east of Gosford.

Its boundaries are as shown on the accompanying MAP; they enclose an area of approximately 1,159 hectares, formally defined in the following section, of which some 287 hectares constitutes a marine extension of the park.

DEFINITION

This Plan of Management applies to all lands within Bouddi National Park at 31st December 1981, comprising Land reserved by the National Parks and Wildlife Act, 1967 (Plan Cat.No.Mc.7607 Md), together with the following additions, indicated by reference to dates of gazettal.

<u>Gazettal</u> <u>date</u> :	<u>Gazettal</u> <u>date</u> :
06.12.68	18.10.74
31.01.69	22.11.74
05.12.69	14.03.75
08.05.70	21.03.75
24.12.70	07.11.75
12.11.71	07.11.75
28.01.72	20.07.76
30.03.72	20.08.76
07.04.72	07.11.75
30.03.73	07.11.75
03.08.73	20.07.76
31.08.73	20.08.76
18.01.74	11.02.77
21.06.74	07.04.77

<u>Gazettal</u> <u>date</u> :	<u>Gazettal</u> <u>date</u> :
07.04.77	12.04.79
15.07.77	20.04.79
15.07.77	23.01.81
27.01.78	26.06.81
17.11.78	26.06.81
22.12.78	18.09.81

In all, an area of approximately 1,159 hectares, situated in Parish Kincumber, County Northumberland.

In addition the Plan refers to part of the Temporary Reserve for Public Recreation (R.82591) totalling hectares, which is being considered as an addition to the park.

BASIS AND HISTORY OF DEDICATION

The early bushwalking community was largely responsible for having the areas reserved, principally for recreational purposes. The early trustee/managers became more concerned with the natural values of the park and later additions were directed towards nature conservation, catchment protection and scenic protection in the hope of establishing the park as a viable natural unit.

A history of additions to the park is provided as in APPENDIX B to the plan and is accompanied by a diagram showing the pattern and rate of change in boundaries from 1935 to 1978.

The present area of the park includes a marine extension of some 287 hectares reserved in November 1971.

Bouddi National Park is currently subject to a plan of management which was adopted in 1969. This plan is no longer adequate for management needs. It is deficient in detailed management direction and many of its proposals, particularly those concerning land acquisition and major developments, are no longer favoured or are not considered practicable. In due course the Minister's direction pursuant to Section 75(7)(b) to cancel the existing plan and substitute a new plan will be sought.

The marine extension is also subject to the plan of management (Section 1.3.1(b), pages 35 and 36 of the plan refer). Section 80(1) of the Act provides that:

"Where lands submerged by water are lands that are the subject of any part of a plan of management for a national park, historic site, nature reserve

or Aboriginal area, the Director shall, before submitting to the Minister for adoption by him the plan of management refer it to the Minister administering the Fisheries and Oyster Farms Act, 1935".

The concurrence of the Minister administering the Fisheries and Oyster Farms Act, 1935 will be sought to the plan of management following its public exhibition before adoption by the Minister for Planning and Environment.

A brief description of the planning process required by the National Parks and Wildlife Act, 1974 appears on page 2(a).

PHYSICAL FEATURES

Geology

Structurally, Bouddi National Park is part of the Sydney Geological Basin.

In the park, two broad groups of rocks outcrop. At higher levels Hawkesbury Sandstone occurs; this overlies a body of rocks known as the Gosford Formation which is part of the Narrabeen Group and is composed of softer shales and sandstone. All these rocks are of Triassic age (approximately 200 million years since their formation).

The economic geology of the area has predominantly related to heavy mineral beach sand mining, as well as sand mining both for silica sand used in optical glass manufacture and sand used for fill and building purposes. Their effect on park management are detailed in the section titled PARK MANAGEMENT AND USE.

Geomorphology

Bouddi National Park contains a range of coastal landform features, including coastal cliffs, rock platforms, beaches and dune systems.

Evidence of changes in sea level exist, particularly in Broken Bay which, like Sydney Harbour, is a drowned river valley. Examples of perched sand dunes between 90 and 120 metres above present sea level occur at Bombi and Mourawaring Moors.

The overall morphology of the park is determined principally by the geology. Hawkesbury Sandstone dominates the skyline,

as plateau-like features at higher elevations. The exposed edges of this formation often form vertical cliffs and overhangs. The underlying, softer Narrabeen sandstone weathers at a more rapid rate generally becoming soil covered sloping land with gradients up to 15-20°.

The geomorphology is not, in itself, important in the management of the park although it plays a determining role in vegetation patterns, scenic values and distribution of Aboriginal relics.

Plant and animal communities

Bouddi National Park includes a variety of habitat types including Closed Forest, Tall Open Forest, Open Forest, Low Open Forest, Heath, Grassland and Swamp. Remnants of sand dune successional communities also occur along the coastal strip.

a) Heath

Heath was once common on the Sydney coastline but has since been much reduced in areas by residential development. Remnants such as these which occur in Bouddi are important refuge areas for plants and animals; those over five years of age are significant winter feeding areas for migrating nectar feeding birds.

The soils on which heaths occur are sandy at the surface and are low in nutrients, particularly nitrogen and phosphorus. There are several distinct types of heath reflecting changes in soil type and depth, variations in nutrient content, and differences in aspect.

The main areas of heath occur :

- i. on Hawkesbury sandstone at Box Head;
- ii. on perched sand dunes at Bombi and Mourawaring Moors; and
- iii. on Narrabeen sandstone at Bombi and Gerrin Points.

Bombi Moor is considered important and has been selected for special treatment in the Scheme of Operations as it is one of the last undeveloped perched sand dune heaths on the Central Coast.

b) Open Forest - Low Open Forest

Open Forest communities dominated by Blackbutt E. pilularis, Grey Gum E. punctata and Angophora costata occur in sheltered locations, mainly south and east facing aspects.

More exposed locations, e.g. Gerrin Point, are characterised by Low Open Forest and Mallee communities which include Bloodwood E. gummifera, Scribbly Gum E. haemastoma and Angophora costata with a dense shrubby understorey.

These forests occur around the tops of Bouddi National Park, and are usually associated with Hawkesbury sandstone areas.

c) Tall Open Forest

This community is characteristic of lower slopes and valleys where the deeper soils derived from the Narrabeen sandstones occur. Dominant trees of the Tall Open Forest include Blackbutt E. pilularis, Stringybark E. eugenoides and Grey Gum E. punctata. The understorey consists predominantly of tall moist shrubs, grasses and a variety of herbs.

d) Closed Forest

The Closed Forest community occurs in sheltered gullies such as behind Maitland Bay and at Little Beach. It is typified by a dense tree canopy cover with ferns, mosses, orchids and a thick litter layer in the understorey.

At Little Beach, the clearing of the scrub behind the beach for a camping/picnic area has caused destruction to the seaward edge of the forest due to salt wind action.

e) Sedgelands

Though this community is uncommon in the park, it does occur around a small lagoon behind Maitland Bay.

f) Sand Dune Succession

Sand dune successions once occurred at Putty and Tallow beach but were significantly altered by sand mining in the 50's. Sand mining was also responsible for introducing the exotic bitou bush to the dunes in these areas. The last unmined remnants of these communities occur at Maitland Bay; there is also a small unmined section at Putty Beach.

Regeneration of Acacia longifolia (coastal wattle) and Leptospermum laevigatum (coastal tea tree) has occurred in disturbed areas. Elsewhere, regeneration has been assisted by extensive restoration works and replanting following mining.

Fauna

The differences in age and structure types of the heaths in Bouddi National Park provide suitable habitats for a variety of mammals such as the brindled bandicoot Isoodon macrourus, the swamp rat Rattus lutreolus, common bush rat

Rattus fuscipes and the small marsupial insectivore Antechinus stuarti. The introduced rat Rattus rattus and house mouse Mus musculus are also present. Winter-migrating honeyeaters move along the coast feeding on flowering Banksias and other heath plants.

The sugar glider Petaurus breviceps and greater glider Schoinobates volans possums, as well as a number of small mammal species and a large variety of birds, including the brush turkey Alectura lathami, occur in the forest habitats. Numerous species of reptiles and amphibians also inhabit these communities, however, few have been identified.

The role of fire in modifying plant and hence animal communities is recognised and is an important component of management.

The specific significance of Bouddi National Park with respect to fauna is :

1. Its role as an 'island', representing a viable unit, wherein a range of plant and animal types may survive in an area which is fast becoming built out by residential and industrial development.
2. Heaths of greater than five years age, are a very important food source for nectar-feeding honeyeaters which migrate along the coast during winter.

PARK AND REGIONAL HISTORY

Aboriginal occupation

Evidence of Aboriginal occupation remains in the form of rock engravings, axe grinding groove sites and rock shelters, some of which contain remnants of art, shells and other archaeological material. Figures most commonly depicted in engravings are fish, shields and wallabies.

European settlement and past use

Because of the unsuitability of the area for agriculture, European settlement was not to take place until the 1820's. The primary interest was in boat building and timber getting. A limited amount of logging took place in the present park during this period. Access from Sydney was by boat until the completion of a railway in 1889.

In 1898, the "S.S. Maitland" foundered off the bomboora near Maitland Bay; the remains of her boilers still lie on the rock platform at the northern end of the bay. The Ship's bell was recovered, and has been mounted on a sandstone podium outside the old Maitland Store by the Brisbane Water Historical Society in 1962. Twenty-six lives were lost. Nine of the victims were buried locally at Booker Bay.

1928 saw residential subdivisions at Killcare Heights just prior to the establishment of the park in 1935. Because of its isolation, visitation to the Park remained low.

Construction of the Rip Bridge in the early 70's, together with tar sealing of the Scenic Road from Killcare to Kincumber in the early 60's has made the Bouddi peninsular

a feasible residential area for permanent residents and commuters, with many home builders being attracted by the scenic and recreational values of the area. As a result the district has one of the highest building rates in the state and is fast turning the park into a natural 'island' amidst residential development.

Heavy mineral sand mining took place along Tallow and Putty Beach near Killcare, prior to the addition of these areas to the Park. Subsequent dune restoration altered the natural sand dune contours and vegetation succession, and introduced bitou bush into the park.

Silica sand was extracted west of Bombi Moor for the manufacture of optical glass. Upon completion of mining in 1978, the area was added to the park. A small colony of koalas were known to inhabit this area prior to mining but no further sightings have been made since that time.

PARK MANAGEMENT AND USE

Past and current management

Prior to dedication, parts of the area included in the original 'natural park' had been used for timber extraction, mining, and for a fortified radar station. Recent additions to the national park have included both sand-mining areas, and scenic natural areas that were likely to be used for residential or institutional development.

Past management of park areas was on the basis of relatively unrestricted access, but increasing use of the park has necessitated a more restrictive approach, and recreation capacity limits have been set for some areas. Attempts are continuing to be made to encourage those activities and provide facilities that will not damage the resource beyond an acceptable level.

Requirements under the Environmental Planning and Assessment Act 1979, reinforce the Service's current approach of planning prior to development to ensure that such development and related use are in accordance with management objectives and strategies, and represent the most feasible options offering least environmental impact upon the resources of the park.

Important aspects of management include :

Visitor use

The most significant factor influencing current management is the increasing population growth rate in the Central Coast area generally, as well as changes in local population characteristics. With the advent of better roads,

reticulated water and a sewerage scheme, it is expected that there will be further changes away from 'weekenders' and retirement homes towards a higher proportion of permanent residents working outside the immediate area.

No reliable long-term figures are available to give information about numbers of visitors and the activities in which they participate. Without information on the impact of various activities, and the demand for those activities, planning must be conservative.

An assessment of visitor numbers in 1977, based on direct counts and inference from numbers of cars, indicated that more than 60,000 used the park during that year.

Subsequent counts at various times during 1979 and 1980 indicate that the number has increased to between 85,000 and 100,000. A large but unknown number of people visit the park from adjacent public beach areas.

Most visitors to the park are attracted to the beach areas. It is estimated that about half the visitors to the park use the Putty Beach area, and about half of the remainder use the Maitland Bay/Mt. Bouddi area. There have been no regular counts of visitors to Lobster Beach, Tallow Beach, Little Beach or the Bombi Moors, though observations indicate that there is increasing use of all areas, especially Lobster Beach, for people gaining access from the water.

There has been a substantial increase in demand for most facilities, especially for basic tent camping, both for school holiday periods and at weekends. The demand for camping exceeds the supply of sites in the period from September to May. This is well illustrated by the response

to the opening of bookings for the 1981/82 summer school holidays; within one hour, all sites were taken.

It is estimated that demand for camping facilities exceeds supply by about 10:1 during the summer holidays. For the rest of the season, the ratio is probably about 5:1. The peak period for camping use coincides with a peak for day visitors. It is not possible to cater for all these demands without causing an unacceptable level of damage to the natural environments in the park.

It has therefore been necessary to impose restrictions on visitor use by way of fencing dunes, formalising parking, and by limiting visitor facilities such as walking tracks and areas for picnicking and camping, in order to reduce the impact of visitor activities to an acceptable level.

Facilities for car camping have been provided at Putty Beach; in a separate area, 7 van sites have been provided but are fully used only at peak periods. That same area also receives heavy day use throughout the year by overflow of picnickers from the adjacent day use area. At the same time, there are severe limitations on available space at this locality, exacerbated by areas required for further dune stabilisation works. For these reasons, the van sites are to be phased out from this locality.

There is a clear need for more information on visitor numbers and activities, and on the capacity of the various resources within the park to withstand the impact of those activities. In this way, the area can be conserved in the longer term while continuing to encourage 'appropriate' recreation.

Fire

Prior to the late 60's, fire management was limited to attempts to control unscheduled fires. In the early 70's, some attempts were made at fuel reduction on the western side of Scenic Drive to prevent fire entering the park, chiefly from the Empire Bay/Bensville area.

While earlier efforts were directed to preventing fire entering the park, in more recent times a much more comprehensive approach to fire management has been developed, including :

- * fuel reduction to protect neighbours and park resources from unscheduled fire.
- * the construction of management tracks to improve access for fire control purposes and serve as fire breaks.
- * liaison and co-ordinated operations, in both fire prevention and suppression, with Gosford City Council Volunteer Bushfire Brigades and other fire authorities.
- * the provision of facilities for the safe use of fire by visitors.

As well, fire has been used for resource management purposes, particularly on heathlands. To that end, the Bombi Moors has been divided into blocks to maintain a wide range of vegetation age groups, with the objective of maintaining a variety of habitats to ensure the continued survival of all species of flora and fauna present.

Monitoring of fire-induced changes in these blocks is continuing to obtain more reliable information on the effect of fire on different species, so that future actions will be more scientifically based.

Aboriginal and historic resources

There is an incomplete knowledge of Aboriginal sites in the park.

A high incidence of vandalism to Aboriginal sites in nearby areas due to high visitation, has led to a policy in Bouddi National Park, of not encouraging visitation to known sites.

No other protective measures have been undertaken at this stage.

A site on North West Ridge has been established to measure erosion rates of engravings on Hawkesbury Sandstone.

Marine Extension

An addition to Bouddi National Park of 287.3 hectares offshore between Garrin Point and Third Point was reserved on the 12th November, 1971. This reservation is limited to lands submerged by water, and the powers of the National Parks and Wildlife Service do not relate to the control of marine plants and animals. The management of fishing in these waters is the responsibility of the Minister administering the Fisheries and Oyster Farms Act, 1935, while other aspects are the responsibility of other authorities, e.g. boating, by the Maritime Services Board.

The Service, with the concurrence of the Minister administering the Fisheries and Oyster Farms Act, 1935, has, in

accordance with section 80 of the National Parks and Wildlife Act, 1974, as its aim in relation to the Marine Extension; the conservation of marine communities.

To achieve that aim, a prohibition under the Fisheries and Oyster Farms Act, 1935, was placed, by way of proclamation in the Government Gazette No.30 of 23rd February, 1979 on the "taking of fish ... by all methods".

Pest animals and plants

There are serious infestations of bitou bush on most dune areas and in other areas where sandy, well drained soil has been disturbed.

As well, there are common and sometimes widespread infestations of lantana, blackberry crofton weed, cobblers pegs, and pampas grass, coral trees, kikuyu grass.

Some sporadic attempts were made in the past to control lantana in isolated areas; more recently, bitou bush has been removed from a section of Putty Beach as part of a continuing programme involving local conservation societies and members of the local community.

Goats, dogs, cats, foxes and introduced rats and mice are known to use the park and may be a threat to native animals.

With the exception of bitou bush, little is known of the nature and severity of impact of exotic species on native plants or animals; further information is required to guide management in programmes to control or eradicate these pest species.

Seaborne pollution

Large amounts of general debris are consistently washed ashore on most beaches and foreshores. This constitutes not only an impact upon the resources of the park but has required a continuing commitment of Service resources to remove this material. It can only be expected that such pollution will increase with time.

Interpretation and environmental education

To date, interpretation on the park has consisted of a park brochure, a limited Seasonal Ranger programme, minor interpretive display at the Maitland Bay Store and Mount Bouddi, miscellaneous signs as well as day to day ranger contact.

Bouddi National Park and related areas has figured prominently in recent Environmental Education projects e.g. 'The Environmental Guide to the Central Coast'. There has also been close contact with the Association for Environmental Education aimed at developing a long term programme.

Planning

A plan of management, adopted in 1969, has provided the statutory basis for management of Bouddi National Park.

This current (draft) plan represents the culmination of an on-going review of the management guidelines presented in that earlier document and provides guidelines for the management of the park in the coming years.

SUMMARY OF SIGNIFICANT FEATURES

Previously in the MANAGEMENT RESOURCES section of the plan, various aspects of resources management and use of Bouddi National Park have been presented. These are now summarised to indicate key considerations in the management of the park.

1. Scientific/ecological features

- 1.1 The importance of Bouddi National Park as an 'island' - a viable unit containing plant and animal types which can survive in an area fast becoming irretrievably modified by residential and industrial development.
- 1.2 The value of the landforms, vegetation and fauna of the area, including the marine extension, as an educational and scientific resource of considerable importance.
- 1.3 The vulnerability of the park resources to damage, chiefly by overuse, or by various forms of pollution e.g. seaborne debris.

2. Aboriginal and historic resources

- 2.1 Incomplete knowledge of these resources.
- 2.2 Vandalism associated with increased use.

3. Former and current uses of the park

Of a number of former uses of the area including timber getting, the location of defence installations, illegal occupancies and sand mining, only the last of these

has a continuing impact on the resources of the park; this is chiefly in relation to the need for stabilisation and revegetation of these disturbed areas.

Current uses essentially conforming with the management of the park include most recreational pursuits, subject to constraints necessitated by increasing visitor numbers and the impact of certain activities, particularly with respect to vehicular access.

4. The park in its local and wider context

The function of the park as part of the recreational resource spectrum in the region and, its role in local and regional tourism, must be weighed against the impact of visitor use on the resources of the park. In the management of Bouddi National Park, highest priority must be given to management directed towards conservation objectives.

PART B

SCHEME

OF

OPERATIONS

BASIS AND OBJECTIVES OF MANAGEMENT

The previous MANAGEMENT RESOURCES section of the plan has presented an overview of the resources of the park and the use and management of the area over time, with particular focus on the impact of these activities on the resources. It has highlighted major features to be considered in the management of the park.

The statutory basis of this management lies primarily with the wide range of responsibilities of the National Parks and Wildlife Service under its Act, in relation to nature conservation, protection of Aboriginal sites and relics and the conservation of historic resources on Service areas. As well, other government departments and instrumentalities are involved in aspects of the management of the park; their responsibilities and functions under their own Acts, regulations and by-laws must be taken into account in the Service's operations.

Of particular significance are the provisions of the Environmental Planning and Assessment Act, 1979, which binds the Service to consideration of a wide range of 'environmental' factors in its operations, and to (the assessment of) the impact on this broader environment (including social factors) of its activities. In this respect the park must be viewed in its local and regional context and cognisance taken of the needs and aspirations of the local community while at the same time bearing in mind its regional and broader role, particularly in relation to recreation and tourism. All this must, however, be weighed against the primary responsibilities of the Service in relation to nature conservation and the protection of Aboriginal and historical resources, at a local, national and international level.

The proximity of the park to the major urban areas of the Central Coast of New South Wales, as well as to Sydney and Newcastle, the ease of access to the park and the inferred levels of impact of recreational use to date, suggest that the greatest threat to the park is overuse.

Service management must take into account existing Service policies. It must also consider, at all times, the safety and well being of park users and neighbours, especially in relation to fire, pollution and noise.

On this basis, the stated objectives of management for Bouddi National Park are :

Objectives of management

1. To conserve the scenery, natural systems, historic features and Aboriginal resources within the national park and, where appropriate, rehabilitate those areas disturbed by man.
2. Where it is compatible with Objective 1, to provide the opportunity for recreational, educational and scientific activities.
3. To demonstrate that conservation objectives are important to the overall quality of man's environment.

These broad objectives, as they are applied to specific aspects of the park, give rise to more precise objectives. The management strategies and practices, detailed in the following sections, set out the ways in which the Service will attempt to achieve these objectives in Bouddi National Park.

MANAGEMENT STRATEGIES AND PRACTICES

1. The management of natural environments and Aboriginal and historic resources

The major management aim in this park is to maintain and where necessary restore the natural environment and to protect Aboriginal and historic resources.

Important factors influencing such management are :

- * the existence of the park as a small biological island;
- * an incomplete knowledge of the natural systems and Aboriginal resources in the park;
- * the vulnerability of the natural systems to overuse, to pollution and to other impacts arising outside the park;
- * the potential impact of fire on the natural systems in the park;
- * the known impact of certain pest species (bitou bush, goats) and an inadequate knowledge of the impact upon the natural systems of other introduced plants and feral animals;
- * the existence of formerly mined sand areas within the park;
- * the occurrence within the park of a gazetted Marine Extension for the conservation of marine natural systems;

- * the need to protect Aboriginal and historic sites within the park;
- * the potential impact of ANY development on the resources of the park;

as discussed previously in the MANAGEMENT RESOURCES Section.

1.1 Inventory, monitoring, research

To supplement existing information, an inventory of the resources of the park will be continued. This programme will seek the co-operation of any interested organisations and individuals and will be integrated with a study of visitor use patterns in the park and the impact of such use on park resources (see section 2.1).

The compilation of a vegetation map of the national park will be given priority, but continued efforts will be made to collect more information on native and exotic fauna.

Priority for Service assistance in research projects will be given to those which are of more immediate value to management of the park. A listing of such projects will be made available to appropriate institutions. This applies equally to visitor use research (Section 2.1).

The monitoring of the impact of fire on heathlands will continue (see Section 1.4).

1.2 Aboriginal and historic resources

All available information on the occurrence and importance of Aboriginal resources will be held in the Service's Site Register, a copy of which is retained in the Hawkesbury District office of the Service.

Locations chosen for development works will be surveyed for Aboriginal relics and historic material prior to commencement of these works, and the importance of any findings assessed. Development works will be relocated or modified where necessary to minimise disturbance to these.

The location of known sites will not generally be publicised, although the information will be available for authorised research, environmental appraisal, and other approved purposes.

Appropriate action will be taken on any site found to be in need of specific protection or restoration measures.

Monitoring of erosion rates at engraving sites will continue.

The remains of the S.S. Maitland will be included as part of the interpretation programme for the Bouddi Grand Deep and the Marine Extension (see 2.2).

1.3 Special environments and communities

Certain areas of high scientific or wildlife value require that special care be taken when planning for general management and public use also warrant protection.

1.3.1 The Bouddi Grand Deep and the Marine Extension represent a sample of successive plant and animal communities ranging through marine and intertidal zones to foreshore to open forest areas.

a) The Bouddi Grand Deep

Because of the complete succession of plant and animal communities this area represents and the fragility of some of these, the use of fire, other than prescribed fire along perimeters, will be prohibited.

No further development, other than interpretive and protective structures (e.g. dune fences) will be permitted. Camping will not be allowed.

b) Marine Extension

The Service, with the concurrence of the Minister administering the Fisheries and Oyster Farms Act, 1935, has, in accordance with Section 80 of the National Parks and Wildlife Act 1974, as its aim the conservation of marine communities.

To give effect to that aim, there will continue to be a prohibition on the removal, disturbance or destruction of all forms of marine flora and fauna.

The effective management of the marine extension requires the close co-operation

of the Service and New South Wales State Fisheries and other authorities with specific responsibilities in the area, e.g. Maritime Services Board.

To that end liaison will be maintained with these bodies.

- 1.3.2 Bombi and Mourawaring Moors : These contain the largest relatively undisturbed samples of low coastal heath on perched sand dunes on the central coast of New South Wales. There are no nearby occurrences of these communities from which re-colonisation could take place.

The affects of unscheduled fire is recognised as the most important factor influencing the future survival of all species of plants and animals on the moors.

To allow, within the constraints of present knowledge, essentially 'natural' processes to continue in these areas, the major objective of management is to ensure that no species of plant or animal presently occurring there, are lost.

A range of age classes of each vegetation type will be maintained to increase habitat diversity. It is intended that some areas will be kept free of fire influences for longer periods e.g. 15 years. Details of these are documented in the FIRE MANAGEMENT PLAN for the park which includes

a continuing programme of burning and monitoring, initiated in 1980. (See Section 1.4).

A detailed vegetation survey, currently being conducted, will provide a more scientific basis for decision-making on the management of these areas.

No further walking tracks will be permitted and fire, other than scheduled fire, will continue to be prohibited.

Other developments will be limited to management tracks associated with the fire programme, together with interpretive signs. Vehicular access will be restricted to that necessary for fire management, search and rescue or research projects.

Unmined section of Putty Beach Dunes

Most of the coastal dunes in the park were mined in the 1950's and 1960's, with the exception of a small area running from near Towarri Crescent to the small creek south of the present camping area. So it represents the only sample of relatively undisturbed vegetation, high priority will be given to conserving it for future scientific study.

Protection works will be carried out, including fencing and the removal of exotic plants.

To minimise visitor impact, no facilities will be provided in this area.

Little Beach - Cave Creek tall open forest

This is an area of tall open forest which extends from Little Beach through protected gullies and slopes of the Cave Creek and Little Beach catchment to the boundary of the park at Scenic Drive.

It is an important habitat for species of animals not well represented in the local area e.g. greater gliders, coucals, brush turkeys and lyre birds. Koalas were last reported in the area in the 1960's; the area is considered to be the most likely place in the park for re-establishment of a population.

In order to maintain the habitat described above, prescribed burning will be kept to a minimum and use of fire will be limited to provide protection to houses at Grahame Drive, Scenic Drive and Macmasters Beach. There will be no further development of management tracks or walking tracks.

Box Head Peninsula : This is the largest sample of ridge-type open forest vegetation in the park. It represents a succession of plant and animal communities known to foreshores on the southwestern and eastern sides and includes different samples of heath types to those represented elsewhere in the park.

Management will be directed towards the protection of these communities and their scenic values. There will be :

- no visitor facilities
- no vehicular access.

The North West Ridge : This is the only example of the inland fall of the Bouddi Range in the park. It continues the sequence of plant and animal communities of the Marine Extension and the Bouddi Grand Deep.

No visitor facilities will be provided, unless the area proves to be the most appropriate for an Environmental Studies Centre (see Section 2.3).

1.4 Fire

Fire management objectives, strategies and practices for the park are :

- 1.4.1 to co-operate with Gosford City Council and the Board of Fire Commissioners on joint and complementary fuel reduction programmes, and fire suppression to protect developments. Fuel reduction programmes will be updated annually;
- 1.4.2 to reduce the likelihood of losing plant communities in any one fire by the appropriate division of the park into fire management blocks, separated by

natural barriers, management tracks and/or strip burns;

- 1.4.3 to continue to monitor fire induced changes in fire management blocks to obtain more reliable information on the affect of fire on different species. The results will influence the use of fire for management purposes. Particular emphasis in this programme has been given to the Bombi Moors;
- 1.4.4 to extinguish unscheduled fires or contain them within fire management blocks by the most appropriate method;
- 1.4.5 to give special attention to the fire regime in the following areas :
 - a) Bouddi Grand Deep : complete exclusion of fire from the bulk of this area; fuel reduction only on perimeters.
 - b) Little Beach/Cave Creek : exclusion of fire with a view to achieving a longer minimum fire-free period e.g. not less than 30 years; fuel reduction only on perimeters.
 - c) Bombi and Mourawaring Moors

Fire will be used in management blocks to maintain a range of age classes of each vegetation type. Included in this range of age classes are a number of blocks

where fire will be excluded for longer periods e.g. 15 years;

- 1.4.6 to liaise with other land use authorities and planning bodies to encourage compatible development adjacent to park boundaries to reduce the impact of unscheduled fire on the park and adjacent lands;
- 1.4.7 to ensure that any method of fire suppression or prevention takes into account known or inferred impact on park environments. In this respect special attention will be paid to the use of salt water and wetting agents;
- 1.4.8 chemical retardants will not be used in the park.

Fire management objectives, strategies and practices for the park will be documented in greater detail in a FIRE MANAGEMENT PLAN, which will be reviewed annually.

1.5 Management tracks

Management tracks provide vehicular access for management and other authorised purposes. Vehicular use of these tracks by the public is not permitted, though they are available for access on foot. Horses will not be permitted on these tracks.

Retention of certain vehicular access routes is essential for the protection of the park environ-

ments. Factors considered in providing and maintaining access for management purposes include :

- (a) The impact of the management track system on park environments.
- (b) Available options for the location of tracks and the adequate justification of the continued use of any one track or any extension of the track system.

Aside from on-going maintenance on existing tracks, the following actions are proposed :

- 1.5.1 The vehicular track from the Little Beach access track to the Bombi Moors will be closed, and stabilised as a walking track.
- 1.5.2 The vehicular track on the North West Ridge will be shortened by approximately 50 metres to prevent vehicular damage to an Aboriginal engraving site.

The management track system is shown on the accompanying MAP.

1.6 Disposal of rubbish

Garbage receptacles for public use will be provided at Putty Beach, Killcare Heights Lookout, Maitland Bay Trackhead, Mount Bouddi and Little Beach.

At less accessible locations such as Lobster Beach, Tallow Beach and Maitland Bay, visitors

will be encouraged to pack out their own rubbish. At these areas, a much more limited garbage removal programme will be undertaken.

Throughout the remainder of the park, campers and day visitors will be encouraged to pack out their own rubbish.

The Service will continue to dispose of garbage outside the park, in accordance with existing arrangements with Gosford City Council.

These practices will be kept under review.

1.7 Pest animals and plants

A low key programme to control pest animals within the park will continue, with particular attention to goats, dogs and cats.

A programme to remove bitou bush from Putty Beach will continue.

The distribution of other pest plants will be delineated in the vegetation survey already initiated.

Attempts will be made to determine the impact of pest animals and plants and to assess the effectiveness and environmental acceptability of current control and eradication measures, and to investigate new measures.

1.8 Grazing

Grazing by domestic animals will not be permitted in the park.

1.9 Rehabilitation of mined areas

The formerly mined sand areas will be re-vegetated, acting on advice obtained from the Soil Conservation Service of New South Wales, using native plants propagated from local sources of seeds and cuttings, where practicable.

Fire management of these areas will be designed and strictly enforced to encourage the regeneration of native plants.

As part of this revegetation programme, regular monitoring will be carried out. The results from this monitoring will be important to decisions about the eventual extent and nature of the regeneration.

1.10 Removal of unwanted structures

No historical significance has been identified for the Maitland Bay Store; it currently has a limited information role which will be replaced by the installation of wayside exhibits at the Maitland Bay Trackhead.

Accordingly, the Maitland Bay Store will be removed on installation of the wayside exhibits.

2. The management of visitor use

Consistent with the management objectives in relation to natural environments and the protection of Aboriginal and historic sites within the park, the opportunity for visitors to utilise the recreational and educational potential of the park will be provided.

Within these constraints, visitors will be actively encouraged to visit and enjoy the park and, at the same time, learn something of its role in nature conservation. In this, emphasis will continue to be placed on camping and day use.

Management of visitor use is concerned with the protection and interpretation of the resources of the park and with the activities, numbers and distribution of visitors and their impact upon the resources. It involves four major, inter-related components :

- 2.1 Inventory, monitoring, research
- 2.2 Interpretation
- 2.3 Environmental education
- 2.4 Provision of facilities

2.1 Inventory, monitoring, research

There is currently little useful information on visitor use within the park (see MANAGEMENT RESOURCES section), though such information is vitally important as a basis for decision making.

A programme involving other authorities will be established to better investigate patterns and trends in park use, regional recreation opport-

unities and activities and the interests and attitudes of visitors, and examine the impact of visitor use on the natural environments and cultural resources of the park (see also section 1.1).

In the interim, traffic counters will provide basic information on visitor numbers while, at the same time, attempts will be made to assess the impact of various recreational activities on the park environments and their capacity to withstand such use.

2.2 Interpretation

Interpretation is a means of communicating the natural and historical aspects of the park and its management.

In accordance with the overall management objectives for Bouddi National Park and the specific features of the area for which it was dedicated, the following INTERPRETIVE OBJECTIVES are proposed :

1. To highlight important ecological features of the park, viz. :
 - * Bouddi Grand Deep and Marine Extension
 - * The moors
 - * The unmined sand area
 - * Little Beach/Cave Creek forests
2. To convey to neighbours, developers and visitors, the importance of the park as

a natural area surrounded by development.

3. To interpret past Aboriginal use of the area.
4. To interpret past land use of the park and their effects on the present environment and management of the park.
5. To encourage the appropriate use of the park through interpretive devices such as signs, exhibits, walking tracks and person to person programmes.
6. To provide general information to visitors on the facilities available in the park.

In line with these objectives, the following will be used :

- * interpretive structures;
- * publications such as information sheets, broadsheets, touring sheets, handbooks, checklists for flora and fauna;
- * provision of information of a general nature to the public and local media representatives;
- * personal contact e.g. Seasonal Ranger Programme, ranger contact during normal duties;
- * self guiding tracks.

2.3 Environmental education

The Service accepts the definition of environmental education given by the International Union for the Conservation of Nature and Natural Resources (IUCN), which is :

"Environmental education is the process of recognising values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the inter-relatedness among man, his culture and his biophysical surroundings. Environmental education also entails practice in decision-making and self-formulating of a code of behaviour about issues concerning environmental quality."

Environmental education is seen to be a district-wide function and the role of Bouddi National Park will be considered as part of Hawkesbury district's programme.

The district programme will entail :

- * Initiation of community programmes in environmental education.
- * Evaluation of information on natural and man-made environments within the Central Coast.
- * Liaison between government and non-government schools in relation to environmental education.

- * Involvement in environmental field activities within the central coast area.

- * Investigation of the feasibility of an Environmental Studies Centre for the district.

Within that overall programme, the natural and cultural environments in Bouddi National Park and the surrounding area provide an excellent vehicle for environmental education. Environmental education OBJECTIVES, specifically relating to Bouddi National Park, are :

- (i) To provide information on the valuable resources available in Bouddi National Park.

- (ii) To encourage an understanding of the impact of surrounding development on the natural systems in Bouddi National Park and its Marine Extension.

- (iii) To provide means by which the community can develop informed and positive attitudes towards the natural environment and cultural history of the park.

2.4 Provision of facilities

The attractions of particular features or areas on one hand, the location, type and extent of access and other provided facilities on the other, determine, to a great extent, the concentration or dispersal of park visitors. Thus, while the

provision of visitor facilities must attempt to cater for the legitimate needs of park users, it is at the same time, a valuable management tool for influencing visitor use patterns in the park.

Emphasis will be placed on catering for simple, essentially 'self sufficient' overnight and day use of the park. More sophisticated accommodation (hotels, motels, complex caravan parks) will not be provided; these facilities are available in areas near to but outside the park.

The impact of the location and construction of such facilities on natural environments, Aboriginal and historic sites and park users in general, will be assessed in the early planning stages, and any necessary modifications made to the proposed development.

The Service, in providing the facilities indicated in the following pages, accepts, at the same time, responsibility for their maintenance.

2.4.1 Overnight and day use

In the main, these facilities cater for two major use patterns in the park :

- (a) Concentrated visitor use
- (b) Dispersed visitor use

(a) Concentrated visitor use

These facilities cater for visitor use of areas accessible by road, as distinct

from small concentrations of visitors at pack campsites (no road access), which are geared to dispersed visitor use of the park. The facilities are considered in terms of overnight use and day use.

As a continuation of existing practice, prior booking will be required for overnight use.

Overnight use facilities include :

Car camping area : road access; basic toilet facilities; car parking separated from tent sites (because of space and environmental considerations); fireplaces; water provided, wood provided.

Day use facilities

In addition to facilities provided for overnight visitors, the needs of day visitors will be catered for by the provision of parking space, water (where feasible), toilets and facilities for cooking and picnicking. Other day use facilities relate to other aspects of visitor use management such as access (roads, walking tracks) and interpretation. These facilities are discussed elsewhere in the plan 1.62, 1.5.

Facilities at specific localities

Over the term of this plan, the following facilities for overnight and day use are proposed. Capacity of these various areas for overnight use over the term of the plan is generally indicated in terms of 'sites', each catering for 5 persons.

Putty Beach : Putty Beach will remain as the only car camping area within the park. The current van site area will be redeveloped during dune stabilisation works (see 1.9) and will provide an increased area for day use, for which additional facilities will be provided.

In the event that the Putty Beach Reserve for public recreation is added to the park additional parking and camping sites will be provided.

The existing 20 sites will continue to be used on a rotational basis, with generally not more than 10 sites in use at any one time. Up to 30 more sites will be established if the Reserve area is added to the Park.

Mount Bouddi : The Mount Bouddi area provides car parking and picnic facilities. It also serves as a trackhead for the walking track system to Maitland Bay and the Bombi Moors.

Maitland Bay Trackhead : This provides car parking and interpretive facilities, as well as access to the walking track system.

These localities are shown on the accompanying MAP.

(b) Dispersed visitor use

These facilities cater, in the main, for low-key, day and/or overnight use away from road access. One type of camping in areas of dispersed visitor use is recognised :

Pack Campsite : Access on foot; basic toilet facilities; fireplaces; minimal servicing. Visitors will be expected to remove their own rubbish.

The pressures of camping use in such areas will be continually reviewed, and if necessary, action will be taken to close areas subject to excessive use.

The following locations cater for dispersed overnight and day visitor use :

Tallow Beach : Tallow Beach will be developed as a pack campsite area with access by walking track.

The accepted capacity of the area is 60 campers.

Because of the proximity of this area to road access, an area for day use will also be provided in a separate area to that set aside for pack camping.

A camping permit will be current

for not more than three nights.

Little Beach : Little Beach will be maintained as a pack campsite with access by walking track.

The design capacity of the area is 30 campers.

Picnic sites will also be provided in an area away from the pack campsites.

A camping permit will be current for not more than three nights.

Maitland Bay Beach : The beach area at Maitland bay has been previously available as a pack campsite area. This function has been transferred to Tallow Beach and Little Beach.

Maitland Bay Beach is a day use area, with access by walking track. Picnic areas and toilets will be provided.

To protect the natural environments in the Bouddi Grand Deep, fire, other than prescribed fire, will not be permitted.

Visitors will be encouraged to pack out their own rubbish.

Interpretive signs will be provided.

These localities are shown on the accompanying MAP.

Lobster Beach : Lobster Beach is a day use area with access by walking track and water. Picnic facilities and toilets will be provided.

Fire, other than prescribed fire, will not be permitted.

Visitors will be encouraged to pack out their own rubbish.

2.4.2 Access

A major component of the facilities provided for overnight and day visitors to the park is the system of roads and tracks. These, perhaps more than any other form of facility provided, define visitor use patterns throughout the park, particularly with regard to the concentration or dispersal of visitors.

Access facilities will be described in terms of :

- (i) Road access
- (ii) Foot access

(i) Road access

The park is readily accessible from public roads maintained by the Gosford City Council.

The road system within the park provides vehicular access for visitors. It includes public roads, roads maintained by the Service for public use within the park,

together with ancillary features such as parking areas and lookouts accessible by vehicle from the road. It also includes signposting.

Internal access for park visitors on low speed roads will be maintained to and within sites developed for concentrated overnight and day use.

Proposals for the construction of additional park roads or the re-construction of existing roads will be subject to an assessment of their impact on the natural environment and on Aboriginal resources in the park.

Specific aspects of the access system of particular note are :

- * It is proposed that the access road to Putty Beach will be sealed.
- * The Hawke Head Road on Box Head, a public road vested in Gosford City Council, primarily serves visitors to the park. The Service will negotiate an agreement with the City Council to provide for the continued maintenance of the road.
- * Parking areas will be provided to serve visitors to remote localities viz :

Little Beach : on Grahame Drive
Maitland Bay : on Maitland Bay
Track Head.
Tallow Beach : at a site to be
investigated on
the Hawke Head road.
Lobster Beach: at a site on High
View Road.

Walking track access to these localities
will be provided from these car parks
at which, appropriate signs will be provided.

A further parking area will serve the
Killcare Heights Lookout.

The road access system is shown on the
accompanying MAP. There will be no
additions to the park road system over
the term of this plan except by amendment
to the plan.

All existing roads not mentioned in this
section and/or shown in the accompanying
MAP, will be closed to vehicular traffic
and revegetated.

(ii) Foot access

A small number of walking tracks are
provided to facilitate visitor access to
areas in the park.

Access on foot is also permitted on
management tracks which are, however,
closed to public vehicular use. Horses
will not be permitted in the park.

The demand or management needs for the construction of further walking tracks, particularly for educational purposes and in relation to the development of camping and picnic areas, will be kept under review.

The environmental impact of the location or construction of any proposed track, including its impact on Aboriginal and historic resources, will be assessed in the early planning stages of such a development.

The walking track system together with related vehicular access points, is shown on the accompanying MAP.

3. Zoning

As a means of conveniently summarising management objectives, strategies and practices for Bouddi National Park on a MAP, zoning of areas in the park for permissible uses has been adopted that :

- * recognises the importance of the bulk of the park for conservation purposes;
- * identifies certain areas for more intensive visitor use and/or the development of facilities, or as corridors for access.

Three such zones are delineated :

3.1 Natural Zone

For the purpose of this plan a Natural Zone is defined as an area of land that has a substantial proportion of natural plant and animal communities, together with minimal man-made developments or deliberate alterations to the landscape. The principal management aim in these areas is to maintain and where necessary restore the natural environment while at the same time providing appropriate opportunities for recreation, education and research. Facilities will be minimal and access by the public will be by foot. Where necessary to prevent environmental damage, restrictions will be placed on the use of areas within this zone.

This zone applies to approximately 75% of the land area of the park.

3.2 Special Natural Zone

For the purpose of this plan Special Natural Zones have particular environmental significance and are managed for their protection against uses which might adversely affect their scientific and conservation values.

No overnight camping or fires other than prescribed fire will be permitted in these areas.

This zone applies to approximately 23% of the land area of the park, and to the Marine Extension.

3.3 Development Zone

For the purpose of this plan a Development Zone

is an area which either receives heavy recreational use or is required for the erection of buildings and other major structures necessary for the management of the park.

A number of Development Zone areas are set aside as Special Purpose Areas. Public access to such areas may be restricted.

This zone applies to approximately 2% of the land area of the park.

3.4 Access Corridor

A notional Access Corridor zone is applied to all roads open to the public within Bouddi National Park. Beyond the edges of such roads and any Development Zone areas to which this may lead, Natural Zone management conditions apply.

The following TABLE indicates the locations of these variously zoned areas in the park and the types of facilities provided. It is intended for use in conjunction with the MAP accompanying the plan.

ZONE

AREAS AND FACILITIES

SPECIAL NATURAL ZONE

a. Maitland Bay

Access on foot; no camping.

Facilities include walking tracks, interpretive structures and other signs.

b. Marine Extension

The only facilities will be boundary markers on the northern and southern landward limits.

NATURAL ZONE

Access on foot; pack campsites and/or day use areas located at a number of areas within this zone :

a. Little Beach (pack campsite, day use area)

b. Tallow Beach (pack campsite, day use area)

c. Lobster Beach (day use area)

Facilities include walking tracks, pack campsites (a,b); picnic sites (a); interpretive structures and other signs (a,b,c).

DEVELOPMENT ZONE

a. General use

Road access; car camping and day use areas at the following locations :

1. Putty Beach (camping and day use)

2. Mount Bouddi (day use)

3. Maitland Bay (parking area)
Trackhead

ZONE

AREAS AND FACILITIES

DEVELOPMENT ZONE
(cont'd)

Facilities include: roads and parking areas (1,2,3); picnic sites (1,2); car camping sites (1); toilets (1,2); interpretive structures and other signs (1,2,3); lookouts (2).

b. Special purpose areas

Three such areas are delineated :

1. Ranger accommodation: 376
Scenic Road
2. Workshop and office: 232
Scenic Road
3. Field Study Centre: (pos-
sible site).

Road access to 1 and 2 is restricted; access to 3 will be foot only, except for servicing.

Facilities for 1 and 2 include domestic and works depot requirements. Facilities for 3 would include classroom, laboratory, power, water supply, walking tracks, and an associated parking area off Scenic Road.

ACCESS CORRIDOR

This applies to all roads open to the public within the park. Beyond these roads and any Development Zone areas to which they lead, Natural Zone management conditions apply. To the west of the Mount Bouddi Road, Special Natural Zone conditions apply.

ADMINISTRATION

Bouddi National Park will be administered from the Hawkesbury district office of the National Parks and Wildlife Service, located at Gosford.

The development of the Service's district administration will result in machinery, tools and other equipment being provided on a district basis with a major workshop located outside the park.

Limited storage and a minor workshop will be retained in the park for equipment required for day to day and emergency use. A small office will be included.

PLAN IMPLEMENTATION

In accordance with Section 81(4) of the National Parks and Wildlife, 1974, and notwithstanding anything in any other Act, no operations shall be undertaken within Bouddi National Park except in accordance with this plan.

The ENVIRONMENTAL IMPACT of all development proposals will continue to be assessed at all stages from planning to implementation, and any necessary investigations undertaken in accordance with established environmental assessment procedures.

The Scheme of Operations proposed in the plan constitutes the optimum development for Bouddi National Park considered to be consistent with its reservation and management as a national park. No term is therefore proposed for this plan of management. An ANNUAL REVIEW will, however, be carried out by the district office at the end of each financial year to compare performance for the year with the objectives and prescriptions laid down in this statutory plan of management. This will be undertaken as part of the annual review of district priorities and programmes, the DISTRICT BLUEPRINT REVIEW.

AMENDMENTS TO THE PLAN :

If, after adequate investigation, operations not included in the plan are found to be justified, either for the purposes of conserving the park's resources or in the public interest, this plan will be amended in accordance with section 75(8)(9) of the Act.

SUMMARY OF MANAGEMENT PROPOSALS :

As a guide to the orderly implementation of this plan, the management proposals set out previously in the Scheme of Operations are now summarised and ranked in the table that follows.

The priorities indicated relate only to the management of Bouddi National Park and must compete with other district priorities, and, in turn, regional and Service-wide priorities for funding and manpower allocations.

TABLE : SUMMARY OF MANAGEMENT PROPOSALS

A. Research/Inventory/Administration

PROJECT	TERM*	REFERENCE
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PRIORITY : HIGH

Inventory of natural resources relevant to management, concentrating on :

- | | | |
|--|---|----------|
| - Mapping of vegetation types | L | 1.1 |
| - Fauna survey of the park | C | 1.1 |
| - Fire histories | C | 1.3, 1.4 |
| - Mapping of occurrence of exotic plants | L | 1.1, 1.7 |
| - Measurement of abundance and impact of feral animals | C | 1.1, 1.7 |

Establishment and implementation of a programme to investigate visitor use and visitor impact.	C	2.1
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Investigation of the feasibility of for an Environmental Studies Centre for the district.	S	2.3
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Development and implementation of a fire management programme.	C	1.4
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Recording the occurrence of Aboriginal sites and relics.	C	1.2
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PRIORITY : MODERATE

Environmental and engineering assessment of the management track system.	S	1.5
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Feasibility study of re-establishment of coastal dune landforms.	L	1.9
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Evaluation of the seasonal interpretation programme.	M	2.2
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Monitoring of the revegetation of previously mined areas.	C	1.9
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* S - short term; L - long term; C - continuing

TABLE : SUMMARY OF MANAGEMENT PROPOSALS

B. Development/maintenance

PROJECT	TERM	REFERENCE
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PRIORITY : HIGH

Maintenance and protection of :

- | | | |
|----------------------------|---|---------|
| - special areas | C | 1.3 |
| - management tracks | C | 2.4 |
| - picnic and camping areas | C | 1.12 |
| - parking areas | C | 2.4 |
| - walking track system | C | 2.4 |
| - other structures | C | various |
| - other services | C | various |
| - roads | C | 2.4 |

Control of fire.	C	1.4
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Control of pest animal and plant species.	C	1.7
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Putty Beach

Stabilisation and re-vegetation	L	1.9
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Phasing out of van sites	S	2.4.1
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Provision of interpretive structures.	S	2.2
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Mount Bouddi

Renovate interpretive display.	S	2.2
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Maitland Bay Trackhead

Provision of interpretive structure.	S	2.2
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Lobster Beach

Design and development of day use area.	S	2.4
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TABLE : SUMMARY OF MANAGEMENT PROPOSALS

B. Development/maintenance (cont'd)

PROJECT	TERM	REFERENCE
<u>Tallow Beach</u>		
Design and development of pack camp-site and day use area; installation of toilets and signs. Stabilisation of previously mined areas.	S	2.4
<u>Maitland Bay Beach</u>		
Design and development of day use area with picnic facilities, toilets and signs.	S	2.4
<u>Highview Road</u>		
Provision of car park for access to Lobster Beach.	S	2.4
PRIORITY : <u>MODERATE</u>		
Revegetation of formerly mined areas.	C	1.9
<u>Mount Bouddi</u>		
Re-organisation of parking and picnic facilities.	S	2.4
<u>Workshop Area (232 Scenic Drive)</u>		
Provision of minor office with phone.	S	3.3
<u>Hawke Head road car park</u>		
Development of car park.	S	2.4
Provision of interpretive signs and wayside exhibits to serve visitors to Tallow Beach.	S	2.2
<u>Lobster Beach</u>		
Provision of interpretive facilities.	S	2.2

TABLE : SUMMARY OF MANAGEMENT PROPOSALS

B. Development/maintenance (cont'd)

PROJECT	TERM	REFERENCE
<u>Little Beach car park</u>		
Provision of interpretive facilities.	S	2.2, 2.4.2 (i)
<u>Maitland Bay Beach</u>		
Provision of interpretive signs and wayside exhibits.	S	2.2
<u>Maitland Bay track head</u>		
Removal of the Maitland Bay Store.	S	1.10
<u>Putty Beach</u>		
Sealing of access road.	S	2.
PRIORITY : <u>LOW</u>		
<u>Walking track system</u>		
Provision of interpretive signs,	S	2.2

TABLE : SUMMARY OF MANAGEMENT PROPOSALS

B. Development/maintenance (cont'd)

<u>PROJECT</u>	<u>TERM</u>	<u>REFERENCE</u>
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Walking track system (cont'd)

reference markers for self-guiding walks and wayside exhibits.

Maitland Bay track head

Provision of an interpretive structure. S 2.4.1

ACKNOWLEDGEMENTS

The assistance and advice of the following are gratefully acknowledged :

The Bouddi National Park Advisory Committee
Allen and Beryl Strom.

HISTORY OF DEDICATION

Bouddi National Park was originally a Reserve for Public Recreation under the Crown Lands Consolidation Act. It was notified on 5th July, 1935, and later defined as "Reserve No.65, 339 at Maitland Bay, area about 650 acres". Six trustees were appointed - three from the New South Wales Federation of Bushwalking Clubs and three from Erina Shire Council.

The early bushwalking community was largely responsible for having the area reserved. Of particular importance was the role of Miss Marie Byles who had walked through the area in 1922 and recognised its natural values and its potential for parkland. It was her enthusiasm which prompted the newly formed Federation of Bushwalking Clubs to recommend to the Department of Lands, in the early 1930's, the reservation of the lands north and south of Maitland Bay.

The recommendation was accompanied by an imaginative proposal of the National Parks and Primitive Areas Council, for the inclusion of all the coastal Crown lands from Wagstaff Point, through Box Head and Putty Beach (Killcare), to MacMaster's Beach. This proposal was not accepted by the Lands Department but the old reserve for coal, 20 chains (400 metres) wide, from Putty Beach to MacMaster's, was in fact reserved.

The first job of the trustees was to choose a name for the new reserve. They decided on "Bouddi Natural Park" - "Bouddi" being the authenticated Aboriginal name of the most prominent feature of the park, the headland on the eastern end of Maitland Bay; "Natural" being the way the trustees hoped to keep the area. A list of regulations for the management of the park were submitted to the Lands Department and approved.

The trustees set about acquiring additions to the park to make it more viable. In 1938, as a result of their efforts, 95 hectares were added - 23 hectares above Cave Creek and the remainder around Mount Bullimah and behind Maitland Bay. This was all vacant Crown land, within which - and fronting the Scenic Road- were two alienated portions that were to prove most difficult to acquire and were not in fact acquired until thirty years later.

In 1940, 18 hectares were added at the Putty Beach end of the park including a Crown subdivision of 38 portions. Much of this area was later mined for beach sands and is now used for camping, caravanning etc.

Apart from securing additions to the park, the trustees had another major problem - managing the area already in their care. There was no government financial assistance in those early days, hence no staff could be employed to police the regulations or carry out a works programme. A system of voluntary patrols was instituted, and all work on tracks, water supply, campsites etc., was done by voluntary labour.

An annual event in the bushwalking world was the Working Bee at Bouddi, organised by the Federation and held each May. Over a hundred people usually attended. The first government grant was received in 1948. It was a sum of £20 and was used to buy stamps and some letterhead, and to pay off a debt for materials supplied for the previous working bee. (It was not until 1960, that a sum of any significance was received - £1500, which enabled the trust to employ a ranger part-time).

The trustees were always mindful of the need to secure the entire catchment of Maitland Bay, if its natural and scientific qualities were to remain unspoilt. Proposals were submitted, and re-submitted, to the Lands Department

concerning several important portions fronting the Scenic Road and draining into Maitland Bay. The largest of these, "Scott's Portion" (98 hectares), was added in 1954 and the remaining portions were eventually acquired between 1968 and 1974. Portion 370, a vital 6 hectares, was finally secured from an antagonistic owner, by the chairman of trustees purchasing the land personally, then selling it at its "unimproved value" to the Department of Lands.

In 1957 the Trust accepted control of an area of reserved land (44 hectares) on the northern side of the Scenic Road. This was later added to the park on 12th June, 1959 when all existing reserves comprising Bouddi Natural Park were revoked and re-reserved for Public Recreation and the Promotion of the Study and Preservation of Native Flora and Fauna. In 1960, application was made to the Fauna Protection Panel for the park to be made a Wildlife Refuge. It subsequently had the distinction of being proclaimed "Wildlife Refuge No.1".

In 1965, a comprehensive proposal was submitted to the Department of Lands by the National Parks Association of New South Wales for the addition of reserved lands in the Killcare-Box Head region. Though unknown to the Association at the time, this proposal was in line with the very early submission of the National Parks and Primitive Areas Council. It was not until after the formation of the National Parks and Wildlife Service that the reserves on Box Head were added. The Putty Beach Reserves were not acquired because of local hostility to the park's Plan of Management which embraced the reserves as well as a lot of freehold land.

In 1967, the park (by then totalling 530 hectares) was dedicated under the National Parks and Wildlife Act and

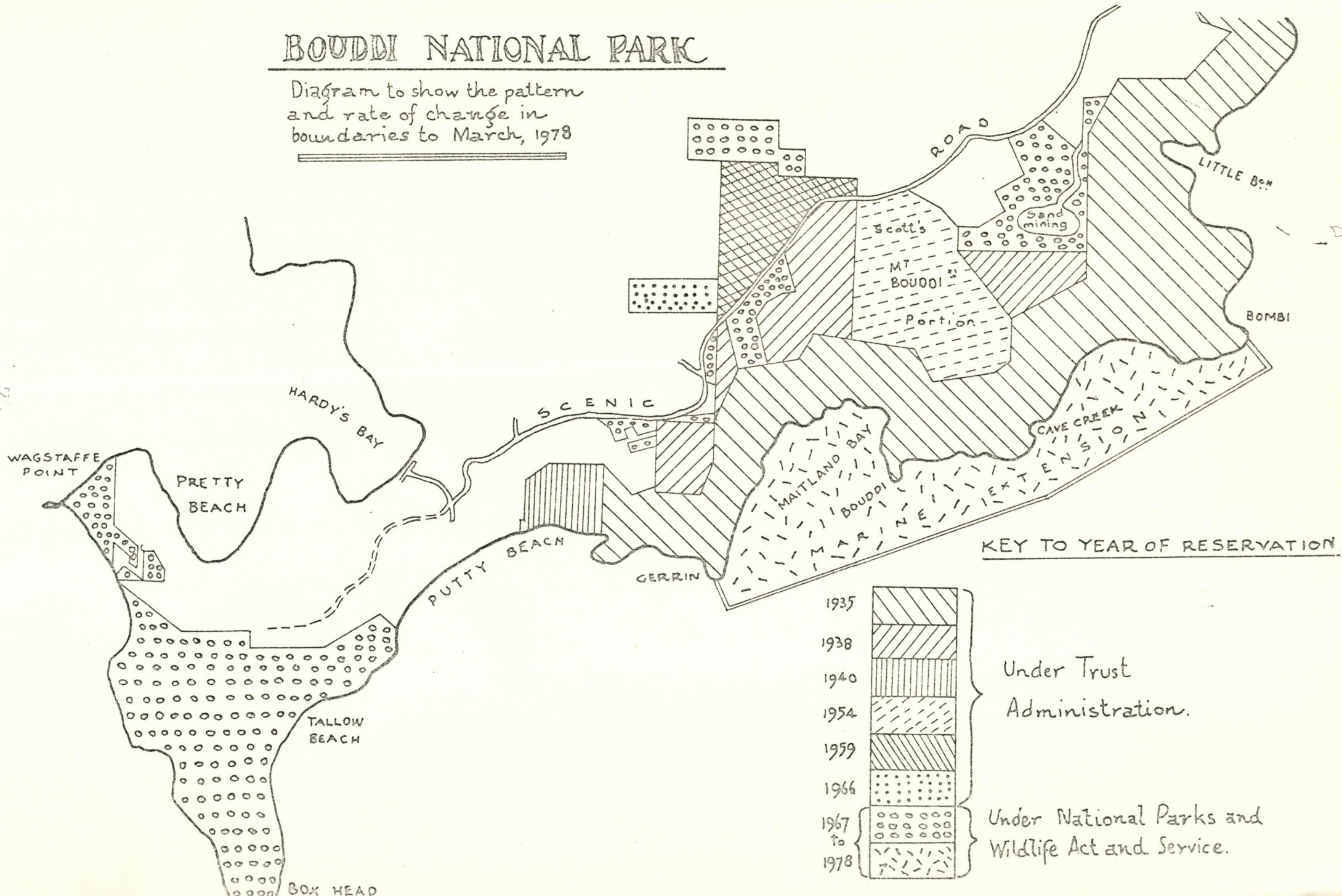
was re-named "Bouddi State Park". Dedication of the area would mean security of tenure, restriction on mining, greatly increased finance, improved administration - all of which was good news to the trust. Management of the park became the responsibility of the National Parks and Wildlife Service, and in May 1969 the trust was reconstituted as an advisory committee. It then had the job of keeping the Service "on its toes", seeing that old proposals were brought to fruition, and that new projects were what it considered to be in the best interests of management. Within the limits of its "advisory" role, the committee continues to play an active part in the administration of Bouddi.

Since 1967, the Service has effected many improvements to the boundaries of the park, especially with the additions on Box Head, and also around Little Beach where the most significant addition has been the unmined section (39 hectares) of the area known as "The Dunlop Estate". Regarding the reserved lands on Box Head, these were added in 1972 and totalled 177 hectares. The two areas under mining leases within the reserves (Tallow Beach and its access road) were secured in 1973 when the leases expired. The total area of parkland on Box Head was recently increased by the purchase of 26 hectares on the skyline by the National Parks and Wildlife Foundation.

On January 1st 1974, the new National Parks and Wildlife Act dispensed with the category of "state" parks (for smaller areas) and Bouddi was re-named "Bouddi National Park".

BOUDDI NATIONAL PARK

Diagram to show the pattern and rate of change in boundaries to March, 1978



KEY TO YEAR OF RESERVATION

- 1935
- 1938
- 1940
- 1954
- 1959
- 1966
- 1967 to 1978

Under Trust Administration.

Under National Parks and Wildlife Act and Service.

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