

CROWDY BAY NATIONAL PARK
PLAN OF MANAGEMENT

National Parks and Wildlife Service New South Wales

December, 1987

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FOREWORD

Crowdy Bay National Park is an important conservation area on the coast of New South Wales. Major features associated with the park are Diamond Head, Watson Taylors Lake and two long ocean beaches, Dunbogan Beach and Crowdy Beach, backed by heath plains.

Crowdy Bay National Park has significant natural and cultural values. With its nineteen kilometres of coastline, frontage to Watson Taylors Lake and its beautiful natural setting, the national park is also important for human inspirational and recreational use.

In the management of a national park as popular as Crowdy Bays there are some inherent conflicts between the protection of its conservation and cultural values and the provision of opportunities for recreational, educational and scientific pursuits.

This plan of management attempts to meet the objectives of management for the national park in the fairest manner possible. This is possible after consideration not only of the character of Crowdy Bay National Park itself, but also the regional patterns of recreation and other uses appropriate to a national park.

The plan of management sets out the scheme of operations for the park. Its implementation will provide for the appropriate use of Crowdy Bay National Park and for the continued protection of its outstanding natural and cultural features.

In accordance with the provisions of Section 75 of the National Parks and Wildlife Act, 1974 this plan of management is adopted.

BOB CARR
MINISTER FOR PLANNING AND ENVIRONMENT.

10 DEC 1987

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SYNOPSIS

Crowdy Bay National Park is located on the mid-north coast of New South Wales, some 25 kilometres north-east of Taree. The park was reserved in 1972 and it extends from Crowdy Head/Harrington in the south to Dunbogan/Laurieton in the north.

The park contains many important features including Diamond Head, long ocean beaches backed by heath plains and the southern foreshores of Watson Taylors Lake. The National Parks and Wildlife Service will manage the park to protect its natural and cultural qualities for the enjoyment and benefit of present and future generations.

Existing visitor facilities at Diamond Head, Indian Head and Dunbogan Beach will be retained. The facilities at Kylies car park will be upgraded to provide for a rest area and camping. New facilities will be provided at Humbug Point on the shores of Watson Taylors Lake. New facilities will also be developed at Abbey Creek and in the vicinity of Crowdy Gap. Mermaid and Fig Tree Picnic Areas will also be improved.

To assist visitors to view the wildflowers which are one of the popular features of Crowdy Bay National Park, two new wildflower walking tracks will be constructed: one in the vicinity of Watson Taylors Lake and the other south of Diamond Head.

Provision is made for public vehicular access to key points within the park. One section of the Crowdy Beach hind dune road will be closed between Fig Tree and Abbey Creek to prevent it becoming a through road. Picnic areas will be provided at both Fig Tree and Abbey Creek.

The use of recreational vehicles on beaches within the park will be phased out. The co-operation of the Crown Lands Office, Greater Taree City Council and Hastings Municipal Council will be sought.

The plan also provides for the management of the park environment, especially such aspects as flora, fauna, soils, water, fire and Aboriginal and historic sites.

1. INTRODUCTION

The National Parks and Wildlife Act, 1974, requires that a plan of management be prepared for each national park. A plan of management is a legal document which outlines how a national park will be managed in the years ahead. It can be revised and rewritten if necessary to accommodate changes in management practices. Any such amendment will be placed on public exhibition.

The procedure for the preparation of a plan of management is specified in the Act and involves five stages, namely:

The Director gives notice that a plan of management has been prepared.

The plan is published and placed on public exhibition for at least one month and 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 consideration.

The Director submits the plan and the Council's report on the public representations to the Minister.

The Minister may adopt the plan after considering the comments of the Advisory Council or he may refer the plan back to the Director and Council for further consideration before adoption.

A plan of management for Crowdy Bay National Park was placed on public exhibition from the 21st October, 1983, until 4th February, 1984. The period of exhibition was considerably longer than the statutory period of one month in recognition of the public interest in the management of Crowdy Bay National Park.

The response from the general public and other bodies was considerable. The public submissions raised 81 different issues concerning the management of Crowdy Bay National Park. This final plan of management has taken into consideration the public response to the exhibited plan.

For simplicity, much background information has been omitted from the plan. Anyone who would like additional information can refer to the exhibited plan of management for Crowdy Bay National Park. Alternatively, they are welcome to contact the Port Macquarie District Office of the National Parks and Wildlife Service where a copy of the exhibited plan of management is available.

The Regional Office (Northern Region) and District Office (Port Macquarie District) can be contacted at the following addresses:

Port Macquarie District
National Parks and Wildlife
Service
'Roto'
Port Macquarie Nature Reserve
Everard Street (P.O. Box 61)
PORT MACQUARIE, 2444

National Parks and
Wildlife Service
Northern Region
50 Victoria Street
(P.O. Box 97)
GRAFTON, 2460

2. MANAGEMENT CONTEXT

2.1 NATIONAL PARKS IN NEW SOUTH WALES

The national park concept was introduced into Australia through the establishment of Royal National Park in 1879, only seven years after the world's first national park was created at Yellowstone in the United States of America.

For the purposes of preparing plans of management, the 1978 International Union for the Conservation of Nature and Natural Resources (IUCN) definition of a national park has been adopted in New South Wales.

'A national park is a relatively large area; (1) where one or several ecosystems are not materially altered by human exploitation and occupation, where plant and animal species, geomorphological sites and habitats are of special scientific, educative and recreative interest or which contains a natural landscape of great beauty; and (2) where the highest competent authority of the country has taken steps to prevent or to eliminate as soon as possible exploitation or occupation in the whole area and to enforce effectively the respect of ecological, geomorphological or aesthetic features which have led to its establishment; and (3) where visitors are allowed to enter, under special conditions, for inspirational, educative, cultural and recreative purposes.'

National parks are a part of the regional pattern of land use. The management of a national park aims at minimising disturbance to natural and cultural resources. Other land uses (e.g. agriculture, forestry and mining) are distinguished by an acceptance or encouragement of environmental modification. National parks, therefore, provide for only a limited part of the range of land uses in any region.

2.2 CROWDY BAY NATIONAL PARK

2.2.1 LOCATION AND REGIONAL SETTING

Crowdy Bay National Park was reserved in 1972 and at present contains 7,412 hectares of coastal land on the mid-north coast of New South Wales. It is approximately 250 kilometres north of Sydney, 25 kilometres north-east of Taree and 35 kilometres south of Port Macquarie. The park extends from the coastal villages of Harrington and Crowdy Head in the south to near Laurieton and Dunbogan in the north (see Map 1).

The establishment of Crowdy Bay National Park was originally recommended by the Committee of Enquiry on Differences and Conflicts Between Interests of Parks and Conservation Authorities, Scientific Bodies and Mining Companies (called the Committee of Enquiry or Sim Committee).

The Service systematically investigated the Sim Committee's proposals and the initial reservation of the park was notified in the Government Gazette on 15th December, 1972. The Service has followed a programme to extend the park and improve the boundaries to cater for conservation, recreation and landscape preservation. This programme is continuing. In 1979 Interim Development Orders for the then Manning and Hastings Shire Councils were gazetted to provide for two new zones - 'Existing National Parks' and 'Proposed National Park' following a decision by the Government to extend the park.

Port Macquarie and Taree have traditionally been popular tourist destinations and are located in the rapidly growing mid north coast area of New South Wales. The conservation of the resources of Crowdy Bay National Park will become increasingly more important to the community as time passes.

2.2.2 THE IMPORTANCE OF CROWDY BAY NATIONAL PARK

Crowdy Bay was reserved as a national park because of its many important features. These include:

- **SCENERY** the rock headland of Diamond Head, the sweeping Dunbogan and Crowdy Beaches, the sand plains and associated wetlands, and the foreshores of Watson Taylors Lake.
- **NATURAL FEATURES, COMMUNITIES AND LANDMARKS** the extensive freshwater wetland system on the sand plain with wet and dry heath communities, the southern known limit of Eucalyptus planchoniana and remnants of littoral rainforest.
- **NATURAL PROCESSES** the evolution of Pleistocene and Holocene sand ridges, the on-going processes of coastal erosion and the changes in plant communities after fire.
- **CULTURAL RESOURCES** the presence of Aboriginal middens up to 6,000 years old, the exploration of the area by John Oxley in 1818 and the association of the area with the author Kylie Tennant.
- **RECREATION AND TOURISM** the suitability of parts of the area for recreation and appreciation associated with the beach and the natural features.

3. OBJECTIVES OF MANAGEMENT

The following general objectives relate to the management of national parks in New South Wales:

The protection and preservation of the scenic and natural features;

The conservation of wildlife;

The maintenance of natural processes as far as possible;

The preservation of Aboriginal sites and historic features;

The provision of appropriate recreational opportunities;

The encouragement of scientific and educational enquiry into environmental features and processes, prehistoric and historic features and park use patterns.

In respect of Crowdy Bay National Park, the following specific objectives apply in addition to the general objectives referred to above:

The establishment of a fire regime consistent with maintaining plant diversity in both heath and woodland areas.

The rehabilitation of areas subject to previous mineral sands mining to as close to their natural condition as possible.

Containment of bitou bush and its elimination where practicable pending developments in biological control programmes.

The cessation of illegal grazing of livestock.

The protection of geomorphological features such as Diamond Head and significant frontal parallelism of the sand dunes.

The protection of the freshwater wetland system including Blackfellows Bog and remnant stands of littoral rainforest at Crowdy Gap and Diamond Head.

The provision of low key camping and day use facilities associated with recreational usage of the beachfront and appreciation of the natural and cultural resources of the park.

4. POLICIES AND FRAMEWORK FOR MANAGEMENT

This section contains the policies and framework for management of Crowdy Bay National Park together with relevant background information. Policies are summarised under the following headings:

natural resources;
 cultural resources; and
 the provision of appropriate recreation opportunities.

The policies established in this plan of management will provide the framework for management consistent with anticipated resources available to the Service and anticipated community trends for the next 5 to 10 years. The actions identified are those immediate proposals which are to be undertaken in the next five years. Other management actions may be developed over the life span of this plan consistent with the policies set out in the plan.

4.1 NATURAL RESOURCES

Crowdy Bay National Park offers a considerable variety of natural features which are the source of much of the park's appeal. The park was established to protect these natural assets for the benefit of the community.

4.1.1 SCIENTIFIC AREAS

The Committee of Enquiry identified three Scientific Areas in Crowdy Bay National Park as areas of special significance for nature conservation and scientific study purposes. These three areas are:

Scientific Area No.1 sampling heath communities over old strand lines south of Diamond Head illustrating the fine ecological balance reflected in significant changes in heath communities over very slight differences in topography.

Scientific Area No.2 comprising Blackfellow's Bog, a significant freshwater wetland.

Scientific Area No.3 comprising the southern known limit of Eucalyptus planchoniana.

Policy

The three Scientific Areas identified in the Committee of Enquiry report will be managed with an emphasis on scientific research and environmental monitoring.

4.1.2 LANDFORMS

The park's landscape is a significant feature of the area and an important management consideration. A major landmark along the 20 kilometres of coastline within the park is Diamond Head, first named Indian Head by Captain James Cook in 1770. The headland is primarily the result of volcanic activity which occurred along the eastern coast of Australia during the Tertiary era. The volcanic activity resulted in a deformation of the existing geological beds and the emplacement of large intrusions along zones of weakness. Examples of these intrusions can be seen in the 'Three Brothers' mountains to the north, west and south of Diamond Head. Diamond Head is also the result of an intrusion and it was completely overcapped by flows of volcanic lava.

The subsequent cooling, contraction, weathering and erosion of Diamond Head has produced interesting natural features which include arches, columnar jointing and plugs of resistant volcanic rock. Weathering of the volcanic rock has exposed some interesting geological material in some areas. Highly reflective quartz crystals in certain rocks on the northern slopes are thought to be responsible for the later naming of the headland as Diamond Head.

Policy

Diamond Head will be managed as a National Landmark in view of its significance as a geological site illustrating Tertiary vulcanism, to protect its natural features and provide opportunities for interpretation, education, research and public appreciation.

4.1.3 SOILS

The soils of the park consist mostly of unconsolidated and podsolised sandy soils of Holocene and Pleistocene origin. However, additional soil types have developed at Diamond Head because of the overflow of volcanic rhyolitic lava during the Tertiary Period and others where Triassic sedimentary rocks outcrop along the western perimeter of the park.

The stability of the various soil types is important for the long term maintenance of the plant communities and fauna of the park. The majority of the park's soils are vulnerable to erosion and many have been disturbed by sand mining and other human agencies. Hence, the protection of the area's soils will be given priority. Erosion of the sea cliff faces around Diamond Head and the beaches is regarded as natural.

Policy

Given the extent of soil disturbance by past human activities, attention will be given to preserving remaining undisturbed soil profiles illustrating the formation of podzols on sand plains.

The frontal parallel sand dune systems will be protected from any disturbance which may derogate from their geomorphological significance.

Areas vulnerable to soil erosion including the rhyolitic soils of Diamond Head and pedestrian beach access points will be protected.

Actions

All development works will be directed away from potentially unstable sites. The remainder of the park will be monitored for the control of erosion.

New developments will be assessed to avoid adverse impacts on soils.

4.1.4 WATSON TAYLORS LAKE

Watson Taylors Lake adjoins the north-western boundary of the park. The lake covers an area of about 13 square kilometres of shallow water with an average depth of 1.0 to 1.3 metres. Four of the small islands within the lake retain natural vegetation. Being shallow, the lake does not lend itself to pleasure boating. Its value as a waterfowl refuge is thereby enhanced. The visual appeal of the lake, especially the uncommon digitate delta at the outlet of the Camden Haven River, together with wildlife and the estuarine ecology, make this lake an important feature adjacent to the park. The Service will seek to protect the conservation values of Watson Taylors Lake and the associated Crown land islands.

4.1.5 FLORA

Even though much of the park's soils are of poor nutrient value, the plant communities that grow there are diverse, complex and exist in a dynamic state. There are several vulnerable communities that must be protected from disturbance. The dependence of some communities on existing water tables within the park must also be considered.

Heath communities occur in the park on low, undulating sand ridges and plains which are interspersed with swamps. They are usually less than two metres high and contain a dense cover of small-leaved shrubs and sedges with some herbs and grasses. The dominant families are Myrtaceae, Epacridaceae, Rutaceae, Cyperaceae, Restionaceae, Proteaceae, and Xanthorrhoeaceae. Two distinct types of heath, 'wet' and 'dry', are represented. Both types are a major park attraction because of their spectacular spring wildflower displays.

Woodland and open forest communities are also found in the park. Of special interest are the hind dune woodlands of blackbutt (*Eucalyptus pilularis*) and needlebark (*E. planchoniana*). The stands of needlebark within the park are the most southern known occurrences of this species in eastern Australia.

Significant stands of littoral rainforest once existed in the park on coastal dunes between Diamond Head and Harrington. Unfortunately, they have been largely destroyed by the combined effects of grazing, fire and sand mining. Remnant stands now remain at Crowdy Gap, Diamond Head and the beach north of Diamond Head.

Other plant communities, from grasslands to saltmarsh and mangrove forests, add to the diversity and scientific value of the park's environment. Blackfellows Bog, for example, which was mentioned in the Sim Committee's report, contains a wealth of palynological material which will allow scientists to reconstruct the many vegetative and climatic changes that have occurred over the last several thousand years in the Crowdy Bay area.

Policy

Diversity of species and age classes of vegetation will be maintained by fire management, and by any necessary additional protective measures in the case of significant plant communities of limited distribution, such as littoral rainforest, *Eucalyptus planchoniana* woodland and estuarine communities adjacent to Watson Taylors Lake.

Actions

A vegetation map will be prepared.

Disturbance to known habitats of endangered species by park visitors and in the course of management will be avoided.

The collection of native flora will be strictly prohibited except for scientific and educational purposes approved by the Director.

Areas damaged by mining, gravel extraction, uncontrolled vehicle use and other land uses will be rehabilitated utilising local genetic material other than the use of sterile cover crops known to not have detrimental long term effects.

4.1.6 FAUNA

The fauna of Crowdy Bay National Park is diverse, with more than 200 species of reptiles, birds and mammals known to occur.

Heath areas within the park are important for animals because they offer both dense cover and many flowering plants. The flowering plants are a particularly rich food source for many bird and insect species over the springy early summer and winter periods.

A rich and varied bird life is a major feature of Crowdy Bay National Park and a number of uncommon and rare species have been recorded. They include the Jabiru or Black Necked Stork (Xenorhynchus asiaticus), Pacific Baza (Aviceda subcristata), Tawny Grass Bird (Megalurus timoriensis) and the Wompoo Pigeon (Ptilinopus magnificus). Both the Little Tern (Sterna albifrons) and the Pied Oyster Catcher (Haematopus longirostris) also occur in the park. Breeding sites for these two species are expected to occur within the park from time to time in certain areas above the mean high water mark.

There is also suitable habitat in the park with the potential to support populations of another endangered species, the Ground Parrot (Pezoporus wallicus). The presence of this bird within the park has yet to be confirmed.

The mammalian fauna of Crowdy Bay National Park is, for the most part, typical of the of north coast of New South Wales.

Policy

Habitat requirements of rare or endangered flora and fauna occurring within the park will be determined to provide the basis for management action to ensure the survival of small populations.

Waterfowl and wader feeding and nesting grounds in the area of Watson Taylors Lake will be protected from disturbance.

Actions

The collection of native fauna will be strictly prohibited except for scientific and educational purposes approved by the Director.

Disturbance of known habitats of endangered species by park visitors and management will be avoided.

Research and management programmes will be carried out to assist the survival of endangered species and the ecosystems on which they depend.

4.1.7 NON-NATIVE FLORA AND FAUNA

Non-native flora and fauna generally have a detrimental impact upon the natural condition of a national park.

Bitou bush is an introduced plant from South Africa which has become well established within the park. It is a threat to native plant and animal communities. Because of the magnitude of bitou bush invasion along the northern New South Wales coastline, long-term control will take necessarily the form of biological control.

Policy

Experimental control of bitou bush will be continued in Crowdy Bay National Park to maintain Diamond Head free of bitou bush.

The control of non-native species will be based upon methods which have the least impact on the park environment. The introduction of new species will be tightly controlled and restricted to biological control purposes.

Dogs, cats and other domestic animals are not allowed in the park except:

where a guide dog is taken into the park by a blind person;

where the consent of the Director has been obtained; horses as provided for under 'Horse Riding'.

In conjunction with other authorities and agencies, the Service will investigate initiating a biological control programme for bitou bush as part of an overall programme for the New South Wales north coast.

The occurrence of lantana (Lantana camara) in the park will be monitored.

Action

The exotic pine trees planted in the park prior to reservation will be removed after consultation with the Forestry Commission.

4.1.8 WATER QUALITY

The Service will aim to ensure that the various water bodies in Crowdy Bay National Park are maintained in as natural and unpolluted a state as possible.

Policy

Ensure the maintenance of the existing quantity and quality of the ground water regime to protect wetland systems and associated plant community.

Actions

The siting and provision of new or proposed facilities within Crowdy Bay National Park will be assessed with regard to their impact on nearby hydrological systems.

The quality of water for human and wildlife consumption will be monitored.

4.1.9 GRAZING

Illegal grazing is a problem in the park. Past grazing and related practices involving fire have damaged the park. Cattle can be a major cause of dune destabilisation and they are believed to be one of the agents which have contributed to the spread of bitou bush.

Policy

The Service will strictly enforce the prohibition on the grazing of livestock in the park.

Actions

Livestock grazing within the park will be prohibited.

Where stock are found in the park, they will be impounded as soon as practicable.

4.1.10 BEE KEEPING

European honeybees compete with native animals, particularly native bees, honeyeaters and small mammals. At present there are no bee hives in Crowdy Bay National Park.

Policy

European honeybee hives will not be allowed to be placed in the park.

4.1.11 MINING AND GRAVEL EXTRACTION

Mineral sand mining commenced within the park area in 1959 immediately south of Diamond Head. It continued in various areas of the park up to 1982. Humbug gravel quarry is situated within the park north west of Diamond Head. This quarry has been used as a source of gravel to maintain that section of the Diamond Head to Dunbogan Road within the park, as well as roads maintained by the National Parks and Wildlife Service which provide access to facility areas. Alternative gravel sources are some distance from the park, making their use in place of the existing gravel quarry an expensive exercise.

Policy

Humbug gravel quarry will continue to be available for the maintenance of roads solely within the park.

No new gravel quarries will be opened and gravel required for use within the park other than that obtained from Humbug gravel quarry will be obtained from quarries located outside the park.

The further extraction of sand, clay, rock, gravel or any similar substance will not be permitted within the park, except for scientific purposes and approved through the environmental impact assessment procedures or authorised by the issue of a scientific licence.

Action

The utilisation of the gravel resources at Humbug quarry by the Service shall be subject to the following:

the preparation of a review of environmental factors;

the preparation of a working plan for the quarry which provides for progressive rehabilitation;

alternative suitable sources of gravel not being available outside the park within a reasonable distance.

4.1.12 FIRE MANAGEMENT

Fire is an important factor in the park environment. It is responsible for much of the inherent dynamics of the plant communities, particularly the heathlands.

The Service believes that the best protection for urban areas adjoining the park will come from sound planning by councils. By virtue of a circular issued under the Environmental Planning and Assessment Act, 1979, councils are required to carefully consider the hazard from bushfires when preparing local environmental plans. The Service is ready to assist in local environmental planning to minimise the risk of wildfire to adjoining urban communities.

The Service will take all practicable steps to prevent the occurrence of fires on the park.

Policy

The management of fires will seek to ensure the protection of human life and property, the maintenance of species and habitat diversity, the protection of rare species and communities of special significance, the protection of cultural resources and the protection of capital assets and recreation facilities in the park.

Actions

Records of fire occurrences in the park will be maintained.

Periodic prescribed burning will continue to be implemented to reduce fire hazards, especially threats to the villages of Harrington and Dunbogan.

Fire prescriptions for the various plant communities and faunal habitats within the park will be developed.

Close liaison will be maintained with councils, other land use authorities and park neighbours in order to attain co-operative fire management and protection.

The impact of fire on native plant and animal communities of the park will be monitored.

4.2 CULTURAL RESOURCES

Crowdy Bay National Park contains evidence of past human activities. Until the mid-nineteenth century, the area was part of the territory of the Ngamba tribe of Aborigines. The most noticeable signs of past Aboriginal activity in the park are shell middens, the oldest of which probably date from about 6,000 years ago when the present sea level was established. Shells, hooks, stones with worked edges, axe heads and other articles have been recorded from the middens. This evidence provides a valuable insight into past lifestyles, traditions and interactions with the environment.

Aboriginal sites known within the park are recorded in the Service's Site Register held at the Port Macquarie District Office. Although many prehistoric sites within the park have been destroyed by past human activities, some undisturbed sites remain.

Activities, and uses within the park since European settlement have included several residences. A small hut which was owned by Australian author, Kylie Tennant, is located within the park. This hut and the surrounding land was donated to Crowdy Bay National Park by Kylie Tennant in 1976 and is an important aspect of the early history of the Diamond Head area.

Policy

Aboriginal sites will be protected from disturbance and the Service will liaise with Aboriginal communities in the management of sites.

Kylies Hut at Diamond Head associated with the author Kylie Tennant will be conserved as a significant European cultural site.

Actions

Development and interpretation projects related to Aboriginal sites will be subject to the Service's environmental impact assessment procedures and liaison with local Aboriginal communities.

Recording and preservation or collection of artifacts will be carried out by District staff when the material concerned is liable to disturbance by natural or human agencies.

4.3 RECREATIONAL OPPORTUNITIES

Crowdy Bay National Park provides a range of recreational experiences which complement those provided in nearby towns and villages, and in the region generally.

The combination of an excellent climate, a rich endowment of natural resources and easy access provides a wide range of opportunities for passive recreation. Activities based on the park's natural resources and features include picnicking, camping, surfing, fishing, walking, car touring, boating, photography and sightseeing.

Policy

The Service will encourage low key non-disturbing recreational use and appreciation of Crowdy Bay National Park by day visitors, campers and walkers. Recreational opportunities will be focussed on the beach and the natural features of the park.

The following facilities will be provided in relation to the management of recreation in Crowdy Bay National Park:

4.3.1 VEHICULAR ACCESS

The roads serving the park are shown on the map included in this plan.

The Dunbogan to Diamond Head Road

This road provides access to the park from the north. The Dunbogan to Diamond Head Road is a public road which is not part of the national park. It is the responsibility of the Hastings Municipal Council. The Service will confer with Council and encourage the upgrading of this road by Council.

The Coralville to Diamond Head Road

This road provides access to the park from the Pacific Highway to the western side of the park. The road is a public road and it is the responsibility of the Greater Taree City Council. The Service will confer with Council and encourage the improvement of this important access road by Council.

The Coralville/Crowdy Head Road

Tenure of the Coralville to Crowdy Head Road can be divided into three sections. The section between Coralville and the western boundary of the park is a designated public road and as such is the responsibility of the Greater Taree City Council. The section crossing the park is an unreserved public road and is, therefore, the responsibility of the Service. A section between the south eastern park boundary and the village of Crowdy Head traverses privately owned land and is also an unreserved public road. This land is zoned 8(b) National Park Extension and will be acquired eventually and included in the park.

The Service will confer with the Greater Taree City Council with a view to Council accepting responsibility for the Coralville/Crowdy Head Road. The Service will encourage Council to seek its reservation as a public road on the basis of Council's request for the road to remain available is an alternative flood free access for residents of Crowdy Head village.

Decisions about vehicular access within a national park may have more lasting and far-reaching effects than any other management decision. Patterns of use may result from these decisions which are harmful to the natural and cultural resources of the park and difficult to alter. Accordingly, vehicular access within Crowdy Bay National Park has been very carefully considered bearing in mind the 'Objectives of Management' .

When driving within the park, it is an offence for a person to deviate from an existing road or track so as to establish or assist in the establishment of any additional road or track.

Policy

The Service will provide a road access system within the park to enable visitors to enter the park and gain access to visitor facilities. The Service will not permit the use of vehicles beyond the designated road access system and on beaches.

Actions

The Crowdy Beach Hind Dune Road

The section of this road providing access to the Fig Tree Parking Area from the north will be retained.

The remaining section between Fig Tree Parking Area and the proposed picnic area at Abbey Creek will be closed and rehabilitated.

Humbug Point Road

This road will be retained and gravelled to service the Humbug Gravel Quarry. It will in due course be extended to the proposed facilities at Humbug Point.

Sandy Point Road

This road will remain open but facilities will not be provided nor will the road be upgraded.

Management tracks

In addition to the public vehicular access system, a system of management tracks will be maintained to provide access for essential management operations.

Actions

No new permanent management tracks will be constructed within the park.

Only vehicles authorised by the District Officer-in-Charge may use the management track system.

Taylor's Point Road

This road will be closed and used only as a fire trail.

Beach vehicle access

There is an increasing expectation in the community that beaches in national parks should be vehicle free.

Actions

Dunbogan Beach

In consultation with the Crown Lands Office and Hastings Municipal Council, the Service will manage Dunbogan Beach as a vehicle-free beach. Road access and visitor facilities will continue to be provided behind Dunbogan Beach.

The launching of small boats off Dunbogan Beach near Diamond Head Rest Area for recreational fishing will be permitted to continue. Vehicles and trailers used for this purpose will not be permitted to park on the beach but will be required to park in the car park provided.

Use of the remainder of Dunbogan Beach by vehicles will be restricted to emergency purposes and licenced professional fishers engaged in beach netting activities.

Crowdy Beach

Crowdy Beach will remain open to vehicular traffic until the proposed hind dune access and picnic facilities are provided at Abbey Creek and the south-eastern park boundary. It will then be restricted to vehicle use for licensed professional fishers engaged in beach netting activities and for emergency purposes.

4.3.2 CAMPING AND PICNICKING

A range of camping and picnicking facilities will be provided within the park to encourage visitors to experience and enjoy the park.

Policy

Vehicle-based camping will only be permitted in rest areas.

Camping on a long term basis will not be permitted. The current maximum stay is 6 weeks. This period may be altered by the Service to increase visitor numbers camping in rest areas.

The Service will prepare detailed designs for the management of visitor facilities which may identify the maximum capacities for each area and identify appropriate environmental constraints.

Visitor facilities for camping and picnicking will be provided centred on the main recreational features, namely the beachfront, Diamond Head and Watson Taylors Lake.

Actions

Diamond Head Rest Area will cater for picnicking and camping.

Indian Head Rest Area will cater for picnicking and camping.

Kylies Hut Rest Area will provide for walk in picnicking and camping.

Kylies Beach Rest Area will be redeveloped to provide for picnicking and camping in areas not subject to low level radioactivity in tailings from the former heavy mineral sands separation plant.

Humbug Point Rest Area adjoining the eastern side of Watson Taylors Lake will be developed to provide picnicking, camping and walking tracks.

Blackbutt, Cheese Tree and Geebung Picnic Areas will provide for day picnicking and pedestrian access to Dunbogan Beach.

Improved parking and basic picnic facilities for Mermaid and Fig Tree Picnic Areas will be provided.

Additional parking areas, with pedestrian beach access, may be provided between Kylies Beach Rest Area and Fig Tree Picnic Area.

Visitor facilities will be developed at Abbey Creek and on the south-eastern boundary of the park.

COOKING.AND CAMPFIRES

Policy

The lighting or use of any campfire in the park is subject to the Bush Fires Act,1949, and any additional restrictions which may be imposed by the Director at any time under the By-laws pursuant to the National Parks and Wildlife Act.

The use of portable gas, liquid or solid fuel stoves will be encouraged as an alternative to wood fires.

No wood fire may be lit or used on any roadside or at any picnic area, rest area or walk-in camping area except in a fireplace provided for that purpose by the Service.

4.3.3 FISHING

The Service acknowledges that professional fishing is a traditional use of the beaches and reasonable access will be provided to Crowdy and Dunbogan Beaches for this activity. To this end the Service will continue to provide access to these beaches for the use of licensed professional fishers carrying out traditional ocean beach netting.

Policy

Recreational and professional fishing will be permitted in the park subject to the provisions of the Fisheries and Oyster Farms Act, 1935, and to the provisions of this plan concerning vehicle access and the provision of facilities.

4.3.4 WALKING TRACKS

Walking is a popular recreational use of Crowdy Bay National Park. The provision of walking tracks is a means of encouraging and facilitating access to the outstanding features of the park.

Policy

Walking tracks will be developed in the vicinity of Watson Taylors Lake and in heath south of Diamond Head to provide an interpreted opportunity for visitors to appreciate the natural features of the park.

Formal pedestrian beach access routes will be established for access to Crowdy Beach.

Action

A spring wildflower walk will be provided in the vicinity of Watson Taylors Lake.

A Christmas bell walk will be provided south of Diamond Head.

Walking tracks will be monitored to prevent erosion.

4.3.5 HORSE RIDING

Horse riding is an appropriate form of access to, and use of, parts of Crowdy Bay National Park. However, horses have the potential to cause unacceptable impacts such as initiating or contributing to soil erosion and the introduction of weeds. As well, the riding of horses on walking tracks can have undesirable and unacceptable social impacts by diminishing walkers' enjoyment of the park.

Policy

Horse riding will only be permitted in the park on the public road and management track system and on the inter-tidal zone. Horse riding will not be permitted in other areas.

4.3.6 HANG GLIDING

There is currently one site at Diamond Head which is popular for the launching of hang gliders within the park. Access is by walking only.

Policy

Subject to prior authorisation from the District Officer-in-Charge and subject to any conditions specified, hang gliding will be permitted in the park.

4.3.7 AIRCRAFT

The use of ultra light aircraft on the park's beaches and over the park has caused noise pollution and affected the passive enjoyment of the park by visitors. The Service has no control over the use of airspace over a national park but it has full control over the landing of aircraft in the park.

Policy

No private or commercial aircraft, including ultra-light aircraft will be permitted to land at any location within the park, except in emergencies or for management purposes approved by the Service.

4.3.8 PROMOTION OF THE PARK

The Service will provide a range of information to the public about Crowdy Bay National Park. This information will initially be available in the form of brochures and information sheets to assist the general community and visitors to the park.

Policy

A range of information including brochures and broadsheets will be provided to help people understand and appreciate the importance of Crowdy Bay National Park, and to enjoy their visits to the park.

5. PRIORITIES FOR IMPLEMENTATION

This plan of management is part of the system of management developed by the Service. The system includes the Corporate Plan, the National Parks and Wildlife Act, Management Policies and established conservation philosophy. It includes District programming.

The orderly implementation of this plan of management will be based on the Services' annual district programmes. These summarise the resources to be managed and assign priorities to the tasks identified as necessary throughout each District. The priority of works will be determined during the preparation of these programmes and will be subject to funding, staff and any special requirements of the Minister and/or Director. As a guide to the orderly application of the provisions of this plan, the management works, and their expected completion date are summarised below.

District programmes will be reviewed annually and performance for the year compared with objectives laid down in 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.

Under Section 81 of the National Parks and Wildlife Act, 1974, this plan shall be carried out and given effect to by the Director and no operations can be undertaken within Crowdy Bay National Park except in accordance with the plan. However, if after adequate investigation, operations not included in the plan are found to be justified, this plan will be amended in accordance with Section 76(6) of the Act.

ACTIVITY	YEARS FROM DATE OF PLAN
Prepare vegetation map	Two
<ul style="list-style-type: none"> • Rehabilitate areas damaged by mining, gravel extraction, uncontrolled vehicle use and other land uses • Investigate possible biological control of bitou bush 	Five
Prepare fire prescriptions	Two
Close and rehabilitate Crowdy Beach Hind Dune Road between Fig Tree Parking Area and Abbey Creek	Two

Gravel the Humbug Point Road	Two
Close Taylors Point Road	One
Close Dunbogan Beach to vehicles	6 months
Complete Kylies Beach Rest Area	Two
Create Humbug Point Rest Area	Three
Improve road and facilities at Mermaid and Fig Tree Picnic Areas	Two
Create Abbey Creek and south eastern boundary picnic areas	Three
Construct spring wildflower walk	Two
Construct Christmas bell walk	Two