

**MURRAMARANG ABORIGINAL AREA
PLAN OF MANAGEMENT**

NSW National Parks and Wildlife Service

March 1998

Acknowledgments: This plan of management was written by the late Bruce Rodgie of the National Parks and Wildlife Service in conjunction with other district and regional staff.

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FOREWORD

Murramarang Aboriginal Area is located 30 kilometres north of Batemans Bay, on the south coast of NSW. It has an area of 60 ha and comprises the headland of Murramarang Point, sand dunes along Murramarang Beach to the north and part of a small lagoon.

The Aboriginal area protects the largest complex of middens on the south coast and is one of only three archaeological sites on the south coast dated to the Pleistocene (Ice Age) period. It contains a dense concentration of stone artefacts and shell, mammal, fish and bird bones. The variety of tool types including rare bone tools illustrate a long history of occupation.

The Aboriginal area has very high research and educational value. It is the most studied Aboriginal site in Australia and one of only a few large interpreted sites.

The area was a meeting place for a number of Aboriginal tribes until after settlement of the country by Europeans and is part of a cultural landscape linked to other places along the south coast. Burials took place on the headland and the area is said to have been the site of a massacre during the late nineteenth century. The Aboriginal area has very high traditional and contemporary cultural significance to Aboriginal people and will be managed in accordance with the wishes of the Aboriginal community to protect this significance.

The plan of management provides for the protection of the scientific significance of undisturbed parts of the midden and interpretation of disturbed areas. The existing interpreted walking track will be extended and improved and a detailed interpretive brochure will be prepared and distributed.

Progressive revegetation of the Aboriginal area will be undertaken to ensure long term stability, improve habitat values and provide a natural setting for the Aboriginal sites. Vehicle access will be restricted to prevent damage to the natural and interpretive values of the area.

The Service will seek, through cooperation with adjoining land owners and land use authorities, to protect the adjacent largely natural landscape and hence the cultural and interpretive values of this important area.

The local Aboriginal community will be consulted and actively involved in management of the Aboriginal area.

This plan of management establishes the scheme of operations for Murramarang Aboriginal Area. In accordance with the provisions of Section 77 (1) of the National Parks and Wildlife Act, 1974, this plan of management is hereby adopted.

PAM ALLAN

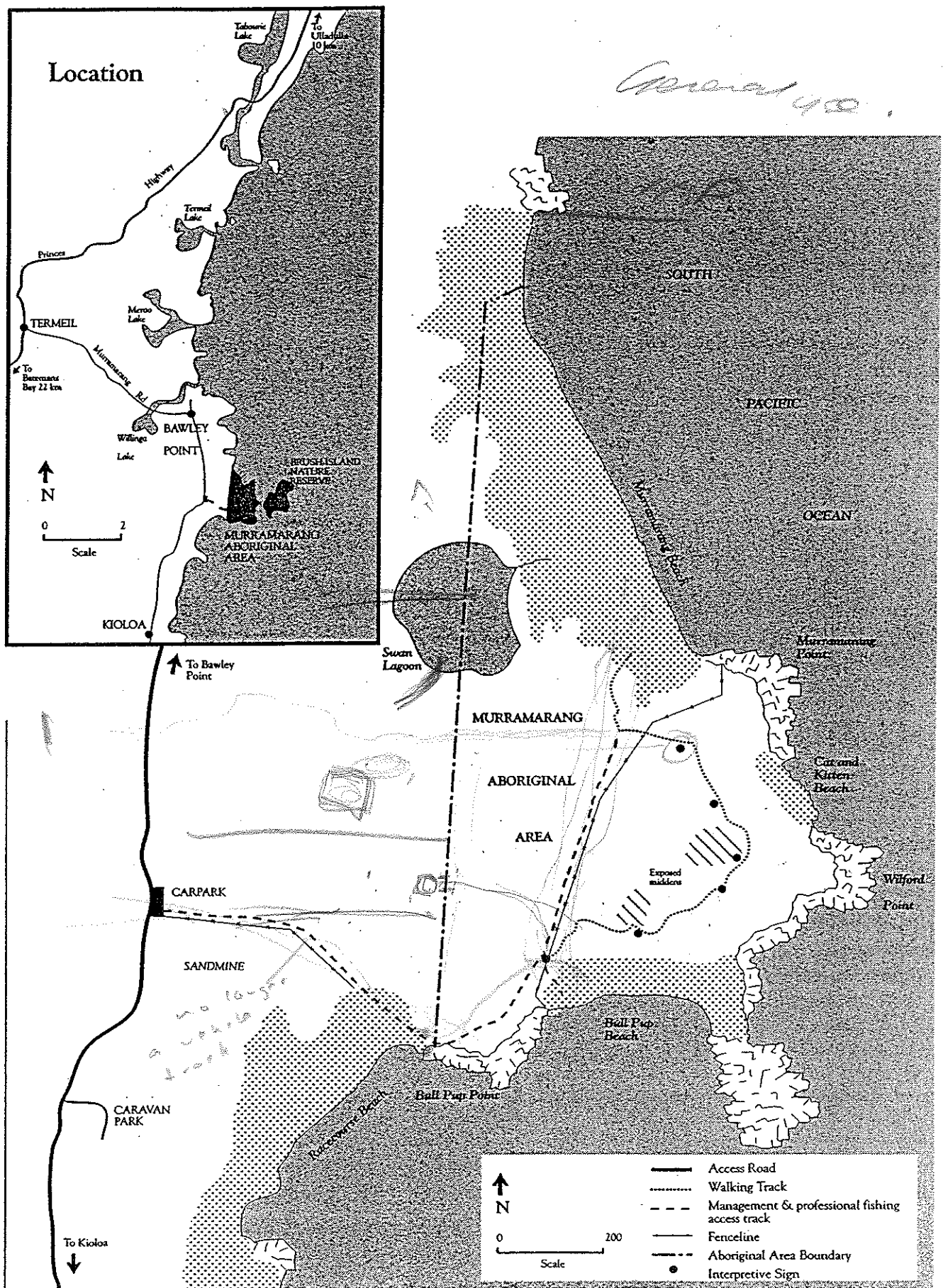
Minister for
the Environment

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Murramarang Aboriginal Area



1. INTRODUCTION

The National Parks and Wildlife Act, 1974, provides that a plan of management may be prepared for each Aboriginal area. A plan of management is a legal document which outlines how an Aboriginal area will be managed in the years ahead. It can be revised and rewritten if necessary to accommodate changes in management practices. The procedure for the preparation and adoption of a plan of management is specified in the Act:

- * The Director-General of National Parks and Wildlife may cause a plan to be prepared.
- * The Director-General shall then submit the plan of management to the Minister.
- * The Minister may adopt the plan with or without amendment.

Once a plan has been adopted by the Minister, no operations may be undertaken within the Aboriginal area except in accordance with the plan.

Although not a requirement under the Act, a plan of management for Murramarang Aboriginal Area was placed on public exhibition for a period of three months between 27th June and 6th October for comment on the proposals it contained. The plan of management attracted twelve representations covering fourteen issues. All comments received were referred, along with the plan, to the National Parks and Wildlife Advisory Council for its consideration and advice. The comments and suggestions of the Advisory Council were, in turn, considered by the Minister when adopting this plan.

For additional information on any aspect of the management of the Aboriginal area, please contact:

Nowra District Office
National Parks and Wildlife Service
(PO Box 707)
55 Graham Street
Nowra **NSW 2541**

or by phone (02) 4423 9800.

2. MANAGEMENT CONTEXT

2.1 ABORIGINAL AREAS IN NEW SOUTH WALES

Aboriginal areas are lands dedicated under the National Parks and Wildlife Act 1974 for the purposes as stipulated in the Act of 'preserving, protecting and preventing damage to relics or Aboriginal places therein'. Aboriginal places are places of special significance with respect to Aboriginal culture. This may include both traditional and contemporary culture.

The care, control and management of Aboriginal areas is vested in the Director-General of National Parks and Wildlife. The right of Aboriginal people to make decisions about their own heritage is acknowledged, however, and it is Service policy that Aboriginal communities be consulted and actively involved in the management of Aboriginal sites and places of Aboriginal cultural significance.

2.2 MURRAMARANG ABORIGINAL AREA

2.2.1 Location and Regional Setting

Murramarang Aboriginal Area is located between Murramarang and Racecourse Beaches, south of the village of Bawley Point on the south coast of NSW. The reserve is bounded by private land on the west and by high water mark on the east. The nearest towns are Ulladulla 20 kms to the north and Batemans Bay 30 kms to the south.

Brush Island Nature Reserve is located immediately offshore from the Aboriginal area and Murramarang National Park is approximately 3km to the south.

The Aboriginal area was dedicated over a public recreation reserve in 1976. It is one of nine Aboriginal areas in NSW (March 1998) and the only one so far established in the southern part of the state.

2.2.2 Importance of Murramarang Aboriginal Area

Murramarang Aboriginal Area is listed by the Australian Heritage Commission in its register of the National Estate as follows:

'Murramarang Aboriginal Area 60ha, North East of Batemans Bay. The Murramarang area is a headland with large areas of sand dune covered with a thick scatter of prehistoric cultural material, including shells and stone tools. Murramarang Aboriginal Area is one of the largest sites in NSW, with evidence of the exploitation of the extensive intertidal rock platform surrounding it.'

Murramarang Point is regarded as the largest unrounded midden on the NSW south coast. The cultural deposits occur in sediments that have been dated to about 12 000 years ago, making it one of only three archaeological sites of Pleistocene age (more than 10 000 years old) on the south coast.

The midden covers several hectares and contains millions of stone artefacts as well as dense deposits of shell, mammal, fish and bird bone. Rare examples of bone tools such as bone points and shell fish hooks occur at the site and there is archaeological evidence demonstrating the consumption of whales and other cetaceans.

Mythological sites and middens are also present on adjacent land and nearby Brush Island. These add to the diverse Aboriginal heritage of the Murramarang area and form a complex of sites within a culturally significant landscape.

Aboriginal cultural significance

Murramarang Aboriginal Area is of importance to contemporary Aboriginal people of the south coast who regard the area as being indicative of their culture, signifying intertribal relationships through its use as a meeting place. The area continues to be used for fishing, recreational and educational activities. It is therefore a place which has continued to be used by Aboriginal people from before European occupation to the present and provides a tangible link to the past.

A lagoon to the north of the headland and a nearby unidentified waterhole are home to a Dreamtime serpent associated with traditional religious beliefs about the creation of the land. The movements of the serpent link separate places on the landscape along the south coast.

A number of Aboriginal people were killed by local pastoralists on Murramarang Point during the late nineteenth century (Creamer, 1978) and there may also be burials of Aboriginal people who died from other causes. Skeletons have eroded out of the sand deposits from time to time. As one place where their ancestors were buried the area has high importance to Aboriginal people.

Scientific importance

The Murramarang midden is important for scientific research, being the largest example of a coastal midden readily accessible to university and other research organisations from Sydney, Wollongong and Canberra. The size of the site and abundance of material give it almost unlimited potential for academic enquiry into Aboriginal occupation and use of the land.

Considerable research has been undertaken at Murramarang Point since the 1940's and the area has been the focus of numerous small scale field projects by Prehistory Honours students from the ANU since 1981. Therefore the site has possibly been subject to more study than any other Aboriginal site in Australia and has provided a wealth of information about the antiquity and complexity of traditional Aboriginal coastal life. It is a valuable reference base for comparative studies of other occupation sites.

Educational value

The Aboriginal area is easily accessible to tourists and educational groups and is one of only a few interpreted Aboriginal sites on the south coast of NSW. The wealth of disturbed surface artefacts and midden material provides an unusual opportunity for visitors to closely examine an Aboriginal site without compromising the scientific value of undisturbed areas.

Natural values

The coastal lagoon to the north of Murramarang Point (known locally as Swan Lagoon) provides a small area of wetland habitat.

As regeneration of the Aboriginal area with native species progresses, increasing numbers and species of native animals will utilise the area.

3. OBJECTIVES OF MANAGEMENT

3.1 GENERAL OBJECTIVES FOR ABORIGINAL AREAS

The following general objectives relate to the management of Aboriginal areas in New South Wales:

- * preservation of Aboriginal sites;
- * protection of other features having cultural value to the Aboriginal community and encouragement of their management and use by the Aboriginal community;
- * protection of scientific significance; and
- * promotion of public understanding of Aboriginal culture through appropriate interpretation of Aboriginal areas.

3.2 SPECIFIC OBJECTIVES FOR MURRAMARANG ABORIGINAL AREA

In addition to the above general objectives the management of Murramarang Aboriginal Area will be subject to the following specific objectives:

- * protection of Aboriginal cultural significance;
- * protection of the archaeological deposits and Swan Lagoon;
- * development and promotion of the area, in partnership with local Aboriginal people, as one of the prime interpretive locations for Aboriginal sites on the south coast; and
- * provision of opportunities for appropriate research.

3.3 OVERALL STRATEGY

Murramarang Aboriginal Area will be managed in consultation with and the involvement of the Batemans Bay Local Aboriginal Land Council and other Aboriginal community organisations.

The primary strategies for the protection of the Aboriginal area will be:

- control of public access combined with promotion of public appreciation; and
- progressive re-establishment of a vegetation cover of native plants which is consistent with the environmental setting during Aboriginal occupation of the area and which enhances the interpretive value of the area.

All educational and recreational use will be limited to already disturbed areas and access will be via formed tracks located and designed to avoid damage to archaeological deposits. The existing walking track and interpretive signposting will be extended and improved and will be promoted to increase public understanding of the Aboriginal heritage.

As far as possible the relatively undeveloped landscape setting around the Aboriginal area will be protected through planning controls or encouragement of conservation agreements.

4. POLICIES AND FRAMEWORK FOR MANAGEMENT

This chapter contains the policies and framework for the management of Murramarang Aboriginal Area together with relevant background information. Policies are summarised under the following section headings:

4.1 Murramarang Aboriginal Area: Its Cultural And Natural Setting; and

4.2 Use of the Area

The policies established in this plan of management will provide the framework for management consistent with anticipated resources available to the Service and with anticipated community trends over the next five to ten years.

The actions identified are those proposals to which priority will be given in the foreseeable future. Other management actions may be developed over the life span of this plan consistent with the policies set out in the plan.

Where not specifically provided for in this plan, management will also be in accordance with the National Parks and Wildlife Act and with general Service policies.

4.1 MURRAMARANG ABORIGINAL AREA: ITS CULTURAL AND NATURAL SETTING

4.1.1 Landforms and Soils

The Aboriginal area covers a prominent headland (Murramarang Point), lower land immediately behind the headland and the majority of the sand dune system along Murramarang Beach to the north. The headland is edged by cliffs, rock platforms and two small beaches, Bull Pup Beach and Cat and Kitten Beach.

Part of a small brackish lagoon, Swan Lagoon, is located within the Aboriginal area at the southern end of Murramarang Beach.

Brush Island, a high partly vegetated island, lies 400m offshore.

Six geomorphic layers have been identified on the headland (Hughes, 1973):

- **Monzonite:** The underlying strata is composed of deeply weathered monzonite, a basic intrusive rock characterised by the presence of a small amount of free quartz grains. The monzonite dips steeply towards the sea where it is buried beneath recent sand deposits, but is exposed in gullies.
- **Sandrock:** Overlying the monzonite is sandrock or coffeerock, a hard reddish sand layer formed by cementation of sand at water table level by iron and humus leached from overlying sand. The surface of the coffeerock has been highly weathered and numerous channels have been eroded into it. This strata was formed during a previous higher sea level.
- **Reworked Sandrock:** A layer of stratified, coherent, charcoal-rich eroded sandrock which has been transported and deposited from higher parts of the area.
- **Podsolised Sand:** This sand layer was deposited as a response to the

last rise in sea level. It has been leached white by podsolization processes. Archaeological evidence is scarce in this strata and little charcoal is found. Overlying this layer is the midden of depths of a metre and more. This indicates a great increase in the intensity of Aboriginal occupation as the shoreline reached its present position about 6 000 to 5 000 years ago.

- **Partially Podsolised Sands:** Small areas of light brown sand were deposited late in the history of the site, possibly transported from the nearby beach. These are also capped by a rich layer of midden.
- **Recent Sand:** Overlying much of the present surface is a layer of reddish-brown sand varying from a few centimetres to tens of metres. Most of the remnants of in-situ midden are buried beneath this sand. Recent sands also form the dune system along Murramarang Beach.

Following the arrival of Europeans last century, removal of the native vegetation and disturbance of the sand allowed wind erosion to substantially alter the stratigraphy. Deflation of large areas of the midden occurred, damaging its scientific value. A revegetation program has now stabilised the headland sand deposits. As outlined in section 4.1.2 a program of diversification of plant cover is proposed to ensure long term success of the revegetation program.

The low-lying areas on the western side of the headland are poorly drained and erodible when disturbed. Vehicle access by professional fishermen has resulted in deep wheel ruts and will lead to further erosion if not corrected. Professional fishing access is dealt with in section 4.2.3.

The dunes along Murramarang Beach have been degraded by previous sand mining. They now appear, however, to be stable. Reshaping of the dunes would involve severe disturbance and is not considered desirable.

Policies

- * All geological features will be protected. Disturbance or collection will not be permitted except for purposes of authorised scientific research.
- * Management of the area will aim to ensure long term stability of the headland and beach dune sands.
- * All management works will be undertaken in a manner which avoids contributing to erosion.

4.1.2 Plants and Animals

Native vegetation

The Aboriginal area was largely cleared of native vegetation for grazing and sand mining. Only a few remnants of native vegetation have survived on the headland and around Swan Lagoon.

The banks of Swan Lagoon are in a substantially unmodified state, with swamp oak *Casuarina glauca* and swamp paperbark *Melaleuca ericifolia* dominating. Fringing species present in the adjoining wetland include common reed *Phragmites australis* and common spike rush *Eleocharis acuta*.

A stabilisation program was carried out on the headland during the 1980s which involved fencing to keep out cattle and vehicles, together with soil conservation

works, including direct seeding. As a result, coastal wattle *Acacia sophorae* has now formed dense thickets which have stabilised large areas. Other colonising species present include *Casuarina glauca*, pig face *Carpobrotus glaucescens*, coast beard heath *Leucopogon parviflorus*, coast banksia *Banksia integrifolia* and *Spinifex hirsutus*.

The coastal wattle is relatively short lived and is fire sensitive. Destruction of large areas of wattle by unplanned fire would expose the dunes to erosion until a new generation of wattle was established from seed. Long term stabilisation relies upon further plant succession taking place but secondary and tertiary species and their seed stock are largely absent from the Aboriginal area. Some colonisation by native plants is occurring from adjacent vegetated land but is slow and a planting and seeding program is proposed to speed up plant species diversification. Remnants of the original vegetation and therefore seed sources still occur on Brush Island and other nearby areas. The long term aim is to re-establish native vegetation cover similar to that which occurs in nearby relatively undisturbed areas.

Most of the western part of the headland has a cover of introduced grasses but native species are also slow to colonise this area. The grassed area is a result of European landuses such as grazing and as such is a modified landscape. Because of the primary Aboriginal value of the area and its high interpretive potential, however, eventual return of a native vegetation cover is intended. This will provide a more relevant setting for interpretation of the Aboriginal occupation and use of the area.

The dunes along Murramarang Beach have a sparse vegetation cover of spinifex *Spinifex hirsutus*, pigface *Carpobrotus glaucescens*, other ground covers and shrubs. The vegetation density and species diversity are expected to increase naturally.

Native animals

The disturbed nature of the Aboriginal area limits the area of habitat for native animals. Nevertheless, eastern grey kangaroos *Macropus giganteus* frequently visit the area and the echidna *Tachyglossus aculeatus* has recently recolonised the sandy headland area following establishment of ground cover. Sea birds are found on the rocky shores and beaches. The red-capped plover *Charadrius fuscicapillus* has been recorded nesting in the dune area of Murramarang Beach.

Common species of terrestrial birds recorded on the Aboriginal area include the red wattle bird *Anthochaera carunculata*, eastern whipbird *Psophodes olivaceus*, New Holland honeyeater *Phylidonyrus novaehollandiae*, superb blue wren *Malurus cyaneus*, Richards pipit *Anthus novaeseelandiae*, welcome swallow *Hirundo neoxena* and Australian kestrel *Falco cenchroides*.

Revegetation works discussed above will increase shelter and food for native fauna in the Aboriginal area and increase the species diversity.

Swan Lagoon is a locally important water bird habitat and is used by a variety of birds including the black swan *Cygnus atratus*, little pied cormorant *Phalacrocorax melanoleucos* and white faced heron *Ardea novaehollandiae*. Protection of fringing vegetation and of water quality are vital to conservation of the lagoon's habitat and Aboriginal cultural values. The wetland is protected under State Environmental Planning Policy 14 but it would be desirable to seek additional protection of the section outside the Aboriginal area through such means as voluntary conservation agreements.

Introduced plants and animals

The western side of the Aboriginal area has an extensive infestation of blackberry. Chemical treatment has progressively been undertaken and will continue until control is achieved. Lupins and pennywort are also present, having been introduced in sand mining restoration works on the adjacent sand mining lease area. These do not pose a significant long term threat to native plant regeneration.

Rabbits and foxes are well entrenched in the general area but planned control programs are expected to reduce numbers considerably.

Policies

- * With the exception of limited areas along the walking track which are required for interpretation, all areas of locally indigenous native vegetation will be protected from disturbance.
- * Native vegetation cover similar to that which occurs in nearby relatively undisturbed areas will be progressively established or encouraged over the entire Aboriginal area.
- * Only plant species indigenous to the area will be used in revegetation works. Propagation material will be obtained from local sources.
- * Public access to Swan Lagoon will not be encouraged.
- * Introduced plant and animal species will be controlled and where possible eliminated.
- * Control of introduced plants and animals will be carried out in cooperation with neighbouring property owners.

Actions

- * A vegetation management program will be prepared and implemented which will provide for:
 - compilation from adjacent areas and Brush Island of a plant species list for use in revegetation works;
 - seeding and planting with native species to increase species diversity and provide long term stability on the headland sand deposits; and
 - slashing or selective clearing where necessary to provide for interpretation of the midden (see section 4.2.1).
- * Blackberry will be treated until eliminated from the Aboriginal area.
- * Rabbits and foxes will be controlled.
- * The Service will seek protection of Swan Lagoon outside the Aboriginal area and protection of water quality through planning controls and conservation agreements.

4.1.3 Aboriginal Sites and Historic Features

Archaeological sites

Although much of the discussion below is based upon an archaeological view of cultural heritage, it must be recognised that archaeological sites tell only part of the story of Aboriginal use and form only part of the significance of an area to Aboriginal people. As outlined in section 2.2.2 Murramarang Aboriginal Area was an important tribal meeting place, a mythological landscape, a place where ancestors were buried and has high cultural significance to present day Aboriginal people.

Murramarang Aboriginal area is situated near the boundary of the Wandandian and Walbanga tribes of the Dhurga language group. The area would have been a rich source of food including fish, shellfish, sea birds and land animals. Adjacent Brush Island would also have provided seabirds and other resources.

At 12 000 years ago when Aboriginal people are believed to have first started living in the Murramarang area, the sea would have been several kilometres from the present shoreline. The subsequent rise in sea level created the existing rocky platform and estuaries. It appears from the archaeological record that there was a sharp increase in occupation of the site at about 3 500 years before present when the sea level reached its present height.

Much of the headland is covered by midden material containing a dense concentration of artefacts. The presence of stone tool types dating from different phases in east coast prehistory illustrates the long history of occupation of the area. The size and content of the midden also indicate that the headland was used not only by the local tribe, but also as a meeting or trading place by other Aboriginal tribes.

Stone tools found include eloueras, fabricators, scrapers, geometric microliths, backed blades, hammerstones, grindstones, flaked pebble implements, edgeground axes, lumps of unmodified stone, waste flakes, cores and unworked pebbles. Large numbers of 'Bondaian' types, including bondi points, other backed blades and thumbnail scrapers, which were most commonly used in south-eastern Australia approximately 4 000 to 10 000 years ago are also present.

Many of the tools were fashioned from silcrete obtained from Bannisters Point at Mollymook to the north.

Sixteen species of mollusc from three habitat types have been identified in the middens. Littoral and sublittoral species, open beach and shallow bay species and estuarine species indicate the diverse marine habitats available as food resources to the Aborigines.

Sampling by Webb in 1981 identified the remains of six fish species (blue groper, leatherjacket, snapper, bream, silver dory and John dory), three sea bird species (pied cormorant, short-tailed shearwater and little penguin), at least two species of land birds (eagle and a small bird), six species of land mammals (long-nosed bandicoot, brush-tailed possum, swamp wallaby, red-necked wallaby, grey kangaroo and rat) and three species of sea mammal (whale, seal and dolphin).

Native plants were also used by Aboriginal people for food and a variety of other purposes but plant remains are rarely preserved as well as bones and shell.

Human remains, probably from five individuals, were also found by Webb. In 1985 the Batemans Bay Local Aboriginal Land Council reburied a skeleton from the area that had been held in the Tabourie Museum. The location of this reburial is not known to the Service.

Lampert discovered a dingo skeleton in an isolated pillar of packed sand in 1971. Several small stone artefact scatters occur around Swan Lagoon, indicating Aboriginal exploitation of lagoon resources.

Historic places

Murramarang also has a considerable history of European land use which includes Aboriginal contact history. Captain James Cook made his first sighting of the native inhabitants of Australia at Murramarang on the 22nd April, 1770. He attempted to find shelter at Brush Island, but found the sea too rough.

The first white settlers arrived in the late 1820's and introduced cattle. In 1830 after a series of cattle spearings, an early settler, Mr Morris, applied to the government to shoot the Aboriginal ringleaders. A party sent to investigate found the coastal tribes friendly and recommended against this action. Despite this, four Aboriginal people were shot and killed on the headland by white settlers (Hamon, 1994).

Gold mining was tried at the inlet to Swan Lagoon from 1896, during the economic depression of this period. In six months twenty seven ounces of gold worth about a hundred and eight pounds was collected. There were never more than three or four men and the work was abandoned by about 1898.

Other activities pursued at Murramarang included the cutting and storing of wattle bark and other timber, dairying, sand mining, recreational vehicle use and the collection of Aboriginal tools. The area has continued to be used for recreation, education and professional fishing since dedication of the Aboriginal area in 1976.

The cultural landscape

As stated in section 2.2.2 the headland and Swan Lagoon are considered by the Aboriginal community to form part of a cultural landscape, linked by the movements of a Dreamtime serpent and through traditional socio-economic systems.

The current landscape of the Aboriginal area is a product of both Aboriginal and European use. There is no remaining evidence of historic use, however, apart from the cleared areas and depauperate native vegetation. Because of the very high Aboriginal significance of the area, it is considered more important to see the Aboriginal sites in a vegetated landscape than to protect the European landscape. It is not known exactly what the vegetation was like during Aboriginal occupation and it is therefore not possible to return the area to this state. Instead, restoration of a natural vegetation cover will be aimed for, similar to what occurs in nearby relatively undisturbed areas. This is provided for in section 4.1.2.

The wider setting is also of integral importance to the value of the Aboriginal area. From the walking track views of Durras Mountain, Pigeon House Mountain, Brush Island and nearby naturally vegetated areas can be gained. These give the headland an isolated quality which assists visitors to appreciate the nature of the area as it was prior to European settlement.

Numerous developments have been proposed adjacent to the Aboriginal area but most have been rejected by Shoalhaven City Council on the grounds of impact on the visual catchment of the Aboriginal area and the potential direct impact on the area of increased recreational access. Development pressures are likely to continue in the future.

In order to preserve the visual setting of the Aboriginal area, measures such as land acquisition, entering into voluntary conservation agreements and co-operative planning between the Service and Shoalhaven City Council are proposed.

Recent construction of a house close to the boundary of the Aboriginal area has encroached on the landscape of the Aboriginal area. The visual impact of the house could be reduced by planting.

Policies

- * Aboriginal sites will be protected from disturbance except for interpretative and educational use of exposed areas adjacent to the walking track and authorised research in other areas.
- * All works involving ground disturbance will be preceded by a survey for Aboriginal sites.
- * Protection and restoration of the pre-European landscape will be given priority over the European landscape.

Actions

- * The Service will seek the co-operation of Shoalhaven City Council in protecting the natural vegetation cover of the visual catchment of the Aboriginal area by environmental planning and development control means.
- * The Service will seek to negotiate a conservation or other agreement with the owner of Lot 1 DP 556738 to provide for protection of its natural and cultural features and for landscaping to reduce the visual impact of the house.
- * The Service will seek to negotiate conservation agreements with other neighbouring landowners.

4.1.4 Fire Management

The primary revegetation occurring on the headland sand deposits is extremely sensitive to fire. Fire would kill the most common regenerating species, coastal wattle, leaving the area open to erosion until a new generation of wattle became established. This could have a severe impact on the middens.

Similarly, the grassed areas in the western section of the headland are sensitive to fire as the limited natural regeneration that is already occurring would be set back by fire. This was the case in 1987 when burning from a neighbouring property escaped into the grassed areas of the Aboriginal area. Damage to fencing also occurred during this fire event.

Because of these considerations it is an aim of fire management to protect the Aboriginal area from fire until a more robust native vegetation cover has been established.

A draft fire management plan has been prepared for the Aboriginal area covering such issues as resource protection requirements, fire management zones, the need to avoid use of heavy machinery and cooperative arrangements with other fire authorities.

Policies

- * All unplanned fire will be extinguished as quickly as possible.
- * Prescribed burning may be undertaken if necessary to promote regeneration, control introduced species or reduce fuel levels.
- * Heavy equipment will not be used for fire suppression on the headland sand deposits and the Murramarang Beach dunes and will be avoided as far as possible on all other parts of the Aboriginal area.
- * Any damage resulting from fire suppression operations will be rehabilitated as soon as possible after the fire.

4.2 USE OF THE AREA

Murramarang Aboriginal Area will be managed to ensure that its use, whether by the general public, special interest groups, Service managers or other authorities, is appropriate and conforms with the management objectives and strategy of this plan.

The major categories of use that may be appropriate within Service areas are:

- education and promotion of the area, the Service and the conservation of natural and cultural heritage;
- research;
- Aboriginal cultural activities;
- certain types of recreation; and
- management operations by the Service and other authorities with statutory responsibilities in the area.

The extent to which these categories of use will be provided for in Murramarang Aboriginal Area is indicated below.

4.2.1 Public Use

Educational and tourist use

While the primary purpose of Aboriginal areas is preservation of Aboriginal sites, promotion of public understanding of Aboriginal culture is also an important objective for some Aboriginal areas. The high visibility of artefacts and shell material, together with the readily observable cultural landscape at Murramarang offer excellent opportunities for interpretation of Aboriginal culture. The following proposals for public use of the area and for interpretation have been discussed with representatives of the Batemans Bay Local Aboriginal Land Council.

Murramarang Aboriginal Area has the capacity to withstand high volumes of educational and tourist traffic as long as this is directed along defined and appropriately surfaced tracks and combined with high quality interpretive signs to encourage appreciation of the site and non-damaging behaviour.

The Aboriginal area is regularly used by the general public and also by schools as part of their Aboriginal Studies curriculum. The Service takes guided tours of the area through its Discovery Program and the local Aboriginal community has also undertaken guided walks. Organised tours by community groups and commercial tourism companies may also be appropriate if undertaken in a manner which avoids damage and promotes understanding of Aboriginal culture.

Where organised tours by community groups and commercial tourism companies are permitted, the National Parks and Wildlife Service and the local Aboriginal community will review the content and format of talks and other material provided by the licensee to ensure that the information provided to the public is accurate and consistent with Service and Government policies. Training of tour operators and guides may be required where warranted.

Interpretation programs for all aspects of public use run by local Aboriginal people is highly appropriate and will be encouraged.

Access to the Aboriginal area is by turning east off the Princes Highway at Termeil onto Murramarang Road. This road is followed 2 kilometres past Bawley Point to a small carpark located next to a sandmine. There is no public vehicular access to the Aboriginal area. A walking track leads from the car park along the public right of way to Racecourse Beach. Visitors then walk from the right of way across the hind dunes to the Aboriginal area boundary. It will be necessary to provide a formal access route to ensure that visitors walk through the public reserve rather than adjacent private property. This route will also be used for professional fishing and management vehicle access if such can be arranged (section 4.2.4).

Interpretation is currently provided by a self-guided walking track with several interpretive signs. Interpretation is concentrated in the deflated dunes, and does not impact on undisturbed midden material.

The interpretive signs deal with the following themes:

- importance of Murramarang Aboriginal Area;
- Aboriginal food resources;
- the rock platform and marine environment;
- geology;
- significance of the cultural landscape; and
- European influence

Strong growth of coastal wattle in recent years has obscured views and in places is covering areas used for interpretation of artefacts. Selective vegetation control is required to keep interpreted sites clear of vegetation. In the longer term, construction of side tracks or raised viewing platforms may be needed in some locations. Any such work will be subject to environmental assessment and located and designed to avoid damage to intact midden material.

The walking track passes through sand deposits for much of its length. Hard surfacing of unstable sections may be needed to prevent erosion in the event that erosion arising from public use becomes unacceptable.

A vehicle track from the southern boundary across the centre of the Aboriginal area, is used for both professional fishing access and as a return route for walkers. This track will be improved and interpretive signs erected to provide a loop walk when combined with the existing walking track.

Fencing placed around the midden as part of the 1980's revegetation program detracts from the unity, landscape and interpretive value of the Aboriginal area. The fencing will not be needed once a long term vegetation cover has been established and should then be removed. It will be necessary to retain fencing on the western and southern boundaries to control vehicle entry.

There is at present no signposting to the Aboriginal area at the carpark on Murramarang Road. This limits tourist visitation. Signposting and promotion are essential if the area is to fulfil its potential as a major location for education about Aboriginal culture. The carpark and access track are outside the Aboriginal area and the permission of other authorities will be necessary for providing the proposed signposting.

Recreational use

Because of its coastal location, the Aboriginal area has considerable recreational value. Surfing, beach and rock fishing, diving, swimming and exploring the rock platform are all popular activities. The walking track also has recreational value as a scenic walk, offering panoramic views of the coastline, Brush Island, Durras Mountain and hinterland ranges.

Although not a basis for its dedication, these recreational opportunities are appropriate and act as an initial attractant to Murramarang Aboriginal Area which can, through interpretation, increase public appreciation of Aboriginal culture. Large numbers of recreational visitors could be expected, however, to detract from the Aboriginal landscape and interpretive value and result in unacceptable environmental impacts.

Policies

- * Murramarang Aboriginal Area will be developed as one of the prime interpretive locations for Aboriginal sites on the south coast.
- * Understanding and appreciation of the significance of the area and of Aboriginal culture will be promoted through provision of interpreted walking tracks and brochures.
- * The local Aboriginal community will be involved in development of interpretation programs.
- * Sites along the walking track, where surface shell and artefact scatters are interpreted and where views of the surrounding lands are provided will be maintained clear of vegetation. Work such as track hardening, minor relocation, short side tracks and construction of low key viewing platforms may be undertaken if necessary to retain track stability and interpretive value.
- * No recreational facilities will be provided other than formed walking tracks where necessary to prevent environmental damage.

- * Educational and recreational use will be directed towards the already disturbed areas and to the beaches and rock platforms within the Aboriginal area.
- * Vehicle access will not be permitted other than for management purposes and professional fishing as defined in sections 4.2.3 and 4.2.4.
- * Lighting of fires, camping, horse riding and other inappropriate recreational activities will not be permitted.
- * If the level and/or pattern of visitor use is found to be causing erosion or damage to archaeological or geological features, control of access will be undertaken.
- * Licences may be granted for commercial tours of the Aboriginal area subject to the following:
 - limits will be placed on group size to ensure control of access and behaviour and hence avoid damage to archaeological material;
 - the tour program and guides must demonstrate satisfactory interpretive standards;
 - licences will be altered or revoked if unacceptable environmental impacts are found to occur; and
 - the agreement of the Aboriginal community will be obtained prior to granting any licence.
- * The National Parks and Wildlife Service and the local Aboriginal community will review the content and format of talks and other material provided by the licensee to ensure that the information provided to the public is accurate, relevant and consistent with Service and Government policies.
- * Training of tour operators and guides will be undertaken where required.

Actions

- * The interpreted walking track on the midden will be redesigned and reconstructed where necessary to maintain existing views and interpretation as vegetation height increases.
- * The vehicle track across the Aboriginal area will be redeveloped to a level necessary to achieve a stable walking track surface which can also be used for occasional authorised vehicle access and form a loop walk with the existing walking track.
- * New interpretive signs will be developed for the loop walk in association with the Aboriginal community.
- * Subject to approval by relevant authorities, a sign will be erected at the carpark at Murramarang Road directing visitors to the Aboriginal area.
- * Internal fencing will be removed when the vegetation cover of shrubs and trees has been established on the midden.

- * An interpretive pamphlet will be prepared incorporating the findings of scientific research in the Aboriginal area. It will be distributed to schools, tourist information centres and other appropriate locations.

4.2.2 Research

Murramarang Aboriginal Area has long been the focus of considerable artefact collection and archaeological research and scientists are reported to have visited the area from the 1920s (Hamon, 1994).

The first recorded scientific visit was in 1940, when C.C. Towle visited the midden and found a small slab of sandstone showing several shallow longitudinal grooves on each of its two flat surfaces. He published a description of this artefact, which he interpreted as a spear sharpening device, in the Victorian Naturalist.

When F.D. McCarthy visited Murramarang in 1946 he wrote:

‘On the headland within the property is probably the most extensive kitchen-midden and workshop, where the aborigines made stone implements, on the coast of this State. Fortunately, it has not been visited very much by collectors, and in the time available for collecting, approximately two days, I was able to gather a wide variety of implement types, including scarce types.’

A collection of implements from Murramarang formed part of McCarthy's comparative study of artefacts and flaking techniques from eight surface sites on the south coast. This study lacked any control on sampling techniques and McCarthy's collection is not now regarded as representative.

In the years following, Murramarang was regarded as a surface site of little archaeological importance and both amateur collectors and archaeologists used Murramarang point as a collecting site.

In the late 1960's, R. Lampert and the Canberra Archaeological Society undertook a systematic surface collection at Murramarang. A complete report of this excavation was not published.

In 1972, P.J. Hughes carried out geomorphological studies on the headland. These revealed the extent of undeflated stratified deposits underlying the mobile recent sands. This work indicated the importance of Murramarang for archaeological research.

Since 1981, Murramarang has been the focus of numerous small scale field projects by Prehistory Honours students from the Australian National University. This has generated almost a hundred reports.

Unfortunately, the years of mining, grazing, recreational vehicle usage and unauthorised collection of artefacts have disturbed most of the midden, diminishing its research value and creating difficulties in interpreting the occupational history of the site. However, a large remnant area of podsolised sand in the mid southern part of the site together with the vegetated areas on the downslope boundary of the former blowout zone remain undisturbed and still contain a significant quantity of in-situ occupation material. These undisturbed areas are of very high scientific significance and will be protected.

Policies

- * Murramarang Aboriginal Area will be available for appropriate research. Any applications for research within the Aboriginal area will be assessed jointly by the Service and the local Aboriginal community.
- * Only research which causes minimal disturbance will be permitted unless significant benefits to knowledge of cultural heritage are demonstrated and alternative opportunities are not available elsewhere.
- * Where possible the involvement of members of the Aboriginal community in field work will be encouraged.
- * Liaison will be maintained with researchers to obtain as much mutual information and assistance as possible to both the National Parks and Wildlife Service and the local Aboriginal community.
- * The results of research will be required to be provided to the National Parks and Wildlife Service and the local Aboriginal land council.

Action

- * A priority list of research topics about the use and significance of the site will be compiled jointly between the Service and the local Aboriginal community and made available to researchers.

4.2.3 Professional Fishing

An informal arrangement has existed since 1986 for professional fishing vehicle access onto Bull Pup Beach and Murramarang Beach through the Aboriginal area west of the main midden. This is based on long term use for beach hauling.

The Service's Professional Fishing Access Policy states that an access permit may be issued if:

- the Service is satisfied that the consequent environmental damage is limited and acceptable;
- a pre-existing traditional pattern of use can be demonstrated;
- there is no reasonable alternative means of access;
- the Service is satisfied that any conflict with recreational users of the foreshores is minimal and that the safety of visitors is not prejudiced;
- access is an essential part of the fishing enterprise; and
- the cost of maintaining the access tracks is shared by the users.

The track used for fishing access is poorly drained but it is unfortunately not feasible to relocate it because of the potential for impacts on Aboriginal sites elsewhere in the area. As discussed in section 4.2.1, the track will be upgrading to provide for both vehicle and pedestrian use.

Policy

- * Professional fishing access will be catered for under the Service's Professional Fishing Access Policy, along the route shown on the Summary Map.

Action

- * Professional fishing access will be formalised through licensing.

4.2.4 Management Operations

Because of its high cultural significance, the Aboriginal community takes a strong interest in Murramarang Aboriginal area. The Aboriginal area lies within the area of the Batemans Bay Local Aboriginal Land Council but people living in the area of the Ulladulla Local Aboriginal Land Council also have traditional ties with the area and an interest in its management. Aboriginal community organisations will be consulted and actively involved in management of the area.

Management access to the area is generally undertaken on foot. Vehicle access is needed infrequently for purposes such as fire management, pest control and walking track maintenance. At present there is no legal vehicle access available and it will be necessary to secure this through discussions with Council and neighbours.

Policies

- * The Batemans Bay Local Aboriginal Land Council and other relevant Aboriginal community groups, including the Ulladulla Local Aboriginal Land Council, will be consulted and actively involved in all aspects of management of the Aboriginal area.
- * The Service will give priority to supporting the Aboriginal community in any applications for external funds to employ Aboriginal people in restoration and management programs provided for in this plan of management.
- * No management tracks will be constructed within the Aboriginal area other than the track to be used for pedestrian and professional fishing access across the centre of the area. Wherever feasible management access will be by foot.

Action

- * The Service will seek to arrange management vehicle access to the Aboriginal Area.

4.2.5 Monitoring

This plan of management proposes significant new management programs and increases in interpretative use of the area. Therefore the condition of cultural heritage features, natural features and facilities such as walking tracks will be monitored, particularly to identify any unacceptable changes to the cultural heritage of the Aboriginal area which may arise from increased use and changed management operations.

Monitoring will examine:

- the condition of archaeological and other cultural heritage features;
- the requirements of site conservation works such as soil erosion works;
- the condition of tracks, signs, fencing and other infrastructure; and
- the behaviour of visitors to the area.

Baseline information is necessary to establish a monitoring program. This will be collected by making a detailed record of cultural and natural heritage features, eroded areas and visitor use which will include the use of fixed photo points and undertaking a visitor use survey.

Policies

- * The Service will, in consultation with the local Aboriginal community, establish a monitoring program to assess any changes to the cultural heritage of the Aboriginal area arising from increased public use and management programs.
- * A baseline survey will be undertaken to provide information necessary for the monitoring program to be effective.

5. PLAN IMPLEMENTATION

This plan of management is part of a system of management developed by the National Parks and Wildlife Service. The system includes the National Parks and Wildlife Act, management policies, established conservation and recreation philosophies and strategic planning at corporate, regional and district levels.

The orderly implementation of this plan will be undertaken within the annual programs of the Service's Nowra District. Priorities, determined in the context of district and regional planning, will be subject to the availability of necessary staff and funds and to any special requirements of the Director-General or Minister.

District programs are subject to ongoing review within which works and other activities carried out at Murramarang Aboriginal Area are evaluated in relation to the objectives laid out in this plan.

The environmental impact of all management proposals will continue to be assessed at all stages of their development and necessary investigations undertaken in accordance with established environmental procedures.

Section 81 of the Act requires that this plan shall be carried out and given effect to, and that no operations shall be undertaken on the Aboriginal area unless they are in accordance with the plan. However, if after adequate investigation, operations not included in the plan are found to be justified, this plan may be amended in accordance with Section 77(2) of the Act.

As a guide to the orderly implementation of this plan, relative priorities for identified activities are summarised below:

| ACTIVITY | PLAN REF |
|---|----------|
| High Priority | |
| * Set up Aboriginal community consultation process | 4.2.4 |
| * Increase plant species diversity on headland sand deposits | 4.1.2 |
| * Control blackberry | 4.1.2 |
| * Seek conservation agreement for Lot 1 DP 556738 | 4.2.4 |
| Medium Priority | |
| * Seek protection of Swan Lagoon outside Aboriginal area | 4.1.2 |
| * Control introduced animals | 4.1.2 |
| * Construct fire-break/walking track on western boundary | 4.1.4 |
| * Construct professional fishing/walking access track to Bull Pup Beach | 4.2.1 |
| * Redesign interpretive signs | 4.2.1 |
| Low Priority | |
| * Compile research priorities list | 4.2.2 |

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