

CASUARINA COASTAL RESERVE

MANAGEMENT PLAN

August 2002





DEPARTMENT OF INFRASTRUCTURE,
PLANNING AND ENVIRONMENT

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PREFACE

Places like Casuarina Coastal Reserve are rare. They are rare because they contain important natural areas and a relatively undeveloped coastline within close proximity to the suburbs of a capital city, and they are rare because they still support relatively abundant and significant flora and fauna.

As the highest visited Reserve in the Northern Territory, it is clear Casuarina Coastal Reserve plays a vital role in the life of the local community. It is a place for recreation and relaxation. It is also a place for appreciation and understanding of our coastal environment.

It is easy to take places like Casuarina Coastal Reserve for granted. The fate of similar areas in other parts of Australia serves as a lesson and a warning. Their fate also highlights the need to carefully manage and protect the Territory's coastal environment.

This Management Plan is a commitment towards the protection of the important conservation values of the Reserve, whilst providing opportunities for the community to continue to use and enjoy the area for many years to come.



The Hon Kon Vatskalis MLA
Minister for Parks and Wildlife



ACKNOWLEDGEMENTS

The Strategic Planning and Development Unit gratefully acknowledges the assistance provided by other Parks and Wildlife staff, especially in the Darwin Region. Significant and valuable input was also received from other divisions of the Department of Infrastructure, Planning and Environment and most importantly from the general public during the planning and public review process. Thirty nine public submissions were received, including twenty eight submissions in regards to the draft Management Plan and over 90 people attended public meetings as part of these processes. The Plan was prepared and improved in the light of these submissions and community input.

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INTRODUCTION

BACKGROUND

Casuarina Coastal Reserve provides a very important recreational outlet, attracting more than 700,000 visitors per year. It is by far and away the most visited park in the Northern Territory. Remarkably, despite its urban location and high level of visitor use, it retains a very natural character. Its extensive sandy beaches, tidal flats, estuaries, dune systems, mangrove communities, Casuarina forests, fringing monsoon forest, and marine area provide important habitat for a wide variety of fauna. It contrasts strongly with suburban beaches elsewhere in Australia which are often immediately flanked by sea walls, roads and suburban development.

The Reserve comprises 1,361 hectares, which includes a strip of coastline some 8 km in length and adjoining offshore areas. It is in close proximity to the Darwin suburbs of Brinkin, Tiwi and Rapid Creek. Neighbours to the Reserve include the Royal Australian Air Force, the Royal Darwin Hospital and the Northern Territory University (see Figure 1).

The Management Plan for the Reserve also covers an area of land adjoining the Reserve's eastern boundary described as the Buffalo Creek Management Area (Figure 1).¹

The Buffalo Creek Management Area is an area of land comprising approximately 222 ha which includes Lot 8700 Town of Nightcliff and part of Portion 2260 Hundred of Bagot. The land is owned by the Commonwealth of Australia (Department of Defence) and adjoins the Casuarina Coastal Reserve's northeastern boundary. The Management Area is surrounded by largely undeveloped land owned by the Commonwealth and used for defence purposes.

The Commonwealth acquired the land covered by the Management Area in 1978. The area has always been a popular recreational fishing location and in the early 1970's the Buffalo Creek boat ramp was built to provide access for recreational fishers. In the early 1980's the former Conservation Commission upgraded the ramp and developed carpark and toilet facilities. Rangers from the former Conservation Commission (now the Parks and Wildlife Commission), have managed the area on and off since the early 1980's. In 2001 the carpark and toilet were upgraded and a picnic area was developed adjacent to the ramp under a formal management agreement between the Commonwealth Defence Department and the Parks and Wildlife Commission.

This is the second Management Plan for the Reserve.

The first Casuarina Coastal Reserve Management Plan has been in operation since 1992, and during that period considerable progress has been made, including:

- implementation of domestic animal regulations;
- foredune rehabilitation and monitoring;
- implementation of a mosquito control program;
- development of picnic facilities at Lee point;
- development of picnic facilities at Dripstone Cliffs;

¹ Unless otherwise stated, future references to Casuarina Coastal Reserve will also encompass Buffalo Creek Management Area.

- establishment of a comprehensive visitor monitoring program; and
- ongoing management of natural and cultural values.

This second Management Plan aims to build on the achievements of the first Plan whilst addressing those management issues which remain or have arisen since. These include:

- the complexity of the domestic animal regulations;
- illegal camping;
- drunkenness and anti-social behaviour;
- traffic flow and access;
- visitor facilities;
- visitor information and interpretation;
- relationship with Landcare Group and other volunteers;
- involvement of the community and other stakeholders;
- management of natural and cultural values;
- protection and rehabilitation of foredunes; and
- need for continued mosquito control.

VALUES OF THE RESERVE

The **aesthetic values** of the Reserve are derived from the beach, seascapes and estuarine areas. The area offers views of largely undeveloped coastline and bushland in close proximity to an urban residential area.

The Reserve's **natural values** derive from the wide range of coastal habitats including woodlands, monsoon rainforest communities, mangroves, estuaries, intertidal and marine area, and coastal dunes. These habitats support native flora and fauna communities that are typical of coastal areas in the 'Top End'. They also support species of conservation significance including migratory wading birds, Dugong and Green and Flatback Turtles.

The **Aboriginal cultural values** are derived from the presence of the registered and recorded sacred sites and places of significance to Aboriginal people. They also derive from the affinity Aboriginal people have with the area and its values.

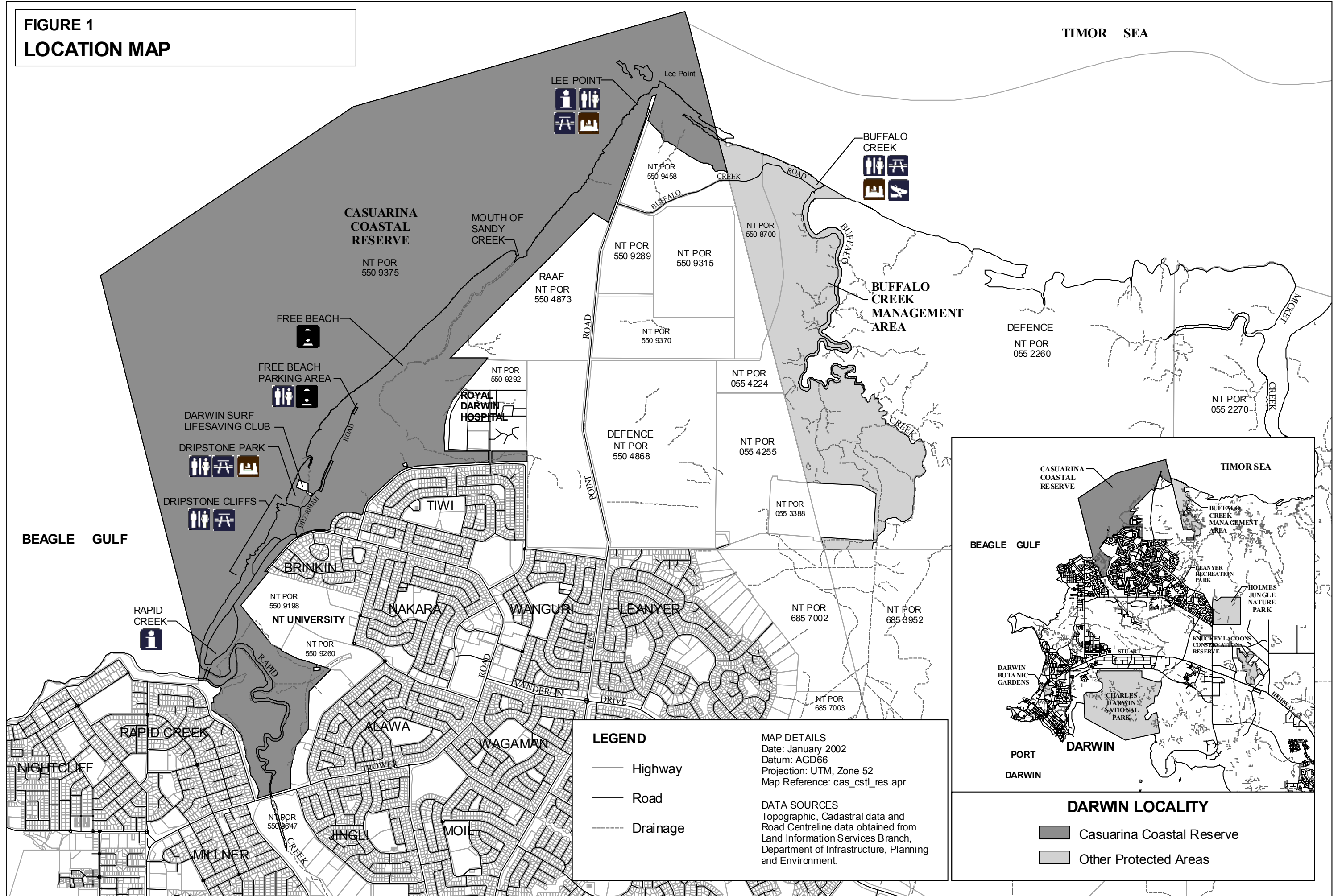
The **historic values** of the Reserve relate to its use during WWII and the presence of relics from this period including concrete observation bunkers.

The **Education and Interpretation values** of the Reserve stem from the natural and cultural values. Additionally the close proximity of the area to Darwin's northern suburbs provides an opportunity to inform the local community about the values of coastal areas in the NT and the importance of protecting them.

The **recreation and tourism values** derive from the close proximity of the Reserve to urban residential areas and opportunity for a wide range of recreation in a largely natural coastal environment. The primary focus of most visitor use and recreation is the beach, picnicking walking, bike riding, dog walking and relaxing.

The **conservation values** of the Reserve arise from the contribution they make to the network of protected areas in the NT and the conservation of biodiversity in the Darwin region. Additionally Casuarina Coastal Reserve and Buffalo Creek are listed on the register of National Estate (Darwin Foreshores) in recognition of their natural and scenic values.

**FIGURE 1
LOCATION MAP**



REGIONAL CONTEXT

The Reserve falls within the Darwin Coastal Bioregion, one of 85 bioregions identified at a national level in the *Interim Biogeographic Regionalisation for Australia (IBRA)*, Version 5.1.

A bioregion or biogeographic region is an area that exhibits commonality in the attributes of climate, geomorphology, landform, lithology and characteristic flora and fauna. The Australian landscape has been divided into such bioregions to assist in developing a network of protected areas (parks and reserves) which represents and captures, at a broad scale, the biodiversity of the individual States and Territories, as well as of Australia as a whole. By and large, the Darwin Coastal Bioregion, which extends from the Fitzmaurice River in the south west to Murgarella in the east, is very well represented in parks and reserves (30%), with Casuarina Coastal Reserve contributing less than 1%.

Casuarina Coastal Reserve is one of 5 relatively small reserves managed by the Parks and Wildlife Commission within a 15 km radius of Darwin City including Holmes Jungle Nature Park (250 ha), Charles Darwin National Park (1350 ha), Leanyer Recreation Area (4 ha) and Knuckey Lagoons Conservation Reserve (125 ha). A number of relatively undeveloped natural areas and semi natural areas adjacent to these reserves provide physical and ecological links for native flora and fauna. Additionally, the habitat present in these natural and semi-natural areas contributes to the maintenance of flora and fauna populations within parks and reserves including Casuarina Coastal Reserve.

In future, these parks and reserves will come under increasing pressure from urban development and if the links and supporting habitats are not maintained they may become geographically and ecologically isolated. If this were to happen, the values in these parks and reserves are likely to come under pressure as they become more prone to the detrimental impacts of increased visitor use, wildfire and weeds.

To maintain the values of these parks and reserves it will be important to maintain physical and ecological links between reserves and other surrounding natural and semi natural areas. This can be achieved by expanding current reserve boundaries, managing natural and semi-natural areas to support reserve values and/or entering formal management agreements (such as the Buffalo Creek Management Area Agreement) for the protection of flora, fauna and important habitat on land outside current parks and reserves.

Additionally, important conservation values occur outside the Coastal Reserve boundaries, the most significant being migratory wading bird habitat in the intertidal areas adjacent to Lee Point and extending to Buffalo Creek and further east (Figure 1). This area may qualify for listing on the East Asian Flyway and as a Ramsar site (wetland of international importance) based on the large number of migratory and other wading birds that use the area. In the future, some of this area could be included in the Buffalo Creek Management Area by agreement with the Commonwealth (Defence Department). If included this additional area would be managed to protect wading birds and their habitat.

ESTABLISHMENT AND HISTORY OF THE RESERVE

Casuarina Coastal Reserve was gazetted in pursuance of section 103 (1)(c) of the *Crown Lands Act* for the 'recreation and amusement of the public' on 17 September 1982. Management of the area was vested in the Conservation Commission under section 103B(2) of the *Crown Lands Act* by letter from the Minister for Lands on 18 October 1982.

Despite being set aside primarily for recreation, the Coastal Reserve protects important natural and cultural values. It is recognised that these natural and cultural values underpin the importance of the area for recreation.

On 31 August 2000 the Parks and Wildlife Commission and the Commonwealth of Australia (Department of Defence) signed a Management Agreement for the protection of flora and fauna in the Buffalo Creek area under section 74 of the *Territory Parks and Wildlife Conservation Act*. This agreement vests management responsibility for the area with the Parks and Wildlife Commission for a period of twelve years.

The overall area has suffered from a number of destructive events during and since World War II including:

- Land clearing during the Second World War, for gun emplacements, lines of sight and associated works.
- Indiscriminate recreation pressure and extensive sand mining during the 1960's and 70's.
- Pressures from surrounding urban subdivision developments in the early 1970's.
- Cyclone Tracy in 1974 and storm activities in 1975, which caused considerable damage and erosion to the frontal dune system.

Following Cyclone Tracy, substantial reconstruction and rehabilitation works were undertaken within the Coastal Reserve, including reforming the dunes, establishment of sand traps and rehabilitation of the dune system predominantly by planting *Casuarina equisetifolia* and spinifex.

By the late 1970's, the area had become largely rehabilitated and stabilised, and was again a popular recreation spot.

A number of mosquito control works have been carried out in the Coastal Reserve including the filling of depressions left by sand mining in 1984 and the diversion of storm water into a tidal area of Sandy (Sandfly) Creek in 1997. These mosquito control works continue and are part of a coordinated program to control mosquito breeding in the Reserve.

Over the past 15 years, the Reserve has remained in a relatively stable condition with the exception of periodic storm events which at times have caused severe erosion to sections of the beach and frontal dune system.

INTENT AND IMPLEMENTATION OF THE PLAN

This Management Plan states the intent of the Parks and Wildlife Commission with regard to the management of Casuarina Coastal Reserve. The purpose of this Management Plan is to guide future protection and conservation of natural and social values of the Reserve consistent with relevant legislation, and NT Government policies. The Plan aims to achieve this by identifying key values of the Reserve, current and potential threats and pressures on those values and management actions to ameliorate these pressures. To assess the success of these management actions the Plan also identifies appropriate performance measures or indicators for each value. Key management programs are also identified and as well as having management actions and performance measures each program has long and short-term targets.

The Plan will be in force for a minimum of five years and a maximum of ten years, unless revoked by a new Plan.

THE STRUCTURE OF THE DOCUMENT

This Plan is in two Parts. Part A consists of the General Park Management Principles and Directions which apply in all NT parks and reserves. This Part is included in all Parks and Wildlife Commission Plans of Management. Part B focuses on the special characteristics of Casuarina Coastal Reserve and on the specific management issues facing the Reserve.