

**PROPOSAL FOR A SOUTH  
COAST NATIONAL PARK**

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## FOREWORD

The report which follows is a revised version of an earlier report by the same authors and which was supported by the Institute of Foresters of Australia.

This publication is the first from the Western Australian Division of the Institute of Foresters - the corporate body of professional foresters in Australia.

The report deals with a tract of land which is not all forested, but the area is an integral part of the southern forests ecosystem, and the Institute of Foresters is concerned with the broader view of ecosystem management in Australia.

P.N. Hewett  
Chairman  
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April 1975.

## PREFACE

"Between Cape Leeuwin and King George's Sound there looks out upon the great Southern Ocean a long stretch of coastline --- the country of inlets and rivers of the south coast ---. The whole region is a succession of scenic beauties and desirable spots. Those who wish to make the best of the Inlet Country must camp out, and the only difficulty they are likely to experience is that of deciding where to pitch their tents in a district which presents so many favourable situations. Among the rivers and inlets one finds oneself in a country that is unhackneyed, for its delights can be enjoyed only by those who are prepared to --- put aside for a time the formalities of city life. But none can go there without benefit to his or her health. It is proposed that a big area adjoining Nornalup shall be reserved for all time as a National Park and tourist resort and the proposal is indeed a wise one. Meantime, in that marvellous country, nature is still primitive and that alone is a powerful lure to many."

Extract from "The Inlets and Rivers of the South Coast - A Great National Asset". 1923 Edition of the Western Australian Tourists' Guide and Hotel and Boarding House Directory.

## OBJECTIVES

The objectives of this paper are:

- To describe a unique and important area of public land on the south coast of Western Australia.
- To recommend the reservation of this area as an "A" class reserve, thus protecting it from alienation and uncontrolled exploitation.
- To set down a model management system for the area, designed to cater for the dual needs of conservation and recreation.
- To recommend means by which the proposals put forward can best be implemented.

These objectives can be seen to conform with the overall aims of the National Forest Policy of the Institute of Foresters which is reprinted at the end of this paper.

## PART 1 PROPOSAL FOR RESERVATION




This report deals with a tract of land between Cape Beaufort and Nornalup on the south coast of Western Australia (see Figure 1). This tract known as "the karri coast" because of its association with the great karri forests of the lower southwest, encompasses some 175 kms of coastline together with the adjoining hinterland to a variable depth of 5 to 10 kms, and has an area of approximately 113 000 hectares.

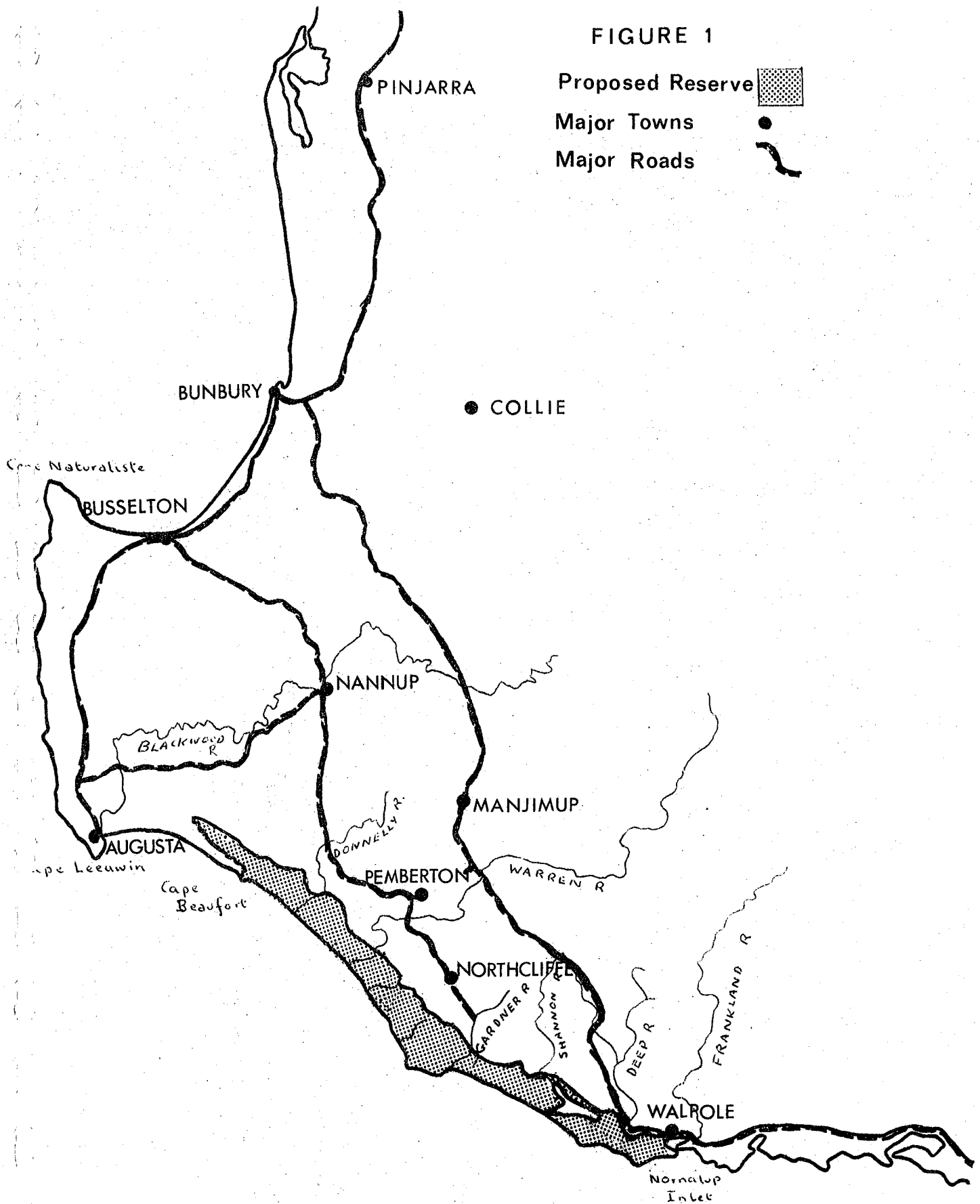
The karri coast is remarkable in two important ways. Firstly, over 95% of the area is public land, generally not vested, (i.e. vacant Crown land). Secondly, it is a place of great natural beauty and scientific interest and has outstanding recreation potential. Despite these two facts, and the proximity of major population centres, the area is still mainly undeveloped and largely unknown. The major portion is virgin coastal bushlands and forests and the remainder little altered by the activities of man.

Outstanding features of the area are:

- The natural character has so far been largely unaffected by human activity.
- The area has 175 km of magnificent coastal scenery, with long, broad beaches, towering rocky cliffs and headlands, waterfalls, coastal lakes and inlets and massive sand dune formations.
- There is an extremely interesting and diverse flora, vegetation types including wet and dry sclerophyll forests, savannah woodland and grassland, heath, swamps and pioneer beach communities.
- Fauna populations are varied and interesting. Larger species are readily observed in open woodlands and heaths.
- Six major southwest rivers run through the area. The Warren, Donnelly and Gardner Rivers discharge into the sea, the Shannon into Broke Inlet and the Deep and Frankland Rivers into Nornalup Inlet. All are perennial rivers with strong winter flows.
- Broke Inlet, a large shallow estuary linked to the sea by a narrow channel, is one of the most beautiful and least disturbed estuaries on the West Australian coast.

FIGURE 1

Proposed Reserve   
Major Towns   
Major Roads 



- The area is historically important through its association with the early exploration of the Australian coast.
- The area has the mildest climate in Western Australia, a State which elsewhere is subject to prolonged periods of summer heat and dessication.
- The area is sufficiently large and free from human development to provide a spaciousness which allows the visitor to find solitude and release from the pressures of urban life.

Nowhere else in the south west of Western Australia do comparable unspoiled coastal areas still exist. From Cape Beaufort west to Cape Leeuwin on the south coast, all except a narrow strip of beach has been alienated for agricultural development. East from Nornalup, alienation of coastal land over a long period has proceeded to the point where the natural character of most of the coast has been irreversibly changed, while along the west coast (Cape Naturaliste to Yanchep) commercial development of "tourist resorts" has totally altered the natural landscape.

Throughout the world there is a growing recognition of the need to preserve natural areas as scientific and educational reference points. At the same time there is a pressing need for open space and natural beauty spots for the recreation of rapidly growing and increasingly urban populations.

Community recreation and the conservation of natural ecosystems are vital needs to be catered for, and "the karri coast" is uniquely suitable for these purposes. A precious and perhaps final opportunity exists now to preserve and positively protect this important and beautiful area. If this opportunity is let slip, the inevitable forces of piecemeal and selfish demand from vested interests or alienation for agriculture or mining will occur here as elsewhere on the south west coast in recent years. Uncontrolled exploitation or development will irreversibly erode the natural character of the area and its capacity to provide for a wide range of recreational pursuits.

#### THE PROPOSAL

It is therefore proposed that the coastline between Cape Beaufort and Nornalup, together with those adjoining hinterlands as defined in this submission, be reserved as an "A" Class reserve of National Park status, vested for public recreation and conservation of the natural environment.

A description of the area and recommendations as to how it should be managed, follow in the remainder of this paper.

## PART 2 DESCRIPTION

### SIZE AND TENURE

The proposed reserve has an area of approximately 113 000 hectares, with a variety of tenure, as shown in Table 1.

TABLE 1 LAND TENURE

| TENURE                          | Approx. Area<br>Hectares | % Total |
|---------------------------------|--------------------------|---------|
| Vacant Crown Land               | 70 800                   | 63      |
| Miscellaneous Crown<br>Reserves | 30 000                   | 26      |
| National Park                   | 6 800                    | 6       |
| Private Property                | 4 800                    | 4       |
| State Forest                    | 800                      | 1       |

The location of these tenures is shown on Plan 1.

The area designated "Vacant Crown Land" includes 16 800 ha leased for cattle grazing, 520 ha approved for alienation as private property and approximately 4 800 ha of water surface. Some 13 200 ha within the vacant Crown land and other Crown reserves are proposed for inclusion in State Forest.

Miscellaneous crown reserves include a wide variety of vestings. Examples are Public Utility, Camping and Recreation, Industrial purposes, Timber Reserves and an Experimental farm.

The inland boundary of the proposed reserve adjoins land of various tenure, but mainly State Forest and private property.



## HISTORY

Aboriginals, until finally dispersed by the influence of white settlement early this century, hunted the swales and crests of the south coast dunes for 20 000 years. This coastal area, along with the watersheds of the Donnelly, Warren, Shannon and other shorter rivers, belonged to the Bibbulmun people. The little evidence available suggests that they spent most of their time near the coast and seldom ventured into the dank thickets of the karri forest further inland. As we recognize the singularity of the Christmas tree, Nuytsia floribunda, by giving it legal protection, they called it Moojarr and gave it special reverence by assigning it the first resting place of the souls of their recent dead. Later these souls moved on to Kurannup, the island home of the Bibbulmun dead beyond the western sea. Here their old skins were discarded whereupon they appeared white. The early white settlers were believed to come from that place and were called "djangar", the dead.

These shores knew the tall masts and sails of Dutch sailing ships, on their way to and from the East Indies, long before Cook discovered the east coast of Australia in 1770. Early maps showed this stretch of coast as part of "Nuytsland" following the voyage in 1627 of the "Gulde Zeepard" under the direction of Pieter Nuyts of Amsterdam. Hence the name Point Nuyts for one of the more dramatic headlands and Nuytsia floribunda for the Moojarr, or Christmas tree.

In 1791 Chatham Island was the first Australian landfall of Capt. Vancouver's expedition. He formally annexed from this point eastward to about what is now Esperance to the English crown, thereby making it the first part of Western Australia to be declared British, despite its long familiarity to the Dutch. He was followed shortly afterwards by Admiral D'Entrecasteaux of France, whose first landfall now bears his name. ~~William Dampier~~ surveyed the coast in 1801-1802, and one of the ships of the French Baudin expedition spent time there about that time. In 1818 Lieut. Philip Parker King surveyed the coast, starting from King George's Sound working west. The "Astrolabe" under Capt. D'Urbville spent a month there in 1826. The same year Major Lockyer established a small outpost at Albany thus substantiating Britain's claim to the western part of Australia.

Matthews  
Flinders

At and before this time however, these shores were home to small bands of sealers, comprising in the main escaped convicts from Van Diemen's land. The life style of these brutalized and desperate men, exiled beyond hope of recall yet grateful to be free of the strictures of penal servitude, stirs the imagination. They must represent some ultimate in natural selection among those with the will and the capacity to endure and survive all manner of

of durance vile. Tales abound of callous murder, forays with the natives, abduction of native women, hideous orgies and maroonings. These men knew the coast intimately as far north as Rottnest Island and were able to inform the early settlement at Albany of the existence of Nornalup Inlet, and the Peel-Harvey inlet on the west coast. William Bay is named after one of them, much to the chagrin of Clarke, an early explorer out of Albany, who rather hoped that it was named after His Late Majesty King William IV. Another named Isaacs lived for some months with a native woman on Saddle Island near the mouth of the Nornalup Inlet.

Yankee whalers were also well known at this time along this stretch of coast. Clarke writes of "upwards of 150 sail of American vessels were generally off this coast during the whaling season". It was common for them to lay up in the sheltered bays during the winter, and no doubt they would have gone ashore to hunt and replenish water supplies.

Once the Swan River settlement was established in 1829 exploration between there and Albany began in earnest. In 1831 Lieut. Bannister undertook an overland journey from Perth to Albany, in which he first struck the south coast near Cliffy Head, from whence he completed the journey along the coast to Albany. The same year Lieut. Preston attempted to sail a whale boat from Rame Head to Augusta. He camped the first night at the Nornalup Inlet, where he was greeted in a friendly manner by natives. The next night he camped at the mouth of the Gardner River, where natives were heard but not seen. The following day, after rounding Cape d'Entrecasteaux, they struck bad weather and were beached, possibly somewhere near Malimup. After a night's sleep they unsuccessfully tried to launch the boat and having lost most of their supplies, decided to abandon it and walk to Augusta. Friendly natives were encountered again. It took them four days to reach Augusta by walking along the beach, except where the cliffs of Black Point forced them inland. From the settlement at Augusta they walked to Perth via the settlement at Vasse.

Others known to have walked through this coastal country were Hillman in 1833, and Gregory in 1852. Clarke in 1841 made an expedition by whale boat from Albany to the Nornalup and Broke Inlets, having obtained advanced information from the sealer Williams. In 1832 a party of white men attempted to walk from Albany to Augusta but disappeared en route. It was generally believed they were murdered out of hand by sealers and natives. Clarke in his 1841 expedition reported finding shallow graves, one containing a skeleton but no skull, near the Nornalup Inlet.

In the 1850's settlers began to arrive on the upper reaches of the Warren River and its tributaries. Shortly afterwards they began to pasture their cattle on the coastal hills on a regular annual basis. From this point on the modern history of the area begins.

#### PHYSIOGRAPHY

Climate The area has a mild climate with a mean annual temperature of 15°C and a mean annual rainfall of over 1500 mm. Rainfall effectiveness is higher than in any other part of the State.

Geology The western section of the area is underlain by Pleistocene Mesozoic strata. The coastline is approximately half beach and half rocky cliffs of calcareous limestone and granitic gneiss. In places, the limestones have been eroded into towering sea cliffs, the most spectacular of which can be seen east of Black Point and at Pt. D'Entrecasteaux, Clifly Head and the Broke Inlet mouth. Black Point (Cape Beaufort) is itself a noteworthy geological feature, comprising columnar basalt of the "Bunbury" series, probably the most superior outcrop of this rock in Western Australia.

Eastwards from Pt D'Entrecasteaux the underlying pre Cambrian granites and gneisses outcrop through the Pleistocene series. At Point Nuyts and Long Point massive gneissic headlands rise steeply from deep water. Inland, gneissic monadnocks occur near Windy Harbour (Mt. Chudalup and Little Chudalup) and Crystal Springs (Mt. Hopkins, Mt. Clare and the Woolbale Rocks).

#### TOPOGRAPHY

Six major rivers cross the proposed reserve, the Donnelly, Warren and Gardner discharging into the sea, the Shannon into Broke Inlet and the Deep and Frankland Rivers into Nornalup Inlet. Sand bars form across the mouths of all river and inlets, but with the Warren River and Nornalup Inlet the mouths are kept permanently open with channels formed by the action of either stream flow or tidal action.

Numerous swamps, marshes and freshwater lakes occur in the area. The most notable lakes are Lake Jasper, Lake Maringup and Crystal Lake. In most cases it appears that these lakes were formed by past movements of the coastal sand dunes blocking previous drainage channels. Large treeless sedgelands, known locally as "flats" occur further inland. These are heavily waterlogged for up to 8 months of the year, drying out only in the late summer months. The presence of seashells suggest that these flats are a previously drowned coastline.

The wetlands of the karri coast represent an important refuge area for species of native waterfowl (such as black duck and grey teal) which have suffered a massive habitat loss through agricultural development elsewhere in the south west of the State.

The huge sand dunes lying parallel to the sea between the Donnelly River and Pt. D'Entrecasteaux are an important feature of the area.

The Yeagerup and Meerup dunes, in particular, are exceptional because of their size and configuration. Both these dunes are almost entirely non-vegetated and are mobile, moving steadily inland at measured rates of about 30 metres per annum. Older dune systems, now consolidated, lie further inland and it is apparent that a process of dune formation, movement and consolidation has been going on over a vast time period along this section of the coast.

Not only are these massive dunes a fascinating educational feature, but they offer in addition a unique experience to the visitor in their stark contrast to the greenery of the dense forests which adjoin them.

#### NATIVE FLORA

A wide diversity of vegetation forms occur within the proposed reserve. In such a climatically restricted zone, it is unusual to find such extremes, ranging from no vegetation (on the mobile dunes) to dense wet sclerophyll forests of karri and tingle.

Broad vegetation types and their area are shown in Table 2 and the distribution of these types on Plan 2.

TABLE 2 VEGETATION TYPES

| TYPE                      | Approximate<br>Area Hectares | % Total |
|---------------------------|------------------------------|---------|
| Forest                    | 6 000                        | 6       |
| Woodland                  | 52 000                       | 46      |
| Flats and Swamps          | 34 000                       | 31      |
| Unconsolidated sand dunes | 15 000                       | 13      |
| Water Surface             | 4 800                        | 4       |



Brief descriptions of the common vegetation types in this area are:

Pioneer Communities These comprise mainly Spinifex grass Spinifex hirsutus, Pig face Mesembrianthemum sp. and Marram Grass Ammophila arenaria, associated with the beach and sand dune systems. Marram grass predominates near the mouth of the Warren River and on the Callcup Dune where it was introduced for sand dune stabilization work in the 1930's.

The scrub and woodland communities of the stable dunes. These are savannah woodlands, dominated by W.A. peppermint Agonis flexuosa. These areas are most attractive, the peppermints being widely spread and shady and the ground flora abundant with wildflowers. On small areas on the most recently stabilized dunes south of "the Deeside" on the road to Fish Creek, occur true savannah grasslands with peppermint trees and grass. This is a rare vegetation type in high rainfall areas. In other areas a bullich-yate Eucalyptus megacarpa, E. cornuta forest occurs, usually on higher site qualities in sheltered localities.

The swamp, heath and "flat" communities occupy the lower topographical situations. These are very varied and contain a wide range of species. Of note are the bottle-brushes (mainly Beaufortia spp.) which bloom in mid-summer and the insectivorous Cephalotus follicularis or pitcher plant.

Wet and Dry Sclerophyll forests occur on the better soil types and comprise jarrah-marri, karri and karri-tingle stands.

The jarrah-marri forests are generally poorer in quality than the commercial forests located further inland. Although patches may be found where the trees reach 40 m the majority are only 20 m in height. Understorey species vary, but blackboy, peppermint and banksia are common. Jarrah-marri forests normally occur on the older consolidated dunes.

Karri and karri-tingle forests are not extensive. They occur in patches along the whole length of the coast and karri tends to be stunted. Both red and yellow tingle occur in mixture with karri in the present Nornalup National Park. Karri and karri-tingle stands are almost exclusively on the better soils of the area - i.e. those associated with granitic gneisses or basalt. Recent work has also indicated that karri occurs on limestone soils near Black Point.

## FAUNA

The author's knowledge of fauna is limited but more detailed knowledge should follow from work carried out by the Forests Department in April 1972 and continuing studies by the Department of Fisheries and Wildlife.

One aspect however, is worthy of mention at this stage - the open nature of the scrub and woodland communities allow the kangaroo and emu to be observed more readily than in the heavier forest communities further inland.

## ACCESS

The proposed reserve is accessible for conventional 2-wheel drive vehicles in very few places; only at Windy Harbour can the sea be reached in such a vehicle at all times of the year. However, the conventional vehicle can penetrate the area at numerous places, for example: Lake Yeagerup, the Callcup area, Chesapeake Road, Broke Inlet and sections of the Nornalup National Park.

Many other points can be reached with a four-wheel drive vehicle. Rough tracks, sandy in the summer and boggy in winter, have been established in numerous places over the years by cattle drovers, fishermen and in some cases by the Forests Department for fire control purposes. Examples of places which can be reached by such tracks are Black Point, the Warren Beach, Malimup Springs, Fish Creek and Banksia Camp.

The mouths of the Donnelly River and Broke Inlet can be reached by small boats of shallow draft.

The recent upsurge in the use of the "beach buggy" must be mentioned. These specialized vehicles can reach nearly any point on the coast and there are now dozens of them in common use along the beaches and on the dunes. Where beach buggy owners are keen amateur fishermen whose main objective is to reach the beaches and start fishing, the effect on the environment is probably insignificant. However, expanding use of the area is coming from "beach buggy clubs" from Perth and other centres.

As the ownership and use of buggies expands they will need to be controlled. The restriction or even prohibition of buggies from some sections of the coast may become necessary in time, if serious erosion problems are to be avoided.

## PRESENT DEVELOPMENT

### Recreation Development.

Facilities for community recreation are generally poorly developed in the proposed reserve. For the average visitor this mainly infers poor access. For the owner of a Land Rover or beach buggy this problem is not so relevant.

Apart from the long established township of Walpole at the eastern extremity, the most highly developed recreational area in the proposed reserve is at Windy Harbour. Here there is a small weekend and holiday settlement comprising about 200 cottages of variable quality, an area set aside for caravans and camping, changing rooms, ablutions and boat-ramp facilities. There are no shops or other services. The settlement is administered by the Shire of Manjimup operating through a Board of Control which is made up of several cottage owners. The status of the Windy Harbour settlement and its future development are currently under review by Lands and Town Planning Departments.

The second most highly developed area in the proposed reserve is at the mouth of the Donnelly River where there is a small settlement of about 20 cottages. This area has no official status, cottage owners being squatters on crown land.

There are also small, unofficial groups of huts at several other places along the coast. For example, Malimup Springs, Banksia Camp, the mouth of the Gardner River and Broke Inlet.

A small, but rather notable recreational facility in the area is the "sleeper track", a primitive road in to the Warren Beach area constructed of railway sleepers by the Pemberton Angling Club. This facility has provided countless fishermen with all-year access into one of the best beach fishing spots on the coast. The boat ramp on the Donnelly River is a further example of spontaneous and useful community effort.

To summarize: recreational development in the proposed reserve at the moment is, with the exception of Windy Harbour, the result of rather haphazard individual efforts. These have no official status, and no control is exercised over them.

### Pastoral and Agricultural Development

Although more than 4 000 ha of the proposed reserve is private property, not more than 80 ha of this is actively farmed at present. The remainder is either completely undeveloped or used periodically for summer cattle grazing. However, most of the private property is fenced and has access roads of variable quality, often trafficable only in the summer and only by 4-wheel drive vehicles. Access to such important and beautiful areas as Malimup Springs, the southern shore of Lake Maringup, the savannah grasslands north of Fish Creek and the limestone cliffs east of Black Point is entirely through private property.

A more important development is that of the 16 000 ha of Crown land leased for grazing along the coast. Many of these leases have existed for up to a century and are current to the year 2015. The grazing of cattle along the coast can offer some important problems, particularly in the modern era. Cattle require fences, stockyards and access roads. Some lessees are clearing the bush and establishing pasture; many are prohibiting public access across their leases. The control of fire on these vast bush areas has also become a problem in recent years.

Many interesting and beautiful areas within the proposed reserve are on areas leased for cattle grazing. Examples are the Yeagerup Dunes, the hinterland beyond Black Point and the "Wilderness" areas adjoining the eastern shores of Broke Inlet.

### Mining Development

Although keen interest was shown in the karri coast during the 1969/70 "mining boom" and large areas were pegged, there is little current mining activity. At Pt. D'Entrecasteaux a limestone quarry is currently being operated for the production of agricultural lime at Northcliffe and a current mining claim exists near Malimup Springs.

Coal is known to occur in the Flybrook area and extensive oil exploration took place near the mouth of the Warren River early in this century.

### Forestry Development

No major forest development work has been carried out within the proposed reserve. The Forests Department carried out important and highly successful sand dune stabilisation work near the mouth of the Warren River in the 1930's and in more recent times has established small trial plots of coniferous tree species along the dune system.



The Department has also constructed and maintains a number of minor roads in the area for the purposes of fire protection work and access to State Forests. Over many years they have borne the brunt of fire suppression and pre-suppression work in the area. In 1970, the Department installed a fire lookout on Callcup Hill and this is manned occasionally in the summer months.

Approximately 13 500 hectares of vacant crown land within the area are proposed for inclusion in State Forest.

#### RECREATION AND MANAGEMENT NEEDS

The number of people who currently use the area for recreation is not known since no visitor surveys have been carried out. It is therefore impossible to make accurate projections of future use. Nevertheless, observations by numbers of people suggest that recreational use of the area is expanding at a rapid rate. For instance at Windy Harbour, the settlement has grown from four to approximately 200 cottages since the early 1940's. This expansion is a function of increased population size and affluence, increased leisure time and improvements in the access to the area.

Apart from rapid growth at Manjimup, the populations of the rural communities close to "the karri coast" are now relatively stable. These communities are becoming progressively more mobile and increasingly augmented in the peak holiday periods by large numbers of visitors from Perth, other rural districts and interstate.

It is reasonable to predict a steady and persistent increase in the pressure for recreational facilities in the area in the future. This pressure will intensify when the coastal recreation areas on the west coast (Cape Naturalist to Yanchep) reach saturation point, probably well before the year 2000.

Visitors to the south coast, seeking recreation, will demand a number of traditional outlets for their vacation period.

These will include:

- Sites for holidaying, camping and picnicking.
- Swimming and boating areas.
- Open space and undeveloped areas for hiking, exploring and as a retreat from urban life.
- Beach, rock, inlet and river fishing.
- Features of natural, educational or historic interest.

The beginnings of facilities to meet these requirements already exist. They have been enjoyed by a "fortunate few" who have known, explored and loved the karri coast for generations. But the growing pressure on this beautiful area from an expanding and increasingly mobile population poses the inevitable threats of uncontrolled exploitation and commercial development,

Simple reservation is not enough. A clear concept of management goals and the development of a management system which will enable these goals to be met is of equal importance.

In the next section of this paper an attempt is made to define these goals and demonstrate how they can be achieved.

### PART 3: MANAGEMENT PROPOSALS

#### MANAGEMENT GOALS

The coastland between Cape Beaufort and Nornalup is an area of great beauty, interest and amenity value. Management of a proposed "National Park" in this area must be based upon clearly defined goals derived from a thorough understanding of the ecosystems involved and the recreational needs to be met.

Recommended management goals for the area are:

- To preserve the area in perpetuity for public recreation and enjoyment
- To develop access and recreational facilities in the area in such a way as to have a minimum impact upon the natural character of the area
- To maintain large and representative samples of the area largely free of artificial development so as to ensure the survival of native plant and animal communities for future scientific and educational reference.

Clearly it is impossible to develop access and recreational facilities without in some way modifying the natural environment. The solution to this problem lies in the manner of access development and the subdivision of the area into "use-categories" - i.e. zones, in which different management practices are planned.

Zonation and Road Development are thus the key management proposals in this submission.

#### ZONATION

Three "use-zones" are recommended. These are classified as full development, partial development to certain defined limits and no development.

The terminology adopted and their definitions are as follows:

Zone 1 Developed Area: "An area accessible by first class road wherein the full range of recreational facilities may be developed. Townships may be built, together with facilities for camping, caravanning and sporting activities."

Zone 2 Limited Development Area: "An area into which certain specified access roads may be constructed and where there will be facilities for picnickers and day visitors. Facilities for overnight camping and

other accommodation will not be provided, at least in the initial stages of development."

**Zone 3 Wilderness Area:** "An area through which there are no roads and in which all mechanised vehicular access is prohibited. There will be no facilities for camping or picnicking. Total prohibition of access into some areas may even be necessary as a short term measure if this is found to be necessary for the conservation of some unique element of the environment."

The subdivision of the proposed reserve into these three zones is shown on Plan 3.

#### **ZONE 1: DEVELOPED AREAS**

Four sites are nominated for classification as Zone 1. In these areas the maximum development of recreation facilities can be made. The recommended sites are Windy Harbour, "Camfield Townsite", (Broke Inlet) the mouth of the Donnelly River, and Black Point.

With each of these areas except the mouth of the Donnelly (see below) the following steps are recommended: declaration of a townsite, preparation of a town plan, construction of an access road to arterial standards and provision of essential services and facilities. The Donnelly mouth is exceptional in this category in that the construction of an access road into the area is not recommended. A unique feature of this site is that access can only be obtained by the seven mile boat trip down the river from the boat landing. It is essential that this unique feature be retained.

The declaration, planning and administration of townsites presents many problems, and the writers of this report are not qualified to make detailed recommendations in this field. Nevertheless, in a consideration of the problem several basic points emerge which should be noted.

- It must be accepted that there will be increasing pressure for holiday settlements on the coast. Windy Harbour is already reaching saturation and unofficial settlements have begun to spring up at other points.
- It is highly desirable to channel this pressure into defined townsite areas where their growth can be organised and controlled.
- It is realistic to expect that declared townsites at Windy Harbour, Broke Inlet, the mouth of the Donnelly and Black Point will adequately cope with the demand for this facility, at least for the foreseeable future (i.e. to the year 2000), especially when it is remembered that Walpole, on the south-eastern edge of the proposed reserve, is a well established township amenable to further growth.



- These townsites must be based on approved town plans, must satisfy Public Health and Local Government requirements and must have a maximum size placed on them.
- Townsite blocks should be offered on a leasehold rather than freehold basis. This will exclude the real estate dealers and the speculators and keep such areas within the financial capacity of the ordinary man.
- Townsites and their access roads and facilities should be under the control of the local Government body in whose shire they occur.

These are matters to be resolved at high levels. But what is clear at this point in time is that the expansion of the squatting settlements at the Donnelly and Broke Inlet should be immediately halted pending further developments along the lines put forward in this report.

## ZONE 2: LIMITED DEVELOPMENT AREAS

Limited development, involving the construction of access roads to sub-arterial standards (see road classification), and facilities for day-visitors and picnickers will be permitted in this zone. These areas and the recommended location of access roads into them are shown on Plan 3.

Roads of good quality into these areas are essential. This will permit all-year use, and will also be important for conserving the environment. Poor quality or inadequate roads encourage the four-wheel drive or beach buggy enthusiast to "make his own track" with consequent damage to soil, vegetation and scenic values.

The placement and design of picnic grounds, parking areas and toilet and garbage facilities is of critical importance. They must be inconspicuously sited and blend with the landscape rather than intrude upon it. The use of stone and timber indigenous to the site must be encouraged and in amenity tree planting, the indigenous species are to be preferred. Stringent fire control and anti-litter measures must be enforced and a regular maintenance programme for all facilities is essential.

The following spots will become accessible for day visits with the completion of the limited development programme: Banksia Camp, Clifly Head, Fish Creek, Lake Maringup, Coodamurup Beach, the mouth of the Gardner River, Doggerup Beach, Malimup Springs, Warren Beach, Lake Jasper and Jasper Beach. None of these areas are currently accessible in 2 wheel drive vehicles.

A suggested timetable for development of access into these places is outlined later in the report.

A further aspect of the development in Zone 2 must be mentioned. It is reasonable to forecast that at some time in the future, the camping and holiday facilities in Zone 1, already described, will become overtaxed. When this happens it may be necessary to reclassify one or more Zone 2 sites as Zone 1. Although further townsites are not envisaged at this state, the provision of further camping areas or perhaps caravan parks will probably have to be considered.

### ZONE 3: WILDERNESS AREAS

The provision of wilderness areas is a concept of major importance in this plan. They are proposed for two reasons: one may be termed "environmental protection" and the other the "wilderness experience".

Environmental protection: 13% of the proposed reserve comprises unconsolidated sand dunes and a further 46% is "recently" consolidated dune now supporting a relatively unstable woodland and scrub vegetation. Excessive vehicular traffic (particularly by four-wheel drive vehicles and beach buggies), overgrazing or uncontrolled use of fire in these areas will accelerate the movement of the open sand masses and lead to heavy erosion of the anchored dunes. Some form of protection of at least parts of this land form is essential.

The wilderness experience: As the population of Western Australia grows and continues to concentrate in the cities, there will be an increasing demand for places where beautiful coastal scenery and adjacent bushlands can be enjoyed in their natural state. In such areas the more hardy recreationist can seek solitude and adventure and come to terms with himself and his environment, while the naturalist can study indigenous plants and animals in their natural situation.

The philosophy underlying the wilderness concept is a difficult one to describe. Traditionally, Australians have looked to the construction of access roads as being basic to any development in a virgin area, be this agricultural or recreational or any other form of land development. Yet the pioneering days, at least in the south west of the State, are now over, and increasingly it can be expected that urban and industrialised populations will seek places where the spirit and the simple life of the pioneer can be recaptured. Not everyone will want such areas, but those who do must be considered. Part of the basic appeal of the coastal strip as it is today is its freedom from the sort of high density urbanised recreation which dominates the west coastal "tourist resorts" south of Perth. The conservation of natural areas for low density, extensive recreation and for scientific and educational reference can only be achieved through the dedication of such areas as wilderness.

Coastal wilderness areas such as those proposed in this report are a rare (if not already non-existent) resource in the south west land division.

Three wilderness areas are proposed. They are:

- Yeagerup: This is an area of some 13 200 hectares roughly bounded by the Warren and Donnelly Rivers. The bulk of the area is covered by the Yeagerup Dunes a huge unbroken sand mass with dunes up to 100m high.
- The Broke Area: Roughly bounded by the southern banks of Broke Inlet and the Southern Ocean, this occupies an area of approximately 10 000 hectares. Along the coastline in this area are some of the most superb cliffs and headlands in the entire reserve. The mouth of the inlet cuts these cliffs and is a place of rugged and incredible beauty.
- Nornalup National Park (western section): West of and adjoining the Nornalup Inlet, and including a number of offshore islands, this proposed wilderness area occupies some 6 000 hectares. The coastline in this area is again a wonderful sample of rugged coastal beauty.

It should be emphasized that this plan is not intended to keep people out of the wilderness areas. The basis of the concept is to provide places where people can walk, ride horses or journey by boat, and where they can find release from the pressure of urbanized life. The provision of walking trails is necessary in all of these areas.

## ROAD ACCESS

### Road needs and specifications

Carefully planned roading is the key to the development zones outlined above. The road system which most adequately copes with the requirements of the zonation is shown on Plan 3. The critical elements of this system are:

- a single major road outside and parallel with the inland boundary of the proposed reserve, and
- a series of access roads, built to defined specifications, crossing the reserve at right angles to the major road.

This system allows maximum access while creating a minimum impact on the reserve itself.

Roads will fall into three categories, defined as follows:

Arterial Roads ("A" Class): Sealed roads built to Main Roads Department specifications.

Sub-arterial Roads ("B" Class): Roads capable of carrying all-year traffic but not necessarily sealed, also designed by the M.R.D.

Tracks ("C" Class): Not necessarily all weather roads and construction not governed by specification. These will represent occasional access tracks, if necessary closed to the public and used mainly for fire control work.

#### Road Location

Class A roads will be constructed into the proposed fully developed areas at Windy Harbour, Broke Inlet and Black Point. The major road paralleling the inland boundary of the reserve will also be an A class road.

B and C class roads will be constructed across the limited development areas.

No roads will be constructed in the proposed wilderness areas, and existing roads and tracks in these areas will be closed.

#### A TIMETABLE FOR DEVELOPMENT

Two factors will govern the rate of development of recreation facilities and access roads in the proposed reserve. These are:-

- the availability of finance to carry out the work
- the capacity of the area to cope with the pressure put upon it.

Neither of these factors is easy to predict, but knowledge about them will emerge with the passage of time. It is, therefore neither possible nor desirable to write a rigid development programme at this moment. What is possible, however, is to suggest an initial priority list, based upon current use levels and demands. These priorities are:

1. Declaration of the wilderness areas and the closing of vehicular access within them.
2. Development of townsite plans for Windy Harbour, Broke Inlet and Black Point and the restriction of expansion of the existing settlement at the mouth of the Donnelly River.



3. Selection and survey of the A class road into Black Point and of the B class roads into the limited development areas. Construction of the Black Point road should then follow.

4. Construction of Zone 2 roads in the following order:

Banksia Camp Road

Warren Beach Road

Donnelly Boat Landing Road

Fish Creek Road

Roads into other Zone 2 areas (e.g. Gardner River mouth, Coodamurup, Lake Jasper, Malimup etc) should proceed when finance becomes available.

Development of picnic facilities, etc., at the ends of the above roads should take place concurrently.

A key function of the body administering the proposed reserve is to ensure that the development of facilities precedes their demand. But: development must never be permitted to outstrip demand, or the capacity for maintenance of facilities established.

#### RECOMMENDED TENURE CHANGES

As already described the major tenures within the proposed reserve are State Forest (approximately 1%), National Park (6%), vacant crown land (62%), miscellaneous crown reserves (26%) and private property (4%). Of the vacant crown land, about one-fifth is held under lease for pastoral purposes and a further very small area has been approved for alienation as private property.

If the area is to be adequately preserved and if the development programme outlined above is to be implemented, it is clear that changes to existing tenures will be necessary since security of tenure is vital to the entire project.

Problems of administration and development would be greatly simplified if the whole of the proposed reserve was of the same tenure. It is recommended that this should be a National Park or similar "A" Class reservation. There are obvious difficulties with this proposition, particularly with vacant crown lands held as grazing leases and with private property.

The presence of grazing leases is inimical to the purposes and objectives of the proposed reserve. Cattle compete with indigenous fauna for food, they can cause erosion of the sandy soils if overgrazing is permitted and they foul the beaches. An apparently essential tool of management of the grazier is the frequent, hot summer fire. This causes

considerable damage to the forests and woodlands within the area. The presence of cattle requires the provision of fences, stockyards and access tracks for the cattlemen. However, it is apparent that these leases are of economic benefit to the lessees. Clearly, it would be bad politics to announce their immediate revocation. It is therefore recommended that the lessees be informed of the ultimate plans for the area. Those whose leases are renewed annually should be given notice of revocation after a stipulated time, perhaps five years and the remainder informed that the leases will not be renewed when their current term expires.

It is necessary to appreciate some of the rights of the holders of Pastoral Leases. They may clear the bush and establish pasture; they are at liberty to prohibit public entry onto lease areas; they can construct fences across the beaches to the high water mark; and they can set fire to the bush virtually without restriction (this is mainly due to the almost complete inability of local authorities to police their activities). The nett result can be serious disfigurement and disruption of the natural bush environment. It is therefore suggested that for those leases within the proposed reserve, consideration be given to the amendment of certain provisions of the Lease Document. In particular restrictions should be imposed on such agricultural pursuits as clearing and pasture establishment and the prohibition of public access through lease areas should not be permitted.

The privately owned lands within the proposed reserve are a more difficult problem. It is recommended that a policy of Government resumption and repurchase be adopted. There are precedents for this with resumption and repurchase of private holdings in water catchments for example, in the Helena Catchment east of Mundaring Weir. It is recommended that a list of the private blocks in the proposed reserve be drawn up and a priority decided upon for transfer of these blocks to the crown. Obviously the project will depend upon availability of finance and the importance which the Government attaches to it.

## FIRE

A huge area of bushland in the south-west of Western Australia clearly poses a massive problem of fire control. There are two inescapable facts:

- each summer weather conditions will occur in which fires can run in the area, and
- fires will be started, either by natural or human agencies.

Fire has always been a natural part of the environment of this area. Plant and animal life has evolved in a fire climate and most species have unique adaptations which enable them to survive frequent, mild fires. The development of some species is inhibited by the prolonged exclusion of fire from the environment.

The most satisfactory solution to the fire problem appears to be a policy of regular prescribed burning carried out under controlled conditions and implemented by experienced personnel.

Special prescriptions may be required for the optimum protection of specific flora and fauna communities within the area (e.g. the peppermint woodlands). Research will be necessary to develop appropriate prescriptions and techniques for the use of fire in such areas. The controlled burning programme must be supplemented by stringent application of the conditions of the Bush Fires Act and by the maintenance of a fire fighting team capable of suppressing uncontrolled fires in the bush and in the settlements.

#### ADMINISTRATION

The foregoing proposals for the dedication and management of a large coastal park are meaningless unless a suitable body can be formed with the authority and means to effectively administer the area.

A suitable authority for this job would need the following characteristics:

- Vested authority to plan and to act.
- An understanding and sympathy with the interests to be served by the area and its plan.
- Technical know-how.
- A positive outlook and the ability to bring to fruition the objectives of the plan.
- A regular source of adequate funds, and the staff and plant to carry out annual works programmes.
- Administrative experience and the ability to engender public confidence in their plans and achievements.

It is recommended that an authority with these characteristics be formed to administer the National Park proposed in this report.

## ACKNOWLEDGEMENTS:

The W.A. Division wishes to express its thanks to the Conservator of Forests for permission to use base plans for maps 2, 3, and 4.

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## The Institute of Foresters of Australia Incorporated

### STATEMENT OF NATIONAL FOREST POLICY

The Institute of Foresters being the corporate body of the professional foresters of Australia, advocates that:-

- Land use should be based on the purpose for which land is best suited in the long term interests of the nation.
- There should be proper land use authorities to recommend upon such land use.
- Forestry interests should be represented by foresters both upon any such land use authorities and before any body empowered to recommend or determine land use policies.
- Sufficient forest should be maintained to meet as far as is practicable the productive, protective, recreative, aesthetic and scientific needs of the nation.
- Land provided by the State for forestry should be the subject of long term reservation by Act of Parliament, such dedication to be revocable only by Act of Parliament.
- Governments should ensure the proper management of all forests on public lands.
- Governments should foster the development of soundly based and properly managed forests on private lands.
- Public and private forests should be managed in accordance with sound ecological social and economic principles.
- Misuse of forest land to its long term detriment should be restricted by Government control.
- Forests should be maintained to meet as far as is practicable the various and varying needs of the community.

- Government policies which affect forest industries should ensure that the community's needs for forest products and services are supplied efficiently.
- Adequate finance should be ensured to achieve the national long term forestry objectives.
- The national forest resource should be kept under review by means of a continuing forest inventory.
- There should be continuing forestry and forest products research and co-ordination of this research at a national level.
- Quarantine services should be maintained to prevent the introduction and spread of forest diseases and pests.
- Graduate and post graduate level forestry training should be provided in tertiary institutions within Australia.

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