Walpole-Nornalup National Park

Management Plan 1992-2002

MANAGEMENT PLAN No. 22

Department of Conservation and Land Management

National Parks and Nature Conservation Authority

WALPOLE - NORNALUP NATIONAL PARK

MANAGEMENT PLAN

1992-2002

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Produced by the
Department of Conservation and Land Management
for
The National Parks and Nature Conservation Authority
Perth, Western Australia.

PREFACE

Most national parks and nature reserves in Western Australia are vested in the National Parks and Nature Conservation Authority (NPNCA) and managed by the Department of Conservation and Land Management (CALM).

The NPNCA is responsible for the preparation of management plans for all lands that are vested in it. Plans are prepared on a regional and area basis. Area plans for individual national parks and nature reserves are being prepared on a priority basis. This plan complements the Southern Forest Region Regional Management Plan (CALM 1987a).

According to the CALM Act 1984 management plans should contain :

(a) a statement of the policies or guidelines proposed to be followed; and

(b) a summary of operations proposed to be undertaken, for a specified period, not exceeding 10 years.

National park management plans are designed to cater for the public's demand for recreation opportunities while maintaining and restoring the natural environment, protecting indigenous flora and fauna, and preserving archaeological, historic and scientific features.

A draft management plan for Walpole-Nornalup National Park was prepared by CALM and issued by the NPNCA for public comment. After considering public comment, the NPNCA submitted the revised plan to the Minister for the Environment for approval. The Minister approved this document as the management plan for Walpole-Nornalup National Park on 5 February 1992

On 31 October, 1991, the Bush Fires Board endorsed this plan under Section 34(1) of the Bush Fires Act (1954).

ACKNOWLEDGEMENTS

The CALM Planning Team consisted of Rod Annear, John Gillard, Peter Hanly, Vicki Metcalfe, Alan Sands, Vanessa Smith (coordinator of the Draft Plan), Anthony Sutton (coordinator of the Final Plan) and Grant Wardell-Johnson. Richard Grant edited the final plan. The team was assisted by Alan Clarke, Bruce Bond, Charlie Salamon, Debbie Bowra and Denise Griffith.

Many people and organisations have contributed to this plan and their assistance is acknowledged. In particular, members of the Walpole-Nornalup National Park Association (especially Bill Jackson, Lee and Geoff Fernie, and Angela Wardell-Johnson), South Coast Professional Fishermen's Association, Peaceful Bay Progress Association, Peaceful Bay Sea Rescue Group, Bush Fires Board, Bush Fires Brigades, Walpole-Tingledale Land Conservation District Committee, WA Farmers Federation, Coalition for Denmark's Environment and the Denmark Environment Centre, who participated in workshops, attended meetings and were available for discussion. The cooperation and level of interest by the community has been of tremendous help in the preparation of this plan.

The Karri D'Entrecasteaux Region Advisory Committee (with the addition of nine coopted local people) participated in the workshops and discussed major issues of the plan, including zoning, overall goals, recreation, access and the Wilderness Area. The work of the honorary members -George Adams, Hugh Browne, Mario Camarri, Frank Ebbett, Dave Evans, Bruce Gallash, Thomas Gemer, David Hulcup, Robert Hunter, Bill Jackson, Yarra Korczynskj, Jim Lamb, Margaret Larsen, Frank Lovi, Brian Mitchell, Bill North, Paul Owens, Margaret Pearce, John Sanders, Mollie Smith, Merv Smith and Ian Tippett - is acknowledged.

The maps were compiled by CALM's Land Information Branch. The cover photograph of Nornalup Inlet is by Terry Goodlich.

SUMMARY

REGIONAL CONTEXT

Walpole-Nornalup National Park is located on the south coast of Western Australia, surrounding the towns of Walpole, Nornalup and Peaceful Bay (Map 1, page iv). The Park adjoins D'Entrecasteaux National Park to the west. Together with Quarrum Nature Reserve and William Bay National Park to the east, the southern coastline is reserved for about 190 km.

The Park also lies within CALM's Walpole District and in the Southern Forest Region. This plan complements the Southern Forest Region Regional Management Plan (CALM, 1987a). Within the Region, national parks comprise four percent of its area, nature reserves 1.7 percent, State forest 43 percent and private property 33 percent (CALM, 1987a).

The close proximity of State forest increases the conservation value of the Park as it forms a continuous natural area that maximises diversity and ecosystem integrity. It also provides a protective buffer for the Park.

VALUES

The Park's vegetation structure ranges from karri-tingle forest to sedgelands and includes 14 plant community types, 10 of which are susceptible to dieback disease and erosion. The flora of the Park is diverse with at least 698 native species including many that are restricted to high rainfall areas. The Park is one of Australia's richest reserves for orchids with 104 species and has four species of eucalypts endemic to the Walpole area, including the red tingle *(Eucalyptus jacksonii)* and the red flowering gum *(E. ficifolia).* Thirty undescribed plants have been found, some of which are endemic to the area.

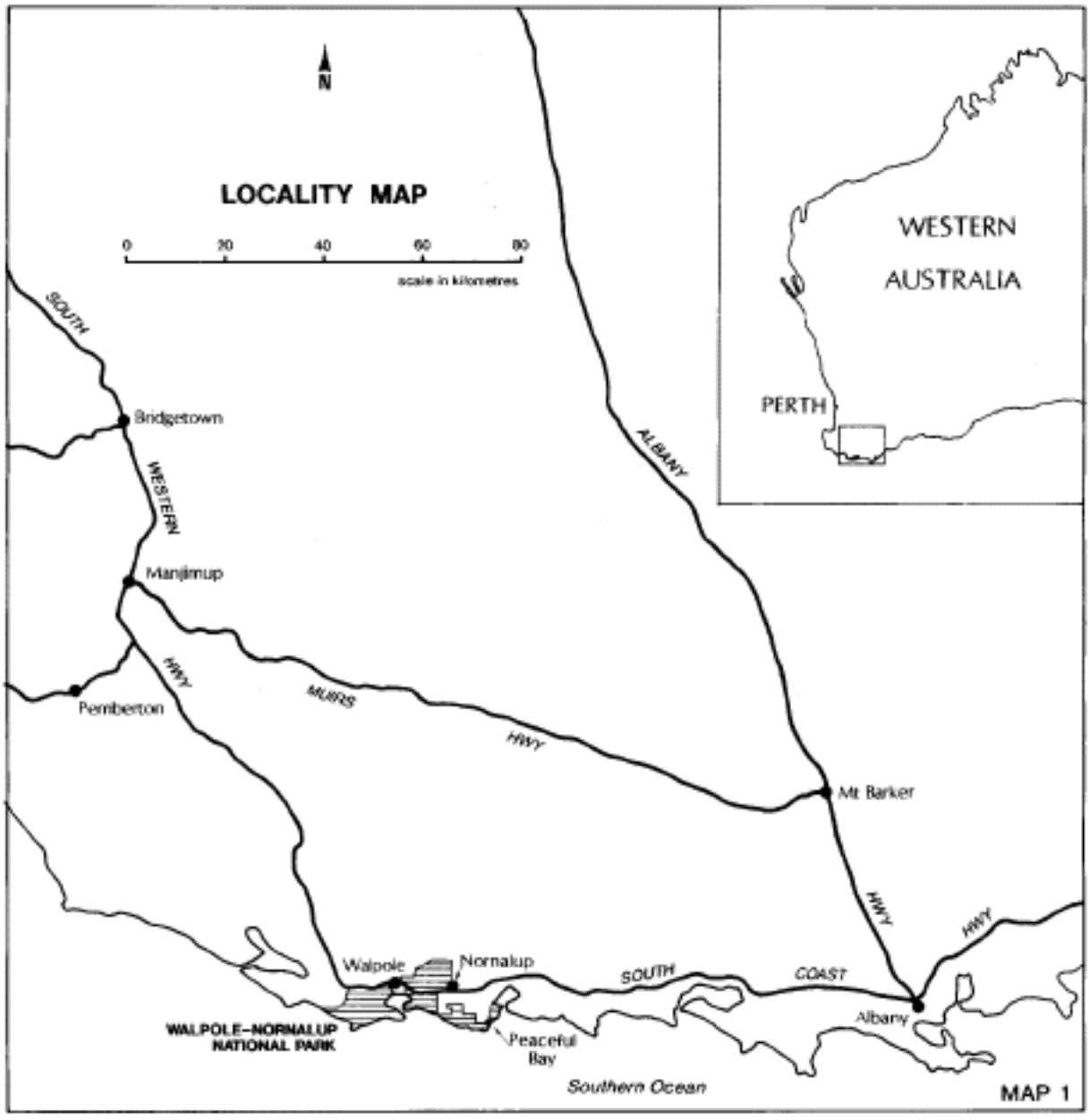
Of the 19 species of mammals found in the Park, one is gazetted as threatened as are four of the 109 species of birds. One species of frog is confined to a 12 km radius of Walpole, and one of the 22 species of reptile found in the Park is gazetted as threatened. The Park's animal community includes species of Gondwanan invertebrates that have survived for at least 65 million years.

Walpole-Nornalup National Park has spectacular landscapes encompassing estuaries, forested hills dissected by rivers and extensive areas where there is little or no evidence of human activity. It is one of the few places in Western Australia where the forest meets the coast.

Aboriginal occupation of the area dates at least 40 000 years, while the earliest recorded European contact was in 1627 when Francis Thyssen sailed along the south coast and named Point Nuyts. The first permanent European settlers arrived in 19 10.

The Park provides a range of activities for visitors that will be expanded when the Valley of the Giants, a major south-west forest attraction, is added to the Park. The extensive coastline attracts anglers, surfers, bushwalkers and four-wheel drivers; the rivers provide boating, canoeing and kayaking opportunities; the estuaries are popular for boating and fishing; and the forests attracts campers, walkers and day visitors. The Park is increasingly attracting people seeking wilderness experiences as well as adventure-based tours.

MAP 1.



MANAGEMENT GOALS

This management plan outlines the goals, objectives, strategies and actions to protect and conserve the Park's values and enhance visitors' appreciation of the Park over the next 10 years. The management goals for Walpole-Nornalup are based on goals for all national parks and on issues specific to the Park.

Management Goals for National Parks

The following management goals for national parks are derived from the Conservation and Land Management Act 1984 and Departmental policies. These goals are to:

- Protect and conserve native plants and animals and their habitats.
- Protect and conserve physical, cultural and scenic resources.
- Provide opportunities and facilities for appropriate public recreation.
- Regulate use to be consistent with the maintenance and protection of natural resource values and to minimise conflict between uses.
- Promote visitor safety, awareness and appreciation of natural processes, and the scientific and cultural attributes of park resources.
- Provide information, education and interpretive programs.
- Promote research and monitoring of the biological, physical and social environments to aid future management.

Management Goals for Walpole-Nornalup National Park

The following management goals for WNNP apply, based on the recognition that conservation is the highest priority.

- Conserve the Park's native plant and animal communities and species, and the natural processes that sustain them.
- Conserve the Park's landscape, in particular, extensive vistas free of human disturbance.
- Conserve the Aboriginal and European history of the Park.
- Fulfil the recreation requirements of visitors to the extent that they are compatible with conserving the Park's flora, fauna, scenic values and wilderness qualities, and ensure that the experience of visitors is not impaired by conflicting uses.
- Foster a sense of stewardship by the community for the Park through its conservation, landscape, recreation, cultural and historic values.
- Promote and undertake the scientific study and monitoring of those physical, biological and social values, and natural processes special to the Park.
- Measure and control impacts of management activities and human use on the Park environment.

KEY ISSUES AND MANAGEMENT ACTIONS

All strategies and actions in this plan aim to protect and enhance the Park's features, and to resolve and manage the following issues.

Plant Diseases

Dieback disease is present in the Park and could have a devastating effect on the Park's flora and associated fauna. It is the most important management concern in the Park. Factors contributing to the spread of the disease, such as 4WD access in coastal areas and other activities that involve the movement of soil, are targeted in the plan. Disease-free areas will be identified and protected. Other plant diseases such as *Armillaria luteobubalina* and windborne leaf attacking fungi are also serious threats to the Park's flora.

Zones

The Park has been divided into four zones to provide an overall framework to ensure the long-term protection of the Park environment (particularly sensitive areas) and to meet the varying needs of the Park visitors. Six areas have been designated 'special conservation' and access will not be encouraged; the Wilderness Area remains designated as 'wilderness'; low density use is catered for in 'natural environment' zones, which include much of the coast and the forest area between Hilltop and the Valley of the Giants; 'recreation' zones cater for medium and high-use areas, with Valley of the Giants and the Knoll as the high-use and Tinglewood Drive, Hilltop and Conspicuous Beach as medium-use areas.

Access

A variety of levels of access exist in the Park (foot only, bicycle, boat, 4WD and 2WD) contributing to a range of experiences for the Park user. The range of access will remain. Coastal access tracks will be rationalised and improved to single, good quality tracks. Sections of track infected with dieback disease will be upgraded and parking will be provided in sustainable areas.

Protection of Native Fauna

The presence of cats and foxes are a major threat to the fauna of the Park, while pigs can spread dieback disease and destroy fauna habitat. Programs to control feral animals in the Park will be continued and, if possible, increased.

Fire

A fire management plan has been compiled that aims to achieve a balance between the need to protect the Park, neighbouring towns and properties from wildfire, while also ensuring the needs of the Park's flora and fauna are met.

Weeds

Weeds are a major problem in the Park with more than 60 species being identified. The plan aims to control or, if possible, eradicate weeds that have the potential to cause major environmental problems.

Recreation

Most of the existing recreation areas will be progressively redesigned and recreation opportunities at some areas will be expanded. Recreation activities compatible with conserving the Park's values, such as camping and bushwalking, will be encouraged.

Valley of the Giants

The Valley of the Giants will soon be part of the National Park; the main recreation area was not designed to cater for the numbers it is now experiencing. The existing area is not capable of further expansion and so a new site will be developed. It will feature many large tingle trees and will be able to cater for the growing numbers of visitors to the Park.

Coalmine Beach Area

The Coalmine Beach area will be redeveloped as a low-key caravan and camping area.

Nuyts Wilderness Area

This special area will continue to be designated a wilderness. Degraded areas will be rehabilitated, the main access track will be upgraded to prevent the spread of dieback disease, and some fuel reduction burning will be undertaken to prevent the entire area being burnt in a single fire. All actions will be carried out subtly to maintain an environment as free as possible from the evidence of humans. Numbers of users may be controlled in the future, particularly at peak visitor times.

Dogs

Since the National Park virtually surrounds the towns of Walpole, Nornalup and Peaceful Bay, few opportunities exist for owners to exercise their dogs in the area, particularly on beaches. Dogs will be allowed on Foul Bay Beach for a distance of one kilometre from the shire boundary. No other area was considered suitable. The no-dogs rule will continue to be enforced in the remainder of the Park.

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TABLES

MAPS#

Inclusion of a name on the maps does not imply its approval by the relevant nomenclature authority.

RESOURCE DOCUMENT

For simplicity, much of the background information present in the Draft Plan has been omitted from the Final Plan. This additional information is available as a Resource Document from the CALM Walpole District Office.

INDEX TO ACTIONS

References are shown as the page number followed (in brackets) by the number of the action(s). Bold type denotes a principal reference.

PART A LAND USE MANAGEMENT

1.0 LAND TENURE

BACKGROUND

Tenure

Walpole-Nornalup National Park (18 390 ha) is located in the Shires of Manjimup and Denmark, and is vested in the National Parks and Nature Conservation Authority (NPNCA). It comprises A Class reserves A31362, A19175 and A19176, all with the purpose 'National Park'. It will also comprise State Forest No 42 (area 3110 ha), known as the Giants, including the Valley of the Giants. The addition of this area was recommended in the Southern Forest Region Regional Management Plan (CALM, 1987a), and arrangements for the transfer of the area into the Park are proceeding. For management purposes, State Forest No 42 is included in this plan. The Park also includes Reserve C26583 (reserved for a golf course which has not been developed) and Reserve C26584, reserved for a yacht club (Table 1 and Map 2).

Boundaries

The boundaries of the Park are complex, due mainly to the various enclaves of private property. The Park is not a continuous block, but is divided by other land uses. The Park's western boundary is Long Point Track, which forms a common boundary with D'Entrecasteaux National Park. The northern boundary consists of private property and the South Western Highway. Its eastern boundary is a combination of private property, shire reserves and the Irwin Inlet to the low water mark. The Park's southern boundary extends to the high water mark of the Southern Ocean and the low water mark of the Nornalup Inlet.

Other Land

Fourteen areas of Crown Land exist within or adjacent to the Park with purposes other than national park. All are ecologically important and most have been managed as part of the Park (Table 2 and Map 2). The Park is surrounded by private property, townsites, shire reserves and river catchments. Activities in these areas can affect the Park's values.

ISSUES

Private Property

The existence of private enclaves within the Park increases management concerns in relation to fire protection, introduction of weeds, access to and from the Park, domestic animals entering the Park, and wild animals damaging crops, fences and attacking stock. The provision of public services to private property enhances the risk of introducing dieback disease and weeds, soil erosion and impacts on the landscape. Changes in land use in private enclaves or adjoining properties, particularly proposed sub-divisions, need to be carefully considered in regard to their potential impacts on Park values, especially on landscape values and water quality, to ensure the Park is not adversely affected.

Shire Reserves

Shire reserves can be a source of weeds and fire escapes into the Park. Unfenced rubbish tips attract and support feral cat populations, while rubbish is dispersed into the Park.

TABLE 1. RESERVES AND ENCLAVES WITHIN WALPOLE-NORNALUP NATIONAL PARK

LOCATION/ NAME	RESERVE NUMBER	CLASS	AREA (HA)	VESTING	PURPOSE	COMMENTS
Frankland River (Parklands)	13045	A	371.7	Unvested	Parklands	See Table 2.
Rubbish Tip	21092	C	7.6	Unvested	Sanitary and Rubbish Disposal.	Relocate if possible; revegetate.
Yacht Club	26584	C	0.8	NPNCA	Yacht Club	Requires redesign.
Coalmine Beach Golf Course	26583	C	14.16	NPNCA	Golf Course	See Table 2.
Golf/Country Club	32462	C	95.5	Manjimup Shire	Recreation and Golf Course	--
Sawmill site	35966	C	7.76	Unvested	Sawmill site	Undeveloped - outside of town boundary.
Water Supply	37311	C	6.1	Minister for Water Resources	Water supply	---
Peaceful Bay	24510	A	218.78	Denmark Shire	--	---
Trig Station	11961	C	0.4	Unvested	---	--

LOCATION/ NAME	RESERVE NUMBER	CLASS	AREA (HA)	VESTING	PURPOSE	COMMENTS
cont …						
Pioneer Park	Pt A31362	A	---	NPNCA		Leased to Manjimup Shire for development of "a public park with a pioneer emphasis".
Nornalup	17937	C	0.2	Denmark Shire	Recreation	--
Walpole Cemetery	21093	C	9.1	Unvested	Cemetery	--
Near Sawmill	29777	A	3.63	Unvested	Cons. of Flora	---
	29778	C	8.02	Unvested	Forestry	---
	35966	C	7.76	Unvested	Sawmill site	Adjacent to Res. 31362.

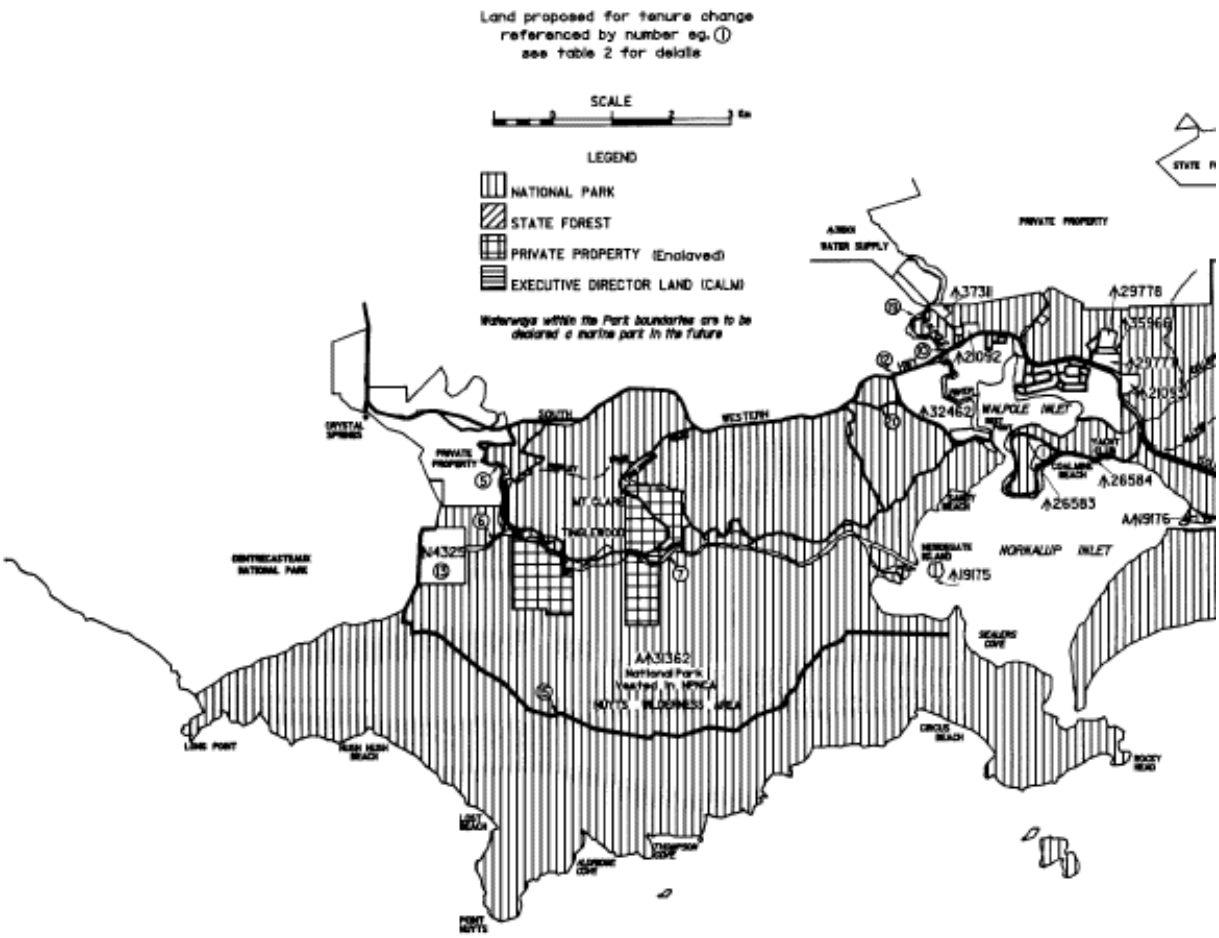
TABLE 2. PROPOSED LAND TENURE CHANGES

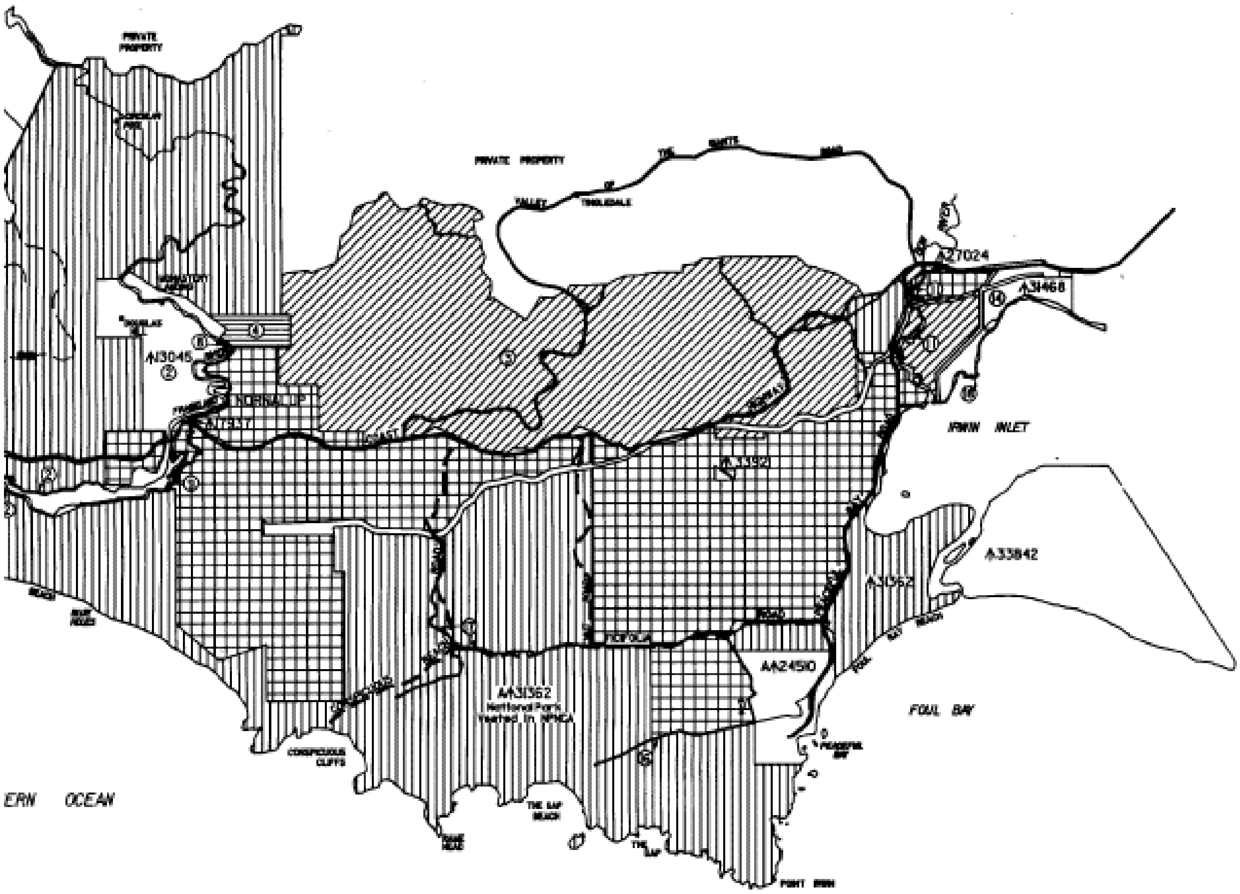
RESERVE No.	No. on Map 2	GENERAL LOCATION	AREA	CURRENT (Ha)	VESTING PURPOSE	ACTION REQUIRED
C26583	1	Coalmine Beach	14.2	Golf Course	NPNCA	Change purpose to Nat. Park
A13045	2	Frankland River	371.7	Parklands	Unvested	Add to WNNP**
State forest No. 42	3	Giants Block	3110	Multiple Use	L.F.C.•	Add to WNNP
Hay Loc. 602	4	North of Nornalup	64.6	Multiple Use	Exe. Director CALM	Add to WNNP
VCL#	5	Deep River banks	---	VCL	Unvested	Add to WNNP**
VCL	6	Landors Creek line	---	VCL	Unvested	Add to WNNP**
VCL	7	Deep River banks	---	VCL	Unvested	Add to WNNP**
VCL	8	Frankland River bank (along Hay 602)	---	VCL	Unvested	Add to WNNP**
VCL	9	Frankland River bank (Nornalup Bridge)	---	VCL	Unvested	Add to WNNP**
VCL	10	Walpole River (Pt of closed Rd)	---	VCL	Unvested	Add to WNNP
VCL	11	Along Bow River.	---	VCL	Unvested	Add to WNNP**
Pt A31362	12	North of SW Hwy.	---	National Park	NPNCA	Add to SF No. 48
C14325	13	Landors Gully	70.8	Water	Unvested	Add to WNNP**
C31468	14	Irwin Inlet	99.0	Recreation and	Unvested Parklands	Add to WNNP*
Roads	15	W-E surveyed Rd through Nuyts.	---	---	----	Close. Add to WNNP
	16	Surveyed Rd from P.Bay	---	---	---	Add to WNNP. Retain portion

		along southern boundaries of Loc. 1426&1427.				south of Loc.1426 as mgt track and access to the S.E. comer of Loc. 1426.
	17	Surveyed Rds adjacent to Conspicuous & Ficifolia Rds	---	---	---	Add to WNNP
VCL	18	Irwin Inlet banks	---	VCL	---	Add to WNNP
VCL	19	Walpole River west bank, north of SW Hwy.	---	VCL	---	Add to WNNP**

Vacant Crown Land • Lands and Forest Commission * Subject to land exchange considerations ** Subject to discussions with WAWA

TENURE - EXISTING & PROPOSED




PRIVATE PROPERTY
PRIVATE PROPERTY
VALLEY
OF
TINGLEDALE
A27024
A31468
A13045
NORNALUP
COAST
A3392
IRWIN INLET
A33842
A31362
A24510
A31362
National Park
Vested in NPNCA
FOUL BAY
CONSPICUOUS CLIFFS
PEACEFUL BAY
THE GAP BEACH
THE GAP
POINT IRWIN
ERN OCEAN

Townsites

The close proximity of the Park to the towns of Walpole, Nornalup and Peaceful Bay restricts the activities of residents in regard to exercising dogs and horses, and collecting firewood. The presence of the towns and the provision of services such as rubbish tips, SECWA and Telecom lines, and water supply pipes have an impact on the Park. The proposed expansion of the three towns will have an impact on the Park's landscape and conservation values.

OBJECTIVES

- *Simplify management by including Crown reserves and unused road reserves in the Park.*

- *Acquire, where possible, private property enclaves and properties adjoining the Park.*

- *Cooperate with the local communities and land owners to ensure that there is minimum impact on the Park.*

ACTIONS

1. **Implement the proposed tenure changes in Table 2 and Map 2. These proposals will increase the Park's size by 3719 ha to 22 109 ha.**

2. **Liaise with the shires of Manjimup and Denmark to ensure that management of shire reserves adjacent to the Park is coordinated and compatible with management of the Park. Encourage shires and the local community to take responsibility for weed control (including garden plants such as pampas grass), pest control and visual resource management (see Sections 6.0 Visual Landscape Management, 11.0 Weeds, 12.0 Feral Animals and 23.0 Community Relations).**

3. **Acquire, by purchase or exchange when available, private property enclaves and properties adjoining the Park that have exceptional conservation or recreation values, management benefits, or that could protect areas with these values within the Park. Acquisition must also consider other land uses and the views of the local community.**

4. **Liaise with owners of properties with boundaries common with the Park to establish cooperative management, particularly with regards to fire management and vermin control (see Section 23.0 Community Relations).**

5. **Use a coordinated approach between the relevant authorities, departments and landowners to ensure land uses or sub-divisions of enclaves or adjoining private land do not adversely effect Park values.**

6. **Liaise with the Shire of Manjimup to prepare a management plan for the Walpole rubbish tip site. Review and, if possible, arrange for the relocation of the tip. Liaise with the Manjimup and Denmark shires regarding the control of feral animals at, and fencing of, all tip sites (see Section 12.0 Feral Animals).**

7. **Support limited expansion of Walpole, Nornalup and Peaceful Bay, but only to a size where the environmental pressures on the Park are at an acceptable level.**

8. **Discuss with the Shire of Manjimup alternative sites to expand the Walpole townsite.**

9. **Encourage activities on private property that will complement Park management (see Section 21.4 Camping).**

10. **Encourage the use of areas outside the Park that are able to sustain activities such as pet exercising, horse riding and firewood collection (see Section 22.0 Pets).**

11. **Regularly inform the local community of issues concerning the National Park.**

12. **Continue regular fuel reduction burning around townsites (see Section 10.0 Fire).**

13. **Ensure that there is adequate access for Nornalup residents to the Frankland River foreshore while protecting the river banks.**

14. **Participate in discussions with the Western Australian Water Authority (WAWA) regarding addition of localities 2, 5, 6, 7, 8, 9, 11, 13 and 19 (Table 2) into the Park.**

15. **Extend the Park boundary along the coast to the low water mark.**

2.0 PARK ZONES

BACKGROUND

Management zones will protect the Park's environment, particularly sensitive areas, and will also meet the needs of Park visitors in an equitable way by providing the largest possible range of activities while minimising conflicts. Walpole-Nornalup National Park's zoning plan reflects detailed study of the Park's vegetation, particularly the identification of species vulnerable to dieback disease, and areas susceptible to erosion. Fire management will reflect the status of the zone (see Section 10.0 Fire). The zoning scheme will be used as a guide for future management (Table 3 and Map 3).

The zones are:

Special Conservation - Areas that contain plant and animal communities that require careful management and protection. Access to special conservation zones will not be encouraged although some activities that are compatible with the zone's value will be introduced. Six areas in the Park have been zoned special conservation.

Wilderness - An area of about 4500 ha is designated wilderness. Vehicles are not permitted in this zone (apart from exceptional management purposes, for example, emergency rescue operations or large scale rehabilitation work) and there will be no facilities provided.

Natural Environment - Extensive areas of the Park win be retained in their natural state. Vehicle access to these areas will be limited mainly to 4WD vehicles, with some 2WD access in forest areas (see Section 19.0 Access). Semi-primitive facilities will be provided (see Sections 20.0 Recreation Areas and 21.3 Bushwalking and Cycling).

Recreation - Two types of recreation zones are provided. One is the medium-use areas that are accessible to 2WD vehicles and have basic facilities and walking tracks. The other is the high-use areas that are accessible to all traffic including tourist buses and caravans. Facilities will include barbecue sites, toilets, information shelters and walking tracks.

OBJECTIVES

· *Define the management priority of different areas of the Park.*

· *Provide for a wide range of recreational opportunities.*

· *Ensure recreation activities occur in areas that can sustain those activities.*

ACTIONS

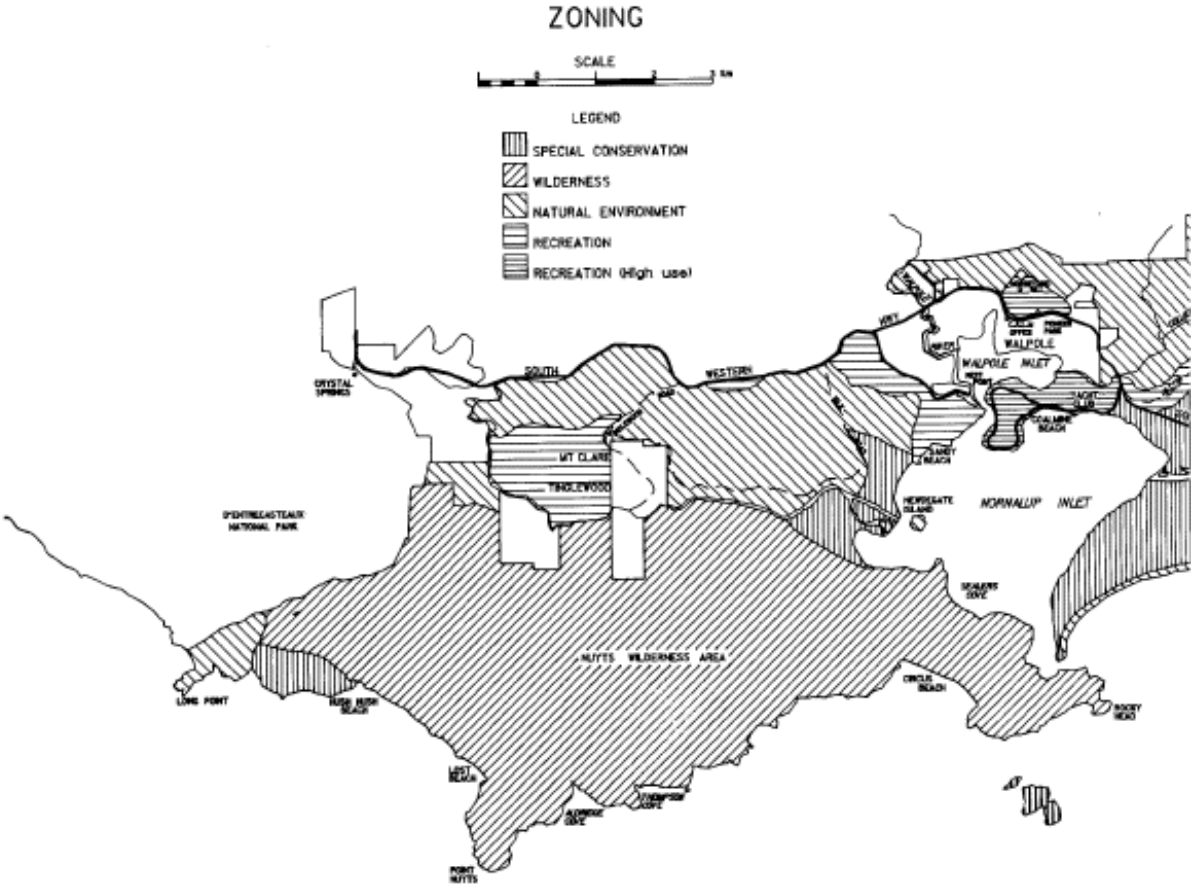
1. Use the zoning scheme for the Park (Map 3) as a guide for future management.

2. Classify the Nuyts area (Map 3) a 11 wilderness area" under section 62 of the CALM Act.

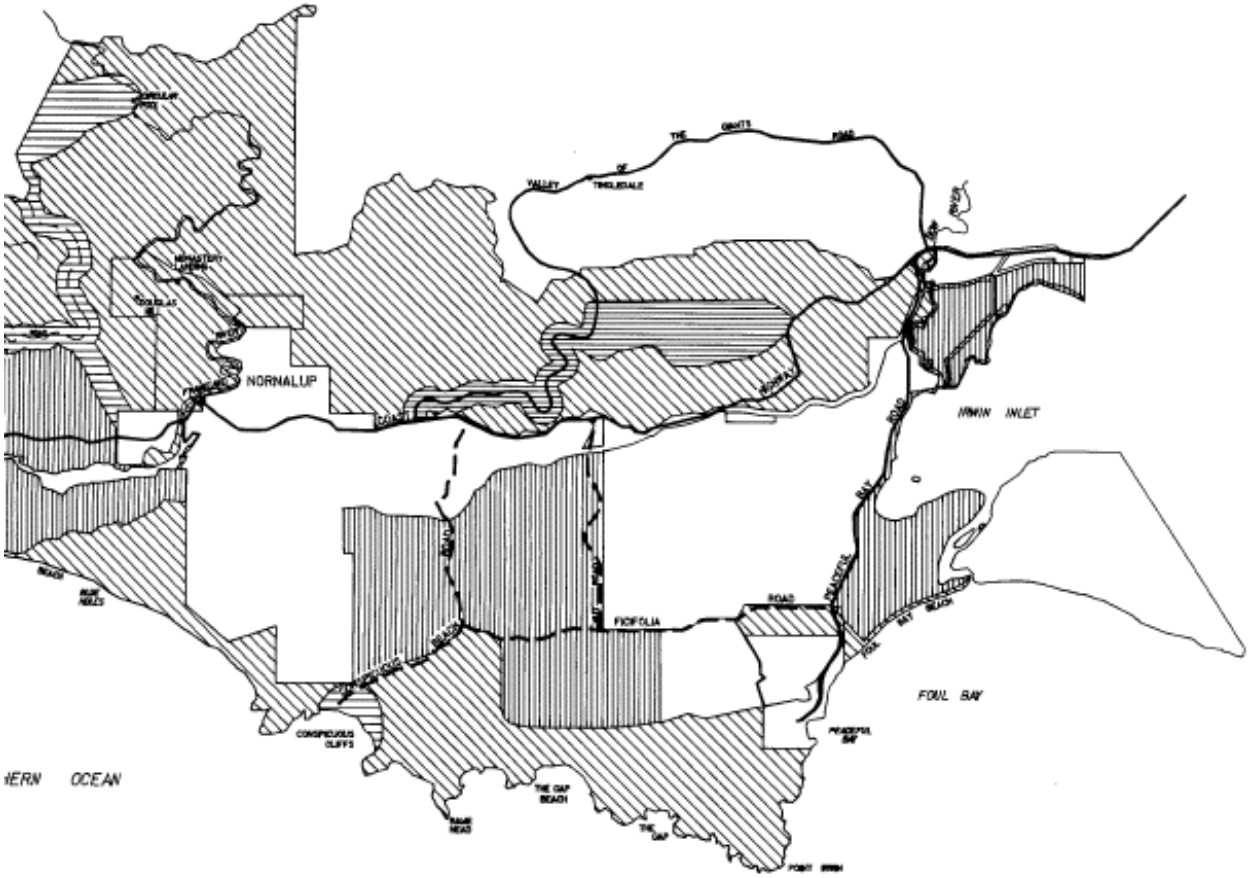
TABLE 3. ZONING SCHEME

ZONE	DESCRIPTION	RECREATION OPPORTUNITIES	LEVEL OF FACILITIES	EVIDENCE OF MANAGEMENT
Special Conservation	Areas which contain unique, vulnerable or threatened species, best examples of natural features, or represent-atives of plant communities.	- Usually non-motorised access except for research and management purposes. - Activities consistent with resource protection; recreation not encouraged,	No provision of facilities.	Low
Wilderness	Extensive area/s which will be maintained in a wilderness state; at least 2000ha.	- Non-motorised access except in an emergency. - Experience of an environment with little or no human modification. - Little if any contact with other people.	Primitive facilities if any, e.g. information at track head.	Low
Natural Environment	Areas which can sustain, with minimum impairment, a selected range of low density activities with a minimum of related facilities.	- Non-motorised and some motorised- mainly 4WD. - Experience of an environment with little human modification. - May be contact with other people.	Minimum of semi-primitive facilities, e.g. picnic facilities and toilets at camping areas.	Medium

Recreation (Medium and High Use)	Areas within which a broad range of recreation opportunities of medium to high density can be sustained, with related facilities.	- Motorised and non-motorised access. - Experience of an environment with some modification. - Usually contact with other people.	Basic facilities provided, e.g. picnic areas, information shelters, walk tracks, toilets, lookouts and fresh water.	Medium to high


ZONING
SCALE
LEGEND
SPECIAL CONSERVATION
WILDERNESS
NATURAL ENVIRONMENT
RECREATION
RECREATION (High use)
WALPOLE
WALPOLE INLET
SOUTH
WESTERN
MT CLARE
TINGLEWOOD
NORNALUP INLET
NUYTS WILDERNESS AREA
LONG POINT
POINT NUYTS

MAP 3


NORNALUP
IRWIN INLET
FOUL BAY
FICIFOLIA
CONSPICUOUS CLIFFS
THE GAP BEACH
THE GAP
ERN OCEAN

PART B MANAGEMENT FOR CONSERVATION PHYSICAL RESOURCES

GOALS:

- Conserve the Park's native plant and animal communities and species, and the natural processes that sustain them.
- Conserve the Park's landscape, in particular, extensive vistas free of human disturbance.

3.0 CLIMATE

BACKGROUND

Walpole-Nornalup National Park experiences a sub-mediterranean climate with mild summers and cold, wet winters (Gentilli, 1979). Season changes in temperature, rainfall and wind direction are marked, but less extreme than inland areas of the south-west. Frosts are generally uncommon, but peppermint and heathland vegetation may be seriously retarded or killed by frosts.

Mean maximum temperatures vary from 25.4•C in January to 16•C in July. Mean minimum temperatures range from 13.6•C in January to 7.4•C in August. Extreme temperatures of 40•C and over are rare.

The Park lies in one of the highest rainfall areas of the State with an average of 1324 mm per annum at Walpole. Although rainfall decreases markedly from the south-west to the north-east of the Park, the Park receives an average of 1200 mm of rain per annum. Rain falls on average 185 days per year, the consistency of which allows for the continued existence of relictual Gondwana invertebrates in the Park (see Section 8.0 Fauna).

ISSUES

- Annual rainfall has gradually decreased in the lower Walpole-Nornalup catchment since 1951, when the first rainfall records were recorded. Between 1956 and 1985 the mean annual rainfall at Walpole decreased about 200 mm or 14 percent (Hodgkin and Clarke, 1988).

- Coastal areas in the Park facing the prevailing south-westerly winds are prone to erosion from wind and tide.

- The mild to warm temperatures and frequent rain are conditions conducive to the spread of dieback disease, while stable temperatures and high rainfall create a plant growing season of 10 months. Consequently, annual grass and weed growth is considerable, and regeneration can occur quite readily. This has implications for rehabilitation projects, maintenance of walk tracks and weed control.

- Any change in the climate, particularly a reduction in rainfall, will have significant implications for the Park's flora and fauna. If the sea level rises as a result of the greenhouse effect there will be significant impacts on the coast and estuaries.

OBJECTIVE

Ensure the effects of climate on the Park are taken into account in all management actions.

ACTIONS

1. **Monitor climatic data for use in the management of the Park, particularly rainfall, wind speed and direction, frosts, and times of high fire risk.**

2. **Consider limiting development of recreation facilities in areas that may be affected by rises in the sea level.**

4.0 GEOLOGY, SOILS AND LANDFORMS

BACKGROUND

The Park lies within the Albany-Fraser Orogen (a geologic province) of the Ravensthorpe Ramp (a physiographic division), a sub-division of the Great Plateau that gradually slopes to the south coast (Wilde and Walker, 1984). It can be partitioned into three broad landscape zones: that characterised by sharply delineated landforms such as hills, ridges, slopes and plains; that dominated by the swampy terrain and parabolic dune systems; and that associated with drainage lines (Churchward *et al.,* 1988).

ISSUES

· Unsurfaced roads in hilly terrain, that cut through the brown, gravelly, duplex soils, can become extremely slippery when wet. Closure of some roads is necessary in winter as driving conditions are unsafe.

· The pale-brown, calcareous sands at Circus Beach, Bellanger Beach, Blue Holes, Conspicuous Cliff and the Aquarium are extremely sensitive to human activity and climatic changes. Blow-outs of mobile sands occur in these coastal areas.

· The flat, poorly-drained plains inland from the coastal dunes are conducive to the propagation and spread of dieback disease. Vehicle and pedestrian traffic also cause compaction.

· Major drainage channels, whose soils have a high peat content and support a diverse biota, are susceptible to compaction.

· Some soils in the Park are prone to erosion. Coastal dunes are particularly susceptible to wind erosion as are the soils in the *Acacia littorea* dune vegetation community (type 9; see Section 7.0 Flora, Table 4). Soils associated with the vegetation community comprising *Eucalyptus*

diversicolor and *E. jacksonii* (type 8; see Section 7.0 Flora, Table 4) are susceptible to water erosion.

· Granite outcrops contain fragile plant communities in pockets of soil or among moss sheets on exposed rock that are very sensitive to disturbance (type 13; see Section 7.0 Flora, Table 4).

OBJECTIVES

- *Protect all landforms and geological features, and the processes that sustain them.*
- *Minimise erosion, waterlogging and changes to drainage patterns resulting from management activities and visitor use.*
- *Provide interpretive information about the Park's landforms, soils and geology*

ACTIONS

1. **Use construction and design techniques that minimise the spread of disease (see Section 9.0 Disease).**
2. **Provide interpretive information regarding the Park's geology and geological history, and its relationship to the landforms, soils and vegetation (see Section 23.0 Community Relations).**
3. **Minimise management activities in, and any proposed public access to, the coastal dunes areas. The provision of access and recreation sites must be planned according to specialist advice on prevailing wind direction, stabilisation of slopes and dieback disease-risk areas (see Sections 19.0 Access and 20.0 Recreation Areas).**
4. **Monitor the movement of sand in blowouts by aerial photography or by using fixed monitoring points.**
5. **Monitor beach access points and coastal tracks for signs of degradation, and take remedial actions as required.**
6. **Continue to close gravel roads that become wet and slippery, and upgrade some roads in the recreation zones for all-weather use (see Section 19.0 Access).**
7. **Minimise development in riparian zones.**
8. **Consider soil type and characteristics in designing recreation sites.**

5.0 HYDROLOGY

BACKGROUND

Estuaries The Park is associated with the Walpole, Nornalup and Irwin Inlets. The Walpole and Nornalup Inlets are part of the same hydrological system and it is expected that these waters will be declared a marine park within the life of this plan.

Rivers

Two major rivers, the Deep and Frankland, and several minor rivers run through Walpole-Nornalup National Park. The two major rivers flow into the Nornalup Inlet which remains open to the sea. The Frankland River catchment extends almost to the wheatbelt town of Katanning and 85 percent of the area is cleared agricultural land. In contrast the Deep River's catchment remains largely uncleared State forest (PAID, 1984). Parts of the catchments of the Walpole, Junior, Collier and Bow rivers are in the Park. While the Bow River flows into the Irwin Inlet, the others flow into Walpole and Nornalup Inlets.

Groundwater

The free-draining soils on the sandy coastal plain have very little surface drainage. In these areas groundwater systems generally respond rapidly to rainfall, and the water table usually occurs within one metre of the surface (CALM, 1987b). These unconfined aquifers contribute to freshwater seepages on the coast. Behind the coastal dune belt, stream networks drain the seasonally inundated flats into low-lying lakes or swamps.

Water Quality

The water quality of the river systems varies depending upon salinity and nutrient levels. The Bow, Deep and Walpole rivers are fresh, while the Frankland River is brackish due to clearing in its catchment. The salinity level of the Frankland is rising annually.

The major threat to the water quality of the estuaries is nutrient enrichment (eutrophication), a problem caused by nutrient losses from human activities within the catchment of the estuaries. An algal bloom in the Walpole Inlet in 1990 indicates that this estuary, on occasions, may be approaching its nutrient capacity. Management of rivers and estuaries will be on a total catchment basis to ensure that further problems do not arise if the use of land intensifies outside of the Park.

Town Water Supplies

The Walpole River is the main source of water for the Walpole township. Butlers Dam supplied water to the town before the Walpole River pipehead was built, and it is proposed to utilise water from the Dam again to meet future possible demand. However, the Walpole treatment plant operates below capacity even at peak times. Peaceful Bay's water supply will be supplemented by a Shire of Denmark bore located in the Park. The Water Authority of Western Australia (WAWA) has identified potential dam sites on the Deep, Frankland, Walpole, Kent, Bow and Collier rivers for the possible

future supply of water to the area. This does not necessarily mean that WAWA proposes to develop these sites.

ISSUES

- Land uses outside the Park boundaries influence the water quality of the rivers and estuaries.

- Seepage from septic systems can contribute to the nutrient loads of the estuaries. Ablution blocks exist at Coalmine Beach, the Walpole Yacht Club, the Walpole townsite, and the Country Club.

- While the dam sites are not necessarily in the Park, their development could affect river flows through the Park, and also the dynamics of the Walpole, Nornalup and Irwin Inlets, particularly the opening of the inlet mouths.

OBJECTIVES

- *Manage the Park's water resources on a total catchment basis to ensure the protection of conservation, biological, aesthetic and scientific values.*

- *Ensure, as far as possible, that any reduction in river flow is minimised.*

- *Ensure that management enhances public enjoyment and recreational values of the water resources.*

ACTIONS

1. **In management activities take into account the need to protect the Park's water resources from changes in quantity, quality and seasonality, and in the provision of recreational opportunities.**

2. **Manage the Park's water resources on a catchment basis. Liaise with the Waterways Commission, Department of Agriculture, Land Conservation District Committees and landowners to:**
   - **encourage land use practices upstream of the Park that do not lead to further deterioration in water quality or changes in quantity; and**
   - **improve the water quality (for example, a decrease in salinity).**

3. **In consultation with the Department of Agriculture, map the land uses in river catchments associated with the Park to facilitate liaison with private landholders and land care groups.**

4. **Support continued monitoring of river flow and quality, with particular emphasis on the Deep, Frankland and Walpole Rivers, by the Water Authority and other approved bodies.**

5. **Encourage greater harnessing of the high rainfall in the area for the supply of domestic water.**

6. **Minimise the impacts on the Park from the supply of water to townsites, by limiting clearing of vegetation, enforcing dieback disease hygiene practices, avoiding sensitive areas and following visual resource management guidelines.**

7. **Ensure Park developments, particularly those within the viewshed of the estuaries, are carried out under visual resource management principles (see Section 6.0 Visual Landscape Management).**

8. **Encourage long-term research and monitoring of inlet dynamics, such as opening and closing of bars, water levels and rates of sediment accumulation, in consultation with the Environmental Protection Authority (EPA) and the Waterways Commission.**

9. **Ensure that Park toilets do not pollute the inlets.**

10. **Provide opportunities to view the inlets and surrounding landscape from a variety of levels of access (for example, from walking through to tourist buses).**

11. **Continue to liaise with inlet management committees.**

12. **Secure, for conservation purposes, as much of the perimeter of Irwin Inlet as possible.**

13. **Ensure artificial opening of the mouth of the Irwin Inlet does not cause excessive erosion or long-term disruption of inlet processes. Where possible, allow natural openings.**

14. **Investigate the need to monitor the habitat and feeding preferences of waterbirds and intertidal birds.**

6.0 VISUAL LANDSCAPE MANAGEMENT

BACKGROUND

Visual Landscape

Walpole-Nornalup National Park's visual landscape, with its diversity in vegetation, topography, coastal scenery, meandering rivers, and inlets surrounded by mostly natural vegetation, is one of its most important natural resource values. Three Landscape Character Types can be identified within the Park: the South-West Tablelands, the Coastal Lowlands, and the Coastline (Revell, unpublished). Within these Types the scenic quality is predominantly high or medium, with occasional areas of low scenic quality being associated with buildings. Map 7 in the Resource Document illustrates the Character Types and scenic quality zones for the Park.

Visual Landscape Management

Visual changes to the landscape occur continually. Natural changes are generally subtle and harmonious. Human-imposed changes, however, can either have a capacity to visually dominate natural elements and appear discordant and alien, or enhance such surrounding landscape elements providing an increase in scenic quality. Whether visual changes are perceived to be positive or negative depends on numerous variable factors including viewer position, view duration, view distance, landform, soils, aspect and type of landscape alteration. The ability of landscapes to absorb change without loss of scenic value also varies and depends on slope, soils and vegetation cover. Visual landscape management, therefore, involves extensive broad scale and onsite analysis, project impact evaluation, and sensitive site planning, design and construction methods.

A broad scale visual resource analysis was carried out for the Park. Scenic quality zones were identified. Specific visual analysis of the Park's landscape features included the identification and classification of optimal view positions, visual focus points and view potential from existing travel routes. This broad scale and site specific visual resource data is included in the Resource Document (see Tables 4, 5 and 6: Map 7).

ISSUES

- Alterations to natural landscapes often can have an undesirable visual impact that can be avoided or minimised. Visual landscape alterations within or adjacent to the Park, should conform to desired visual quality standards.

- Existing negative visual alterations in the Park include:

    - Coalmine Beach toilet blocks - disrupt views and break up the natural lines of the beach.

    - Walpole Yacht Club - disrupts views, and the colour and form of facilities detract from the natural character of the area.

    - Walpole townsite - contrasts in form, line and scale with the surrounding areas.

    - Private residences and Park structures - impose negative impacts upon viewsheds where the scale, form, colours, materials, patterns and their position in the landscape do not effectively borrow or blend with natural characteristics.

    - Terminus car parking areas - large free for all cul-de-sac parking can severely visually impact upon coastal landscapes and seldom function efficiently.

    - Coastal tracks - impose severe visual impacts along coastal landscapes if line and colour contrasts with the surrounding area; parking bays and beach access tracks often contrast sharply with natural landform and landcover patterns.

- Road alignments that do not follow natural landforms and surfaces that are not constructed of local material.

- Groups of unrelated signs which create 'visual clutter'.

- Visually disturbed ridgelines detract from views within and from the Park.

- Existing rubbish tips and quarries should be properly planned for within the Park, incorporating high quality design standards to minimise any potential or existing visual intrusions.

OBJECTIVE

Ensure that all uses and management activities are planned and implemented to complement rather than detract from the visual qualities of the Park's landscapes.

ACTIONS

1. **Ensure the following planning and design guidelines are incorporated in the development or alteration of high scenic quality zones:**
   - **Alterations to the natural landscape should be subtle, remaining subordinate to natural elements by borrowing extensively from form, line, colour, texture and scale found commonly in the surrounding landscape.**
   - **A site plan, at an appropriate scale, should be completed and approved by the District Manager before any development, maintenance or rehabilitation works are implemented.**
   - **Site-specific visual resource factors should be carefully identified and evaluated before any management activities are undertaken.**
   - **Facilities and activities that utilise and yet disturb little of the natural environment should be encouraged, for example, walking tracks and small picnic sites.**
   - **Degraded landscapes, for example, quarries and tips, should be rehabilitated after use.**
   - **Road design and construction should remain subordinate to landscape elements by utilising minimum design standards, limited cuts and fills, minimum clearing width, undulating edges, sensitive alignment and immediate revegetation of disturbed areas.**
   - **Interpretive and explanatory signs should be utilised before and during operations that alter visual landscape qualities.**

- **Where structures are required they should be sympathetic in design, materials and colour to complement surrounding landscape elements and be carefully sited away from major natural focal points, out of viewer sight lines and where vegetation or landform screening can be utilised.**
- **Roads and walking tracks should focus views onto distinctive features within the zone by selective siting and alignment.**
- **Essential firebreaks should follow natural landform, vegetation or land use patterns/breaks.**
- **Protection burning, if required, should be done before periods of high vegetation growth (where possible) and incorporate minimal visual impact prescriptions and techniques.**
- **Previously disturbed areas within zones of High Scenic Quality should be given the highest priority for rehabilitation until the desired standard of scenic quality is attained.**
- **Where environmental or visually destabilising facilities or activities are essential, the degree of resource value lost should be recognised, controlled by management and carefully monitored.**

2. **Ensure the following guidelines are incorporated in the development or alteration of moderate visual quality zones:**
   - **Alterations to the naturally established landscape character should borrow the form, line, colour, texture and scale attributes from natural elements and may result in an apparent but not dominant impact.**
   - **A site plan, at an appropriate scale, should be completed and approved by the District Manager before of any development, maintenance or rehabilitation works are implemented.**

3. **Ensure the following guidelines are incorporated in the development or alteration of low scenic quality zones:**
   - **Enhancement of scenic quality through rehabilitation works should be considered to upgrade the area to a higher amenity standard.**
   - **Views to disturbed landscape may require landform or vegetation screening.**

4. **Remove toilets at Coalmine Beach and negotiate options for alternative facilities.**

5. **Liaise with Walpole Yacht Club to reduce the visual impact of Club facilities on the surrounding landscape.**

6. **Encourage the planting of more indigenous trees within Walpole townsite to help integrate the town with the surrounding environment. Planting is to be in conjunction with the Walpole Town Site Improvement Program.**

7. **Encourage shires, other government agencies and private landholders to recognise the importance of visual resource management by sensitive siting of facilities and signs, selection of site compatible materials and colours, and careful planning and siting of utilities, jetties and roads.**

8. **As part of redevelopment plans for recreation sites, redesign or modify cul-de-sac parking areas to improve site efficiency and reduce visual impacts.**

9. **Close and rehabilitate coastal tracks that are not needed.**

10. **Ensure all road construction is carried out in a visually sensitive manner.**

11. **Develop all signs in accordance with CALM's Sign Manual and encourage the sensitive use of signs in areas adjacent to the Park.**

PART C MANAGEMENT FOR CONSERVATION BIOLOGICAL RESOURCES

GOALS:

- Conserve the Park's native plant and animal communities and species, and the natural processes that sustain them.

- Conserve the Park's landscape, in particular, extensive vistas free of human
- disturbance.

7.0 FLORA AND VEGETATION

BACKGROUND

One of the most distinguishing features of the Walpole-Nornalup National Park is the diversity of vegetation structure that ranges from tall, open karri-tingle forests to low sedgelands. The Park lies within the Nornalup and Boranup systems of the Warren Botanical Subdistrict of the Darling Botanical District (Beard, 1980). The plant communities are closely linked to the landforms and soils (see Section 4.0). Of the 78 landforms and soil types identified by Churchward *et al.* (1988) in an area extending from Windy Harbour to Cheyne Beach (80 km east of Albany) and inland as far as Rocky Gully, 30 occur in Walpole-Nornalup National Park.

At least 698 native species of plants occur in the Park, including 43 percent of the known plant species of the Warren Botanical Subdistrict and 17 species that are endemic to this Subdistrict. Walpole-Nornalup National Park has a high proportion of geographically restricted high rainfall species.

The Park's native flora consists of four families of ferns and 82 families of flowering plants. The major families represented are Orchidaceae (104 species), Papilionaceae (50), Myrtaceae (52), Cyperaceae (36), and Proteaceae (43). Major genera include Stylidium (32), Caladenia (30), Hibbertia (12), Melaleuca (13) and Leucopogon (13). The Park is also one of the richest reserves for orchids of any area in Australia. Annuals and small shrubs are also a dominant component of the flora. Trees and large shrubs, although structurally dominant, make up a small proportion of the flora. Four species of eucalypts which are restricted to the Walpole area are found in the Park: Rates tingle *(Eucalyptus brevistylis);* red tingle *(E. jacksonii);* yellow tingle *(E. guilfoylei);* and red flowering gum *(E. ficifolia).*

Peak flowering occurs between October and December, while the least number of species bloom in June and July. The large number of wildflowers, particularly orchids, attract many visitors to the Park.

ISSUES

- Several of the 14 plant communities identified in the Park (Wardell-Johnson, *et al.* 1989a) (Appendix 1) are highly sensitive to dieback disease, erosion, weed invasion, soil compaction and fire (Table 4).

- At least 37 species of the plants are geographically restricted to the Park, including two that are gazetted as threatened (priority flora). Many of these species are poorly understood taxonomically.

· Insufficient knowledge exists about the Park's key species. These species would precipitate significant losses of other species if they were to be removed from the Park (Gilbert, 1980). Many of the key species are susceptible to dieback disease and are thought to be vulnerable to frequent high intensity fires.

- The Park has at least 12 plant species that need to be considered during the planning of Prescribed bums. Five of these are priority flora (see the Resource Document, Table 20).

- Dieback disease caused by the fungus *Phytophthora cinnamomi* (and other species) has been present in the Park for a long time. Many species of community types 3, 5, 6, 10 and 14 are susceptible to the disease (see Table 4 and Appendix 1).

TABLE 4 RELATIVE SENSITIVITY OF PLANT COMMUNITIES

COMMUNITY TYPE	EROSION	COMPACTION	INCIDENCE OF PRIORITY PLANT SPECIES	WEED INVASION	DIEBACK DISEASE
1. *Pimelea longiflora* Heathland	*	**	**	*	**
2. *Agonis parviceps* Shrubland	*	**	*	*	**
3. *Beaufortia sparsa* Plain	*	*	***	*	***
4. *Agonis parviceps* Shrubland - *Bossiaea webbii* Forest ecotone	*	***	*	*	*
5. *Agonis parviceps* Shrubland - *Acacia browniana* Forest ecotone	*	***	***	*	***
6. *Dasypogon bromeliifolius* Heath and Shrubland	*	*	***##	*	***
7. *Allocasuarina fraseriana* Forest	*	*	**	*	*
8. *Eucalyptus diversicolor* - *E. jacksonii* Forest	**	**	***	*	*
9. *Acacia littorea* Dune	***	*	***#	***	*
10. *Banksia littoralis* Interdune	**	*	***	**	***
11. *Jacksonia furcellata* Dune	**	*	**	**	**
12. *Allocasuarina humilis* Dune	**	*	**	**	**
13. Granite outcrop and Headland	*	***	***	***	**
14. Owingup swamp and riparian zones	**	***	***	***	***

*** Most sensitive * Least sensitive or susceptible # Many bulb or corm producing species eg. *Caladenia* spp

Many fire sensitive obligate seed regenerators of long juvenile period.

OBJECTIVE

· *Protect and maintain existing plant communities, emphasising priority and key species.*

ACTIONS

1. **Minimise the introduction and spread of disease by implementing strategies in Sections 9.0 Disease and 19.0 Access.**

2. **Minimise the introduction and spread of weeds by minimising:**
   - **the length of the Park boundary (see 1.0 Land Tenure)**
   - **the number of management tracks (see 19.0 Access), and**
   - **fires within the Park, particularly near sources of weed invasion (for example, adjacent private property).**

3. **In fire management, aim to retain a proportion of each vegetation community in areas that have not been burnt for a long time.**

4. **Protect populations of species that are vulnerable to particular fire regimes by appropriate fire management strategies (see Section 10.0 Fire).**

5. **Ensure that locations of priority, key and threatened flora species are known and the information is stored in the Walpole District Office. Ensure that these records are consulted and appropriate action taken before development or management actions are undertaken.**

6. **Minimise the removal or damage to vegetation caused by development and maintenance of facilities and utilities.**

7. **Rehabilitate degraded vegetation (see Section 13.0 Rehabilitation).**

Research and Monitoring

8. **Research the response of management regimes (especially fire) on plant community types.**

9. **Survey areas proposed for management activities for priority, key and threatened species before the activity begins.**

10. **Determine the locations of populations of priority and fire sensitive species and develop management recommendations for their conservation.**

11. **Map the location and extent of priority flora and species vulnerable to frequent fire or fire exclusion for long periods.**

12. **Research the susceptibility to dieback disease, response to fire, reproductive biology, taxonomy and age to maturity of all priority plant species.**

13. **Determine the factors governing the distribution of key and priority species.**

14. **Research the susceptibility of plant species to plant pathogens in areas of coastal dune systems and assess the possible ecological impact of changes in plant communities.**

8.0 FAUNA

BACKGROUND

Walpole-Nornalup National Park has considerable value for fauna conservation due to its relatively pristine state, its continuity with surrounding uncleared lands that provide a wide range of habitats and corridors for migration, and its diverse landforms and high rainfall. The distribution of animal communities is broadly linked to the Park's landform systems rather than plant communities (see Section 4.0 Geology, Soils and Landforms).

The mammal fauna of the south coast has declined considerably since European settlement (How *et al.*, 1987*).* This decline has been attributed to clearing, changing fire regimes, and introduced pests and diseases. Nevertheless, it is believed that few species have become extinct since settlement.

Nineteen species of native mammal are found in the Park, including the Southern Brown Bandicoot which is gazetted as threatened. In addition, two gazetted threatened species - the Chuditch and Western Ringtail Possum - may occur in the Park. The Park also has populations of Honey and Pygmy Possums, Quokkas and Brush-tailed Phascogales which are all uncommon.

One hundred and nine species of birds are found in Walpole-Nornalup National Park, including five species that are gazetted as threatened. This relatively high number of species is attributed to the wide range of habitats found in the Park.

Twenty-two species of reptiles, including three restricted to the southern dunes, occur in the area (Wardell-Johnson, data, species lodged at WA Museum). The reptile fauna of the Park is low compared to similar sized areas in the and zone. This is attributed to the relatively even distribution

of rainfall and cloud cover, and rapid temperature changes in summer. The greatest number of reptiles are found in the coastal dunes followed by swamps and flats where fallen and dead vegetation provides a complexity of refuges.

The Park is also one of the richest areas for frogs in Western Australia. All 12 species found in the Park are endemic to the south-west. One species *(Geocrinia lutea) is* found only within a radius of 12 km of Walpole (Roberts *et al.,* 1990*).* Swamps and drainage lines support the greatest number of species.

Little is known of the invertebrates of the Park, but what is known indicates that pockets of these animals have survived from 65 million years ago when Australia was part of the super continent Gondwana. The climate in that era was warm and moist, with little seasonal variation. The relatively non-seasonal climate of the Walpole area and the persistence of the red tingle tree, which provides a moist, protected habitat, have allowed these Gondwanan relicts to survive in this area. Related species survive in the rainforests of Tasmania, eastern Australia, New Zealand, Chile and Madagascar. Relict species of spiders include *Baalebulb sp.*, *Dardarnus* sp. and *Moggridgea tingle* (Main, pers. comm., 1989; Main, 1991).

The fauna of the mostly saline lower reaches of the Frankland and Deep Rivers tends to be also found in the inlets, although species diversity and numbers vary because of different salinity levels. Common species include the crustacean *Gladioferens imparpies,* the benthic (bottom-dwelling) worm *Ceratonereis aequisetes,* the shellfish *Arthritica semen,* the Wide-mouthed Lamprey *(Geotria australis)* and Black Bream (Lenanton, 1974). The Mud Minnow *(Lepidogalaxas salamandroides) is* confined to the peaty swamps.

ISSUES

Mammals

· The Southern Brown Bandicoot, Chuditch, Western Ringtail Possum and six other mammals are vulnerable to frequent fires, either indirectly through immediate loss of nectar for food (for example, the Honey Possum) or through the loss of overhead cover and an open ground layer (for example, the Quokka). The Honey Possum is also vulnerable through the introduction and spread of dieback disease since much of its food comes from plants susceptible to the disease (see the Resource Document, Table 24).

Birds

• Sites within the Park are included in the management and translocation program for the threatened Noisy Scrub-bird. These sites cannot be burnt, although prescribed burning may be necessary in adjacent areas to protect the sites from fire. Small areas of suitable habitat for the Western Bristlebird also occur in the Park, although this species no longer exists in the Park.

- The Black Bittern, which requires dense valley vegetation, and the Red-winged Fairywren are slow to recover following fire (Rowley *et al.*, 1988; Wardell-Johnson, karri bird study data, Manjimup).

Reptiles

· The habitat requirements of the Short-nosed Snake *(Notechis minor),* one of the most restricted snakes in Australia, are unknown, although specimens collected are from moist sites in coastal dunes or swampy terrain.

Invertebrates

· Although some research has been carried out on the Park's invertebrates more needs to be known about these special and unique fauna.

OBJECTIVES

· *Protect all native species, particularly those that are threatened or vulnerable to disturbance.*

· *Re-introduce native animals that were once found in the Park if resources are available and research shows benefits to the Park's biota.*

· *Control pests where this does not compromise other conservation objectives.*

ACTIONS

General

1. **Protect habitats from dieback disease (see Section 9.0 Disease), inappropriate fire regimes (see Section 10.0 Fire) and human disturbance.**

2. **Control introduced species that are damaging or could potentially damage native fauna provided that this does not compromise other conservation objectives (see Section 12.0 Feral Animals).**

Threatened and Priority Species

3. **Priorities for the protection** *of* **priority mammals in decreasing order are the Chuditch (re-introduction and monitoring), Western Ringtail Possum (reintroduction and monitoring) and Honey Possum (monitoring). Priorities for vulnerable birds are Noisy Scrub-bird (monitoring and re-introduction) and Western Bristlebird (re-introduction).**

Research and Monitoring

4. **Continue to identify key and vulnerable species and develop a sound knowledge of the whole community response to disturbances such as dieback disease, fire, recreation use and management actions.**

5. **Determine the species composition of selected groups of invertebrates likely to include species that are vulnerable and** *of* **high conservation value (for example, molluscs and spiders) in the full range** *of* **community types.**

6. **Determine** the **ecology, taxonomic status, management** and **climate requirements of endemic relictual invertebrate species of narrow habitat requirements.**

7. **Investigate the habitat requirements and ecology of vulnerable species in relation to the impact of predation, fire regimes, dieback disease occurrence and climate.**

8. **Use the results of the above investigation to determine the processes required to maintain or enhance populations of vulnerable vertebrate species.**

PART D MANAGEMENT FOR CONSERVATION PROTECTION

GOALS:

- Conserve the Park's native plant and animal communities and species, and the natural processes that sustain them.

- Conserve the Park's landscape, in particular, extensive vistas free of human disturbance.

9.0 DISEASE

BACKGROUND

Dieback disease, caused principally by the fungus *Phytophthora cinnamomi,* is the most important management concern in the Walpole-Nornalup National Park. Diseases such as *Armillaria luteobubalina* and the wind-borne leaf attacking canker, of which there are many species, the most wide ranging being *Botryosphaeria ribis*, are also serious threats.

Coastal areas of the Park contain large numbers of susceptible species in vulnerable locations and the impact from the disease is currently or potentially very high. Dieback disease has already killed many species of plants over quite large areas of the Park including areas around Peaceful Bay, Conspicuous and Ficifolia roads, Long Point track and the Nuyts Wilderness Area. Most infections start along roads, tracks and firebreaks, and subsequent spread has been primarily, but not exclusively, by water.

P. cinnamomi requires warm, moist conditions for the release of spores; optimum conditions are wet or moist soils, with a temperature around 24•C. The climate at Walpole (particularly periods after spring and summer rain), together with some soil types that are not free-draining, are conducive to the spread of the disease. Once released the spores can be spread in a variety of ways. The spores survive well in moist or wet soil and any movement of the soil can spread the disease. Stringent dieback disease hygiene practices need to be carried out for all activities involving the movement of soil, particularly the construction of new tracks.

Once dispersed the spores of the fungus may infect a wide range of plants, however, it only flourishes in susceptible plant tissue. Many susceptible species occur in the *Proteaceae, Epacridaceae, Xanthorrhoeaceae, Myrtaceae, Dilleniaceae and Papilionaceae* families. Coastal areas, particularly banksia woodlands and heath, are most threatened because of the large numbers of susceptible species, the tendency for the soils to warm up, and because they also contain some soil types that become easily waterlogged. Karri and tingle forests have fewer susceptible species and the dense growth tends to produce cool soil temperatures that minimise the activity of the fungus.

To date, 35 out of 82 species of plants assessed in the Park have been found to be susceptible to dieback disease. At least 14 others are inferred as being susceptible, many being key species. At least seven species of priority flora are thought to be susceptible (see the Resource Document, Tables 19 and 21).

Table 4 (see Section 7.0) shows the plant communities most at risk from dieback disease. Plant community types 3, 5, 6 and 10 have a high proportion of susceptible species, while types 3, 5, and 6 also have soils that impede drainage and so have a high risk of spread. Plant community types 3, 10 and 14 are moist during warm periods and so are also highly susceptible.

The identification of areas of susceptible vegetation that are free from dieback disease, is one of the highest priorities of Park management. Vegetation mapping coupled with ground interpretation will help achieve this goal.

ISSUES

· Dieback disease has had a major impact on many plant communities in the Park, not only in the loss of diversity, loss of threatened species and threats to food sources and habitats of fauna, but also the loss of visual values.

· Four-wheel drive coastal tracks, particularly sections of the Rame Head and The Gap tracks along which the disease is known to have spread, are of great concern. It is unacceptable to have traffic (either vehicle or foot) passing through inundated and infected areas.

· Dieback disease has also been found on the main walk track into the Wilderness Area.

OBJECTIVES

- *Prevent the introduction of dieback and other diseases into disease- free areas.*

- *Control the spread of dieback and other diseases in areas where they already exist.*

ACTIONS

1. **Continue dieback disease surveys of the Park to identify and then protect dieback disease-free areas.**

2. **Re-develop or close any vehicle or walk track that passes through inundated, infected areas or high risk areas (based on the dieback disease survey mentioned in Action 1.).**

3. **Inform Park users about dieback disease and the need to stay on well-formed roads or tracks.**

4. **Consider temporary closure of tracks when the risk of spread of disease is high, for example, after summer rainfall.**

5. **Subject all proposed maintenance and development activities to an evaluation of the consequences of the activity (CALM Seven-Way Test).**

6. **In all operations follow the hygiene practices given in the CALM Dieback Hygiene Manual. Develop new procedures as necessary.**

7. **Consider provision of wash-down facilities at major track entrances. For example, at Crystal Springs, Peaceful Bay and at the entrance to Blue Holes. Actively promote the need for all users to wash-down their vehicles before entering the area. Encourage volunteer involvement to help ensure the washing of vehicles is carried out.**

8. **Consider provision of footbaths (containing fungicide) at the entrances to walk tracks that traverse dieback disease susceptible plant communities.**

9. **Ensure all staff associated with the Park are trained in dieback disease recognition, sampling and management techniques.**

Research and Monitoring

10. **Determine boundaries of and regularly monitor known infections. Develop a comprehensive description of each infection, including information on species affected, vegetation association, infection area, rate of spread, soil profile, topography and threat to ground and surface waters.**

11. **Continue to survey and sample roads, tracks (including management-only) and walk tracks within the Park for signs of dieback disease.**

12. **Quantify the impact of each disease species. This information is necessary in order to assign and predict hazard ratings for vegetation associations in the Park.**

13. **Investigate possible control and eradication procedures while ensuring that they do not place other areas or values at risk. Isolation of all the infections should be of the highest priority.**

14. **Determine the extent of susceptibility of plant species in the Park starting with threatened and priority species.**

15. **Monitor the presence of other plant diseases, such as Armillaria and canker causing organisms, and take appropriate actions to limit their spread.**

10.0 FIRE

BACKGROUND

History

Fire was and continues to be a recurrent event in most eucalypt forests in Australia. Lightning strikes and the use of fire by Aborigines were the sources of forest fires for thousands of years before

European settlement. Coastal areas in the Walpole-Nornalup National Park were also burnt regularly from the 1850s to the 1970s to promote fodder for grazing cattle.

Many major wildfires in the Park have caused structural and visual deterioration of some forest areas in the Hilltop, Giants and Bellanger Beach areas and in the Ficifolia block around Peaceful Bay. Since the early 1970s prescribed bums have been carried out in the Park as part of a regular fuel reduction burning program.

Behaviour

Fire behaviour is affected by the amount and type of fuel, air temperature, fuel dryness, wind speed and topography (Sneeuwjagt and Peet, 1985). Four major fuel types exist in the Park: karri-tingle, jarrah, swamp-flats, and heath. Each fuel type accumulates fuel at different rates and has different fire spread characteristics.

The Walpole area experiences strong winds during summer, usually from the north-east in the morning and the south-east in the afternoon. Strong winds from the north-west in summer and autumn can fan intense, fast moving wildfires. The topography of the Park includes steep slopes and gullies that make wildfires difficult and dangerous to control, and can promote erratic and severe fire behaviour.

Ecology

Although there have been few studies published on the response of the biota to fire regimes in Australia it is possible to make fairly accurate and reliable predictions when surveys are coupled with a good knowledge of the life history strategies of the component organisms (Burrows *et al.,* 1987, Hopkins and Saunders, 1987, Wardell-Johnson *et al.,* 1989b). Therefore, guidance on the fire response of plants in the Walpole area is now available (Wardell-Johnson, data).

However, little data is available on the effects of fire on red tingle, particularly in the early years after regeneration. The species is unique to the Walpole-Nornalup area and may be a relict of earlier eucalypt forests that invaded the southern beech forest, millions of years ago when rainfall fell below 1800 mm. per annum (Main, pers. comm., 199 1).

Although much is known about vertebrates, little information is available on seral preferences for invertebrates. Main (1987 and 1991) suggests that certain vulnerable invertebrates occurring only in the Walpole area once existed in rainforest that rarely, if ever, experienced fire. These organisms pre-date the increased occurrence of fire in this environment.

The longevity, fire response, origin, dieback disease response and flowering or active period of plants provide guidance on the sensitive flora and plant communities with respect to fire management (Wardell-Johnson *et al.,* 1989b). These attributes have been recorded, where possible, for the 429 species occurring in 145 regularly monitored quadrats in the Park (the fire response of 72 species is unknown). Table 5 lists the numbers of species according to response categories following fire.

Proportions of species in each fire response category varies according to community type. Community type 8 (karri-tingle forest) includes the highest proportion of species with soil seed storage; others with a high proportion are 9, 10, 11 and 12 (see Section 7.0, Table 4).

It is desirable to maintain a range of fuel ages for each vegetation type so that there is a diversity in vegetation structure and habitat types. An extensive fire that bums most or all of each major vegetation association is considered undesirable. The necessary fuel reduction bums will ensure sufficient young seral stages. As some rare species tend to be those favouring a late stage of succession, it is desirable to maximise the age of other areas to ensure that vulnerable species are not disadvantaged. Mature red tingles are particularly prone to bark ignition and consequently buttress attrition which, in some cases, has led to the collapse of trees after fire. An increase in weeds and a long-term impact on an area's visual quality can also result from frequent or high intensity fire.

TABLE 5. FIRE RESPONSE: NUMBERS OF SPECIES BY CATEGORY

RESPONSE OF MATURE PLANTS TO 100% SCORCH	METHOD OF SPECIES SURVIVAL	NUMBER OF SPECIES
Dies	plant seed storage	8
Dies	soil seed storage	78
Dies	no seed storage	5
Dies	plant seed storage, soil seed storage or no seed storage.	37
Survives	soil suckers	16
Survives	basal sprouts	101
Survives	geophyte	58
Survives	large apical bud	11
Survives	epicormic shoots	19
Survives	soil suckers, basal sprouts, geophyte, large apical bud, or epicormic shoots.	24
Survives	unknown	72

ISSUES

- Fire suppression strategies undertaken in the Walpole-Nornalup National Park must take into account the risk of spreading dieback disease and the subsequent impact on ecosystems.

- Special values within or near the Park need protection from fire. They are:
  - the safety of visitors and CALM staff,

- the towns of Walpole, Nornalup and Peaceful Bay;
- private property;
- karri-tingle regeneration areas in the Valley of the Giants and Hilltop area;
- areas used for the translocation of the Noisy Scrub Bird; and
- the red tingle forest.

· Fuel reduction strategies around townsites and in adjacent State forest must be consistent with aesthetic and environmental management objectives.

· The complex shape of the Park, with long boundaries shared with private property, the dissection of the Park by the South Western Highway, and the close proximity of three towns to the Park, means the Park has a long perimeter that requires fuel reduction bums and firebreak maintenance. This reduces the options for a range of fire regimes and increases the cost of Park management.

· The structure of stands of red tingle may be altered by repeated fires due to the high fuel build-ups at the base of these trees and the level of hollow butting from previous fires. Therefore, although red tingle resprouts following 100 percent scorch of the mature plant, it should also be considered sensitive to fire. Yellow tingle and Rates tingle are believed to be relatively fire insensitive. The structure of the overstorey may also be influenced by repeated fires in areas of interdune plains, for example, areas of scrubby jarrah and red flowering gum.

· Education of the public and the cooperation of Park neighbours regarding the effects and dangers of wildfires are important to reduce deliberately lit and accidental fires.

OBJECTIVES

· *Protect the lives of visitors, neighbours, firefighters and staff.*

· *Protect community values in or near the Park, including settlements, private property, recreation facilities and public utilities.*

· *Encourage and maintain the composition and diversity of plant and animal communities.*

· *Provide for the survival of populations of threatened or restricted plant and animal species by the maintenance of required habitat.*

· *Minimise the spread of disease and weeds by fire management operations.*

· *Protect vulnerable soils from the risk of wind and water erosion as a result of wildfires, inappropriate fire regimes and the use of machinery.*

- *Protect landscape values from severe damage by uncontrolled fires or from inappropriate burning regimes or suppression techniques.*

- *Reduce the incidence of unplanned fires.*

- *Restrict fires, where possible, to a single cell.*

STRATEGIES

In order to achieve the overall objectives of protecting life, property and environmental values and to manage natural ecosystems, a system of three separate fire regimes will be implemented:

No Planned Burn Regime

Parts of most major vegetation types will not be burnt by prescribed fire within the life of the plan and will be reviewed at the end of the period of the plan. These areas are usually located away from likely ignition sources, such as major roads and recreation areas. Maximum protection needs to be ensured for these areas, including maintenance of good perimeter access and regular burning of parts of adjacent areas.

Vegetation Management Regime (VMR)

VMR aims to contribute to ecological diversity (that is, a variety of fuel ages) within the vegetation communities. Most of these regimes will entail rotation burns of about 10-20 years. It may be necessary to burn some of the VMR areas for protection reasons if it is considered that they constitute a major wildfire threat to other values (for example, towns and private property). Each VMR area will be reviewed annually in light of additional scientific knowledge to determine whether or not it should be burnt for ecological or protection purposes.

Fuel Reduction Regime (FRR)

FRR will be applied to designated areas whenever ground fuel loads exceed critical levels at which fire containment by direct attack, under hot summer conditions, becomes very difficult and unsafe for firefighters. The rotation period between bums will vary from approximately six to eight years, depending on the rate of fuel accumulation.

The prescribed burning of wide buffers aims to restrict the spread of wildfires. Areas of low fuel will also be located adjacent to areas with a high risk of fire ignition (for example, recreation areas) and where high values are at risk (for example, townships). They will consist of perimeter buffers and strategically located blocks throughout the Park.

Map 4 outlines the overall fire management strategy for the Park. The plan achieves the greatest diversity of regimes possible within the constraints of the protection of life and property, and CALM

resources. While most of the coastal areas are proposed No Planned Bum Regime, recent burns will ensure a diversity of fuel age for the life of this plan.

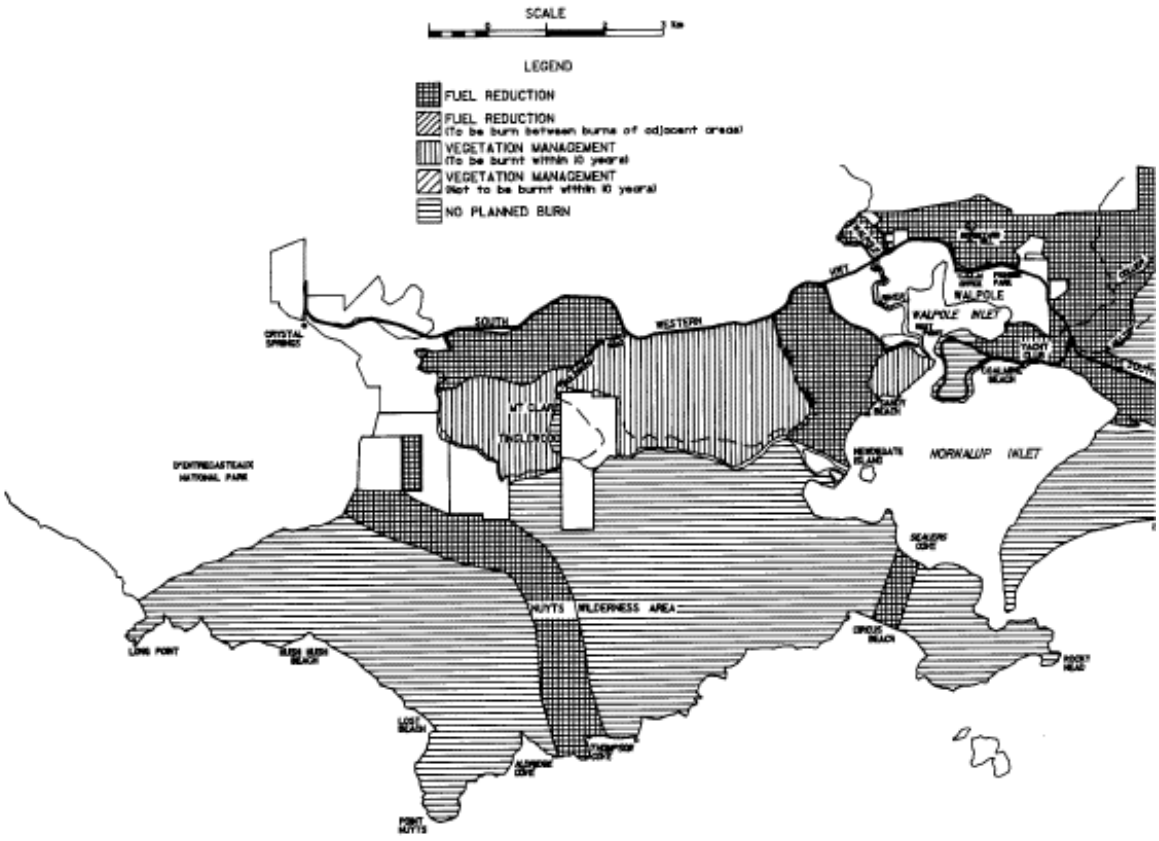
A long unburnt area of tingle forest in the Hilltop area will be maintained on a No Planned Bum Regime. However, wildfires in other areas of tingle forest that are long unburnt (around Douglas Hill) pose a threat to Nornalup townsite and to adjacent tingle forest, and will be progressively burnt during the life of this plan. Actions on future prescribed burning regimes will follow after the results of research into the fire ecology of red tingle forest are reviewed and after examining options to protect the Nornalup settlement from fire. An option may be for Nornalup residents to introduce fire protection measures on their properties. Hilltop Road also presents a risk to the No Planned Bum area. Access to this area may be restricted during the fire danger period, because of the high fire hazard.

Where possible, adjacent blocks will be prescribed burnt in alternate years. Tingle forest most readily bums in summer and autumn when moisture levels are low enough to support a fire. This coincides with the dormant period of relictual invertebrates. Fuel reduction burning in the Nuyts Wilderness Area for protection of people, property and environmental values will be achieved by wind-driven buffers (see Section 20.4). During periods of high fire danger access to this area may be restricted.

A cooperative approach with nearby landholders will be encouraged so that responsibility for fuel reduction and wildfire control is shared by CALM and adjacent landholders. Most 'special conservation' zones are under the No Planned Bum Regime that will ensure most vegetation communities will have a late seral stage in the Park, with the exception of the Conspicuous and Nut Road areas that are proposed Vegetation Management Regime. This area contains few species with a long juvenile period (thereby requiring longer periods without burning) that are not found elsewhere in 'special conservation' zones, and the VMR will help protect the Peaceful Bay townsite. Vegetation in the viewshed of some lookouts will be regularly burnt or slashed to maintain unobstructed views.

FIRE MANAGEMENT

FIRE REGIMES



Note: For details of fire management in the Nuyts Wilderness, Hilltop and Douglas Hill Areas see Section 10.0 Fire - Strategies.

MAP 4


NORNALUP
IRWIN INLET
FOUL BAY
ERN OCEAN

ACTIONS

Fire Prevention

1. **Confine prescribed burning by established tracks or firebreaks, and ensure burning complies with written prescriptions approved by CALM's Walpole District Manager or Southern Forest Regional Manager. Prescribed burn frequency will depend on the rate of fuel accumulation, but is not likely to be less than six years. Where possible it is planned to conduct at least 40 percent of burns in autumn or spring. Where possible, successive burns in each block will be programmed in different seasons. All burn prescriptions will take into account the need for dieback disease control.**

2. **Give priority to strategically placed fuel reduced blocks rather than narrow buffers along private property boundaries to minimise the introduction and spread of weeds.**

3. **Where known or suspected gazetted threatened flora or fauna occur within proposed burn areas, the burn will be modified, relocated or deferred. Where it is a requirement of the species, or where, in exceptional circumstances, it is considered by CALM that the burn should proceed, Ministerial permission to "take" flora will be obtained.**

4. **Carry out all burns according to visual resource management principles, particularly in visually significant areas (see Section 6.0 Visual Landscape Management).**

5. **Revise strategies and actions as more fire information becomes available, when conditions change, or whenever major wildfires occur.**

6. **Actively promote public education and awareness of fire risk, safety and survival through pamphlets, information boards and personal contact by Park staff.**

7. **Define roads required for fire control and essential management activities. Those roads considered unsuitable for public use will remain closed to the public. Management vehicles using these roads will be subject to dieback disease hygiene requirements.**

8. **Continue to liaise with the local Bush Fire Brigades to ensure an effective fire management force is in place. Establish agreements with adjacent landholders, where necessary, regarding a cooperative approach to carry out fuel reduction requirements. If conditions change, review the agreements to ensure ongoing protection.**

9. **Liaise with Bush Fire Brigades to ensure burning practices on adjacent lands are complementary to the objectives of the National Park.**

10. **Consider closure of parts or all of the Park during periods of very high and extreme fire danger with a possibility of closure at even lower fire danger following periods of local drought, or in the event of a serious wildfire in or threatening the Park.**

Fire Management

11. **Implement prescribed burns, in accordance with the annual burning plan. Implement a range of fire regimes, including variation in season, intensity and size, particularly between different blocks according to the fire management plan (Map 4).**

12. **Monitor selected prescribed burns or wildfires for indicator flora (for example, vulnerable species) where possible.**

13. **If a fire exclusion area is burnt by wildfire it will be exchanged, wherever possible, with an area of similar size and ecological type after careful review of the ecological and protection requirements.**

Fire Suppression

14. **Contain all fires in or threatening the Park. Depending on values at risk, dieback disease risk, fire behaviour, resources and presence of buffers and tracks, suppression action may include direct attack by machinery; backburning from new or established firebreaks, roads and fuel reduced areas; burning the remainder of the block by aircraft; or by allowing the fire to burn out to low fuel buffers.**

15. **Minimise construction of any new firebreaks. In the case of a wildfire, limit construction to those necessary for the protection of priority values, rehabilitate any subsequently unnecessary firebreaks. Construct new firebreaks according to strict dieback disease hygiene principles. Avoid vegetation community types 1, 3, 5, 6 and 10 for firebreak construction where possible (see Section 7.0 Flora, Table 4 for vegetation community types).**

Research and Monitoring

16. **Determine the fire response, longevity and dieback disease response of each of the plant species in the Park. Priority should be given to those species listed as priority flora and fire sensitive species (see the Resource Document, Tables 19 and 20).**

17. **Determine the association between species and seral age, and relation with community types for fire management programs designed specifically for enhancement of conservation values.**

18. **Determine the fire response of the relictual invertebrates of the Park.**

19. **Determine the fire response and seral preferences for the vertebrate fauna.**

20. **Review the annual burning plan each year and where changes have occurred, a new plan will be prepared and made available for public inspection and discussion in CALM's District Office.**

21. **Submit the annual burning plan each year to the Bush Fires Board.**

22. **Proposed changes to the fire management plan in this document (Map 4) will be referred to the NPNCA.**

11.0 WEEDS

BACKGROUND

More than 60 species of weeds are found in Walpole-Nornalup National Park, generally in disturbed areas (for example, along tracks) and near granite outcrops. The potential also exists for weeds to spread into the Park from townsites, surrounding farmland and along watercourses from sources up stream.

Exotic trees, which may be regarded as weeds, can be removed and where appropriate utilised to provide materials for structures and facilities within the Park. CALM may also issue a licence to a person to take, remove and sell exotic trees located in the Park. This requires the approval of the Minister for the Environment and the National Parks and Nature Conservation Authority (NPNCA), in accordance with sections 99 and 99A of the CALM Act 1984. Net proceeds will be placed in the relevant trust account.

ISSUES

· Some weeds are a potential threat to the Park. Woody plants, such as Albany blue bush *(Boralea pinnata), Leptospermum laevigatum, Pinus radiata, P. pinaster* and Tasmanian blue gum *(Eucalyptus globulus),* although not in the Park, may become a problem because of their potential structural dominance and their presence close to the Park. Pampas grass, which has been

planted in Walpole, and blackberry can spread rapidly and thrive in environments that are wet in summer.

- Grassy weeds, such as veldt and pampas grass, are a potential threat in areas of the Park that are frequently burnt and adjacent to farmland.

- South African members of the Iridaceae family (for example, *Watsonia bulbifera, Gladiolus undulatus),* which are present in the Park, and the arum lily *(Zantedeschia aethiopica)* could become dominant members of the plant community because of their potential to colonise.

- Rubbish tips and settlements are a source of weeds such as kikuyu *(Pennisetum clandestinum),* castor oil plants *(Ricinus communis)* and black night shade *(Solanum nigrum).*

- Plant communities such as *Acacia littorea* dune community (type 9), granite outcrops (type 13) and swamp communities (type 14), are most susceptible to weeds (see Section 7.0 Flora, Table 4 for vegetation community types). Frequent fires need to be avoided to ensure weeds do not proliferate.

- Other weeds with potential to spread quickly in the Park are branched onion weed *(Trachyandra divaricata)* and penny royal.

OBJECTIVES

- *Control or, if possible, eradicate weeds that have the potential to cause major environmental problems.*

- *Minimise any detrimental side effects that control measures may have on the Park.*

ACTIONS

1. **Map the incidence of weeds, monitor their location, extent, effectiveness of control programs and, where possible, ecological effects.**

2. **Conduct control programs in areas of:**
   - **greatest conservation value**
   - **greatest perceived environmental threat**
   - **small new infestations.**

3. **Instigate control programs of the following: invasive bulbous plants (for example, Watsonia)**

- **blackberry**
- **pampas grass**
- **arum lily**
- **woody weeds**

4. **Liaise with the Agriculture Protection Board, adjacent landholders and local authorities regarding weed control on Park boundaries and adjacent properties.**

5. **Investigate use of volunteers to help in weed mapping and control programs.**

6. **Liaise with adjacent landholders to minimise fertiliser drift into the Park.**

7. **Avoid unnecessary disturbance associated with management actions, such as road maintenance and frequent burning, particularly adjacent to sources of weeds.**

8. **Ensure that all earth-moving machinery is thoroughly cleaned before entering the Park.**

9. **Liaise with townspeople to discourage garden cultivation of any species which may be a threat to the Park.**

10. **Remove exotic trees where considered necessary. If the trees are to be taken under licence and sold, follow the approval conditions of the CALM Act.**

Research and Monitoring

11. **Monitor known priority flora populations for weed invasion. Take control measures as necessary.**

12. **Monitor weed invasion. Use the results to modify management practices or instigate control measures. Monitor results of control methods.**

12.0 FERAL ANIMALS

BACKGROUND

Foxes, dogs, Kookaburras, cats, pigs and rabbits occur in the Park. Nonetheless, the full extent of feral animals in the Park is unknown. Fauna particularly susceptible to feral animals include the Noisy Scrub-bird, Honey Possum, Quokka, Chuditch, Pygmy Possum, Common Brushtail Possum and Western Ringtail Possum.

ISSUES

- Foxes and cats can severely reduce or eliminate native fauna by preying on them or by competing for food and territory.

- Rabbits can cause erosion by destroying native vegetation.

- Feral animals, especially pigs, can spread dieback disease.

OBJECTIVES

- *Reduce the deleterious effects of feral animals on the Park's native flora and fauna.*

- *Minimise any detrimental effects control measures may have on the Park's environment.*

ACTIONS

1. **Continue to liaise with the Agriculture Protection Board (APB) to control feral animals.**

2. **Investigate less expensive, more effective means of feral animal control, including use of contractors and/or volunteers.**

3. **Continue and increase control programs for foxes, pigs and cats, as resources permit.**

4. **Instigate a rabbit control program, particularly in areas requiring rehabilitation, when resources permit.**

5. **Continue to train CALM personnel in: identifying signs and activities of declared animals handling bait material.**

Research and Monitoring

6. **Monitor feral animal populations and prey species. Regularly assess results of monitoring to gauge effectiveness of control programs, and ascertain threats to threatened, restricted or priority species. Involve volunteers in the monitoring program.**

7. **Encourage research into the impacts of feral cats on the Park's fauna.**

13.0 REHABILITATION

BACKGROUND

Degradation has occurred in coastal areas along some tracks and informal parking areas, such as Hush Hush Beach track, the track to the hill lookout at Conspicuous Beach carpark and Salmon Camp at Peaceful Bay (see Section 19.0 Access). Some recreation sites have also been degraded, and several large dune blow-outs have occurred in the Park.

ISSUES

- While it is important that areas are rehabilitated with local and natural species, the most successful plant known for dune stabilisation is marram grass, an introduced plant.

- Rationalisation of coastal tracks, designation of suitable parking areas and design of recreation areas, as proposed in this plan, will require extensive rehabilitation works.

OBJECTIVE

- *Rehabilitate areas degraded by humans and their activities with indigenous species, where possible.*

ACTIONS

1. **Draw up a comprehensive rehabilitation plan for all existing degraded areas; give priority to those areas of highest value and of greatest degradation.**

2. **Investigate the feasibility of CALM or private enterprise propagating suitable indigenous plants for rehabilitation projects with due regard to dieback disease hygiene measures.**

3. **Investigate suitable naturally occurring coastal plant species as an alternative to marram grass for rehabilitation of coastal dunes.**

4. **Monitor the movement of dune blow-outs. If a blow-out is expanding and is likely to destroy important vegetation or habitats implement control measures.**

5. **Encourage volunteer programs to help in rehabilitation works.**

6. **Investigate more effective rehabilitation techniques.**

7. **Monitor, evaluate and record progress of rehabilitation techniques used.**

8. **Ensure gravel pits are rehabilitated immediately after use.**

9. **Liaise with other agencies experienced in coastal rehabilitation.**

14.0 RAW MATERIAL EXTRACTION

BACKGROUND

Gravel, limestone, sand and rock aggregate are needed for road construction and maintenance, and recreation site developments. Most supplies of these materials have been obtained from within the Park in the past, although existing quarries are close to the end of their working lives. Limited amounts of these resources occur in the Park, and the deposits are probably not feasible to quarry because of the size of the deposit, lack of accessibility, location of deposit within an area with scenic qualities and their proximity to special plants. It is preferred that materials are obtained from outside the Park or from areas that are already disturbed or are of lower conservation value. However, transportation of raw materials from outside the Park significantly increases the cost of the operations.

ISSUES

- Raw material extraction and movement can be a major source of dieback disease and it is, therefore, important that hygiene procedures are used.

- All roads in the Park require maintenance over the next 10 years. The continuing redevelopment and maintenance of roads will become an increasing financial burden for Park management.

- Bitumenising some roads will reduce the requirement for resurfacing, but will change the character of areas that now have gravel roads. While initial bitumen construction costs will be higher than gravel, in the long-term they may be more economical.

OBJECTIVES

- *Obtain raw materials for construction works from outside the Park.*

· *If the above objective is not feasible, limit extraction of raw materials from the Park to areas where such activity will have minimal impact on the spread of dieback disease, public use and the Park's flora, fauna and landscape.*

· *Ensure dieback disease is not spread by the movement of raw materials.*

ACTIONS

1. **Investigate the availability of raw materials for construction works in the following order of priority:**
   - **private property**
   - **State forest**
   - **national park.**

2. **Investigate use of rock crushing to extend the working life of existing quarries.**

3. **Investigate the feasibility of bitumenising (or partly bitumenising) some gravel roads in recreation zones. Design the roads to be safe for visitors and management.**

4. **Investigate the use of:**
   - **water and chemical agents to bind unsealed roads**
   - **wood planking to upgrade coastal tracks.**

5. **Investigate better road design and construction techniques to conserve road building materials.**

6. **Wherever possible, use materials for road construction and maintenance that visually blend with the surrounding soils, for example, gravel in forest areas.**

7. **Map potential gravel, limestone and quartzite deposits in the Park.**

8. **Ensure an up-to-date hygiene map is available before raw materials are extracted. Materials infected with dieback disease will not be used on dieback disease-free sites. Ensure all quarries have strictly controlled access.**

9. **Ensure that no conservation values, particularly threatened plants or Aboriginal sites, will be disturbed by material extraction.**

10. **Rehabilitate all pits, according to the Department's guidelines, as soon as material extraction is complete.**

15.0 COMMERCIAL USE

15.1 MINING

BACKGROUND

No exploration licences or mining leases currently exist over the Park. Attempts were made to mine low grade deposits of coal in the Coalmine Beach area. Mineral sands deposits occur in, and associated mining tenements cover, adjacent areas of D'Entrecasteaux National Park. There may be interest in mineral sand exploration in the WalpoleNornalup National Park.

In accordance with current Government policy, Walpole-Nornalup National Park is closed to exploration and mining.

OBJECTIVE

· *Protect the Park's values from exploration and mining.*

ACTION

1. **Ensure any mining operations adjacent to the Park have minimal impact on the Park, particularly with regards to dieback disease hygiene, landscape values and transport routes used by Park visitors.**

15.2 COMMERCIAL FISHING

BACKGROUND

Commercial fishing for Salmon and Herring is carried out along the coast each year and is regulated by the Fisheries Department. Base camps are set up near the mouth of the Nornalup Inlet between February and April. Vehicular access is via the Blue Holes track, and along the beach. Catches are transported across the inlet by barge to Isle Road recreation site where a conveyor belt is used to unload the fish.

CALM controls land access within the National Park by commercial fishers under the terms of a licence, the conditions include: the use of designated tracks and camping area only, the camps to be left clean at the end of the season, nets are not to be cleaned on beaches in the Park, and low tyre

pressure to be used on tracks. The licensee is also responsible for maintaining the launching ramp at Isle Road.

ISSUES

- Concern over the use of buoys, lines and nets at the entrance of the inlet, the need to ensure the camp is built and dismantled according to the licence conditions, and the effect the camp has on some qualities at the site.

- Conflict exists over equity of use in that fishers are allowed to set up camp for several months in the Park while other people are not. While Salmon fishing might provide a point of interest for some Park users, there is conflict between the use of Isle Road recreation site as an unloading area and its other uses.

- CALM should receive a return that covers administration and patrol costs from the use of the National Park for commercial fishing.

OBJECTIVE

- *Ensure that the commercial fishing operation is compatible with the management objectives of the Park.*

ACTIONS

1. **Continue to issue the current fishing camp licence holders a permit to camp at the mouth of the inlet and fish from the beach for as long as Salmon fishing remains their predominant activity.**

2. **Should the current fishing camp licence holders sell their licence or propose to no longer fish in or from the Park, review the policy that allows commercial fishers to camp in and fish from the Park.**

3. **Ensure that all licence conditions are met, with the following additions:**
   - **that all fishing activities avoid bird breeding areas**
   - **that vehicles used on Bellanger Beach are not to go on any vegetation**
   - **that all vehicles must be licensed under the Road Traffic Act 1974.**

4. **Continue to regularly supervise the operation of the fishing camp and its dismantling.**

5. **Liaise with the fishing industry to ensure CALM receives sufficient return to cover administrative and supervisory costs of the Salmon fishing operation.**

6. **Continue the arrangement that the licensee is responsible to maintain the Isle Road boat ramp within requirements and standards set by CALM.**

7. **Continue to allow commercial fishers access to the Bow River, Foul Bay (once the Park extends to the low water mark) and Irwin Inlet by providing a permit.**

15.3 BEEKEEPING

BACKGROUND

No beekeeping sites exist in the Park.

OBJECTIVE

· *Minimise the impact of feral bees in the Park.*

ACTION

1. **Place a moratorium on beekeeping within the Park. No final decision on beekeeping will be made until this moratorium is reviewed by CALM.**

16.0 UTILITIES AND SERVICES

BACKGROUND

The many service and utility corridors in the area impinge on Walpole-Nornalup National Park.

ISSUES

- The provision of these services with the associated clearing of land has an impact on the Park's environmental and landscape values. There is also a risk that disease and weeds will be spread, while cleared areas provide corridors for feral animals.

- The powerline to Coalmine Beach traverses river flats and is visible from the scenic Knoll Drive and has an impact on the landscape values of the area. The powerline to Tinglewood has required the clearing of a corridor through tingle forest.

- Telecom also has a cleared corridor, although the cables are underground.

- Trig stations, used occasionally by the Department of Land Administration, are located on high points in the landscape. Dieback disease could be introduced by vehicle access to the stations, putting at risk large areas of the Park.

OBJECTIVE

Minimise the impact of services and utilities on the Park's environment and landscape values.

ACTIONS

1. **Assess the feasibility of placing all SECWA lines running through the Park underground, or at least along existing access routes.**

2. **Ensure that strict dieback disease hygiene conditions apply when maintenance of utilities and corridors is undertaken, and that the managing authorities of these activities are aware of the need to minimise erosion, compaction and visual intrusion. Liaise with authorities to ensure that they appreciate and are aware of the Park's values.**

3. **Encourage the placement of any new utility corridors outside the Park or along existing access routes. Encourage alternative methods of providing services.**

4. **Refer any proposal for utility corridors through the Park to the Environmental Protection Authority.**

5. **Restrict use of trig points to dry summer conditions under strict dieback disease hygiene conditions.**

PART E MANAGEMENT FOR CONSERVATION CULTURAL RESOURCES

GOAL:

- Conserve the Aboriginal and European history of the Park.

17.0 ABORIGINAL AND EUROPEAN HISTORY

BACKGROUND

Aboriginal History

Little is known of the use of the area that is now Walpole-Nornalup National Park by Aborigines . However, evidence suggests occupation similar to the Denmark and Augusta areas.

The south-west of Western Australia has been occupied by Aboriginal people for at least 40 000 years (Merrilees et al., 1973; Hallam, 1975), and possibly as long as 50 000 years (Hallam, 1981). Artifacts (backed blades) dated to approximately 6800 years ago have been discovered near the Park, making them the oldest backed blades found in Australia (Dortch and Gardener, 1976).

The Aboriginal tribe that originally occupied the area encompassing the Park was the Minang or literally "Southerners" or South people (Tindale, 1975). The area was known as 'Nor-Nor-Nup', or 'place of the Nome', meaning the place of the black snake (Fernie and Fernie, 1989).

It is likely that the most used areas were the open forests and coastal heaths where food was more abundant and living and travel easier than in the wet, dense, karri-tingle forests. The little archaeological work carried out in the area (principally at Broke Inlet and at Denmark) has revealed probably moderate levels of habitation and industry, including fish traps and artifacts (Dortch, pers. comm., 1989). The Department of Aboriginal Sites has recorded seven sites in the area, however, the Park has not been systematically investigated and it is likely that many more sites exist. All Aboriginal sites are protected under the Aboriginal Heritage Act, 1972. Recently, CALM and the Department of Aboriginal Sites have prepared a joint submission to develop a predictive model for the identification of sites in the forested areas of the south-west.

Fire was used as a tool for hunting and gathering by Aborigines (see Section 15.0 FireHistory). They used it to attract game to new plant growth, stimulate growth of desirable plant species, drive game and open the country for travelling. Fire was also an important component of Aboriginal mythology (Hallam, 1975).

Traditional Aboriginal culture almost disappeared on the south coast during the nineteenth century and the last recorded cultural use of the Northcliffe area by Aboriginal people was in the 1920s (Dortch and Gardener, 1976). However, Aboriginal people have recently shown an interest in re-establishing cultural links with areas in the south-west that their ancestors previously inhabited (CALM, 1991). These south-west people are known collectively as Nyungar, although their Aboriginal heritage is derived from various tribes and language groups. CALM is currently liaising with some of these people with the aim of developing an interactive program.

European History

The earliest recording of the area was in 1627 when Francis Thyssen, in the Gulden Zeepaerd, sailed along the south coast and named Point Nuyts after an official on board. In 1791, George Vancouver in H.M.S. Discovery named 'Cape Chatham' (later renamed Chatham Island). Bruny D'Entrecasteaux sailed along the south coast in 1792 but was unimpressed with the land he sighted.

Sealers and whalers were the first Europeans to regularly visit the area, prior to and soon after the settlement of King George Sound (Albany) in the early 1800s. Sealers Cove in Nornalup Inlet was probably a base camp. The area became known as the Deep River of the Sealers and sufficiently intrigued a number of pioneers to explore the area. Among them were Captain Thomas Bannister, Lieutenant William Preston and William Nairne Clark (Fernie and Fernie, 1989).

Early attempts to settle or use the area failed. The first attempt at permanent settlement came in 1845 when Dr Henry Landor and Charles Bums set up a camp and established a garden on Newdegate Island. They also took up 1600 ha of land south of the Deep River for grazing. However, the area was not used for grazing until the 1850s when several graziers from Forest Hills, Warren River and Bridgetown used the coast around Nornalup Inlet to graze their cattle. Part of the area still bears the name Landor's Gully.

The first permanent settlers arrived in the area in 19 10 and 1911. The Bellanger family took up land on the Frankland River near Nornalup (Bellanger and Bellanger, 1975; Bellanger, 1980) and Frank Skinner Thompson and his family settled on the Deep River at what is now the Tinglewood Homestead (Thompson, 1975).

The spectacular landscape and the majesty of the tall trees of the area are consistently referred to in many early accounts and sufficiently moved some important visitors to have the area protected. This was a remarkable occurrence given that it was an era of large scale clearing of native vegetation to establish an extensive agricultural base in the State. In 1910, a Ministerial party, including James Mitchell (the then Minister of Lands, Agriculture and Industry), travelled up part of the Frankland River. "They were very much struck with the extreme beauty of some reaches of that river and it was practically decided by the Ministers that a fairly large area should be reserved for parklands to protect the beauty spots" (Bellanger and Bellanger, 1975). Subsequently in 1910, 372 ha were set aside as Public Reserve 13045 (Parklands). In 1914, 159 ha was reserved "For the Protection of red flowering gum" (Fernie and Fernie, 1989).

In 1920 Professor Ernest H. Wilson, Assistant Director of the Arnold Arboretum at Harvard University, visited the area while on a tour of the south-west. He wrote "You have got everything there, wonderful forest scenery, mountains, landscapes, seascapes, boating and fishing. The karri and tingle giants are the finest broad-leaved trees I have ever seen. It is one of the most beautiful single sights I ever saw in all my life. It is a fascinating place, I don't know of any that affected me in the same way." (Bellanger and Bellanger, 1975; Fernie and Fernie, 1989). Professor Wilson prevailed on the (then) Premier James Mitchell to make the area a national park. It seems this, combined with

Mitchell's personal fondness of the area, led to 12 137 ha being declared Nornalup National Park in 1924. The area that is now Giants block was originally proposed to be part of the National Park; however, on the recommendation of the Conservator of Forests (S L Kessell) it was classified as State forest.

Early management of one of the State's first national parks was through the especially appointed Nornalup Reserves Board. The board established the first by-laws governing the Park, and in 1927 appointed the first ranger, Tom Swarbrick (Swarbrick, 1975).

In 1951 John Rate, the resident Forestry Officer in Walpole, was appointed Honorary Ranger for the National Park. John Rate did much to manage and protect the Park, including being instrumental in getting the State's first full time ranger (Lionel Gunson) appointed to the Park in 1962.

In the 1960s, the Nornalup Advisory Committee was established to advise the National Parks Board and give local input into the management of the Park.

Small parts of the Valley of the Giants, which were damaged by a fire in 1951, were logged in the 1960s, with regeneration operations of the native forest completed by 1972. The area was subsequently given a management priority of conservation by the then Forests Department. In the 1960s some logging occurred in the Hilltop area to finance the development of Coalmine Beach Caravan Park.

OBJECTIVES

- *Protect the Aboriginal and European cultural heritage of the Park.*
- *Involve Aboriginal people in the cultural resource management of the Park.*
- *Encourage greater understanding and appreciation of the cultural heritage of the Park.*

ACTIONS

1. **Identify Nyungar people having cultural links and ongoing interests in the Park.**
2. **Promote opportunities for continued consultation with Nyungar people on matters of cultural interest and involvement in Park management.**
3. **Refer to the Western Australian Museum all major development proposals to ensure Aboriginal sites are protected.**

4. **Encourage anthropological and archaeological surveys of the Park.**

5. **Assess the condition of existing Aboriginal and European cultural sites and take action as necessary to preserve them.**

6. **Develop interpretive and educational opportunities incorporating the cultural history of the area.**

7. **Incorporate the remains of the hut at Crystal Springs, which dates from the grazing era, as part of a visitor information facility (see Section 23.0 Community Relations).**

PART F MANAGEMENT FOR RECREATION

GOAL:

- Fulfil the recreation requirements of the visitors to the extent that they are compatible with conserving the Park's flora, fauna, scenic values and wilderness qualities, and ensure that the experience of visitors is not impaired by conflicting uses.

18.0 RECREATION MANAGEMENT PHILOSOPHY

The most popular features of Walpole-Nornalup National Park are its large trees, naturalness, scenery and peacefulness. In many parts of the Park visitors can experience a wild, pristine environment, untainted by humans. These qualities are becoming increasingly scarce in our ever developing world; they are qualities that many see as being essential for the rejuvenation of the human spirit. It is, therefore, considered important that these precious qualities are retained in the future, and that all management and development in the Park has the maintenance of these qualities as an overriding condition.

While specific areas will be developed to facilitate access by larger numbers of people, providing an important avenue for discovering some of the Park, much of the Park will not be developed. Activities with potentially high impacts will be encouraged outside the Park in areas able to sustain such use. Areas degraded by present use will be subject to redesign and/or rehabilitation.

A large proportion of visitors to the Park presently stay less than half a day. This trend is expected to gradually change to longer stays as the area is promoted by the tourism industry. This probable change in use patterns has been accommodated in this plan, with better provision of information, the redesign of most recreation areas, and the expansion of recreation opportunities at some areas.

19.0 ACCESS

BACKGROUND

Access to Walpole-Nornalup National Park is mainly by the South Western Highway, which runs through the Park. The type of access within the Park influences the level and type of use of an area. The variety of access within the Park reflects the diversity of recreation experiences and opportunities. Although the standard of roads vary, most of the forest areas are accessible by 2WD. Coastal access is by foot (Nuyts Wilderness area), 4WD (Long Point, Bellanger Beach, Point Irwin, The Gap and Rame Head) and 2WD (Conspicuous Beach). Inlets and rivers are accessible by boat. Riverine and coastal areas are fragile and susceptible to erosion, especially from the impact of boats and vehicles. Access for management activities such as fire control, maintenance of recreation areas, feral animal and weed control, research, and search and rescue is also needed.

Where there is a need to establish or re-establish public access in accordance with this management plan or provide fire breaks (both essential works), forest produce may be utilised within the Park or removed and sold under licence. The taking and removal of the forest produce as essential works must benefit the Park. Where a licence is issued to a person to take and remove forest produce the approval of the Minister of the Environment and the National Parks and Nature Conservation Authority is required. Further, if the forest produce removed is to be sold, the public must be notified

at least two weeks in advance in accordance with Section 99A of the CALM Act. Approval is not required if all the forest produce from essential works is used within the Park.

ISSUES

- Access to the coast by Park visitors.

- The provision and maintenance of all weather, 2WD vehicle roads is expensive. The clearing of road verges is necessary for drainage, maintaining visibility and for preventing road edges from deteriorating.

- Dieback disease can be spread by vehicles and walkers.

- Erosion caused by the number of coastal tracks to beaches is a major problem.

- Upgrading of tracks can encourage greater visitor use which can result in greater impacts on end point destinations.

- Coastal tracks that are visible from a distance not only scar the landscape, but draw users to them, thereby increasing use.

- Vehicles that park on the coastline can cause compaction and erosion.

- The use of vehicles on beaches such as the Blue Holes, The Gap, and Rame Head can be hazardous because of high tides and exposed rocks.

- Roads, walk tracks and parking areas will need to be able to sustain greater use as the numbers of visitors to the Park increases.

- Caravans and large tourist buses cannot use the road into Hilltop, an area that currently attracts about 28 000 visitors a year.

- Management only tracks need sufficient maintenance to ensure access when required, but need not be of the standard of public roads and tracks.

OBJECTIVES

- *Provide and maintain a range of access (2WD, 4WD, cycle, boat and foot only) to a variety of coastal and forest features within the Park, while ensuring the values of the Park and other users are not adversely affected.*

· *Ensure that dieback disease control receives the highest priority in any access considerations.*

· *Ensure that roads and tracks are built to support current and future levels of use.*

· *Manage Hilltop as a medium use recreation zone.*

· *Ensure access for management and emergency purposes is maintained.*

STRATEGY

A range of types of access will continue to be provided to meet visitor demands; this will entail continued provision of a hierarchy of roads. All access will be developed and designed to minimise the spread of dieback disease. Maintaining existing access is a priority within the constraints of minimising dieback disease spread, reducing degraded areas, improving landscape quality and protecting sensitive areas. As a result, most of the areas now accessible will remain so. Bushwalking opportunities will be substantially increased. Some access will be improved but there will be no increase in vehicle access. All roads and tracks will be of sufficient quality to handle increasing numbers of users.

The following classes of road are recognised for Park management purposes:

Class 1: sealed road (accessible by cars, buses, caravans)
2: sealed road (accessible by cars only)
3: unsealed road (accessible by cars buses, caravans)*
4: unsealed road (accessible by cars only)*
5: 4WD only
6: management only.

* Sections of Class 3 and 4 roads may have to be sealed for safety, disease management or maintenance reasons.

Table 6. summarises the level of existing and proposed access.

TABLE 6. LEVEL OF EXISTING AND PROPOSED COASTAL ACCESS

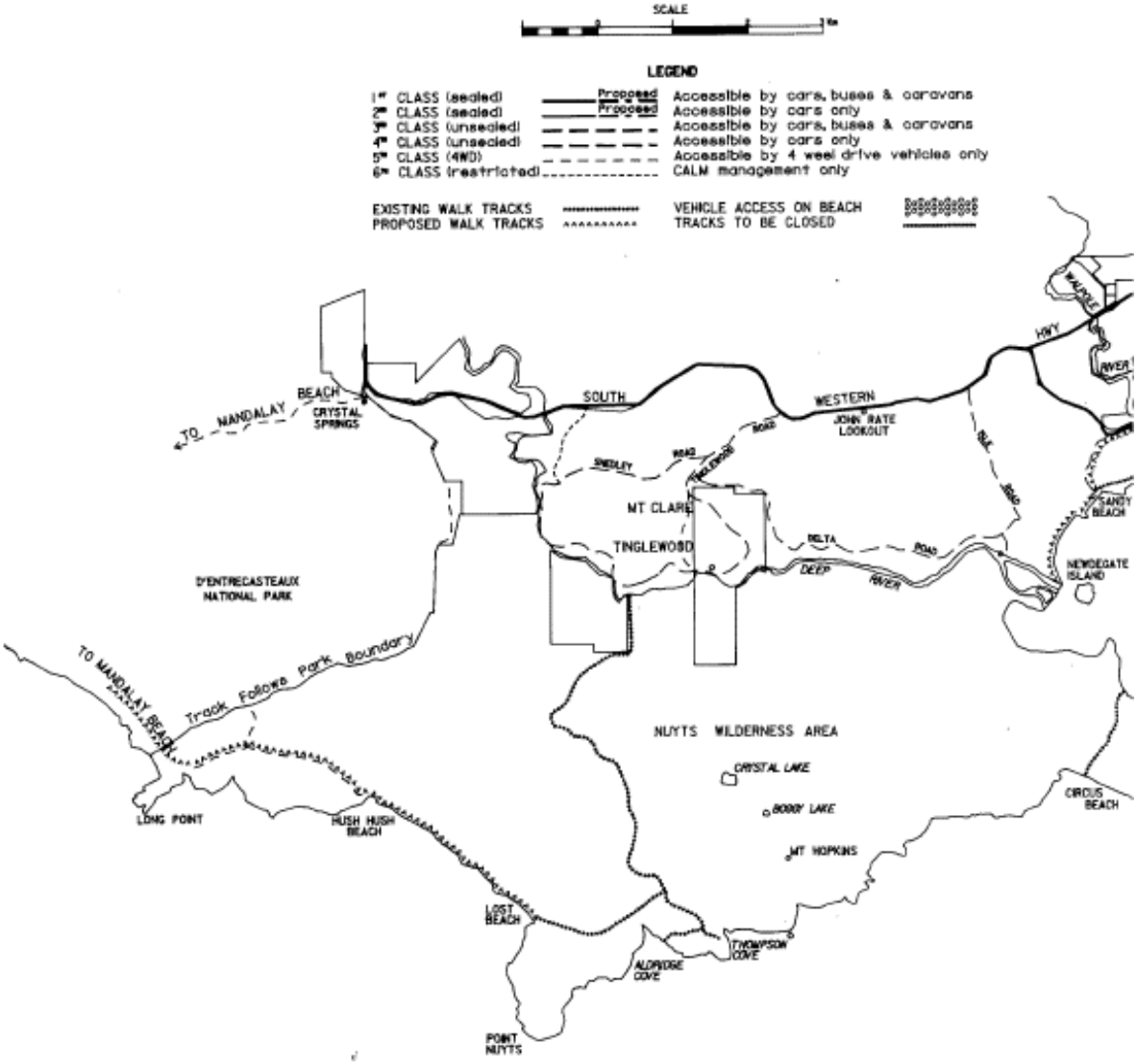
TYPE OF ACCESS	% EXISTING (APPROX)	% PROPOSED (APPROX)
Beach accessible 2WD	3	3
Beach accessible 4WD	42	32
Beach accessible foot only	12	12
Headland accessible foot only	43	48
Beach Access to be Investigated	-	5

Substantial improvements to 4WD coastal access will be carried out. All coastal access will be progressively rationalised to minimise spread of disease. The options for achieving this are:

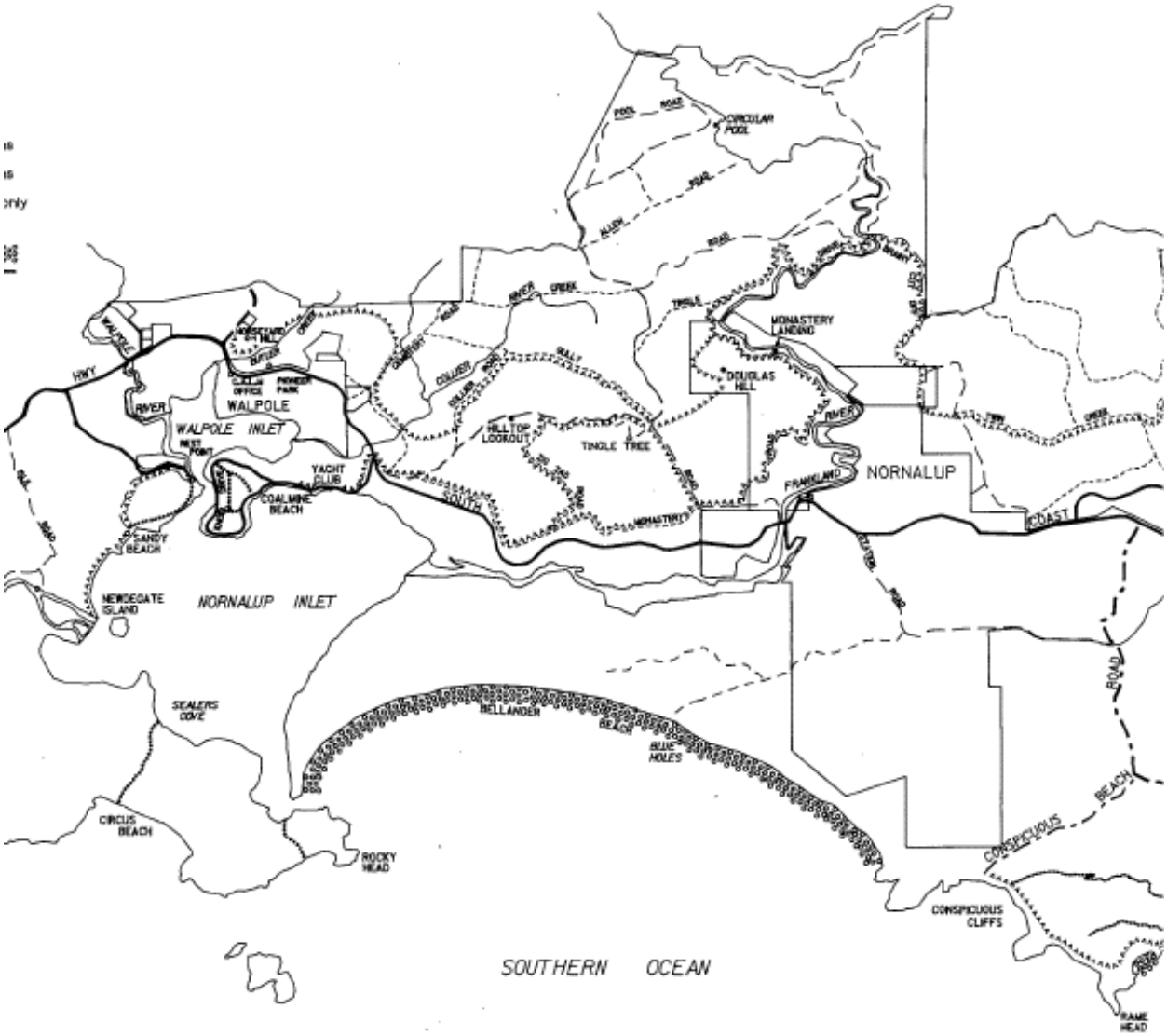
(i) Close infected tracks;
(ii) Close infected tracks but construct alternative ones through lower disease risk areas;
(iii) Build up and provide drainage for sections of tracks that become inundated;
(iv) Relocate sections of tracks at high risk through lower risk areas; and
(v) Close infected and high risk tracks after rain (times when risk of spread is high)

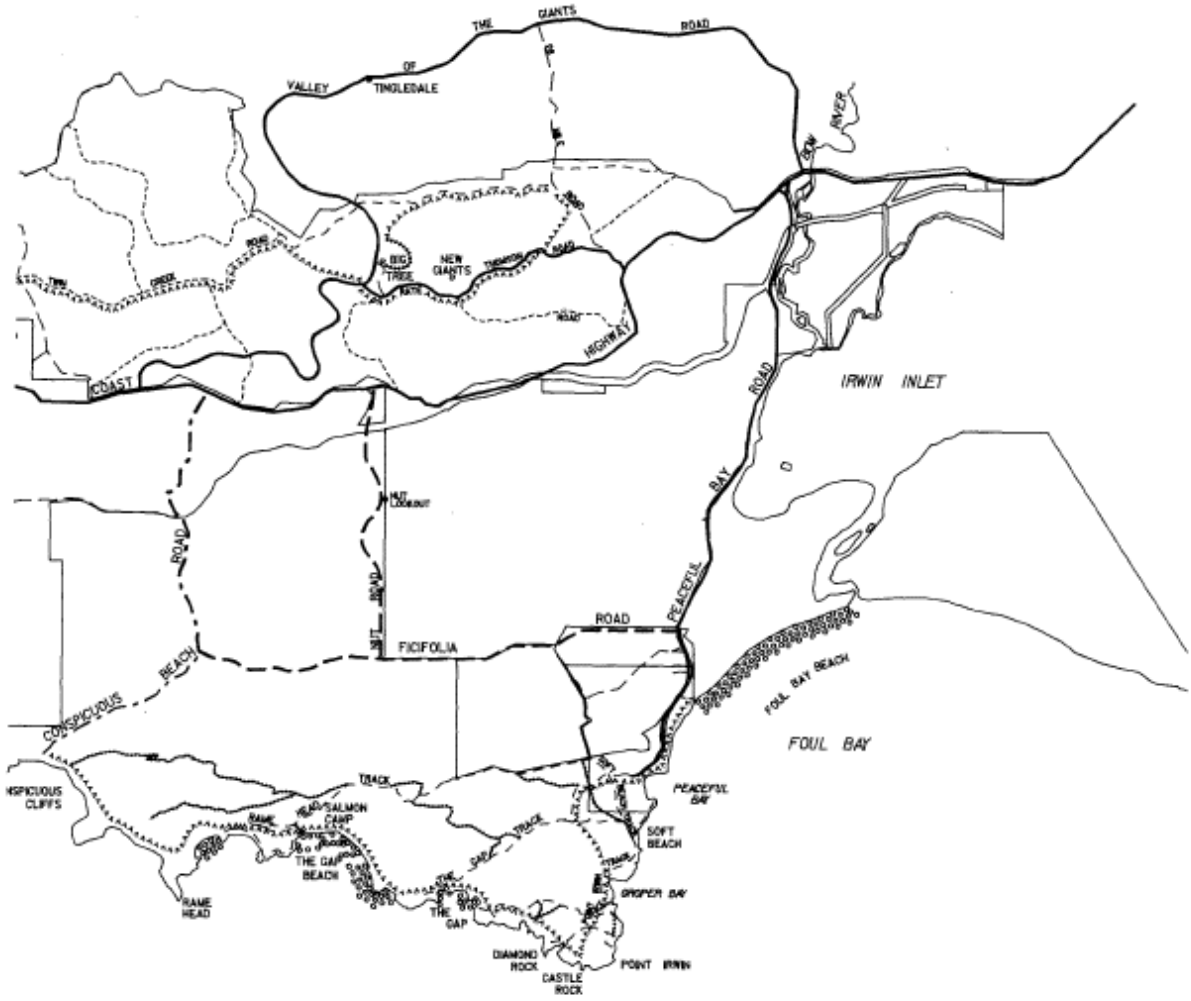
To ensure the unique experience of the Hilltop area is retained and that the capacity of Circular Pool is not exceeded, access will not be developed for tourist buses and caravans. However, to improve access for cars Hilltop Road will be made two way from Allen Road to Gully Road.

ACCESS - EXISTING AND PROPOSED



MAP 5


CIRCULAR POOL
POOL ROAD
ALLEN ROAD
WALPOLE
HWY
RIVER
WALPOLE
WALPOLE INLET
POST OFFICE
PIONEER PARK
YACHT CLUB
COALMINE BEACH
SANDY BEACH
NEWDEGATE ISLAND
NORNALUP INLET
SEALERS COVE
CIRCUS BEACH
ROCKY HEAD
SOUTH
HILLTOP LOOKOUT
TINGLE TREE
MONASTERY
TINGLE
DOUGLAS HILL
MONASTERY LANDING
FRANKLAND
RIVER
NORNALUP
COAST
ROAD
BELLANDER BEACH
BLUE HOLES
CONSPICUOUS BEACH
CONSPICUOUS CLIFFS
RAME HEAD
SOUTHERN OCEAN


THE
GIANTS
ROAD
OF
VALLEY
TINGLEDALE
RIVER
BIG
TREE
NEW
GIANTS
HIGHWAY
COAST
IRWIN INLET
ROAD
BAY
ROAD
FICIFOLIA
ROAD
PEACEFUL
BEACH
CONSPICUOUS
FOUL BAY BEACH
FOUL BAY
TRACK
SALMON
CAMP
PEACEFUL
BAY
SOFT
BEACH
THE GAP
BEACH
THE
GAP
DIAMOND
ROCK
CASTLE
ROCK
POINT IRWIN

ACTIONS

General Access

1. **Maintain, upgrade, realign or close roads and tracks as indicated on Map 5.**

2. **Design all roads so that they are safe for CALM staff and visitors.**

3. **Verge clearing is to be carried out under dieback disease hygiene conditions and according to visual resource management principles. The preferable time is in autumn, which is after peak use and before wet conditions prevail.**

4. **Conduct a full dieback disease assessment of all areas in which track reconstruction will occur (see Section 9.0 Disease).**

5. **Carry out all construction and rehabilitation works under strict dieback disease hygiene conditions.**

6. **Consider temporary closure of tracks when risk of disease spread is high.**

7. **Prepare detailed plans and specifications for all proposed tracks and parking areas in accordance with accepted design principles and Departmental standards**

8. **Restrict vehicles to the unvegetated beach face, generally between low and high water mark. Do not allow vehicles in foredunes.**

9. **Continue to stabilise steep sandy slopes with timber; investigate other methods as appropriate.**

10. **Involve local users in the design of coastal track alignments, and encourage help by volunteers in as many aspects of the coastal access plan as possible.**

11. **Remove forest produce, where appropriate, that is associated with essential works under the approval conditions of the CALM Act.**

Specific Access

12. **Hush Hush Beach track**
    - **Investigate maintaining access to the beach, considering the:**
      - **susceptibility of coastal plant communities to plant diseases; - risk of introducing plant diseases;**
      - **nature of the coastal soils;**
      - **possibility of alternative routes;**
      - **protection of catchments in the Wilderness Area; and**

- **traditional use of the area.**

· **Public involvement will be sought in all stages of the investigation.**

· **In the interim period the coastal plant communities will be protected from plant diseases by implementing measures such as the:**
  - **temporary closure of the track when the risk of spread of disease is high, for example, after summer rainfall; and**
  - **provision of wash-down facilities.**

13. Blue Holes

· **Investigate methods to obtain a legal easement to the coast.**

· **Consider timber treatment of steep slopes.**

14. Shedley Road

· **Upgrade to an all weather road.**

15. Hilltop Area

· **Upgrade and widen Hilltop Road between Gully and Allen Roads to handle two-way access for cars.**

· **Maintain the one-way circuit from the South Coast Hwy up Hilltop Road and back to the highway along Gully Road. To ensure safe two-way access in an emergency :**
  - **appoint a traffic controller to organise vehicle flow;**
  - **improve the visibility on corners;**
  - **provide "turn around" and "pull-over" points; and**
  - **upgrade the South Coast Highway - Hilltop Road intersection.**

16. New Valley of the Giants

· **Access will be finalised in the area development plan.**

17. Mt Hopkins Area

· **Investigate ways to reduce the risk of introducing plant diseases into type 6 vegetation communities (see Appendix 1.).**

Management Access

18. Continue to maintain management only tracks in forest areas; prohibit use by public vehicles; maintain tracks to a level sufficient for management requirements.

19. Encourage use of some management tracks for bushwalking and cycling. (See Section 21.3 Bushwalking and Cycling).

20. Continue to maintain the vehicle track into the Wilderness Area; carry out maintenance outside peak times, preferably before winter rains to minimise impacts.

21. Ensure Walpole District maintains a boat for access to parts of the Park inaccessible by vehicle.

22. Avoid the construction of any other tracks for management purposes except when values of a high priority are threatened, for example, by a wildfire (see Section 10.0 Fire, Action 15 and CALM's Fire Controller checklist).

Research and Monitoring

23. Monitor all 4WD tracks and access points to 4WD beaches for the creation of new tracks and degradation; instigate management action as necessary.

24. Monitor annually the status of roads, tracks and walks. Management intervention will be necessary if erosion gullies become greater than 20 cm or water ponds on a road or track for longer than three to four days after rain. These values are based on dieback disease risk, soil degradation and erosion. Reassess these values if necessary.

25. Monitor the use of key roads, tracks and recreation areas in the Park to establish long-term trends in visitor numbers. Where an increase in use is incompatible with the purpose for which the area is zoned, instigate measures to keep use levels low, such as low maintenance or closure of some tracks to vehicles.

20.0 RECREATION AREAS

20.1 RECREATION SITES

BACKGROUND

The major recreation opportunities available in the Park are outlined in Table 7. Annual visits to the Park (1989) are estimated to be about 78 000 people, which represents a three fold increase in numbers since 1978 (Albone *et al.*, 1990).

OBJECTIVES

· *Provide a range of high quality, well-designed recreation sites that blend with the natural environment, have a minimal impact, and provide a variety of experiences.*

- *Minimise conflict between users by carefully locating recreation sites and constructing facilities in accordance with proven planning and management principles*

- *Design recreation sites to minimise safety hazards.*

- *Ensure, where possible, all recreation sites are capable of sustaining increased use in the future.*

- *Design recreation sites to minimise maintenance requirements.*

STRATEGY

The provision of recreation areas and their level of development will be governed by the zoning plan (see Section 2.0 Park Zones) and will provide a variety of recreation opportunities and experiences. Therefore, in high use recreation zones a high volume of visitors will be provided for, with a relatively high level of development. In medium-use recreation zones a number of recreation opportunities will be provided, catering for lower numbers of people who may stay longer in the Park. In natural environment zones, low density use will be catered for, with minimal facilities or developments.

More recreation opportunities, such as picnic areas, walking tracks and camping areas, will be provided principally in medium and high density recreation zones. Many of the existing recreation areas will have their range of recreation opportunities expanded, and most will be redesigned. Little development of new areas will occur in the Park, rather a consolidation and redesign of existing areas.

ACTIONS

1. **Carry out site redesign, modification and management as outlined in Table 7. Prepare site development plans for all major proposals.**

2. **Base all recreation development plans on an up-to-date hygiene plan and the approved Seven Way Test (see Section 9.0 Disease). Ensure no priority flora or fauna are adversely affected.**

3. **Design all facilities and tracks to require only minimum maintenance.**

4. **Encourage users to help reduce maintenance (for example, take home rubbish).**

5. **Provide facilities for disabled access at key areas in recreation zones.**

6. **Consider the potential for future water level rises when designing recreation facilities.**

TABLE 7. RECOMMENDED RECREATION SITE DEVELOPMENT

SITE	ACTIVITIES	ZONE	PROPOSAL
Crystal Springs	Camping Information on Nuyts. Walk to Nuyts.	Recreation Medium - use	Develop as major information site reflecting the gateway function for the two national parks. Retain the camping area.
Long Point	Fishing Sightseeing Informal camping.	Natural Environment	Develop low key small carpark in an area able to sustain use and a track to fishing spots. Prevent cars from going up to lookout, provide walk track. Monitor the impact of camping and should unacceptable degradation occur the area will be closed to camping.
Little Long Point	Fishing Camping	Natural Environment	Do not promote camping. Ensure parking is in an area able to sustain such use.
Hush Hush	Fishing Bushwalking	Wilderness/ Special Conservation	Provide walk track to beach. Rehabilitate degraded areas. Take measures to prevent introduction of disease.
Mt Clare	Sightseeing	Recreation Medium - use	Upgrade the road to Mt Clare and redesign the recreation area.
Tinglewood Drive	Sightseeing	Natural Environment	Provide discreet stopping points. Provide verge planting.
Nuyts Area	Walking Information	Wilderness	Maintain present facilities and the Shedley Drive entrance as the main access point to the Wilderness area.
John Rate Lookout	Sightseeing Picnicking	Recreation Medium - use	Redesign site to provide day-use facilities, improve safety and provide information.
Isle Rd Recreation Site	Fishing. Boat launching. Picnicking. Sightseeing.	Natural Environment	Redesign site to improve views from picnic area.
Sandy Beach	Fishing Swimming Picnicking Sightseeing Walking	Recreation Medium - use	Redesign to reduce impact of carpark and to discourage visitors from entering the 'special conservation' zone. Provide information on the walk to Rest Point.
Rest Point	Boat launching Canoeing Sightseeing Fishing Walking Picnicking	Recreation Medium - use	Redesign the National Park area to provide day-use picnic facilities and a starting point for the walk track, in conjunction with the lessee of Rest Point. Investigate the planting of indigenous species on the foreshore. Encourage maintenance of the rotunda.
Newdegate Island	Picnicking Sightseeing	Natural Environment	Picnic function to be maintained. Pine trees to be removed when they die. No camping.

SITE	ACTIVITIES	ZONE	PROPOSAL
Salmon Camp	Fishing	Wilderness	Relocate toilet to improve aesthetics.
Pioneer Park	Picnicking Information Walking	Recreation Medium-use	Develop a site plan in conjunction with the Shire of Manjimup and the Walpole Tourist Bureau which is compatible with Park goals and recreation planning principles.
Knoll Drive	Fishing Pleasure driving Sightseeing Picnicking Bushwalking	Recreation High - use	Develop as a high-use recreation area that can cater for tourist buses and caravans. Assess and redesign recreation sites according to their principal function eg. lookout, fishing spot, picnic area, trackhead, etc.
Coalmine Beach	Beachcombing Swimming Boating Sightseeing Picnicking Fishing Sailing Interpretation Walking	Recreation High - use	Redesign the whole area to improve aesthetics and functioning. Provide for day-use, overnight camping, yacht club facilities, a starting point for the heritage trail and interpretation facilities. Consult with the Walpole Yacht Club in redesign of the area. Provide facilities for viewing red flowering gums along the road.
Hilltop Lookout	Sightseeing	Recreation Medium - use	Improve signage. Upgrade interpretive information.
Tingle Tree	Bushwalking Sightseeing Picnicking	Recreation Medium - use	Redesign area to incorporate additional parking and new functions (eg. a starting point for walk tracks).
Circular Pool	Sightseeing Pleasure driving. Picnicking	Recreation Medium - use	Retain the day use area. Redesign the area to upgrade access, provide more picnic sites, protect sensitive granite outcrop areas and improve the provision of information.
Monastery Landing	Picnicking Boating/canoeing Sightseeing Walking	Natural Environment	Reorganise access and parking. Provide information.
Sappers Bridge	Sightseeing Picnicking	Natural Environment	Provide a small parking area and a walk track to the river.
Nornalup Bridge	Picnicking Boat launching. Sightseeing Boating/Fishing	Recreation Medium - use	Redesign area to provide for travellers and day users. Provide information.
Nut Lookout	Sightseeing	Special Conservation	Remove picnic facilities from lookout and rehabilitate. Provide information.
Conspicuous Beach	Fishing Surfing Beach combing. Sightseeing Swimming	Recreation Medium - use	Redesign the area providing a safe entrance, suitable picnic area, lookout, and starting point for coastal walks.

SITE	ACTIVITIES	ZONE	PROPOSAL
Valley of the Giants (Big Tree)	Sightseeing Picnicking Bushwalking	Recreation High - use	Refer to Section 20.2.
Irwin Inlet	Boating Picnicking Sketching	Special Conservation	Redesign to better accommodate existing uses.
Point Irwin (Kings Rock, Castle Rock, Diamond Rock)	Fishing	Natural Environment	Provide parking in sustainable areas. Provide walk tracks to fishing spots. Link with coastal route.
The Gap	Fishing Camping	Natural Environment	Provide parking in sustainable area. Provide walk track to beach. Do not promote camping. Beach vehicle access will be permitted subject to dune stabilisation. Link with coastal route.
Salmon Camp (Peaceful Bay)	Fishing 4WDriving Camping	Natural Environment	Provide parking in sustainable area. Provide walk tracks to beach. Do not promote camping. Rehabilitate 4WD tracks. Link with coastal route.
Rame Head	Fishing 4WDriving	Natural Environment	Beach vehicle access will be under continuous review. Link with coastal route.

20.2 VALLEY OF THE GIANTS

BACKGROUND

The Valley of the Giants is a major attraction in the area. While many visitors have not heard of the Walpole-Nornalup National Park, most have heard of the Valley of the Giants. The irony is that the Valley of the Giants Road is not in a distinctive valley.

Valley of the Giants receives more visitors than any area in the Park, about 66 percent of all visitors (Albone *et al., 1990).* The major recreation area, Big Tree, was not designed to cater for such numbers and often does not cope with the demand.

ISSUES

- Visitors do not have a high quality experience of the tingle forest.
- Large numbers of visitors can cause soil compaction.
- The layout and design of facilities does not cater for the large number of visitors.
- Facilities are difficult to find.
- The topography does not allow for expansion.

OBJECTIVE

· *Provide opportunities for experiencing good representative areas of the tingle forest by large numbers of visitors at an area of high quality.*

STRATEGY

Parts of the area currently known as Giants State forest will be the major focus for high density recreational use in the Park. A major recreation area will be developed at a location that provides opportunities for visitors to view large trees. The new development will provide scattered picnic sites, numerous bushwalks of varying lengths, disabled access and information about the area. The necessary roads will be upgraded to cater for all forms of vehicles and provide a high scenic quality experience. These roads will be sealed. The existing Big Tree area will be closed and rehabilitated, and then redesigned and developed as a picnic area with walk tracks.

ACTIONS

1. **Carry out detailed design of the major access road and recreation area including:**
   - **catering for expected future growth;**
   - **picnic sites catering for varying group sizes;**
   - **walk tracks of various lengths; and**
   - **fire safety requirements.**

2. **Protect tingle trees from soil compaction and the granite outcrop on Rate Road.**

3. **Provide information on the tingle forest and recreation opportunities in the Walpole area (see Section 23.0 Community Relations).**

4. **Progressively develop complementary low-key picnic areas.**

5. **Provide safe photographic stopping points in the Valley of the Giants.**

6. **Investigate alternative sources of funding to develop the new site.**

20.3 COALMINE BEACH AREA

BACKGROUND

The Coalmine Beach area provides for a diverse range of recreational activities. Facilities to cater for these activities include 20 powered sites, 35 campsites, an ablution block, barbecues, picnic tables, a jetty and a boat ramp. The area has always been managed in a low-key manner, with no promotion. Interpretive programs, incorporating a variety of aspects of the National Park, have been conducted from this area for the past few years and have proved very popular.

ISSUES

- Visitor surveys indicate that the present character of the caravan park (low-key style with minimal development; quiet, peaceful, friendly atmosphere; surrounding natural environment) should be maintained.

- The need for better quality showers and toilets, dryers in the laundry, more short-term campsites, built accommodation, a telephone, better night lighting, a campers' kitchen, less dense campsites, and improved children's play area.

- Numbers and types of visitors vary throughout the year. Peak times are the Christmas school holidays (particularly Christmas-New Year) and Easter. Numbers over winter are very low. Patronage of the caravan park has risen since 1983.

OBJECTIVE

To manage the Coalmine Beach area as a low-key attraction in order to maintain its current style and character.

STRATEGY

Redesign the Coalmine Beach area, including the day-use area and the caravan park. If resources are available, through commercial management or by other means to CALM, the caravan park will be managed as a low-key facility with the improvements outlined below. Expressions of interest have already been sought to determine if leasehold management of the caravan park is commercially viable. The design plan will consider the most appropriate use of the caravan park if resources are unavailable.

ACTIONS

1. **Investigate the possibility of providing additional bays and built accommodation in the caravan park.**

2. **Investigate managing the caravan park by way of a lease.**

3. **Upgrade or replace ablution block.**

4. **Institute, where possible, measures to reduce running costs such as coin-operated showers, wood chip heaters, less streetlighting, park closure in winter and leasing of the caravan park.**

5. **Construct a campers' kitchen incorporating shelter, barbecues and a sink.**

6. **Construct alternative ablution facilities for peak demand.**

7. **Continue to use the Coalmine Beach area as a base for interpretive activities.**

8. **Encourage interaction with the environment by children as an alternative to providing facilities.**

20.4 NUYTS WILDERNESS AREA

BACKGROUND

The Nuyts area was designated Wilderness Area in 1978 and is zoned wilderness in this plan. It comprises an area of about 4500 ha. Vegetation communities include coastal heath, karri-tingle forest and those associated with granite outcrops.

Public access is by foot only and is gained from three main points: from the west from either Crystal Springs, Mandalay Beach or Long Point; at Deep River near Tinglewood (which is the main trackhead, with registration book and information); and via boat to The Depot near the mouth of Nornalup Inlet. Most users start at the Deep River trackhead. An old vehicle track provides a route through to Thompson Cove (and the main camping area) with tracks leading off to Mt Hopkins, Aldridge Cove, Crystal and Boggy Lakes and Forest of Arms. The only facilities provided are two bridges (across the Deep River and a swampy tributary) and a few track markers, all within the first kilometre.

ISSUES

- A large part of the Nuyts Wilderness Area is in sandy coastal soils and is prone to dieback disease and erosion.

- Areas of high sensitivity, like those used for the translocation of the Noisy Scrub-bird, do not have the capacity to sustain much use, particularly intensive camping.

- Well defined and used tracks that lead to one destination are subject to degradation.

- Limited firewood is available in the coastal heath. Camp fires are not allowed in the Wilderness Area because of the lack of firewood and the risk of wildfires.

- Dieback disease is present in the area, particularly along the main access track. It is probable that foot traffic will continue to spread the disease if remedial action is not taken.

- The number of people and different activities using the Wilderness Area needs to be controlled to keep degradation to a minimum.

- It is not desirable to have the entire area burnt at once by uncontrolled fire. There is also a need to protect neighbouring properties and ecological values such as the Noisy Scrub-bird habitat.

- The remoteness and lack of easy vehicle access means there are potential safety risks if accidents or wildfires occur.

OBJECTIVES

- *Maximise the naturalness and remoteness (that is, wilderness quality) of the area. In particular, minimise evidence of humans and management, and allow indigenous plants and animals to maintain their ecological processes without intervention.*

- *Maintain opportunities for wilderness-dependent experiences such as solitude, self-reliant recreation and aesthetic enjoyment of a near-pristine environment, while encouraging minimum impact activities.*

- *Rehabilitate degraded areas.*

STRATEGY

While it is desirable to have no evidence of management in the Wilderness Area, degradation of the environment is not acceptable and is inconsistent with the objectives of the National Park. Therefore, some remedial action will be taken to rehabilitate degraded areas, prevent erosion, prevent the spread of dieback disease and reduce the number of tracks. This is consistent with approaches taken in wilderness areas. elsewhere in Australia (CONCOM, 1986); all action will be done as discreetly as possible. A limited amount of fuel reduction burning will occur to prevent the whole Wilderness Area burning at one time and to protect ecological values and neighbouring property. Numbers of users may be controlled if necessary; the use of volunteers to assist in managing the Wilderness Area will be investigated.

ACTIONS

1. **Undertake remedial action to rehabilitate degraded areas in the Wilderness Area, prevent erosion and the spread of dieback disease. Carry out all action with the minimum amount of physical and visual impact, and minimum amount of materials.**

2. **Reduce the number of paths and discreetly define paths. Ensure the main tracks are in areas able to sustain such use.**

3. **Carry out some prescribed burning where necessary without the use of machinery (see Section 10.0 Fire).**

4. **Continue to monitor visitor numbers. Investigate more accurate methods of recording all visitors from all entry points.**

5. **Identify other wilderness areas in the Southern Forest Region to cater for increasing demands and to take some of the pressure off Nuyts. Designate, where possible, these areas as wilderness.**

6. **Implement the bushwalking plan to provide alternative longer walks to take pressure off Nuyts (see Section 21.3 Bushwalking and Cycling).**

7. **Change the area designated as 'wilderness' to exclude Poison Hill (which will be zoned 'special conservation'); consider inclusion of Landors Gully (when it is added to the Park) and the area to its east into the designated Wilderness Area (see Section 2.0 Park Zones).**

8. **Monitor the effectiveness of remedial action. If degradation continues to occur and wilderness values are compromised, instigate measures to limit visitor numbers and group sizes, such as:**
   - **incorporating the Nuyts within the proposed District camping booking system (see Section 21.4 Camping).**
   - **using a volunteer Nuyts Wilderness Area host at peak times to ensure appropriate behaviour, care and use of the area.**

9. **Promote a Code of the Wilderness at all entry points, incorporating the principles of minimum impact activities. Provide information regarding peak times, the coastal environment and encourage use outside peak times.**

10. **Ensure fire safety information is readily available to users of the Wilderness Area.**

11. **Enforce the ban on wood fires in the Wilderness Area, and encourage the use of portable camp stoves.**

12. **Limit sizes of groups, including adventure-based tours and school groups, to a maximum of three tents (see Section 21.8 Commercial Tour Operators and Large Groups). Limit stays overnight in peak season to one night at each campsite. Monitor the effectiveness of these limits and adjust if necessary.**

13. **Continue low level maintenance of the vehicle track into the Wilderness Area to enable access in case of an emergency (see Section 19.0 Access).**

14. **Ensure walkers do not traverse areas that are dieback disease infected or are at high risk either by relocating sections of the track or providing simple walkways (for example, planks) across the small inundated areas.**

21.0 RECREATION ACTIVITIES

21.1 PLEASURE DRIVING AND SIGHTSEEING

BACKGROUND

Pleasure driving and sightseeing are the two most popular activities in the Park. Many of the roads and tracks in the Park provide either open views across a wide, sweeping landscape of forested hills, inlets, rivers surrounded by tall forest, wild headlands and cliffs, or enclosed views within the karri and tingle forests. Lookouts provide an important opportunity to facilitate sightseeing with minimal impact on the environment.

OBJECTIVES

- *Provide a variety of opportunities to view the Park's different features and landscapes.*

- *Foster an appreciation of the Park environment by sightseers.*

ACTIONS

1. **Identify roads that will be promoted and managed as scenic drives. Liaise with shires and the Western Australia Tourist Commission (WATC) to ensure a uniform tourist drive classification is achieved.**

2. **Ensure roads promoted for pleasure driving are maintained to a sufficient standard to ensure safe driving.**

3. **Provide appropriate facilities for drivers to stop and enjoy the environment.**

4. **Ensure all works associated with roads and their viewsheds (for example, verge clearing, fuel reduction burning and resurfacing) are in accordance with visual resource management principles** (see **Section** 6.0 **Visual Landscape Management).**

5. **Do not promote use of roads in Natural Environment zones for scenic drives.**

6. **Maintain views in accordance with visual resource management principles in the viewsheds of John Rate, Knoll Drive, Hilltop and other lookouts as necessary (see Section 6.0 Visual Landscape Management).**

7. **Ensure all lookouts are appropriately signposted.**

8. **Provide more formalised lookouts where feasible on Knoll Drive (capable of handling buses), South Western Highway, Tinglewood Drive, Conspicuous Beach carpark and some other areas accessible by vehicles or a short walk (see Section 20.0 Recreation Areas).**

9. **Provide information on the main features seen from selected lookouts, including nearby attractions, vegetation, landforms and fauna (see Section 23.0 Community Relations).**

10. **Promote the location of lookouts in Park literature.**

11. **Where appropriate provide other viewing spots that require minimal maintenance (see Section 6.0 Visual Landscape Management).**

21.2 RECREATIONAL FISHING AND FOUR-WHEEL DRIVING

BACKGROUND

Recreational fishing and four-wheel driving are very popular activities in the Park. Fishing occurs along the extensive coastline and in the inlets (see Section 21.5 Boating, Yachting and Canoeing). At least 30 percent of the Park users surveyed fish in summer, and about 12 percent fish in spring, while approximately 25 percent of users surveyed have 4WD vehicles (Albone *et al.,* 1990).

ISSUES

- Coastal areas of the Park are fragile and access has resulted in erosion, compaction, a proliferation of tracks, damage to vegetation and the spread of dieback disease.

- As the number of 4WD vehicles entering the Park increases so do the impacts on coastal tracks. As tracks deteriorate others are made.

- Coastal camping sites have a limited capacity to sustain use. Trees are denuded for firewood and rubbish is left in these areas.

- Off-road vehicles (for example, tractors) are sometimes used in the Park, particularly in the Peaceful Bay area.

OBJECTIVES

- *Provide a variety of access for recreational fishing to those sections of the coast and inlets that are able to support use with minimal damage to the natural environment.*

- *Foster appreciation and care of the environment by recreational anglers.*

ACTIONS

1. **Implement rationalisation of coastal tracks and parking areas (see Section 19.0 Access).**

2. **Encourage anglers using the Park to join fishing clubs and 4WD clubs so that users become aware of their responsibilities to the Park environment. Liaise with fishing clubs regarding any issues of concern and information.**

3. **Promote the responsible use of coastal areas and awareness of coastal safety risks.**

4. **Investigate provision of tyre inflation facilities at Crystal Springs, the entrance to Blue Holes and at Peaceful Bay, in association with dieback disease wash-down facilities , to encourage deflation of tyres on coastal dunes.**

21.3 BUSHWALKING AND CYCLING

BACKGROUND

Bushwalking, whether it is a long hike or a short wander through the bush, is becoming increasingly popular. About 47 percent of Park users participate in bushwalking (Albone *et al.*, 1990*).* Walpole-Nornalup National Park with its dramatic changes in landforms and vegetation, spectacular landscapes, richness in wildflowers and the tall forests provides many and varied opportunities to explore by foot. Bushwalking, as a form of access, is compatible with the goals of the Park; it allows for the appreciation of the Park and its wild environment in a peaceful, relatively non-impacting manner.

Short walk tracks are provided at Valley of the Giants, between Rest Point and Sandy Beach and on the Knoll; longer walks are the Coalmine Beach Heritage Trail and sections of the Bibbulmun Track that run through the Park.

Potential exists to provide many more opportunities to experience the Park on foot through varying the length of walks (to cater for variety of users, their needs and levels of fitness) and environments.

About 67 percent of users surveyed felt there should be more walk tracks in the Park (Albone *et al.*, 1990*).*

Cycling in natural areas has become an increasingly popular activity with the advent of mountain bikes. While there is little use of Walpole-Nornalup National Park for cycling at present, it is envisaged that it is an activity likely to increase in the Park.

ISSUES

- Bushwalking and cycling can spread dieback disease and also cause compaction and erosion in fragile areas.

- Walk tracks require regular maintenance, particularly in high rainfall areas, and resources are needed to be able to maintain the number of tracks provided.

- Areas suitable for cycling need to be identified and promoted as demand increases. Conflict between cyclists and motorists could occur in some areas.

OBJECTIVES

- *Provide a wide range of opportunities to experience the many different environments of the Park on foot (ranging from short scenic and interpretive, to extended walks), with an emphasis on experience of the wild environment.*

- *Minimise conflicts between bushwalkers and other users.*

- *Ensure that walk tracks are located on alignments that are capable of sustaining them, where maintenance is feasible and where Park values will not be adversely affected.*

- *Provide cyclists with opportunities to experience the Park's many landscapes, in areas able to sustain such use, while minimising safety risks.*

STRATEGY

A number of opportunities to explore the Park on foot will be developed (refer to Map 5 for approximate locations) incorporating a range of experiences, landscapes and length of walks. Table 8 outlines the major walk tracks proposed. Most walks will link with others thus providing many options for bushwalkers. Cycling routes will be designated and linked with walk tracks. Tingle Tree, Pioneer Cottage, Peaceful Bay and Valley of the Giants will be major starting points.

Three categories of paths will be provided: walks, tracks and routes. A walk is a relatively short, well-formed path with a stable walking surface constructed to "shoe" standard. Walks require limited skill or experience and are suitable for persons of all ages and fitness levels. A track is a path constructed to "boot" standard which requires some skill or experience to comfortably negotiate. Tracks are generally well designed and clearly marked and suitable for persons of at least average physical fitness. A route is a lightly marked path or unmarked route for use by well-equipped and experienced hikers.

TABLE 8. MAJOR WALK TRACKS PROPOSED

	GENERAL DESCRIPTION	LENGTH	CATEGORY
1.	Coastal: Peaceful Bay to Conspicuous Beach.	11 km	route
2.	Coastal: Mandalay Beach to Thompson Cove.	13 km	route
3.	Forest : Pioneer Cottage to Horse Yard Hill.	0.5 km	walk
4.	Horse Yard Hill via Cemetery and Monastery Roads to Tingle Tree.	10 km	track
5.	Forest: Tingle Tree via Douglas Lookout, Monastery Road, Tingle Drive, Brainy Cut-Off, Boxhall and Twin Creek Roads to new Valley of the Giants site.	16 km	track
6.	Inlet-forest: Coalmine Beach to Tingle Tree and Monastery Landing.	8 km	track
7.	Inlet-forest: Sandy Beach via Saw Pit to Rest Point and around knoll.	3.2 km	walk
8.	Inlet- forest: the Knoll looped walks.	Up to 3 km	walk
9.	Valley of the Giants: numerous walks.	Varying	walk

ACTIONS

1. **Progressively implement the bushwalking plan in Table 8 (see Map 5 for approximate locations).**

2. **Follow these guidelines to develop walk tracks**
   - **Walk tracks should be placed low in the landscape but should avoid areas susceptible to inundation, wherever possible, to minimise the introduction or spread of disease;**
   - **Walks should be linked, where appropriate, with recreation and camping areas in the Park, and with walks in the adjoining D'Entrecasteaux National Park and State forest;**

- **Start points should be relatively accessible to vehicles to facilitate visitor use and management, and information on the associated walk including estimated duration of the walk should be provided;**
- **Walks should provide views and be placed in a position in the landscape where this can be achieved without jeopardising Park values, particularly by creating dieback disease risks or impacts on the landscape;**
- **Promote the development of loop or circuit walks which permit one-way use and avoid the need to retrace the same route while allowing access to a number of points of interest in the same area;**
- **Longer walks should enable the walker to experience the remoteness and pristine nature of the Park;**
- **All walk tracks should be designed to minimise maintenance requirements and to be able to cater for increasing future use; and Tracks should consider disabled and elderly person access (total access).**

3. **Design bushwalking routes to make use of existing tracks where possible. Make use of low-use vehicle tracks where there will be minimal conflict. Monitor levels of use and, where conflict arises, consider closing some vehicle tracks to favour bushwalking.**

4. **Develop interpretive walks in recreation zones.**

5. **Review the route of the Bibbulmun Track to tie in with the bushwalking proposals and to maximise the variety of environments and landscapes.**

6. **Promote minimum impact bushwalking.**

7. **Provide comprehensive information on bushwalks available in the area (see Section 23.0 Community Relations). Information on walks should include:**
   - **length**
   - **level of fitness required**
   - **completion time**
   - **special features.**

8. **Ensure users of walks that traverse No Planned Burn areas are aware of fire safety procedures; indicate access ways to beaches in coastal walks.**

9. **Designate suitable cycling routes, combining where appropriate with proposed bushwalking routes, incorporating:**
   - **gravel roads of low to medium level use by vehicles**
   - **management only tracks**
   - **a variety of landscapes**

- **a variety of lengths and difficulty of routes.**

10. **When demand is sufficient, provide information on cycling opportunities in the Park and the Walpole District.**

11. **Encourage visitors to consider the requirements of other users.**

21.4 CAMPING

BACKGROUND

Vehicle based camping is formally provided at only two sites in the Park, at Coalmine Beach and Crystal Springs. Foot based camping occurs at Thompson and Aldridge Coves, and also at Crystal Lake and Forest of Arms in the Nuyts Wilderness area. Camping by anglers occurs at some coastal locations.

Few areas in Walpole-Nornalup National Park are able to sustain intensive camping. Camping areas need to be sheltered from the elements preferably with suitable trees, in stable soils, with flat ground; they also need to be of sufficient size to cater for increasing future demand.

ISSUES

- The lack of suitable locations in the Park to establish camping facilities.

- Coastal camping areas have a limited number of trees, and most areas have been denuded for firewood.

- The ability of CALM to manage and maintain camping areas. The number of campers in the Park may have to be controlled at peak times, particularly as demand increases.

- Fire escapes from open camp fires can cause wildfires.

OBJECTIVES

- *Provide a range of camping opportunities in the Park in areas able to sustain such use and complementing those provided elsewhere in the District.*

- *Ensure impacts from camping are minimised.*

STRATEGY

To take the pressure off the Park camping facilities in the Walpole District should be focussed, as a first priority, in State forest and at Banksia Camp. One area in WNNP, in Valley of the Giants, is targeted to be developed as a camping area. This will be developed after the above sites have been completed. It will provide for vehicle-based camping, and will be linked with walk tracks. Foot based only camping will continue to be provided in the Nuyts Wilderness Area. No specific camping areas will generally be provided along walk tracks (since the above provision is considered sufficient, and is the maximum able to be provided in the Park). However, discreet minimum impact camping will be allowed on a short stay basis.

ACTIONS

1. **Develop a camping area in Valley of the Giants once other camping areas in the District have been completed.**

2. **Encourage establishing camping areas on private property in the region.**

3. **Design campsites to cater for a range of group sizes, from one vehicle to groups of three to four vehicles. Design to provide, where possible, effective separation of groups.**

4. **Allow discreet minimum impact camping in areas not designated as day-use areas, on a short stay basis.**

5. **Investigate a peak season booking system to ensure the capacity of all camping areas is not exceeded.**

6. **Continue to develop the voluntary campground host scheme to assist with the management of camping areas.**

7. **Confine campfires to approved sites.**

8. **Encourage use of fuel stoves by campers, except where facilities are provided.**

9. **Do not promote camping in riparian areas.**

21.5 BOATING, YACHTING AND CANOEING

BACKGROUND

The Frankland and Deep Rivers and the Walpole, Nornalup and Irwin Inlets provide many opportunities for boating, yachting, canoeing and fishing. Boat launching facilities are available at the Walpole town jetty, Rest Point, Nornalup, Peaceful Bay, and within the Park at Coalmine Beach and Isle Road. Six percent of summer Park visitors use boats as a means of transport (Albone et al., 1990).

ISSUES

- Some problems are associated with camping by canoeists: few areas exist along the river which are suitable for camping (due to steep slopes), riparian zones (riverbank areas) are among the most environmentally sensitive in the Park, there are risks associated with camp fires, and increasing uses of specific areas could have a high impact.

- Noise from high powered speed boats and jet skis can be intrusive on the experience of other Park users.

- The Walpole Yacht Club would like a long-term lease to give the club increased security of tenure. The Club's facilities on the Nornalup Inlet foreshore are visually prominent.

OBJECTIVES

- *Provide opportunities for boats to be launched in areas able to sustain such use, while minimising impacts on the environment and conflict with other users.*

- *Ensure operations of the Walpole Yacht Club are compatible with the objectives of the Park and their facilities have a minimal impact on the environmental and landscape values of the Park.*

- *Encourage use of waterways within the Park by canoeists while ensuring minimum impact on Park values.*

ACTIONS

1. **In association with the Department of Marine and Harbours, ensure boat launching facilities are of a high standard, situated in appropriate locations, while maintaining a minimum impact on the environment and landscape, and minimum conflict with other users.**

2. **Incorporate redesign of the Walpole Yacht Club lease area within the overall redesign of the Coalmine Beach area, in conjunction with the Club (see Section 20.1 Recreation Sites).**

3. **Negotiate a lease term with the Walpole Yacht Club that ensures appropriate security for the operations of the Club.**

4. **Include maintenance of boat ramps in the Park's annual works program. Encourage ramp users to participate in the works.**

5. **Provide a canoe launching facility at Nornalup.**

6. **Provide information at the canoe launching site, including possible trips, time required and appropriate behaviour.**

21.6 SAILBOARDING AND SURFING

BACKGROUND

While sailboarding is not a common activity in the Walpole area, it is becoming more popular on long weekends and during school holidays. However, Walpole and more particularly Nornalup inlets could gain in popularity for windsurfing. It is, therefore, considered important to plan for windsurfing as a possible future Park activity.

The shallow waters near Coalmine and Sandy Beaches provide ideal conditions for beginners, and the strong summer south-east sea breezes provide good flat water sailing for the more experienced. Surfing is popular in the Park along the coast between Conspicuous Cliffs and Mandalay Beach.

ISSUES

· Sailboarders need parking facilities, a rigging area and a beach from which to launch. Sandy Beach, with its narrow foreshore, close proximity to sensitive vegetation, and constraints on expansion of the carpark, may not be a suitable sailboarding site. Conflict may arise with other beach users. Coalmine Beach has better facilities but there is the potential for conflict between yachts, sailboards and swimmers.

· Surfers who camp on beaches and in carparks come into conflict with other users.

· Surfers at Conspicuous Beach climb a small dune near the carpark to check conditions. The track up the dune is eroding.

OBJECTIVE

· *Provide opportunities for sailboarding and surfing while minimising impacts on the environment and conflicts with other users.*

ACTIONS

1. **Monitor sailboarding use of Coalmine and Sandy beaches. If levels increase and conflicts or impacts occur, designate specific areas for sailboarding in liaison with the Department of Marine and Harbours.**

2. **Repair the track to the top of the dune at Conspicuous Beach.**

3. **Actively discourage camping in day-use areas.**

21.7 MARRONING

BACKGROUND

Marroning occurs mainly on the Deep, Walpole and Frankland Rivers, and is regulated by the Fisheries Department. Fisheries Officers and CALM staff regularly patrol the area during declared and closed seasons; liaison with Fisheries Officers is important.

ISSUES

· Open campfires lit by marroners are of great concern, particularly with long unburnt forest in the vicinity.

· Degradation of vegetation on river banks can occur.

· Creation of new access tracks to river areas.

OBJECTIVE

· *Ensure a minimum impact on Park values from marroning activities.*

ACTIONS

1. **Inform marroners that campfires are confined to approved sites and of the need to care for the environment.**

2. **Continue to liaise with Fisheries Officers.**

3. **Monitor the effects of short marroning seasons on the environment.**

4. **Support initiatives that help conserve marron populations.**

5. **Encourage the monitoring of marron populations in the Park.**

21.8 COMMERCIAL TOUR OPERATORS AND LARGE GROUPS

BACKGROUND

The majority of visitors to Walpole-Nornalup National Park are tourists. The Park, particularly the tall tingle-karri forest which is unique to the area, is a major tourist attraction. It is on the popular travel route for commercial operators that includes Albany, Denmark, Walpole, Pemberton, Manjimup and the Leeuwin-Naturaliste area.

The Park is also a popular destination for adventure-based camping groups. While these groups, such as the YMCA, universities, colleges and high school outdoor education classes, provide many people with the opportunity to experience the Park's special values, in large numbers they can cause damage to the environment.

ISSUES

- To maintain the Park's natural qualities it is important that commercial tours and other groups are confined to specific areas that can sustain current and future demand (see Section 2.0 Park Zones).

- The growing popularity of adventure-based tourism, including 4WDriving, canoeing and bushwalking, has the potential to impact upon the Park.

OBJECTIVES

- *Ensure the impacts of groups and commercial tours are minimised.*

- *Ensure group and commercial tour activities are reliant on the Park's values.*

ACTIONS

1. **Direct groups and commercial tours that are likely to have an impact on the environment or are not reliant on Park values to use other suitable areas outside the Park.**

2. **Monitor the impact of groups and commercial tours on the Park environment. If Park values are being adversely affected take appropriate action, such as limiting the number of tours.**

3. **Ensure all tour operators and groups have a licence or permit (whichever is appropriate) to operate in the Park and encourage them to be involved in Park management.**

4. **Develop a booking system, where necessary, to limit the number of tours and groups at any one time.**

5. **Develop guidelines, in consultation with operators, for groups and commercial tours, including:**
   - **designated areas for tours (in 'wilderness', 'natural environment' and 'recreation' zones) that are able to sustain such use;**
   - **maximum numbers of participants (in the 'wilderness' zone this will be a maximum of three tents);**
   - **activities carried out in areas able to sustain such use; and**
   - **safety and environmental standards.**

6. **Provide training, where necessary, for group and tour leaders before activities commence.**

22.0 PETS

22.1 DOGS

BACKGROUND

Dogs are considered a nuisance by many people because they impinge on the rights of other Park users and also interfere with native fauna. The user survey revealed that 57 percent of visitors surveyed did not favour allowing dogs on some beaches, 34 percent were in favour and nine percent were unsure (Albone *et al.*, 1990). Dogs are quite often taken into Walpole-Nornalup National Park though they are not allowed.

ISSUES

- Walpole residents can take their dogs into nearby State forest and onto shire land within the town, but there are no beaches close by for use by dogs. Dogs are allowed at Rest Point Tourist Resort and they are sometimes taken into the surrounding National Park, particularly to Sandy Beach.

- A section of 1.9 km beach at Peaceful Bay, vested in the Shire of Denmark, is the only area of coast for about 16 km where dogs are allowed. This section of beach adjoins the National Park on either end (the eastern end is known as Foul Bay Beach). Actual boundaries are unclear on the ground and dogs often stray or are taken into the Park.

- Dogs interfere with wildlife.

- Dogs foul the ground where people walk, sit or picnic, their behaviour is unpredictable, and they are often let loose and harass other Park users.

- If more land is provided for dogs in the area, restrictions in the Park would probably be perceived as being more fair and, therefore, acceptable. Relaxation of the "nodogs" rule in a part of the National Park, however, may compromise efforts to enforce that rule elsewhere.

- The control of dogs takes up a considerable amount of the staff time, and does not engender good relations with some Park users.

OBJECTIVES

- *Protect native fauna and Park users from the impacts of dogs .*

- *Continue to exclude dogs from the Park, except in designated areas.*

STRATEGY

Dogs will be allowed on Foul Bay Beach for a distance of one kilometre from the shire boundary. This recognises that the towns are surrounded by the National Park and access to the beach traverses little of the Park. Effects on wildlife will be limited by allowing dogs only below the dunes, however, this needs to be monitored.

Peaceful Bay Beach is the only ocean beach that is safe for swimming for approximately 35 kms and conflict with other users may arise. To reduce the nuisance and health hazards of fouling of the beach, dog owners will be required to remove dog faeces, as they are in the metropolitan area. While this beach is of sufficient size to sustain use by dogs, there is no comparable beach within easy access of Walpole. The only possibility, Sandy Beach, is very narrow and quite small, and the adjacent area is zoned for 'special conservation' (the vegetation community is highly sensitive and the area also contains native animals and is, therefore, unsuitable). Coalmine Beach is also not of sufficient size, and there is a higher likelihood of conflict with other users.

ACTIONS

1. **Allow dogs on leashes on Foul Bay Beach (when the Park extends to low water mark); place a sign at the boundary of 1 km.**

2. **Strictly enforce and widely advertise the no dogs rule throughout the remainder of the Park.**

3. **Monitor the use of Foul Bay Beach by dogs, particularly regarding any ecological impacts or conflict with other users: review as necessary.**

4. **Consider changing the purpose and vesting of the stretch of beach to shire land so that efforts to restrict dogs elsewhere in the Park are not compromised.**

5. **Liaise with the owner of Rest Point Tourist Resort to ensure visitors are aware of the no dog rule and the reasons for it.**

22.2 HORSES

BACKGROUND

In the Southern Forest Region it is not possible to provide for a full range of recreation activities in each national park. Criteria, including the capability of the land to sustain uses and visitor demand,

are used to allocate the most appropriate activity to each area. Accordingly, where use can be sustained, horse riding is allowed in certain areas of Shannon and D'Entrecasteaux national parks (CALM, 1987b) and in parts of State forest.

Horses are not allowed in Walpole-Nornalup National Park, however, there is occasional illegal use in the Crystal Springs and Peaceful Bay areas.

ISSUES

- Horses can have a number of impacts, including the spread of weeds, the spread of disease, erosion of sandy soils on steep slopes, and trampling of vegetation (Weaver and Dale, 1978).

- There is little traditional use of horses in this Park, in comparison to other national parks in the Southern Forest Region.

- On CALM land in the Peaceful Bay area there would be unacceptable environmental impacts if horses were allowed. These would include a high risk of spread of dieback disease (particularly from inundated areas) and a high erosion potential in the sandy soils that are subject to strong winds.

OBJECTIVE

· *Protect the Park environment from the impacts of horses.*

ACTIONS

1. **Horses will not be allowed in Walpole-Nornalup National Park.**

2. **Direct the use of horses to adjacent State forest in areas able to sustain such use, to approved areas in the adjoining Shannon and D'Entrecasteaux national parks and to private properties.**

PART G COMMUNICATIONS

GOAL:

· Foster a sense of stewardship by the community for the Park through its conservation, landscape, recreation, cultural and historic values.

23.0 COMMUNITY RELATIONS

BACKGROUND

Visitor Information and Interpretation

The dissemination of information is an integral part of CALM's role in land management. The public is attracted to the Park's facilities and recreational opportunities which provide appreciation and greater understanding of the natural environment. This enables CALM to foster appropriate behaviour so that impacts on the environment are minimised. Therefore, an effective information and interpretation program is important to achieve the Park's management objectives.

Community Liaison

The Walpole-Nornalup National Park is closely linked to the local communities, including the towns of Walpole, Nornalup and Peaceful Bay. The Park offers a major source of recreation for the communities, and the tourism associated with the Park provides a source of income (either directly or indirectly) to the community, while the community provides an important support role for Park visitors. Continued community liaison is important to strengthen this link.

Government Agency Liaison

The jurisdiction of many government agencies overlap within the National Park. These include the Bush Fires Board, Department of Marine and Harbours (boats on rivers and estuaries), Fisheries Department (fishing in the ocean, rivers and estuaries), Waterways Commission (estuaries and total catchment management), Environment Protection Authority, Main Roads Department (South Western Highway), Water Authority of WA (town water supplies), State Energy Commission of WA (power supply), Department of Planning and Urban Development (townsite expansions and rural sub-divisions), Agriculture Department (total catchment management), State Emergency Service and the Ministry of Sport (outdoor recreation).

The shires of Manjimup and Denmark and CALM are involved in fire management, integrated management of shire reserves and the National Park, and the provision of recreational resources to the local community.

Ongoing liaison with the Bush Fires Board, local Bush Fire Control Officers and volunteer brigades regarding fire protection of areas adjacent to the Park is also essential.

ISSUES

- The need to provide Park visitors and the local community with regulatory and safety information.

- Improved pre-visit, on-site, orientation and interpretive information at key areas, and signs, maps, and guides for activities such as bushwalking and cycling.

- Integration of information so that there is no unnecessary repetition throughout the Park, the Walpole District and the Southern Forest Region.

- Ongoing liaison between CALM and the community, particularly with groups with wider interests, such as the WA Recreation and Sport Fishing Council and the WA Association of Four Wheel Drive Clubs, is essential.

- Potential exists for community involvement to implement this plan. This involvement may range from monitoring, research, and interpretation to rehabilitation, assistance with track maintenance, and staffing of wash-down facilities.

- Government agencies whose influence extends into the Park must recognise the Park's values and the main issues of concern, and the part they can play in the protection of the Park environment.

- The need to communicate with Park users and the community on the management of issues, such as dieback disease and coastal access.

- Parts of the Walpole-Nornalup National Park are fisted on the Register of the National Estate. As a result of the joint study of regional National Estate values by CALM and the Australian Heritage Commission, some changes to the areas listed on the register are likely.

OBJECTIVES

- *Provide and disseminate information effectively to ensure visitors are able to plan their visit to the Park, are able to find their way to the features and attractions that appeal to them, are conversant with the type of behaviour and actions which are appropriate in a national park, and can learn something about the natural features they are experiencing. This will enhance their overall experience in the Park.*

- *Effectively disseminate information on management concerns and public safety.*

STRATEGY

A community relations program will be developed to achieve the objective of providing and disseminating information to an increasing number of people visiting the Park. Table 9 outlines the information and interpretation strategy for WNNP. It complements related themes developed in CALM's Pemberton and Manjimup Districts.

Communication plans will also be developed for major issues to ensure Park users and the community are aware of management problems, constraints and actions.

TABLE 9 INFORMATION AND INTERPRETATION STRATEGY

LEVEL	LOCATION	POSSIBLE TYPE OF INFORMATION AND THEMES
1. Orientation	Tourist Bureaux key areas	Pre-visit information for trip planning. (adjacent regions-Metro)
	CALM office	Recreation opportunities in Walpole District. Maps, special activities. Special requests. Ecological updates.
	Pioneer Cottage	Theme - unique, historic Walpole. Recreation opportunities. Walpole - from the land, from the sea, trees.
	Valley of the Giants	Theme - Tingle trees and forests. Recreation opportunities (whole Park plus at Valley of the Giants). Welcome to karri region; where to go etc. A special place for trees - why they are giants. Tingles. Name trees. Regulatory. Use Big Tree site to highlight soil compaction and visitor pressure.
	Crystal Springs	Theme - overview of two national parks. Welcome to Walpole-Nornalup and D'Entrecasteaux national parks. Where to go, what to do in both Parks. Code of the coast. Historic cattle stock routes. Dieback disease.
	Bow Bridge	Welcome to Walpole-Nornalup National Park. Where to go, what to see.
2. Major sites	The Knoll	Inlet processes and information/interpretation on: • aquatic flora and fauna • birds, including Ospreys • people (historic) • karri meets waters edge.

LEVEL	LOCATION	POSSIBLE TYPE OF INFORMATION AND THEMES
	Coalmine Beach	Recreation opportunities in Walpole area. Management information and special programs. Aspects of inlet processes. Red flowering gum.
	Peaceful Bay	Code of the Coast. Dieback disease. Early European sea explorers and fishing. Regulations.
	Nornalup Bridge	Recreation opportunities (especially canoeing). Early explorers/settlers on Frankland River.
3. Other sites	Nuyts	Code of the Wilderness. Exploring a special place. History.
	Mandalay	Bushwalkers code. Coastal heath, coastal processes. Orchids. Shipwrecks.
	Mt Clare	Unchanged landscape.
	Sandy Beach	Double inlet system and relationship with fish. 'No dogs' policy explained.
	John Rate Lookout	"Deep River of the Sealers" - who has entered the estuaries over the centuries.
	Sawpit	What happened at site.
	Heritage trail	How early Europeans viewed and used the natural environment.
	Hilltop	Identify trees. Land of ocean, rivers, inlet and forest. Early highway system.
	Tingle Tree	Bushwalkers code. Tingle forest facts. Gondwana relicts. Birds of the forest.
	Circular Pool	Why the Frankland is salty. Role of forests and management.

LEVEL	LOCATION	POSSIBLE TYPE OF INFORMATION AND THEMES
	Nut Lookout	Red flowering gum.
	Conspicuous Beach	Bushwalkers Code. Whale watch. Cliffs.

ACTIONS

1. **Implement the information and interpretation strategy in Table 9.**

2. **Continue to explore different methods, media and themes for use in interpretive information and activities.**

3. **Make Park brochures available to tourist bureaux.**

4. **Provide information on special activities as opportunities are developed, for example, bushwalking, cycling and special features like the Park's plants and animals.**

5. **Develop information shelters at key access points to orientate and introduce visitors to the Park .**

6. **Upgrade signs in the Park according to the CALM sign manual to ensure consistency in quality and form, and that all features, sites, facilities and roads are adequately signposted.**

7. **Continue to conduct interpretive programs in the Park and to use volunteers, where appropriate.**

8. **Produce a regular Park newsletter to inform the community and tourism industry operators of Park issues and concerns.**

9. **Install signs at areas (or entrances to areas) warning of possible danger, for example, at Long Point, Blue Holes, Peaceful Bay beaches targeting anglers, and at Mandalay and Conspicuous Beaches targeting swimmers.**

10. **Disseminate "Code of the Coast" information in Park brochures, on appropriate information boards, by distributing stickers and rubbish bags featuring the Code to service stations and tourist bureaux, and by erecting signs at the start of 4WD tracks to the coast.**

11. **Investigate the use of the land on the western side of the Bow River bridge bordered by Peaceful Bay Road, South Coast Highway and Little Bow River, as a major information point and possible picnic site.**

12. **Include maintenance of signs and information areas in the annual works program for the Park.**

13. **Establish a Walpole-Nornalup National Park Advisory Committee with the members representing a wide range of interests to liaise, advise, consult and disseminate information on the future management of the Park. Ensure regular liaison between the Walpole-Nornalup National Park Advisory Committee and the Karri D'Entrecasteaux Advisory Committee. Conduct regular meetings with the local community to discuss aspects of management of the Park.**

14. **Continue involvement with Walpole Tourist Bureau.**

15. **Continue to use Pioneer Cottage as a venue for liaison with tourists.**

16. **Liaise regularly with Park neighbours, particularly regarding fire protection, feral animals and weed control.**

17. **Maintain liaison with all other government agencies and departments, and continue to seek ways to improve communication.**

18. **Develop communication plans for major management issues. Plans should identify objectives, target audiences and channels of communication.**

PART H RESEARCH AND MONITORING

GOALS:

- Promote and undertake the scientific study and monitoring of those physical, biological and social values, and natural processes special to the Park.

- Measure and control impacts of management activities and human use on the Park environment.

24.0 RESEARCH AND MONITORING

BACKGROUND

Walpole-Nornalup National Park has been the subject of detailed biological and social surveys, carried out to provide information for management of the Park. All the strategies in this management plan are based on the information obtained. While a great deal of knowledge of the Park exists future research of specific elements is required. Of particular importance are plant diseases and the Gondwanan relicts.

While initial data has been collected on the users and use levels in the Park, research needs to be continued to monitor trends, ensure adequate provision of facilities and prevent degradation.

OBJECTIVES

- *Promote and undertake research on the flora, fauna, ecosystem processes, and archaeology of the Park, with emphasis on disease, the Gondwanan relicts and processes/activities that threaten or enhance conservation values.*

- *Develop and implement a monitoring program to determine: a) the impacts of management and human use on the Park b) changes in the natural environment and other natural processes.*

ACTIONS

1. **Implement an integrated program of survey, research and monitoring based on the actions in relevant sections of this plan.**

2. **Continue to require all researchers to follow dieback disease hygiene procedures.**

3. **Continue to require all researchers to make their findings readily available to Park, District staff and the public.**

4. **Encourage and support other groups, agencies, institutions, volunteers and individuals to carry out research and monitoring projects relevant to the conservation and management of the Park.**

5. **Encourage the establishment of a field station in the Park, or close by, for research and educational purposes.**

PART I IMPLEMENTATION OF THE PLAN

25.0 PRIORITIES

BACKGROUND

The implementation of this plan of management will be undertaken within the annual works program of the Walpole District. Priorities, determined in the context of District and Regional planning, will be subject to the availability of staff and funds.

Overall where dieback disease-free areas may be compromised by upgrading works, priority will be given to protect these areas.

ACTION

1. Prepare a 10-year implementation plan, taking into account the priorities outlined in Table 10. Prepare an annual progress report. Review the implementation plan annually.

TABLE 10. MANAGEMENT PRIORITIES

SECTION NO. OF PLAN	ACTION NO.	ACTION
HIGH PRIORITY		
9.0	1	Dieback disease mapping and protection of disease-free areas.
10.0	1-22	Fire Protection.
11.0	1-12	Weed control.
12.0	1-7	Feral animal control.
19.0		Annual grading of roads. Culvert-drainage maintenance. Slashing
19.0	1	Investigate Hush Hush Beach access. Upgrade Long Pt track, Little Long Pt track, Conspicuous Rd and the Blue Holes track. Upgrade-rationalise Peaceful Bay tracks, carparks and paths.
20.1	1	Redesign Crystal Springs and John Rate Lookout.
20.2	1-6	Develop new Valley of Giants site. Develop Valley of Giants photo sites.
20.3	1-8	Redevelop Coalmine Beach area.
21.3	1	Develop Peaceful Bay to Conspicuous route. Extend Sandy Beach walk. Develop Valley of Giants tracks.
23.0	1	Develop information at Valley of Giants, John Rate Lookout Crystal Springs, Conspicuous Beach and Bow Bridge.
23.0	13	Establish WNNP Advisory Committee.

SECTION NO. OF PLAN	ACTION NO.	ACTION
MEDIUM PRIORITY		
9.0	7	Consider wash-down facilities.
13.0	1	Rehabilitate degraded areas.
19.0	1	Upgrade Knoll Drive and Mt Clare Rd. Redesign Coalmine-South Western Highway intersection.
	15	Upgrade and widen Hilltop Rd.
	25	Monitor visitor numbers.
20.1	1	Develop Rest Point site. Upgrade Knoll Drive recreation sites, Hilltop Lookout, and Tingle Tree site.
21.3	1	Upgrade/redesign Knoll walks. Develop Pioneer Cottage to Horseyard Hill walk, Horseyard to Tingle Tree track and Coalmine to Tingle Tree tracks.
23.0	1	Develop information at Peaceful Bay, Knoll Drive, Coalmine Beach, Mt Clare and Tingle tree.
LOW PRIORITY		
19.0	14	Upgrade Shedley Drive.
	1	Realign Ficifolia Road.
20.1	1	Redesign Irwin Inlet site, Isle Road site, Sandy Beach site, Circular Pool site, Mt Clare site, Monastery Landing site, Sappers Bridge site and Nornalup Bridge site.
21.1	8	Develop lookout Tinglewood Road.
21.3	1	Develop Mandalay to Thompsons Cove route.
	1	Develop Tingle tree to Valley of Giants track.
21.4	1	Develop camp site Valley of Giants.
21.5	5	Provide canoe launching Nornalup.
23.0	1	Develop information at Hilltop Lookout, Circular Pool, Nornalup Bridge, Saw Pit, Sandy Beach and Nut lookout.

26.0 STAFF

BACKGROUND

The Park is serviced by the staff of the Walpole District which includes three Park staff: one based at Crystal Springs, one at Coalmine Beach and one in Walpole. An additional officer assists during the summer months, and is based at a mobile pad at Peaceful Bay. The Park staff manage and maintain Walpole-Nornalup National Park and D'Entrecasteaux National Park east of Broke Inlet.

ISSUES

- The implementation of this management plan will place substantial demands on the Park and District staff, particularly in planning, design, supervision and interpretation; major development work will require additional staff.

- Changes to the CALM estate (for example, inlets to marine park) and changes in the purpose of nearby areas to National Park (Mt Frankland and Mt Lindsay) will increase the work load of staff.

OBJECTIVE

- *Maintain District staff numbers at a level that ensures adequate management and maintenance of the Park.*

ACTIONS

Within CALM's overall staffing and funding priorities the Department will seek to:

1. **Appoint a recreation site maintenance worker.**

2. **Provide sufficient staff to implement this plan and to maintain new developments.**

3. **Provide ongoing training to Park staff.**

4. **Regularly review staff levels.**

5. **Involve volunteers in as many aspects of Park management as practicable.**

27.0 FUNDING

ACTIONS

Within CALM's overall staffing and funding priorities the Department will seek to:

1. **Gain an increased budget allocation for the first two to three years of this plan to carry out high priority projects and then sufficient funds to maintain this level of work.**

2. **Ensure staff have adequate financial resources.**

3. **Identify potential sources of external funding, and projects or areas of operation capable of attracting external funding. Pursue these sources according to departmental policy and procedure.**

4. **Investigate fees or other revenue gaining measures to recoup costs where specific services or opportunities are provided for the public**

5. **Provide opportunities for people to contribute directly to the Park's budget, for example, through donations.**

6. **Enter into partnerships with local organisations, community groups, and local and State Government departments where economics of scale can be obtained in joint or cooperative operations.**

28.0 EVALUATION AND REVIEW

ACTIONS

1. **CALM will regularly consult with the proposed WNNP Advisory Committee to evaluate and review the management plan operations.**

2. **A report outlining works of the previous year and those for the next year will be presented annually to the Advisory Committee.**

3. **Review actions in light of new information, particularly from research and monitoring programs: if a major change in the direction of the plan is required, a proposed revision will be released for public comment.**

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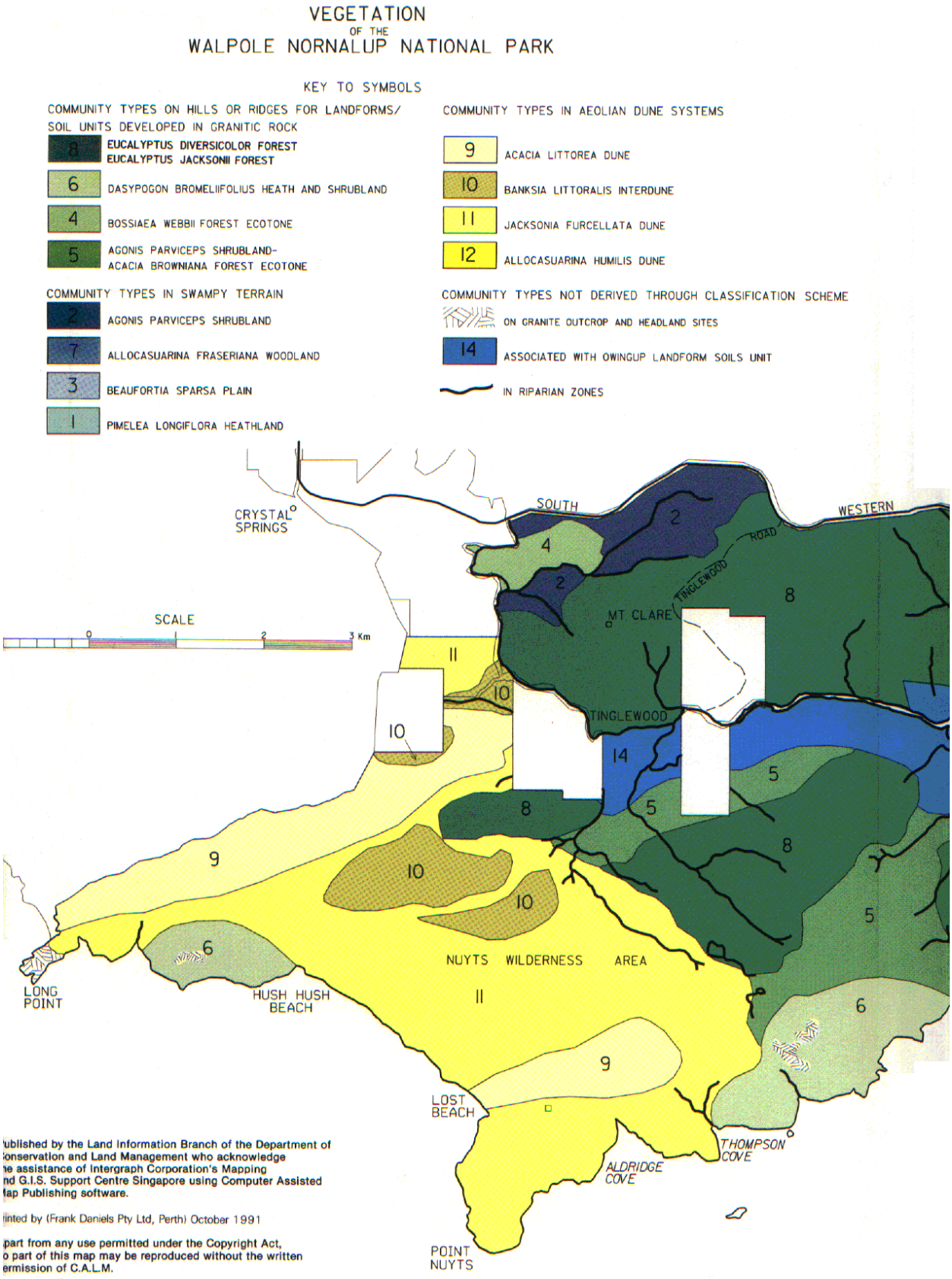
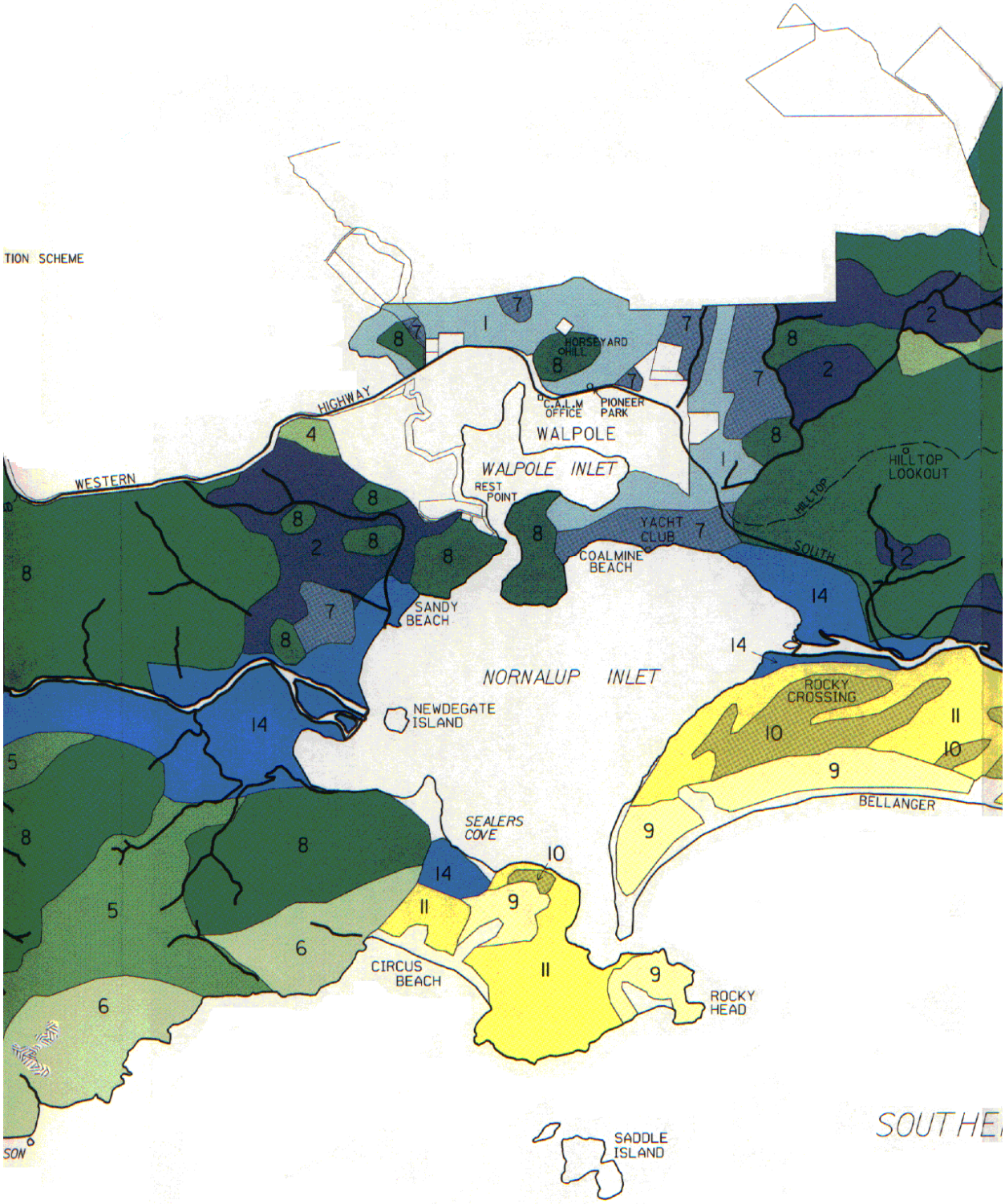
APPENDIX 1

VEGETATION
OF THE
WALPOLE NORNALUP NATIONAL PARK

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YACHT CLUB
COALMINE BEACH
HILLTOP
HILLTOP LOOKOUT
SOUTH
SANDY BEACH
NORNALUP INLET
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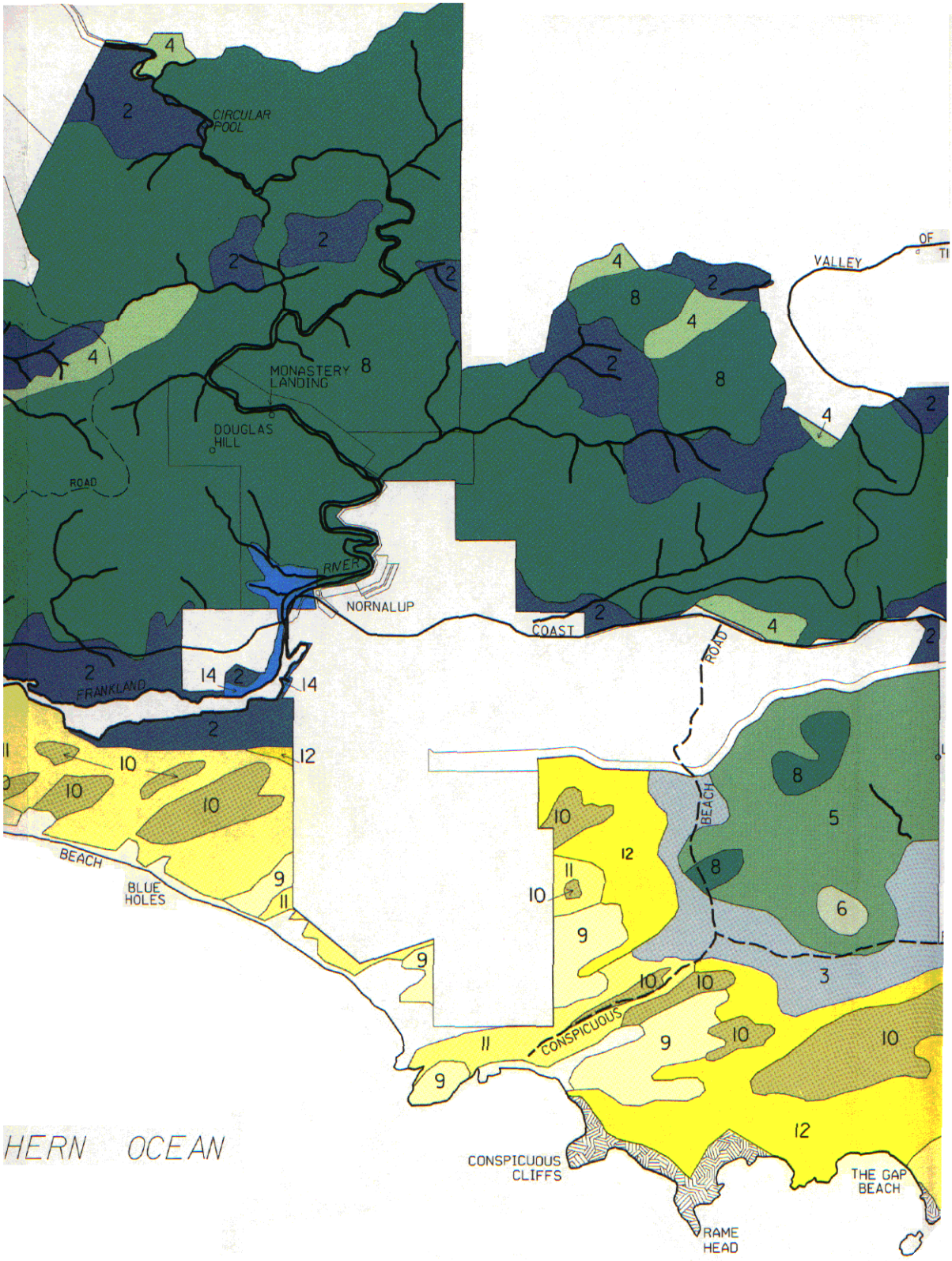
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CONSPICUOUS
CONSPICUOUS CLIFFS
THE GAP BEACH
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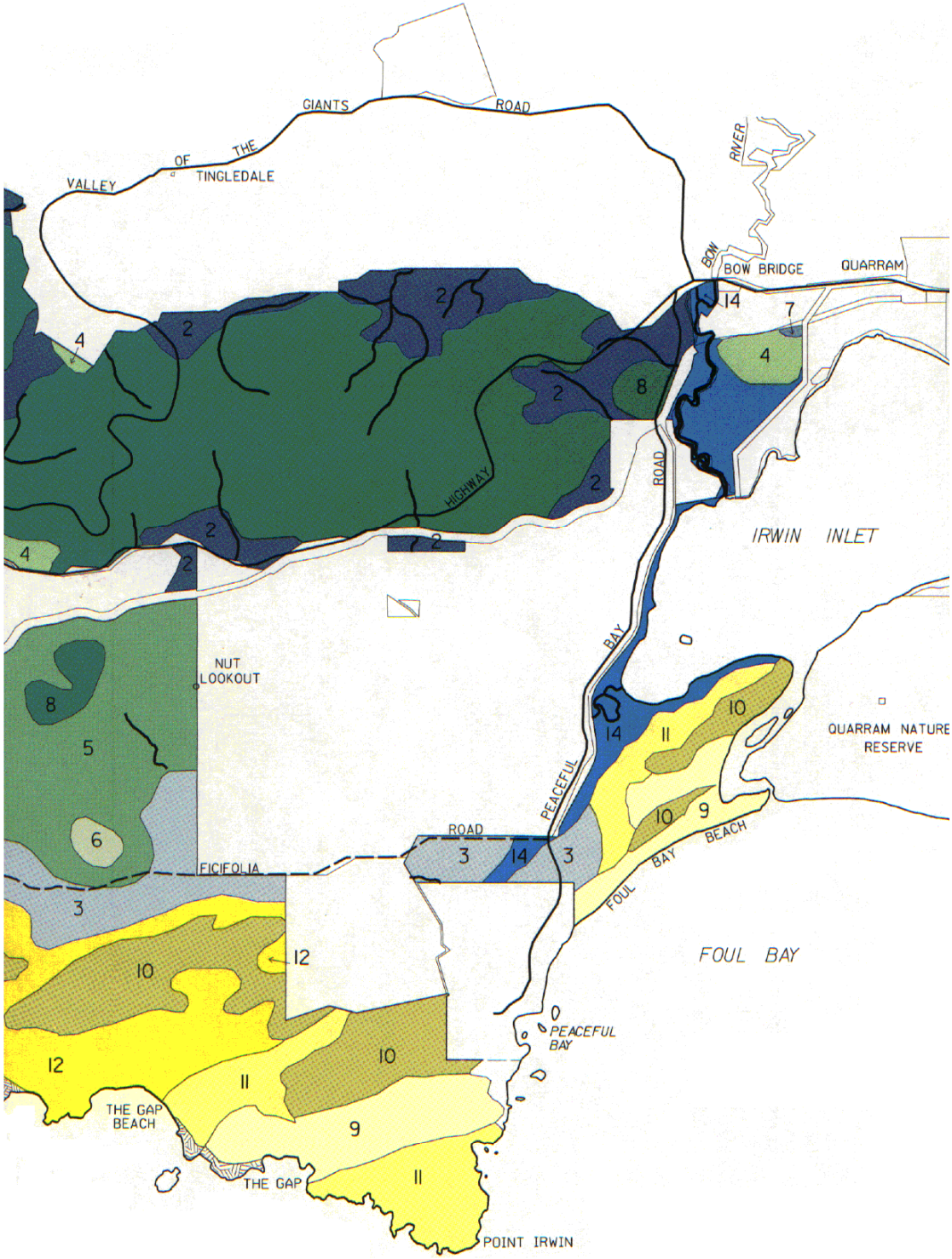
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LOOKOUT
QUARRAM NATURE
RESERVE
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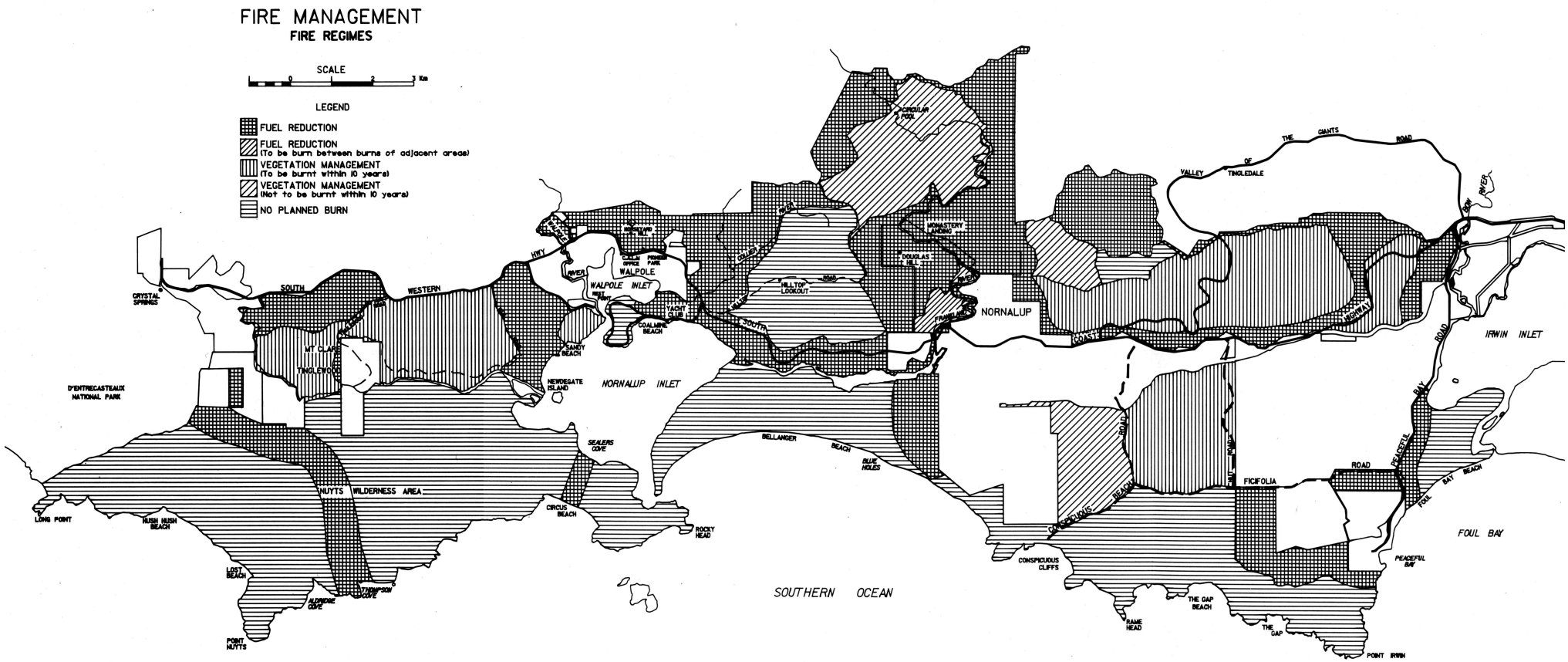

Note: For details of fire management in the Nuyts Wilderness, Hilltop and Douglas Hill Areas see Section 10.0 Fire - Strategies.

MAP 4

CM401

CONSERVATION AND LAND MANAGEMENT ACT 1984

AMENDMENT TO MANAGEMENT PLAN No. 22 FOR THE WALPOLE-NORNALUP NATIONAL PARK

The Department of Conservation and Land Management advises on behalf of the National Parks and Nature Conservation Authority that an amendment to the Walpole-Nornalup National Park Management Plan, 1992-2002, has been approved.

The amendment to the 1992 Management Plan was prepared in accordance with section 61 of the Conservation and Land Management Act 1984, and was approved by the Minister for the Environment on 18 October 1996. No modifications were made to the amendment under section 60 (2) of the Act, and it comes into operation with this *Government Gazette* notice.

The amendment is required to correct a mapping error in the fire management plan component of the Management Plan. Two areas previously designated as 'No Planned Burn' areas have been amended to be 'Fuel Reduction' areas.

Copies of the amended fire management plan component of the Walpole-Nornalup National Park Management Plan can be obtained from the following CALM offices:

State Operations Headquarters
50 Hayman Road
Como WA 6152

Southern Forest Regional Office
Brain Street
Manjimup WA 6258

Walpole District Office
South Western Highway
Walpole WA 6398

SYD SHEA, Executive Director
Department of Conservation and Land Management

TOM DAY, Chairman,
National Parks and Nature Conservation Authority