

West Cape Howe National Park

Management Plan

1995-2005



MANAGEMENT PLAN No 28



Department of Conservation
and Land Management



National Parks and Nature
Conservation Authority

WEST CAPE HOWE NATIONAL PARK

MANAGEMENT PLAN

1995 - 2005

PLANNING TEAM

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PREFACE

Conservation reserves in Western Australia which, under the CALM Act 1984, are specified as national parks, conservation parks, nature reserves, marine parks and marine nature reserves, are vested in the National Parks and Nature Conservation Authority (NPNCA) under the CALM Act. These reserves are managed on behalf of the NPNCA by the Department of Conservation and Land Management (CALM).

The NPNCA is responsible for the preparation of management plans for all lands which are vested in it. These are prepared on a regional or area basis. Area plans for individual parks and reserves are being prepared on a priority basis. This plan complements the Regional Management Plan for the South Coast Region (CALM 1992).

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 (Section 55. 1).

Management plans should be designed, in the case of national parks, to fulfil so much of the demand for recreation by members of the public as is consistent with the proper maintenance and restoration of the natural environment, the protection of indigenous flora and fauna and the preservation of any feature of archaeological, historic or scientific interest (CALM Act Section 56.1.c).

A Draft Management Plan for West Cape Howe National Park was released for public comment. After consideration of the public comment, the NPNCA submitted this revised Plan to the Minister for the Environment for approval. The Minister for the Environment approved this document as the Management Plan for West Cape Howe National Park on 9 December 1994.

The Bush Fires Board endorsed this Plan under Section 34(1) of the Bush Fires Act (1954) on 8 September, 1994.

ACKNOWLEDGEMENTS

Numerous individuals have contributed valuable ideas and information in the preparation of this Plan. In particular the contributions of Bert and Barbara Main, Des Wolfe, Colin Ayres, Len Fennell, John Woodbury, Dennis Coombe, Ron Heberle, Betty Swainson, Doreen Davidson and all of the participants in the Park User's Workshop are gratefully acknowledged.

Community groups providing particularly valuable input to the planning process included the West Cape Howe National Park Association, Albany Angling Club, Mountaineering Association of the South Coast, Albany Bushwalkers, Hang Gliding Association of WA, South Coast Diving Club, Albany 4WD Club, Albany Radio Model Society, Albany Wildflower Society and the Denmark Naturalists Group.

Other organisations contributing to the Plan were the WA Museum, the Geological Survey of WA and the Australian Army.

Special thanks go to Betty Terwindt who spent many hours as a volunteer researching the European history of West Cape Howe National Park.

The assistance of numerous CALM staff in the preparation of the Plan is also gratefully acknowledged. In particular Kelly Gillen, John Watson, Terry Maher, Malcom Grant, Terry Passmore, Allan Rose, Chris Hart, Stev Slavin, Wayne Schmidt, Tony Start, Greg Keighery, Jim Williamson, Kate Orr and Matt Cavana.

The advice of the rangers who have been associated with the park is also greatly appreciated. Thanks to Richard Pemberton, Tony Tapper, Mark True and Peter Morris in particular.

Many thanks to staff of CALM's Land Information Branch who prepared Figures 1 to 8 and to Richard Hammond who produced Figures 9, 10 and 11.

The plan was typed by Marian Hickson, Carolyn Budd, Phyl Boulwood, and Debbie Bowra. Their patience was wonderful.

KEY ISSUES

It is the function of a management plan to consider all issues relevant to the management of the area in question. Some issues, however, are of greater concern than others. These "key issues" require more urgent action and are thus critical in terms of the formulation of draft recommendations.

The key issues in West Cape Howe National Park are:

1. Vehicle Access

The Park has been progressively degraded over many years by the uncontrolled use of 4WD vehicles. This has led to serious erosion of tracks, particularly in sandy areas. Action has commenced to define and stabilise tracks in the Park and to close and rehabilitate those which are not necessary but further work is required. This issue is discussed in Section 23 *Access*, Section 30 *Motorised Recreation*, Section 11 *Landscape* and Section 19 *Rehabilitation*.

2. Dieback Disease

Linked to the issue of access, dieback disease (*Phytophthora cinnamomi*) has infected some areas of the Park, having probably been transported in infected soil, predominantly on the wheels of vehicles. Control of all forms of access within the park is essential to stop the further spread of the disease. Section 16, *Plant Disease* deals with this important issue, while access proposals are detailed in Section 23 *Access*.

3. Fire Management

The Park has a long history of uncontrolled wildfires which can threaten both wildlife and the properties adjoining the Park. Fire management proposals are set out in Section 15 *Fire*.

4. Recreational Facilities

Facilities in the Park are minimal but certain areas are in particular need of redesign and upgrading. New designs are presented for the recreation areas at Shelley and Dunskey Beaches and the Shelley Beach lookout. This issue is addressed in Section 33 *Recreational Facilities*. Recommendations for individual recreational pursuits are made in Sections 24 to 32.

5. Foot Access

West Cape Howe N.P. contains spectacular examples of coastal scenery. The Plan proposes the progressive development of a coastal footpath in the Park to enable visitors to appreciate the magnificent coastline. *Phytophthora* dieback considerations and construction issues are to be resolved during the life of the Plan. This proposal is covered in Section 28.1 *Bushwalking*.

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INTRODUCTION

1. OVERVIEW

West Cape Howe National Park (WCHNP) is located on Western Australia's south coast between Albany and Denmark in the Shire of Albany (Figure 1). It comprises a single reserve 26177 with an area of 3 517 ha. In acknowledgement of its scenic grandeur, the Park is registered as part of the National Estate.

The area was vested in the Shire of Albany for the purpose of recreation in November 1977. After agreement from the Shire, it was gazetted as a Class "C" National Park in July 1985 and vested in the National Parks and Nature Conservation Authority (NPNCA). Rationalisation of the northern boundary saw Timber Reserve No 7557 (40.5 ha) added to the Park which was given Class "A" status in December 1987.

The Park encompasses the most southerly section of the Western Australian coastline incorporating the southern-most point, Torbay Head, as well as West Cape Howe itself. It is known for its scenic grandeur, containing approximately 23 kilometres of coastline dominated by granitic headlands, steep limestone cliffs and sandy beaches and extends from low water mark inland for a distance of up to six kilometres.

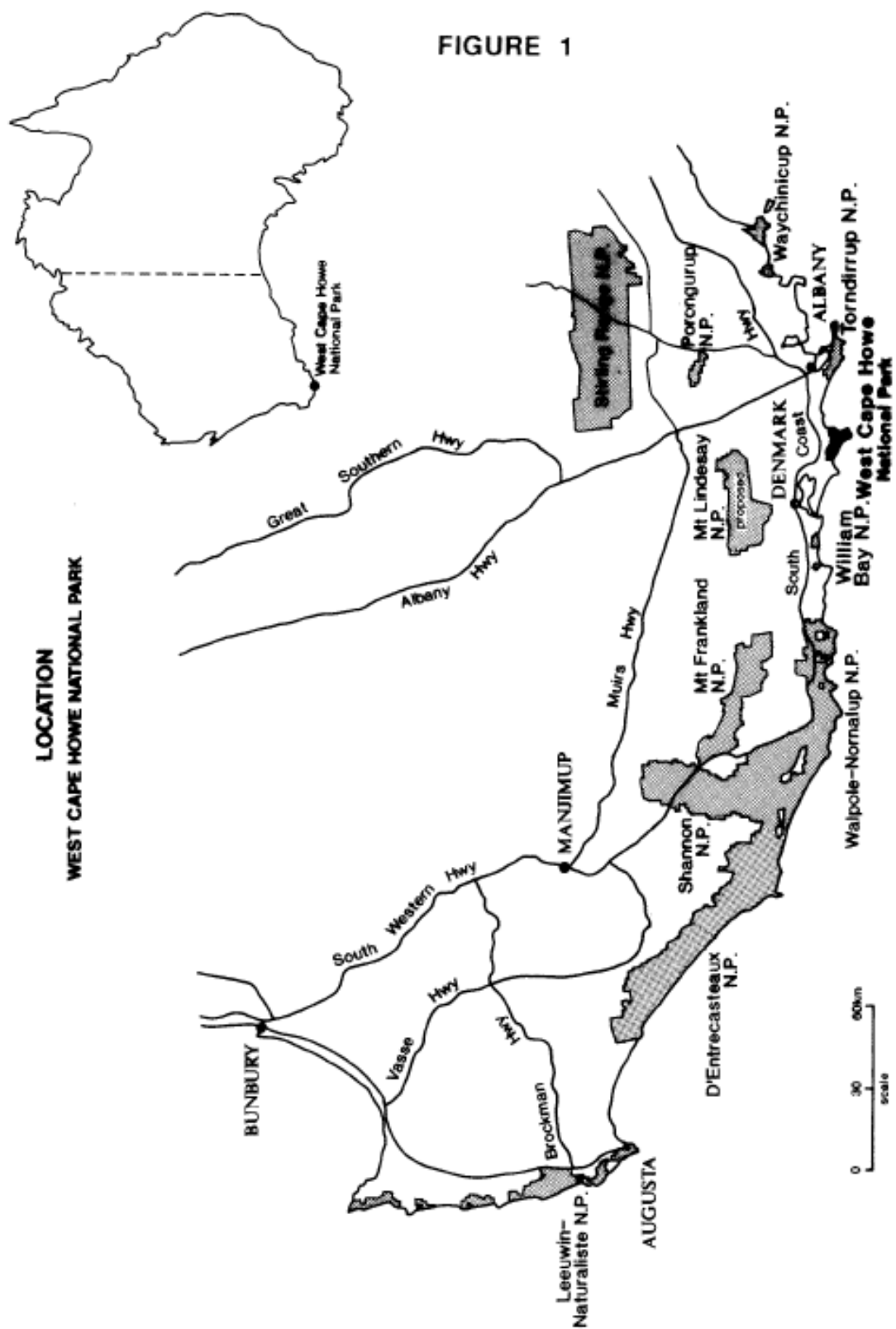
From the coast, the Park rises to the north towards Torbay Hill (270 metres) which lies just outside the boundary. Coastal heaths give way upslope to jarrah and sheoak communities and to tall karri forest at the highest point near the main Park entrance. Three freshwater lakes are located towards the northern edge of the Park and a number of small watercourses run all year round. Two wheel drive access to the coast is via Shelley Beach Road and provides a good cross section through the Park's vegetation communities. Four wheel drive tracks existed throughout the Park in an unstructured network servicing destinations on the coast. Considerable work has been done since 1992 to define and stabilise many of these tracks using a combination of black rubber conveyor belting, timber "palettes" and cement mixed with the highly erodible sands through which the tracks traverse.

The Park contains a wide variety of coastal landforms and spectacular scenery. Although best known as a fishing area, it is a popular destination hosting 14 major recreational activities. Most access is by vehicle although walkers and horse riders also frequent the Park.

2. REGIONAL CONTEXT

WA's south coast is renowned for its spectacular coastline and is a popular destination for visitors from all over the country. Tourism is one of the growth industries in the region and visitor levels to all features are increasing. In particular, visits to natural areas (such as WCHNP) are increasing annually. WCHNP, being so close to the major regional centre of Albany, is likely to attract increasing numbers of visitors.

LOCATION
WEST CAPE HOWE NATIONAL PARK



Nearby communities to WCHNP include Torbay, Elleker, Bornholm and Youngs Siding (see Figure 2). Residents of these communities often visit the Park, particularly for fishing and nature appreciation.

WCHNP is one of 14 national parks in CALM's South Coast Region. The nearest of these to WCHNP are William Bay National Park to the west and Torndirrup National Park to the east (see Figure 1). Other CALM managed public lands in the immediate area of WCHNP include Tennessee North Nature Reserve and Tennessee North Forest Block, both north of the Park, and Shelter Island Nature Reserve to the east. Migo and Richards Islands just east of the Park have been proposed as Nature Reserves (see Figure 2).

Immediately west of the Park is Reserve No 17464 vested in the Shire of Albany for the purpose of "Common". This incorporates the "Lowlands" area where activities such as swimming, fishing and sightseeing are common. Camping is permitted in this Reserve (see Figure 2).

At the eastern end of WCHNP is Reserve No 24547 vested in the Shire of Albany for "Recreation and Camping". This incorporates the "Cosy Corner" area. Activities common in this area are picnicking, fishing, swimming and camping (see Figure 2).

WCHNP is considered a premier venue for fishing, rock climbing and hang gliding, proponents of these sports maintaining that the Park ranks with the best locations in Australia.

The Regional Management Plan for the South Coast Region (CALM, 1992) distinguishes three major "types" of national park as related to the kind of visitor use to which each is best suited. These "types" are:

- a). Parks with major wilderness potential.
- b). "Low key" or intermediate parks.
- c). Parks with existing or potential major site or facility developments.

Each park within the Region has been assigned to one of these categories to ensure a broad spectrum of recreation opportunities is provided across the Region. WCHNP is well suited to category "b" in which minimum impact activities requiring only minimum facility provision will be facilitated. The closest "type a" park within the Region is the Stirling Range National Park, with Torndirrup National Park being the closest "type c" area (see Figure 1).

3. COMMUNITY INVOLVEMENT IN THE PLAN

Community input to the Draft Plan was sought via the following avenues:

- Notices advertising that the Plan was under preparation and inviting contributions were placed in State and Local newspapers.
- A leaflet encouraging input to the Draft Plan was circulated to over 90 specific individuals and groups and made available in numerous public outlets in the area.
- Newspaper articles called for public input.
- Radio interviews were conducted seeking contributions.
- A "Park User's Workshop" was held to provide a forum for discussion of the Plan by Park users (Herford, 1989).

Further input to the Draft Plan was received in the following ways:

- Discussions were held with numerous interested individuals.
- More formal talks were given to interested groups and subsequent comments were received.
- Close liaison was maintained with the WCHNP Association throughout the planning process.
- Albany Shire and their officers were consulted on several occasions.
- A booklet summarising the proceedings of the Park User's Workshop was produced.
- Written submissions were received from 19 organisations and individuals prior to preparation of the Draft Plan.

The Draft Plan was released for public comment on 22 August 1992 and a total of 66 submissions was received. Many excellent suggestions were made by submitters and contributed to the improvement of the Draft Plan. An analysis of public submissions is available as a supplement to this Plan.

The contributions of all of these groups and individuals form a vital part of this Plan.

PRINCIPAL MANAGEMENT DIRECTIONS

4. ROLE OF NATIONAL PARKS

The overall role for management of national parks as stated in the CALM Act (Section 56) is:

"to fulfil so much of the demand for recreation by members of the public as is consistent with the proper maintenance and restoration of the natural environment, the protection of indigenous flora and fauna and the preservation of any feature of archaeological, historic or scientific interest."

5. MANAGEMENT GOALS FOR WEST CAPE HOWE NATIONAL PARK

The management of WCHNP will be consistent with the general role of national parks. Specific Park goals have been defined to cover the major management issues.

A goal is defined here as a "long term desirable situation". Goals have been set for each major part of the Draft Management Plan. Objectives designed to achieve these goals have been set in the relevant Sections.

Conservation Goal

Conserve biological, physical, cultural and landscape values.

Recreation Goal

Facilitate recreation in a manner compatible with conservation and other values.

Community Relations Goal

Promote informed appreciation of natural and cultural values.

Commercial Use Goal

Ensure that commercial and other uses are managed in a manner that minimises impact on other values.

Knowledge Goal

Seek a better understanding of the natural and cultural environments and the impacts of visitor use and management activities.

6. LAND TENURE AND PARK BOUNDARIES

The objectives are:

- To seek to have lands adjoining WCHNP managed in sympathy with Park goals and objectives.
- To seek the incorporation of appropriate lands within the Park.

As indicated in *Overview*, WCHNP comprises a single A Class reserve of 3 517 ha with a purpose of "National Park". It is bounded by a combination of freehold land, reserves vested in the Shire of Albany and vacant Crown land (see Figure 2).

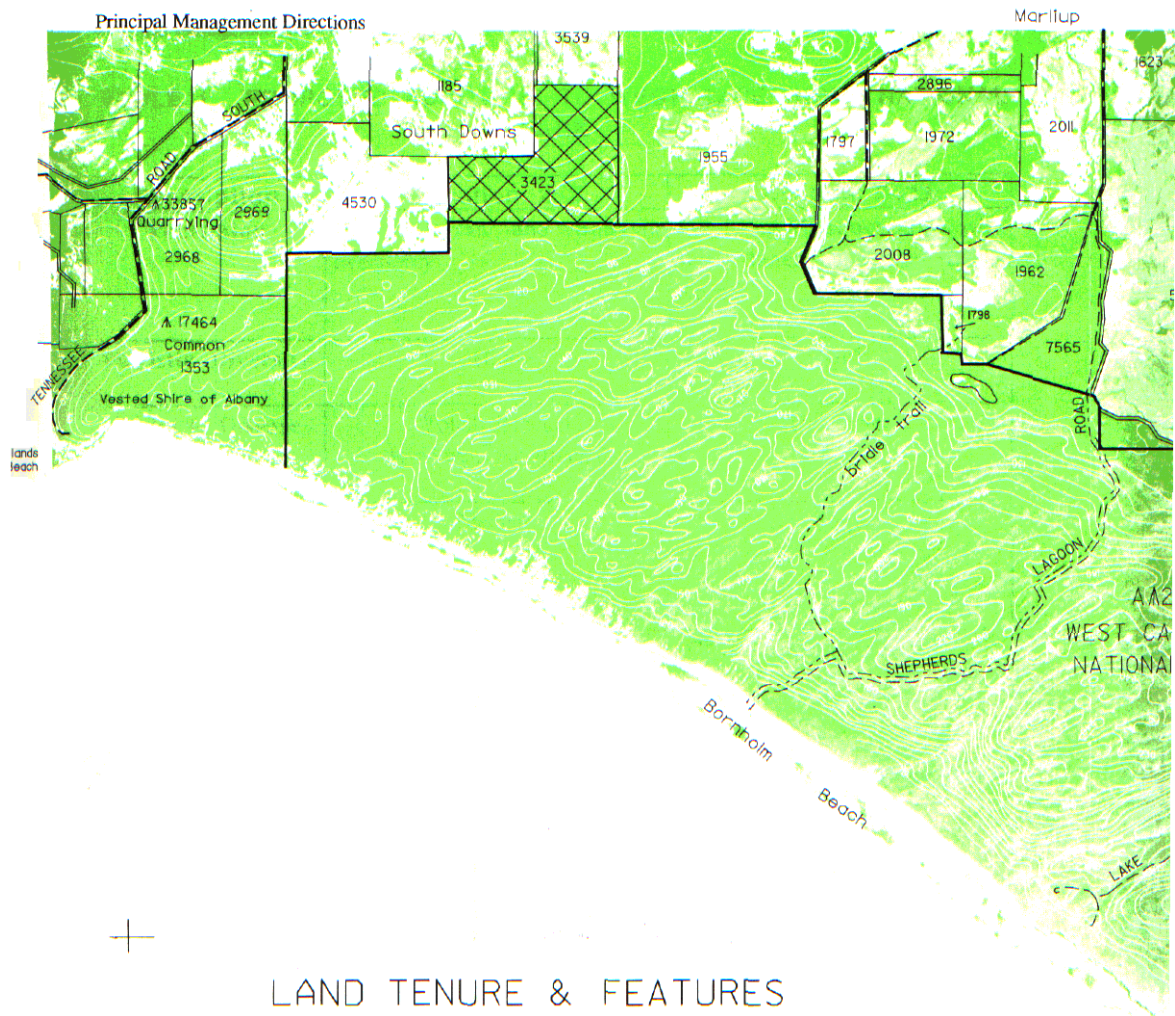
Adjacent to the western end of the Park, is Reserve 17464 (812 ha) vested in the Shire of Albany for the purpose of "Common". Known as Lowlands, this area is managed for coastal access and camping although no facilities are provided. Reserve 24547 (87 ha), vested in the Shire of Albany for the purpose of "Camping and Recreation", abuts the eastern end of the Park's northern boundary. This reserve, known as Cosy Corner, is managed for both day use and camping as described in *Camping*.

Along the Park's northern boundary are three separate blocks of vacant Crown land. These blocks were part of the West Cape Howe reserve prior to its gazettal as a national park in 1985. They were left out of the Park and reverted to vacant Crown land as a condition of transfer of the reserve from the Shire of Albany, in whom it was previously vested (see Figure 2).

The conservation values of these blocks of land have been assessed by CALM and two of them are proposed for addition to the Park. This is indicated in Table 1. Discussions are continuing between CALM and the Shire over these proposals.


The remainder of the Park adjoins freehold land, there being 10 different landowners along the boundary. Consideration will be given on a case by case basis to the purchase of freehold land for incorporation into the Park should any suitable land be offered for sale.

Albany Shire has expressed interest in obtaining the excision of an area from the western end of the Park to enable the extraction of limestone. CALM will continue negotiations with the Shire over this proposal (see *Gravel and Industrial Minerals*).

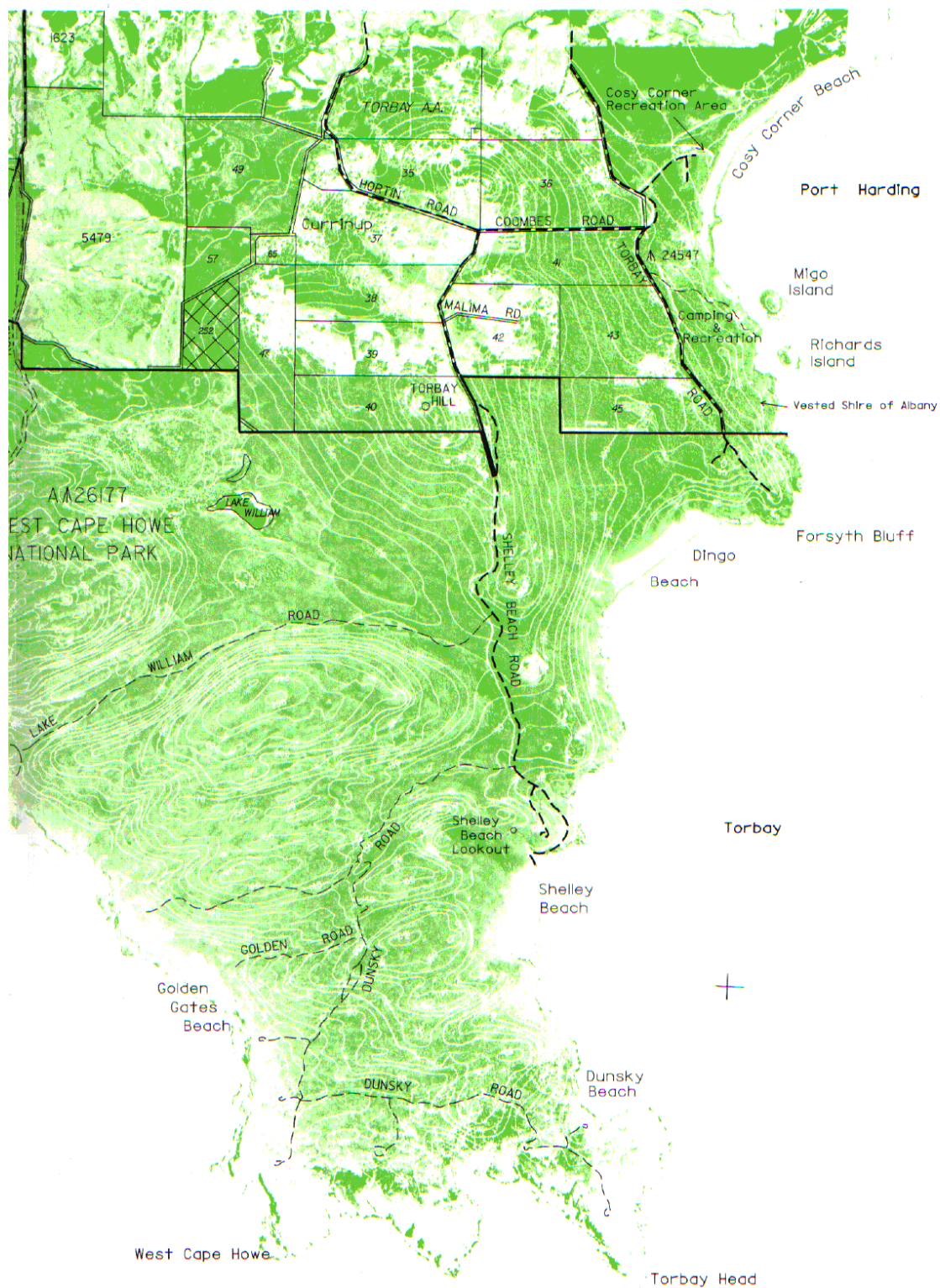


Contour Interval 10 metres

— Park Boundary

 Vacant Crown Land proposed for addition to Park (see text)

Southern Ocean



Ocean

FIGURE 2

TABLE 1
PROPOSED ADDITIONS TO WEST CAPE HOWE NATIONAL PARK

Description	Location 252	Location 3423
Vegetation	Karri, Jarrah and Banksia overstorey	Jarrah and Marri overstorey with some Banksia and regenerating Karri
Floristic Diversity	High	High
Dieback Disease Status	Totally infected (Karri trees not affected)	Uninfected
Overall Value for Addition to WCHNP	Medium	High

Source: CALM field assessments.

ACTIONS

1. *Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 10.1, Landscape):*
 - (i) *Provide advice to private landholders and other agencies on minimising the visual impact of operations, especially on lands adjacent to or within the viewshed of lands in the Park.*
2. *Liaise closely with the Shire of Albany regarding the management of the Lowlands and Cosy Corner Reserves including as detailed in Camping.*
3. *Seek to include within WCHNP the two blocks of vacant Crown land on the northern boundary having significant conservation values.*
4. *Minimise the risk of wildfires crossing the Park boundary (see Fire).*
5. *Continue close liaison with Park neighbours over all Park management practices and encourage management of their lands in sympathy with Park objectives.*
6. *Consider for purchase and addition to the Park any suitable freehold land which is offered for sale.*

7. ZONING

The objective is to implement a system of management zones which maximises the enjoyment of Park visitors while minimising the impact of recreational uses upon conservation values, minimising conflict between recreational users and providing a basis for the regulation of public access and facility development.

As discussed in *Regional Context*, the Regional Management Plan for the South Coast Region indicates that WCHNP is well suited to "low key" (minimum facility, minimum impact) recreation. Activities in the Park span a wide range from those requiring 2WD access to those which would benefit from areas in which non-motorised access only is permitted. Logically, zones catering for these extremes should be separated if possible.

The creation of zones involving different levels of access must recognise the features which attract visitors in the first place. Access to the coast is an essential element of much of the vehicle-based recreation in the Park (e.g. for fishing) and this must be reflected in any proposed zones. Despite this reliance upon natural features however any zoning scheme will be, to a degree, subjective.

It is proposed that two major zones, "Natural Environment" and "Recreation", be delineated in the Park. These zones are described in Table 2 and illustrated in Figure 3.

The natural environment zone is further broken down into "sub-zones". At the western end, non-motorised access only is proposed, while the eastern end (adjoining the recreation zone), would be accessible to 4WD vehicles on designated tracks. In the recreation zone, 2WD access would be available on and to the east of Shelley Beach Road, with 4WD access (on designated tracks only) in the area of the Cape. Thus, 2WD access would be concentrated in the east of the Park, 4WD access in the centre and non-motorised access (with the inclusion of horses), at the western end.

According to the zoning plan, the level of provision of recreational facilities would decrease from east to west.

The issue of zoning is further discussed in *Updating*.

FIGURE 3

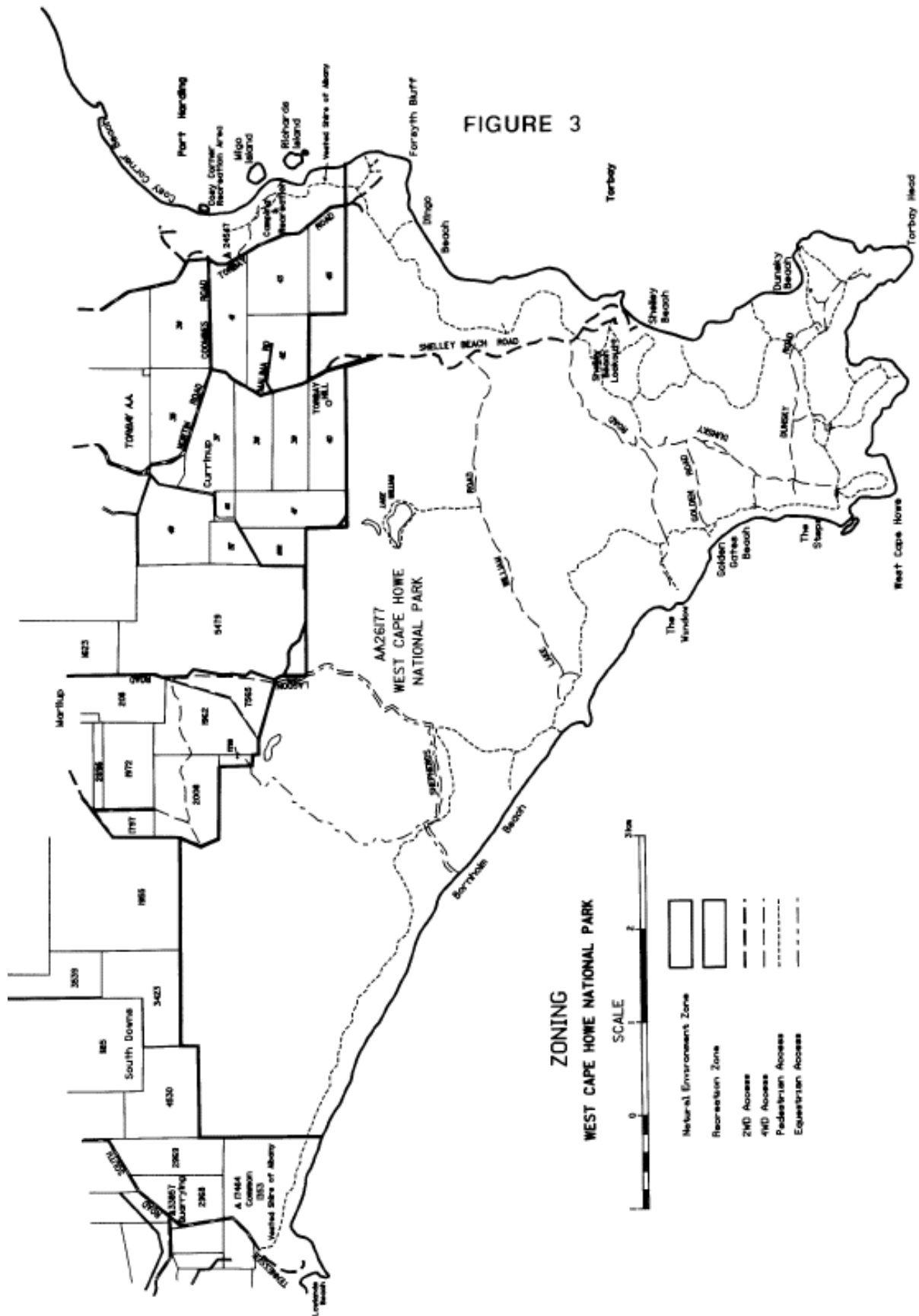


TABLE 2. MANAGEMENT ZONES

Zone	Description	Recreation Opportunities	Level of Facilities	Evidence of Management
Natural Environment	Areas suitable for a selected range of low density activities which require minimum facilities.	-Both non-motorised and 4WD -Experience of an environment with limited human modification. -Some contact with other people.	Minimum of facilities (mainly access routes and carparks).	Moderate.
Recreation	Areas suitable for a broad range of recreation activities of medium to high density with related facilities.	-Motorised (2WD and 4WD). -Experience of an environment with human modification. -Contact with other people is usual.	Basic facilities provided, e.g. camping areas, picnic areas, information shelters, toilets, footpaths and lookouts.	Moderate to high.

ACTIONS

- 1. Delineate two major zones in the Park based on recreational access as indicated in Figure 3.*
- 2. Develop appropriate access and recreational facilities in each zone (see Access and Recreation Facilities).*
- 3. Ensure that access controls are enforced to separate incompatible activities so that they do not impact detrimentally upon each other.*

CONSERVATION

8. CLIMATE

The objective is to ensure that the effects of climate are considered in all aspects of planning and operations in the Park.

WCHNP lies within a narrow coastal belt classified as having a sub-mediterranean climate. It experiences mild summers and cool wet winters.

The nearest climatic station which can provide data relevant to WCHNP is at Denmark, the Albany station (at the airport) being located too far inland to be truly representative. All records at Denmark were kept from 1951 to 1984 except hours of sunshine, which were kept from 1965 to 1984. Climatic data from the Denmark weather station are summarised in Table 3.

The major climatic factors affecting Park management are rainfall, temperature and wind. Rainfall combined with warm temperatures provides ideal conditions for the growth of dieback disease (see *Plant Disease*). Although the majority of rainfall occurs in the cooler months (May to August), summer rainfall is significant and may necessitate seasonal closures of both public and management tracks in dieback disease prone areas. In addition, water erosion of tracks results during heavy rain.

Winds must be considered with respect to their erosive power and their effect upon fire behaviour. Erosion is particularly likely to occur in sandy areas where tracks are aligned with the wind direction. "Sand blasting" can also cause problems for rehabilitation operations in such areas. During winter, there are occasional westerly storms with strong winds. Severe erosion of beaches can occur when storms coincide with high tides.

Wildfire suppression activities can be seriously hampered when winds are strong. Fire management planning must consider the possibility that firefighting may have to be conducted under such conditions. Prescribed burning, too, needs to be carried out under carefully selected wind conditions.

The possible effects of long term climatic change will have to be evaluated during the life of this Plan.

ACTIONS

1. ***Locate and design tracks, particularly in sandy areas, to minimise the impacts of water and wind erosion (see Access).***
2. ***Carry out rehabilitation of degraded areas using methods which protect new vegetation from "sand blasting".***
3. ***Implement seasonal access restrictions in the Park if necessary in moist conditions under which the dieback fungus is most likely to spread (see Plant Disease).***

TABLE 3. CLIMATIC INDICATORS

CLIMATIC INDICATOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Mean Daily Max Temp.	25.5	25.3	24.5	21.8	19.2	16.9	16.2	16.4	17.5	19.3	21.1	23.8	20.6
Mean Daily Min Temp.	13.2	13.6	12.2	10.8	9.1	7.9	7.3	7.1	7.7	8.9	10.8	12.1	10.1
Mean Rainfall (mm)	27	27	38	82	125	143	159	128	99	92	53	32	1001
Mean Raindays (No.)	7	8	10	15	19	22	23	22	20	17	13	10	186
9am Mean Relative Humidity (%)	63	67	70	79	81	84	83	82	78	74	71	68	75
Mean Sunshine Duration	8.3	7.1	6.4	5.1	4.5	4.2	4.3	5.1	5.4	6.3	6.2	8.0	-

Source: Australian Bureau of Meteorology records (1990).

4. *Locate and design recreational facilities to minimise unpleasant climatic effects.*
5. *Plan and implement fire management activities, whether for prescribed fires or for wildfires, to ensure their feasibility under a range of weather conditions (see Fire).*
6. *Consider the implications of any evidence of climate change upon Park management and make changes to management practices where necessary.*

TABLE 3. CLIMATIC INDICATORS - See attached separate document

9. GEOLOGY, LANDFORMS AND SOILS

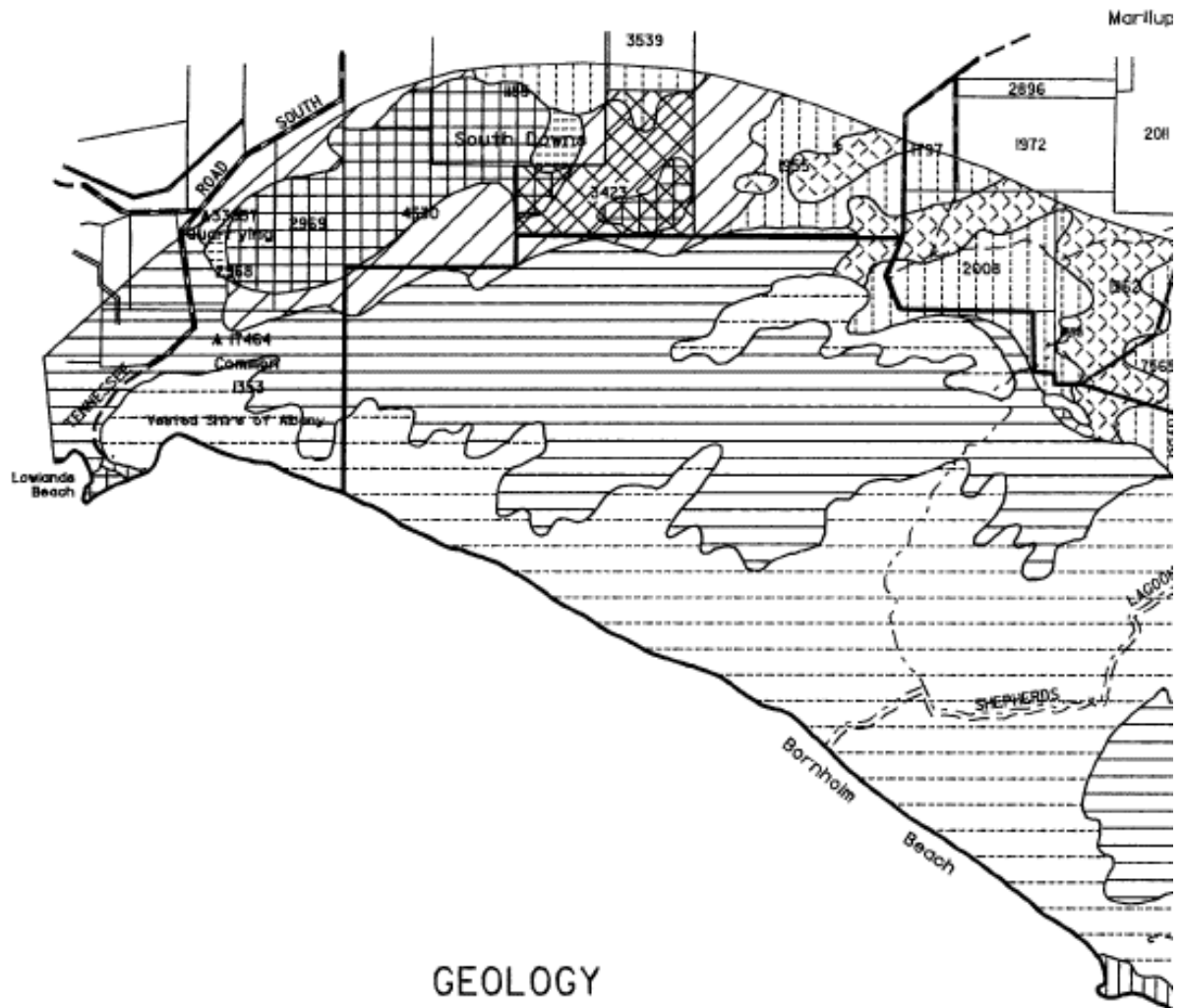
The objective is to protect the Park's geological features and landforms from degradation and to provide information to visitors on their significance and vulnerability to damage.

WCHNP is underlain by a variety of rock types and unconsolidated materials ranging in age from greater than 600 million years old to deposits still forming today (see Figure 4).

The area is generally underlain by a combination of banded gneisses and coarse grained granitic rocks which have been intruded by dark grey, finely crystalline dolerite dykes. These materials are greater than 600 million years old. Gneisses are best seen at Forsyth Bluff, granites in a band of rounded outcrops from Torbay Hill to the headland between Dingo and Shelley Beaches (and also at Torbay Head), and dolerites (known locally as "black granites") at West Cape Howe itself. The erosion potential of areas where these rocks outcrop is variable but is generally low to moderate.

The basement rocks have in places been severely affected by weathering, forming clays, laterite crusts and gravels. In many places, the bedrock is obscured by a covering of younger unconsolidated material formed of quartz grains and of sands derived from shell fragments. These sands are wind blown deposits and are an obvious feature of the track to the Cape. They are highly erodible which causes serious problems wherever they occur.

The high ridge which is evident along much of the Park's coastline is composed of limestones which were formed as windblown coastal dunes between 120 000 and 100 000 years ago. The limestones have undergone changes caused by water dissolving the lime in the rocks. This has led to the formation of "karst" features typical of areas where limestone caves occur. The valley behind Shelley Beach was possibly formed by the collapse of a large limestone cavern. Limestone areas in the Park have a moderate to high erosion potential.



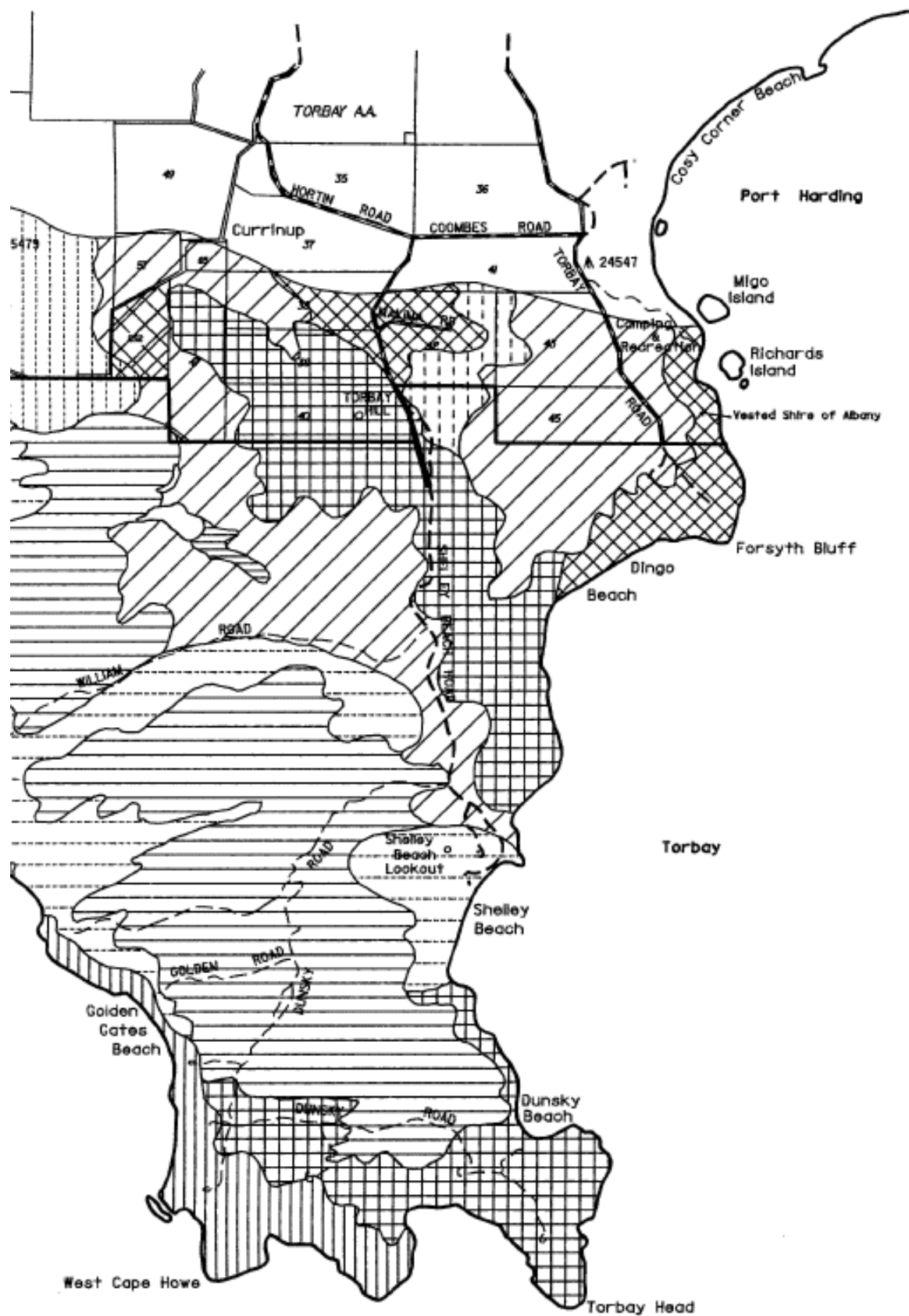
GEOLOGY

WEST CAPE HOWE NATIONAL PARK

SCALE

	PEATY SAND-dark grey and black, medium-grained quartz, variable organic content		LIMESTONE-pale yellowish brown, weakly cemented, friable, medium-grained, sub-rounded quartz and shell debris
	SAND-white to pale grey, fine to medium, occasionally coarse, angular to sub-angular quartz, few fines, moderately sorted		LIMESTONE-light yellowish brown, fine to coarse-grained, sub-angular quartz, feldspar, shell debris, variably lithified, surface karstic
	SAND-pale and olive yellow, medium to coarse-grained quartz sand, trace of feldspar, moderately sorted		DOLomite-fine-grained, melanocratic silt and rare dyke
	SAND-light grey, fine to coarse, angular to sub-rounded quartz, loose, moderately sorted, occasional pebbles of laterite		GRANITE-fine to coarse, even-grained and seriate granite and porphyritic granitic rocks
	CLAYEY SILTY SAND-pale yellow-brown, mottled, fine to medium, angular quartz, silt binder		GNEISS-fine to medium, even-grained, layered and porphyritic gneiss with imperfect gneissic fabric
	GRAVELLY SAND-coarse angular quartz sand with common pebbles and cobbles of granite		

Source: Torbay 1:50000, Environmental Geology Series,
Geological Survey of WA



More recent deposits of unconsolidated sand form the modern day beaches and dunes along the coast. Material washed down from high points to low areas has formed peaty sunklands in the northern part of the Park such as at Lake William. Although not highly erodible, these deposits retain moisture all year round and many are heavily infected with dieback disease. As they are sticky soils they will adhere to vehicles creating a high risk of dieback disease transport from the area (see *Plant Disease*).

ACTIONS

1. *Identify specific areas of the Park which are vulnerable to damage due to the nature of the geology, soils and landforms.*
2. *Provide stable access routes to major destinations within the Park, realigning existing tracks and paths where they are causing damage to geological and landform features, in particular sand dunes and rock outcrops (see Access).*
3. *Close and rehabilitate all access routes which cannot be effectively stabilised (see Rehabilitation).*
4. *Maintain access routes to ensure their continued stability (see Access).*
5. *Locate and design recreation, sites to minimise their impact on fragile geological features and landforms (see Recreation).*
6. *Provide interpretive information on the Park's geology, its relationship with landforms, soils and vegetation and the vulnerability to damage of these features (see Information, Education and Interpretation).*

10. HYDROLOGY

The objective is to maintain the quality of ground and surface water within the Park and to protect the particular conservation values associated with wetland areas.

Most of the fresh water within WCHNP is groundwater. The Park is underlain by a series of aquifers situated mainly within the unconsolidated coastal dune sands and limestones. These aquifers are recharged directly from rain falling on the dunes. Some groundwater may also be found within fractures and joints within the underlying basement rocks (granite, gneiss and dolerite) although it is likely to be in much smaller quantities than in the more recent deposits of sand.

Fresh water springs and creeks, such as that seen at Shelley Beach, originate from elevated aquifers within the coastal sands and limestones. Groundwater moving through the limestones causes them to dissolve which in turn causes "karst" features such as caves and dolines (collapsed caves).

The wetland system in the northern part of the Park (including Lake William) is situated in a depression and probably occurs due to the existence of a clayey surface layer through which water cannot drain (see also *Plant Disease*). The lake is fed by both rainwater and groundwater draining from aquifers within the sands and limestones closer to the coast. There is considerable seasonal variation in lake levels and although Lake William contains water all year round, the smaller lakes dry up in some years.

ACTIONS

1. *Locate and design recreation facilities and access routes in the Park so that they do not cause deterioration in surface and groundwater quality (see Recreation Facilities and Access).*
2. *Close and rehabilitate the public access roads to Lake William (see Access).*
3. *Regulate visitor and management activities in the vicinity of Lake William to ensure that the water quality and other conservation values are not degraded.*
4. *Encourage research into the hydrology of the Park and monitor the impacts of Park management practices on ground and surface waters.*

11. LANDSCAPE

The objective is to identify the elements of the landscape of WCHNP, to restore damaged landscapes and to ensure that any future developments complement the natural character of the Park and its surrounds while providing for its appreciation by Park visitors.

Spectacular landscapes and WCHNP are synonymous. Naturalness, ruggedness and diversity of landform and vegetation patterns combine to create a landscape of outstanding scenic quality and value. Two main landscape types are represented within the Park, the coastline and the coastal dunes.

The coastal landscape type comprises a narrow band which extends from the sea to the limit of marine influences such as wave action, tidal activity and salt spray. The boundary occurs at the rim of the cliff faces and immediately behind the beaches in the Park.

Coastal landscapes are dominated by the dramatic granite and dolerite cliff faces between Torbay Head and West Cape Howe and in the vicinity of Forsyth Bluff. Isolated sandy beaches, rock islands,

rugged limestone outcrops and cloaking coastal vegetation add complexity to the landscape and contribute significantly to its beauty. Colour is an important element in this landscape. Deep marine blues contrast with white surf and golden beaches, while the rock greys and vegetation greens are a striking mix.

The remainder of the Park consists of landscapes dominated by coastal dunes. These range from long parallel striations on the landscape to dune crested rises and deep blowout basins. The dunes commonly trend south-south-west to north-north-east, their height, valley depth and vegetation cover varying significantly. Outcrops of limestone or granite create caves, cliffs and points of dramatic visual attraction due to their ruggedness and also to the diversity and contrast of their colour and texture.

Vegetation patterns in this landscape type are defined primarily by landform, exposure, soil type and proximity to the sea. Dramatic patterns result from combinations of the following land cover types:

- Sparsely vegetated dune flanks exposed to erosional forces (soil colour often dominant).
- Dunal ridges and domes uniformly covered with heath and associated species.
- Interdunal swales, valleys and basins colonised by peppermint and associated species.
- Wetlands and lowlands immediately behind the dunal ridge with pockets of banksia dominated woodland and heath associations.
- The flanks and peak of Torbay Hill with woodland and karri forest vegetation cover.

The resultant vegetation patterns are diverse and of exceptional scenic quality.

Water bodies in the Park are confined to the northern boundary area, the largest being Lake William. The scarcity of wetland features ensures their focal attraction in the landscape.

Human alterations to the natural character of the landscape vary in their degree of impact. Some can complement natural elements, while others seriously degrade scenic values.

The most obvious scenic impact in the Park is caused by road construction, linear roads and tracks imposing alien line and colour on the landscape. Some single lane tracks sit lightly on the land as they borrow from landform and vegetation patterns, however the majority of tracks in WCHNP are not of this type. The main tracks to the Cape, Dunskey and Bornholm Beaches and the road to Shelley Beach (in particular near the lookout) have had a devastating impact on the natural scenic qualities of the Park.

In addition, the quarry sites within the Park detract from the landscape values. The quarry on the eastern side of Shelley Beach Road is particularly bad in this respect as it can be seen from many different places. Some buildings in the Park, particularly the fisher's lookout above Shelley Beach (see *Commercial Fishing*) and the exposed shack at Dunskey Beach (see *Recreational Facilities*), also detract from scenic qualities.

Spectacular views are afforded from many locations throughout the Park. Shelley Beach and the lookout, Dunskey Beach and the ridge behind it, Torbay Hill, Torbay Head, West Cape Howe and points along the coastal rim all offer panoramic views across the Park's distinctive landscapes. The most important elements in these views include the beaches, headlands and cliffs and Lake William. The canopied views within the karri forest at the Park entrance are a magnificent addition to this range.

ACTIONS

1. *Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 10.1, Landscape):*
 - (i) *Classify landscape features in the Park according to the Departmental system.*
 - (ii) *Identify and Protect important landscapes in the Park.*
 - (iii) *Carry out research into landscape perceptions and preferences in the community.*
2. *Prepare landscape impact assessments for all development projects and proposals.*
3. *Ensure that rehabilitation works carried out in the Park restore its landscape character (see Rehabilitation).*
4. *Design and develop any new access routes as low in the topography as possible and in a manner which complements Park landscapes while maximising scenic opportunities.*
5. *Provide vehicle or foot access to viewpoints at key locations throughout the Park (see Recreation Facilities).*
6. *Design and construct all Park facilities to be in keeping with the natural colours, lines, forms, textures and scales found in the surrounding landscape.*
7. *Liaise with Park neighbours where relevant, concerning the need to consider landscape management on lands adjoining the Park.*

12. FLORA AND VEGETATION

The objectives are:

- To restore and maintain the full range of vegetation communities, ages and distributions within the Park.
- To protect and maintain viable populations of all existing species particularly those with special status.

The vegetation of WCHNP is typically diverse for the south-west of Western Australia. It ranges from tall karri forest, to low coastal heaths. Almost 500 species have been recorded in the Park to date, many of these being susceptible to plant diseases such as *Phytophthora* dieback (see *Plant Disease*). Species include 6 eucalypts, 5 banksias, 9 acacias, 6 peppermints (*Agonis*), and a huge variety of wildflowers including 11 trigger plants and 58 orchids. Table 4 summarises the diversity of plants occurring in the Park.

There are no known species of declared threatened flora in the Park, however species of flora with special status which have been recorded in the Park are:

SPECIES	COMMON NAME	STATUS	RECORDED BY
<i>Pterostylis turfosa</i>	Bird orchid	Priority 1 *	R. Heberle
<i>Lysinema lasianthwn</i>	---	Priority 2**	--
<i>Schizaea</i> sp. Lake William	---	Priority 2**	T.A. Halliday
<i>Eucalyptus</i> sp. aff. <i>calcicola</i>	---	Priority 4***	G. J. Keighery

* Taxa which are known from one or a few (generally <5) populations which are under threat, due to small population size, being on lands under immediate threat (e.g. road verges, urban areas, farmland, active mineral leases, etc.) or threats to the plants (e.g. from disease, grazing by feral animals, etc.). May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as "rare flora", but are in urgent need of further survey.

** Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as "rare flora", but are in urgent need of further survey.

*** Taxa which are considered to have been adequately surveyed and which whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.

TABLE 4. PLANT DIVERSITY

MEASURE OF DIVERSITY	SPORE BEARING PLANTS(Ferns and fern allies)	SEED-BEARING PLANTS			TOTAL
		SEEDS IN AN OVARY		SEEDS NAKED (Conifers and Cycads)	
		Mono- cotyledons (Mainly soft stemmed plants)	Di- cotyledons (Mainly woody shrubs and trees)		
Recorded Plant Families					
In WCHNP	6	21	60	1	88
In WA **	20	48	138	5	211
% of WA families in WCHNP	30%	44%	43%	20%	42%
Recorded Plant Species					
In WCHNP*	8	163	309	1	481
In WA **	75	1545	6317	17	7954
% of WA species in WCHNP	11%	11%	5%	6%	6%

* Records from G Keighery - CALM

N Marchant - CALM

D Davidson/B Swainson - WA Wildflower Society (Albany Branch)

R Heberle - WA Wildflower Society (Albany Branch)

** From Green (1985).

A further species of special interest is the Albany pitcher plant (*Cephalotus follicularis*) which is found around the edges of wetlands in the Park.

Beard (1979) recognises four plant communities in WCHNP (see Figure 5). These are:

1. Karri tall forest

A remnant of previously more extensive karri forest occurs around the granites of Torbay Hill at the main entrance to the Park. This supports a dense, tall shrub understorey of karri oak (*Allocasuarina decussata*), karri hazel (*Trymalium floribundum*) as well as the waterbushes *Bossiaea*, *Pimelia clavata*, *Chorilaena quercifolia*, *Acacia urophylla*, the karri wattle (*Acacia pentadenia*) and other shade tolerant species.

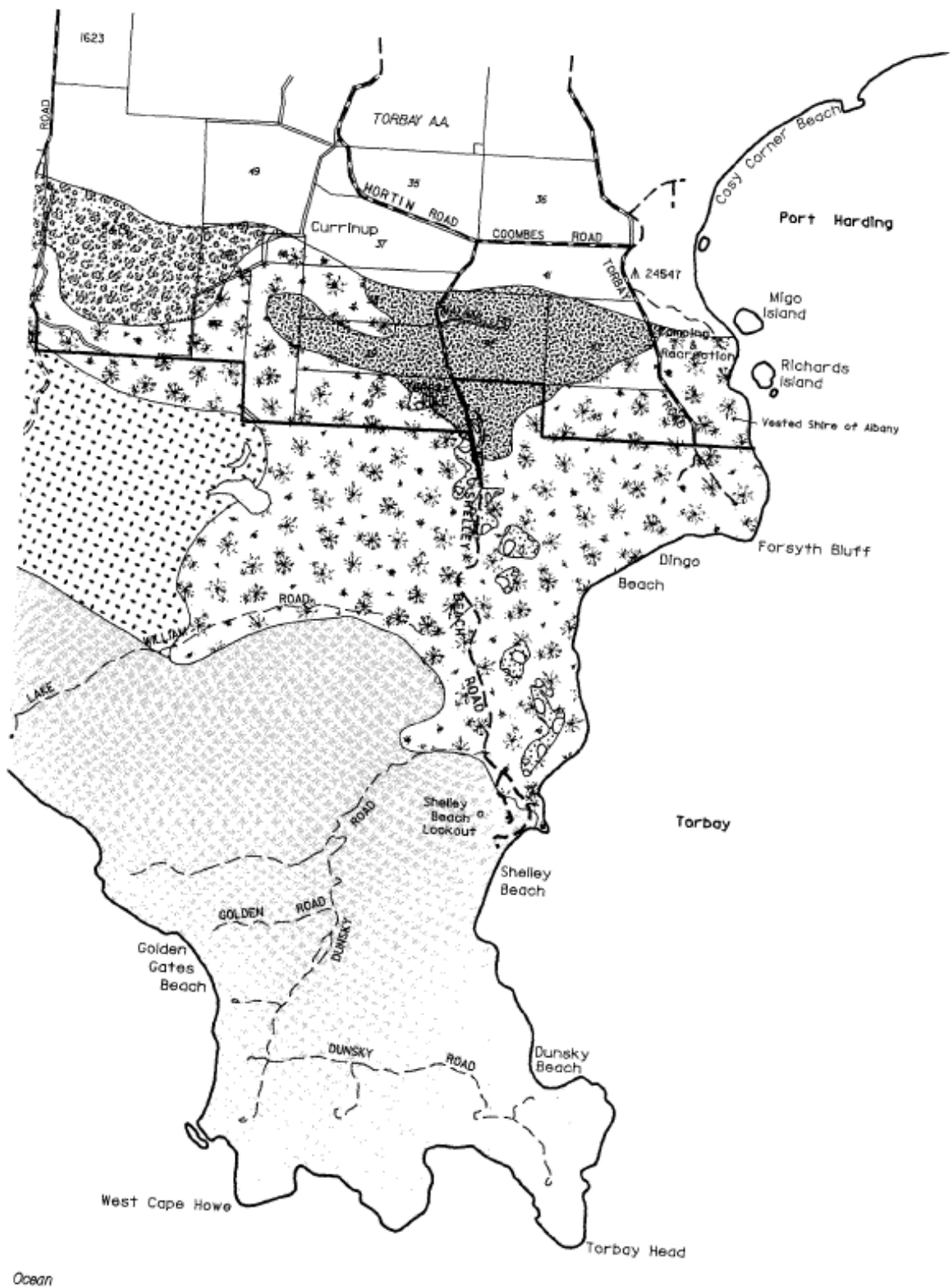
2. Jarrah and Jarrah-Sheoak low forest

Below the karri around the slopes of Torbay Hill, the Park is vegetated with a low forest of jarrah (*Eucalyptus marginata*) with distorted trees up to 15 metres in height. Other trees in this community include bull banksia (*Banksia grandis*), *B. ilicifolia* and Bullich (*Eucalyptus megacarpa*). North of the Park boundary in the vicinity of the Cosy Corner recreation area, jarrah gives way to almost pure stands of sheoak (*Allocasuarina fraseriana*), though this species does not occur in significant numbers in the Park itself. Some sizeable grass trees (*Xanthorrhoea preissii*) also occur in this community within the Park.

Understorey is typically composed of a dense *Agonis parviceps*, *Bossiaea linophylla*, and *Acacia myrtifolia* thicket with a scattering of *Banksia grandis*, *Xanthorrhoea preissii*, *Hakea elliptica* and *Xanthosia rotundifolia*.

3. Scrub heath

This community which occurs in the north-west of the Park is dominated by peppermints (*Agonis flexuosa*) in a range of structural types from scrub to low woodland. The latter is believed to be the climax community in sandhill country. In a number of parts of the Park, this community has been reduced by fire to an early successional stage of shrubs only. Scrub heath also contains scattered large shrubs of bull banksia (*Banksia grandis*) with clumps of *Eucalyptus angulosa* mallee.



Smaller shrubs include *Adenanthos cuneatus*, *A. sericeus*, *Allocasuarina humilis*, *Dryandra sessilis*, *Hakea elliptica*, *H. prostrata*, *Hibbertia cuneiformis*, *Jacksonia horrida*, *Leucopogon parviflorus*, *Lysinema ciliatum*, *Olex phyllanthi*, *Pimelia clavata*, *Senecio lautus* and *Spyridium globulosum*.

4. Heath

Most of the coastline of WCHNP is exposed to high winds which prune vegetation to a low heath consisting of dense masses of plants no greater than 60 cm in height. Heath communities over limestone differ in species composition to those over granitic basement rocks. Common species include *Lysinema ciliatum*, *Dasypogon bromeliifolius*, *Pimelia rosea*, *Leucopogon revolutus*, *Bossiaea rufa*, *Olearia axillaris*, *Acacia pulchella*, *Agonis flexuosa*, *Acacia humilis*, *Hakea prostrata* and *Kennedia coccinea*.

One interesting vegetation formation within this community type is the perched saline wetland on shallow soils on top of the dolerite rocks of the Cape itself. Although many metres above sea level, the constant salt spray and the heavy soils derived from the dolerite provide a habitat for the dome-like cushion heath shrub *Andersonia sprengeloides*, other species of *Andersonia* and samphires (Marchant, unpubl. report).

ACTIONS

- 1. Implement the following strategies, adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 11.1, Flora and Fauna):**
 - (i) Continue research to test hypotheses leading to an understanding of patterns and processes in the Park's ecosystems.**
 - (ii) Continue surveys to record the distribution, abundance and other details of flora including species declared rare.**
 - (iii) Seek to control weeds.**
 - (iv) Assist in the development and implementation of strategies for each declared rare species to ensure continued survival and expansion of populations and develop wildlife management programs when desirable.**
 - (v) Protect and monitor populations of declared rare species of plants.**
- 2. Minimise the impact of plant disease on native flora (see *Plant Disease*).**

3. **Rehabilitate degraded vegetation in the Park as specified in *Rehabilitation*.**
4. **Conduct fire management practices appropriate to species with special status and to promote diversity in vegetation communities (see *Fire*).**
5. **Provide interpretive material on the vegetation of the Park and its protection to Park visitors.**

13. FAUNA

The objective is to maintain viable populations of all existing native fauna within WCHNP and to re-introduce native species which have become locally extinct where this will enhance conservation values.

No comprehensive terrestrial fauna survey specific to WCHNP has been carried out to date (1994). Marine fauna are covered in *Marine Resources*. A series of 19 surveys of vertebrate fauna were, however, carried out by the WA Forests Department between 1972 and 1982 over the area in which the Park is located.

These surveys are reported in the Forests Department Bulletin 94 of 1985 by Christensen *et al.* which divides the study area into four "faunal zones". WCHNP falls in Faunal Zone 1 and a list of all vertebrates found in this zone is included in the publication. These species may occur in WCHNP.

Museum records also exist for mammals, reptiles and amphibians in the vicinity of WCHNP. How, Dell and Humphreys (1987) examined Museum records and sampled mammals, birds, reptiles and amphibians at ten coastal sites between Busselton and Albany. Species found at two of the sites, Denmark and Albany, are probably similar to those occurring in WCHNP. In addition, vertebrate sightings have been made by various naturalists in the Park. Only records from 1970 onwards have been included in the data in this Section.

A summary of species numbers reported in the vicinity of the Park appears in Table 5. A number of species declared "rare or in danger of becoming extinct" or "in need of special protection" occur within WCHNP. These are listed in Table 6.

A number of species of vertebrate fauna which were reported prior to 1970 have not been reported since. Where sufficient research data are available, it may be possible to re-introduce some of these species to the Park.

TABLE 5. SUMMARY OF NATIVE VERTEBRATE FAUNA

FAUNA	NUMBER OF SPECIES BY SOURCE				TOTAL
	Christensen <i>et al</i> (1985)*	Extra from Museum Records	Extra from How <i>et al</i> (1987)	Extra from Naturalists' Reports	
Mammals					
- bats	4	--	--	5	9
- other	13	1	--	5	19
Birds	116	--	--	10	126
Reptiles	23	1	1	1	26
Amphibians	17	3	--	1	21
Freshwater Fish	13	--	--	--	13
TOTAL	186	5	1	22	214

*Note: Data recorded in this paper were gathered from a faunal zone which was more extensive than the boundaries of WCHNP itself. Not all species listed have been identified within the Park.

**TABLE 6. FAUNA DECLARED RARE OR LIKELY TO BECOME
EXTINCT (RE) OR IN NEED OF SPECIAL PROTECTION (SP)**

Species	Status	Christensen et al (1985)	Naturalists' Reports
Mammals			
Western Ringtail Possum (<i>Pseudocheirus occidentalis</i>)	RE	x	x
Southern Brown Bandicoot (<i>Isodon obesulus</i>)	RE	x	x
Western Quoll (<i>Dasyurus geoffroii</i>)	RE		x
Dibbler (<i>Parantechinus apicalis</i>)	RE		x
Tammar wallaby (<i>Macropus eugenii</i>)	RE		x
Birds			
Crested Shrike-tit (<i>Falcunculus frontatus</i>)	RE	x	
Red-eared Firetail (<i>Stagonopleura oculata</i>)	SP	x	x
Peregrine Falcon (<i>Falco peregrinus</i>)	SP	x	x
Ground Parrot (<i>Pezoporus wallicus flaviventris</i>)	RE		x
Black Bittern (<i>Dupetor flavicollis</i>)	RE	x	

The invertebrate fauna of the Park is poorly known. Records indicate a range of species but are incomplete. Of particular interest, however, is the existence of social Thomisid spiders in the Park (B. Y. Main, 1988) and a species of terrestrial crab which inhabits the cliff tops of the Cape itself (A. R. Main, pers. comm., 1989).

At present, little specific research is available to guide management practices in the protection of the Park fauna. However, the maintenance of healthy vegetation at various stages of maturity is an integral part of this Management Plan and is considered one of the most significant factors in fauna management (see *Flora and Vegetation*). The other significant factor, control of feral predators such

as cats and foxes, is addressed in *Feral animals*. Future research actions can be found in *Research and Monitoring*.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 11.1, Flora and Fauna):**
 - (i) Continue research to test hypotheses leading to an understanding of patterns and processes in the Park's ecosystems.**
 - (ii) Continue surveys to record the distribution, abundance and other details of fauna including species declared rare or specially protected.**
 - (iii) Seek to control feral predators.**
 - (iv) Assist in the development and implementation of strategies for each declared rare or specially protected species to ensure continued survival and expansion of populations and develop wildlife management programs when desirable.**
- 2. Maintain a range of habitat types within the vegetation of WCHNP (see *Flora and Vegetation ; Fire; and Plant Disease*).**
- 3. Encourage research into the requirements of key fauna species in WCHNP and make necessary changes to Park management practices in the light of research findings.**
- 4. Introduce management practices to favour any species which suffers significant local population decline where this is consistent with the protection of other Park values.**
- 5. Re-introduce locally extinct species of native fauna where this would benefit overall conservation values in the Park as well as assist in species conservation by the establishment of extra populations of native fauna.**
- 6. Provide information to Park visitors and neighbours on the special qualities and need for protection of the Park fauna.**

14. MARINE RESOURCES

The objective is to ensure that management and use of WCHNP is compatible with conservation of the adjacent marine environment.

There is currently (1994) no formal marine component to WCHNP, the Park boundary extending only to the low water mark. However, marine influences are a major feature of the Park and need to be considered in its management.

The marine flora and fauna off the coast of WCHNP are primarily temperate species. Some tropical species exist in the area, however, being carried down the west coast of WA and then along the south coast by the Leeuwin Current (Wells, 1990).

The most obvious components of the marine ecosystem in this area are the marine mammals. Whales and sea-lions are sighted regularly off the coast of WCHNP and Table 7 lists the species for which records exist.

**TABLE 7.
MARINE MAMMALS RECORDED OFF THE COAST NEAR WEST CAPE
HOWE NATIONAL PARK**

COMMON NAME	SCIENTIFIC NAME
Southern Right Whale	<i>Eubaldena glacialis</i>
Long-finned Pilot Whale	<i>Globicephala melaena</i>
Killer Whale	<i>Orcinus orca</i>
False Killer Whale	<i>Pseudorca crassidens</i>
Sperm Whale	<i>Physeter catodon</i>
Humpback Whale	<i>Megaptera novaeangliae</i>
Australian Sea-lion	<i>Neophoca cinerea</i>
New Zealand Fur-seal	<i>Arctocephalus forsteri</i>
Common Dolphin	<i>Delphinus delphis</i>
Bottlenose Dolphin	<i>Tursiops truncatus</i>

Source: WA Museum and CALM Records

The coastline of WCHNP is mainly a high energy environment, unprotected from the predominantly south-westerly Southern Ocean swells. Some more sheltered areas do exist however as at Dunskey Beach which faces north-east and is shielded by Torbay Head. Members of the South Coast Dive Club advise that a "sponge reef" exists in the shallow waters off this beach.

No specific studies on the marine environment off the coast of WCHNP have been conducted to date (1994) however, a publication entitled "The Marine Flora and Fauna of Albany, Western Australia"

was published by the WA Museum in 1990. Under the CALM Act, areas of the coast may be declared marine parks or marine nature reserves. A range of uses, such as conservation, recreation and commercial fishing, can be accommodated in different reserve types. The marine areas off the coast of WCHNP are being considered in the context of a State-wide review of marine reserves conducted by the Marine Parks and Reserves Selection Working Group reporting to the Minister for the Environment (1994).

ACTIONS

- 1. Implement the following strategies, adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 11.3, Marine and Estuarine Conservation):**
 - (i) Prepare an emergency plan covering protection of marine fauna, (for example, stranded whales and seals) and action to be taken in the event of an oil spill. This plan will include the training of staff.**
 - (ii) Continue to census marine mammals on the south coast.**
 - (iii) Prepare management plans for any future marine reserves off WCHNP.**
- 2. Manage coastal recreation in conjunction with the Departments of Fisheries and Marine and Harbours and the Environmental Protection Authority to ensure minimal impacts on the marine environment off-shore from the Park.**
- 3. Consider provision of interpretive information on the marine environments off the coast of WCHNP.**
- 4. Seek the creation of marine reserves off the coast of WCHNP in accordance with the final recommendations of the Marine Parks and Reserves Selection Working Group.**

15. FIRE

The objectives are:

- To protect the lives of Park visitors, neighbours, fire fighters and staff from wildfires entering or burning within the Park.**

- **To encourage and maintain diversity and natural abundance and composition of vegetation associations and wildlife habitats including those necessary for the survival of rare and restricted species.**
- **To protect vulnerable species, plant communities and ecosystems, physical and landscape values, buildings and other assets in the Park, and neighbouring properties from the effects of uncontrolled fire and from inappropriate burning regimes or suppression techniques.**
- **To reduce the risk and frequency of unplanned fires starting near to or within the Park as a result of human activity.**
- **To provide the opportunity to obtain information about natural processes through the use and non-use of fire.**

FIRE HISTORY

Although no specific studies on fire have been conducted in WCHNP, a number of general comments can be made on the basis of other recognised studies. Australian ecosystems have evolved in the presence of natural fire, (see for example Singh, 1981) with different species adapting to different fire regimes. Since the arrival of Aboriginal people, fire has been used as a "management tool" to stimulate the growth of food species which attract game, to regenerate useful species, to drive or kill game and to open up the country to make travelling easier (Hallam 1975).

Early settlers in the Albany region give accounts indicating widespread burning in "consecutive portions" as a deliberate, regulated management activity. Fires either burnt out to an adjacent low fuel area (previously burnt) or were beaten out with "large green boughs" (Hallam 1975). This system is referred to locally as "patch burning", defined here as prescribed burns which are not bounded on all sides by firebreaks. The extent of these fires can be limited by the adjacent low fuel areas created by previous fires or by ignition timed to ensure fires will go out at night.

The area of the Park was used for grazing until the mid-1950s (D. Wolfe, pers. comm., 1990). During this period fire was used by local farmers to reduce fuel levels and to stimulate the growth of green feed. Accurate records of fires in the Park have been kept only since 1985.

The area from Bornholm Beach to Lake William has been burnt by wildfires three times in the last 10 years (D. Wolfe, pers. comm., 1990). Severe damage to the vegetation has resulted and it is estimated that at least ten years may be required for satisfactory regeneration (G. Keighery, pers. comm., 1990). Most fires since 1985 originated on the coast from campfires within the Park and burnt inland. Two fires are known to have been caused by lightning in the Park since 1971.

ASSETS WITHIN THE PARK

The vegetation in the Park is of two major types: heath close to the coast and mixed forest inland along the northern boundary (see *Flora and Vegetation*). There are no known declared rare flora within the Park.

Threatened fauna are listed in *Fauna* and include three species which may be affected in the short term by large scale fires in the Park and in the longer term by inappropriate fire regimes. The western ringtail possum requires stands of unburnt peppermint trees while the red-eared firetail finch lives in dense gully vegetation. The ground parrot, too, may have specific requirements with respect to fire, although further research is required to clarify this relationship.

The Park landscape (described in *Landscape*) includes extensive vistas which would be significantly impacted after large scale fires within the Park.

Development of Park facilities is proposed to be minimal (see *Recreational Facilities*), but toilets at major recreation sites as well as the proposed cabin at Dunskey Beach need protection from fire.

ASSETS ON ADJOINING LANDS

The northern boundary of the Park adjoins private property for most of its length. This clearly requires protection from any uncontrolled fires. Albany Shire reserves adjoin the eastern and western ends of the Park. The Shire intends to manage these reserves in sympathy with the Park.

GENERAL ACTIONS

To achieve the objectives set for fire management in the Park, three major fire regimes are proposed. These are:

No Planned Fire Regime

Representative areas of major vegetation types will be protected from fire during the life of the Plan. This involves not only a policy of no prescribed burning but also entails protection of those areas by fuel reduction on their perimeters and maximum practicable efforts to suppress wildfires should they occur in these areas.

Included in this regime is the area from Bornholm Beach to Lake William which requires time without fire to assist in regeneration of fire damaged vegetation.

Fuel Reduction Regime

The northern boundary of the Park adjoining private property will be prescribed burnt in order to help prevent wildfires from entering or leaving the Park. This will entail construction and maintenance of a single boundary firebreak three metres in width.

A buffer strip will be prescribed burnt along this boundary to a depth of approximately 200 to 400 metres depending on topography and vegetation type. The stands of karri at the Park's main entrance will be excluded from this buffer burning. The buffer will be "free edged" meaning that it will be burnt in such a way that a second fire break will not be required to contain burning in the buffer strip.

Prescribed burning at the eastern and western ends of the Park will be carried out in co-operation with the Shire of Albany whose reserves adjoin the Park. Buffer burning will be kept to the minimum required to ensure that the Park boundary is "safe".

Patch Burning Regime

The remaining blocks in the Park will be "patch" burnt over the life of this Plan in order to maintain a diversity of fuel ages and habitat types and to break the continuity of fuels within the Park. A number of separate patches will be burnt at different times within each block over the life of the Plan.

Each block is encircled by an existing track and a buffer strip of approximately 50 metres width will be burnt to ensure that "patch" burns are contained within the boundaries of the block.

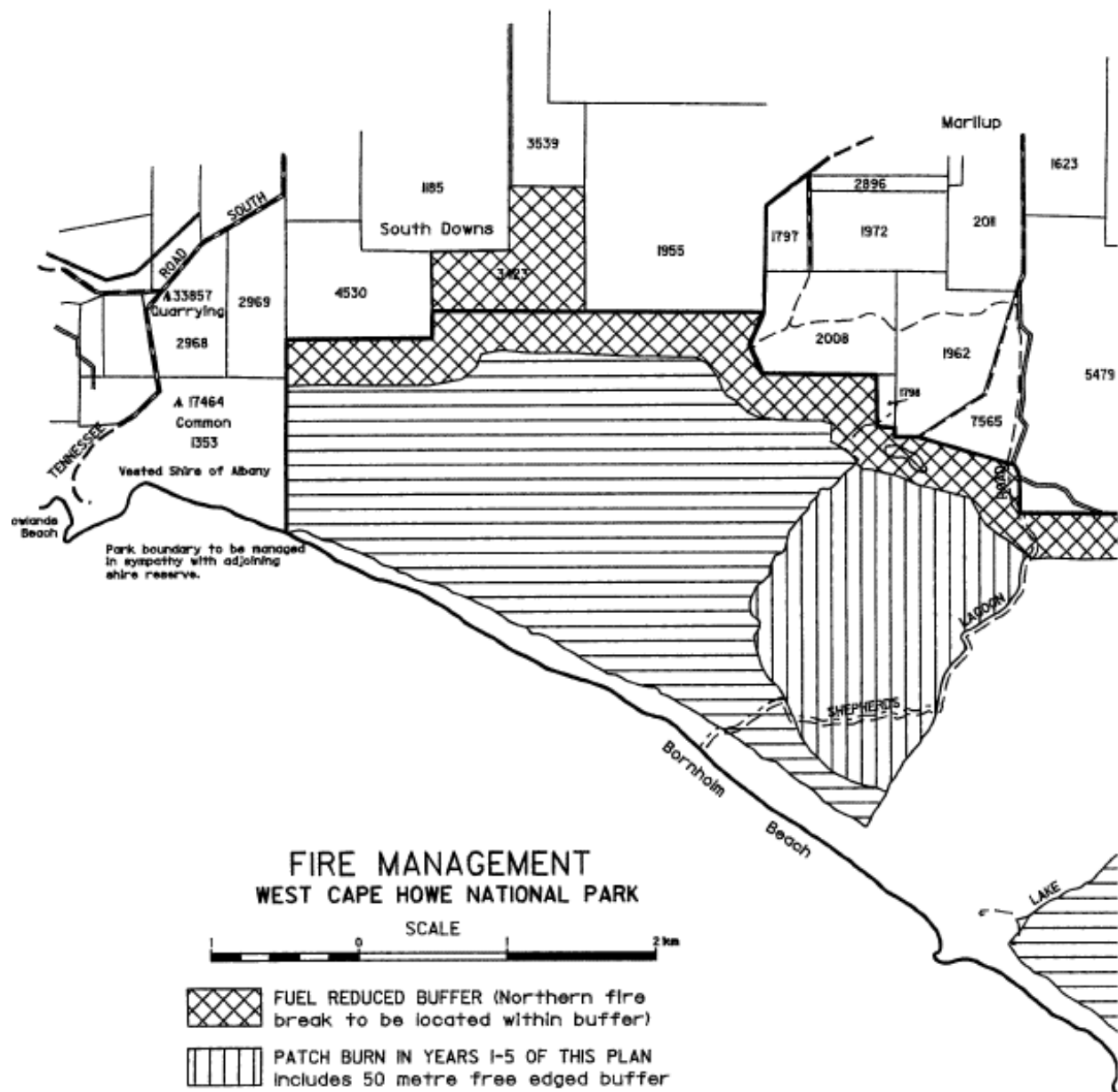
Research suggests that overgrazing of these patches by native fauna when vegetation re-grows can be a problem, although no minimum size for patches has yet been determined (G. Arnold, pers. comm., 1992). Patches will be burnt in conditions which ensure that approximately 50% of the area involved is burnt. This will provide diversity within each patch as well as ensuring grazing pressures are not concentrated to too great an extent.

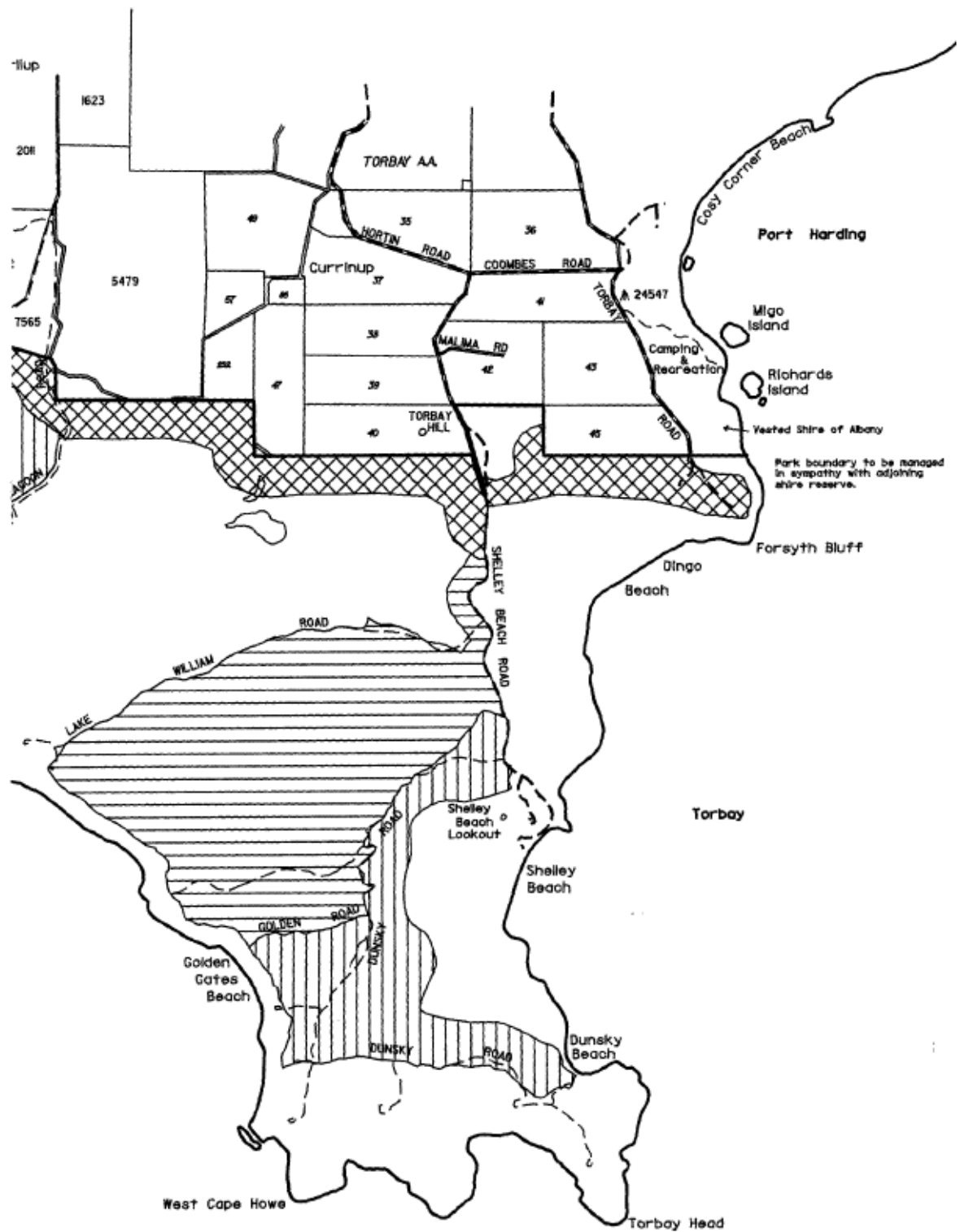
The Plan designates two blocks for patch burning in years one to five of the Plan and two, if required, in years six to ten. Figure 6 outlines the fire management actions for the Park.

SPECIFIC ACTIONS

1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 13.2, Fire):

- (i) Establish and maintain an efficient fire detection system and improve the effective fire fighting forces and equipment within the resources available.**
- (i i) Reduce fuels by techniques such as prescribed burning and slashing in carefully selected strategic buffer areas either within the Park, or where possible, on adjacent lands.**
- (iii) Consistent with the requirement to protect life, property and nature conservation values, use prescribed burning to provide and maintain biological diversity.**
- (iv) Use fire to develop or favour habitat for specific flora and fauna species where appropriate.**
- (v) Maintain close liaison with local Bush Fire Brigades, neighbours of the Park, the Shire of Albany and other agencies and through the mechanism of the District Fire Plan, establish mutual aid arrangements.**
- (vi) Develop a fire emergency plan (covering aspects such as visitor evacuation), for the Park.**
- (vii) Develop neighbour and public knowledge about community fire protection needs and Departmental fire management objectives and response procedures.**
- (viii) Assist with research into fire behaviour and fire ecology.**
- (ix) Monitor the effectiveness and impacts of fire management measures and make any necessary changes to procedures in the light of research and experience.**





Other Name

2. **Modify, relocate or defer burns where there are known declared rare flora or fauna within proposed burn areas. Where a rare species is known to be fire-dependant, or it is essential for protection purposes for burning to occur, Ministerial permission to "take" rare species must be obtained before conducting a burn.**
3. **Carry out all burns according to visual resource management principles to the greatest practicable extent, particularly in visually sensitive areas (see also *Landscape*).**
4. **Construct the northern firebreak under strict dieback disease hygiene conditions, slashing rather than grading wherever possible. Liaise with Park neighbours over location of the break and seek to minimise its visual impact.**
5. **Maintain the northern boundary firebreak as a "management only" track closed to the public and subject to dieback disease hygiene requirements for any Departmental use.**
6. **Permit campfires for a trial period of one year in CALM approved containers (such as half 44 gallon drums) on Bornholm Beach and at designated campgrounds (see *Recreation Facilities*) except Shelley Beach. Wood (including kindling) free of seed and soil must be brought into the Park for this use and containers and campfire debris must be removed after use. Closely monitor any impacts from the use of fires and extend the trial period or ban campfires on the basis of the results of monitoring.**
7. **Disallow all campfires on days of very high or extreme fire danger in compliance with the Bush Fires Act.**
8. **Provide gas barbecues at the day use areas at Shelley and Dunskey Beaches and at designated campgrounds.**
9. **Encourage visitors to bring their own portable gas barbecues or fuel stoves for cooking in the Park.**
10. **Maintain close liaison with Park neighbours and the Shire of Albany to ensure compatibility of fire management practices and negotiate where possible to conduct buffer burning on lands adjacent to the Park. Seek access to private water supplies for fire righting within the Park.**
11. **Close parts or all of the Park to visitors if necessary on "extreme fire danger" days, or in the event of a serious wildfire in or threatening the Park. This will include evacuation of Park users (see *Visitor Safety*).**

12. Seek to contain all fires in or threatening the Park within one block (see Figure 6). Depending on values, dieback disease risk, fire behaviour and resources available, consider on a case by case basis the use of machinery to attack a fire directly within the boundaries of a block.
13. Suppress any wildfires burning within "No Planned Fire" areas whenever this is practicable.
14. Construct any emergency firebreaks subject to strict dieback disease hygiene principles using minimum impact techniques. Rehabilitate as soon as practicable after completion of fire suppression operations.
15. Carry out prescribed burning operations subject to strict dieback disease hygiene principles in autumn, winter and spring to minimise the risk of fire escapes. Where possible, ensure variation in season of burn for successive burns in one area.

16. PLANT DISEASE

The objectives are:

- To control the spread and intensification of dieback disease where it is already present.
- To control the spread of existing occurrences of other plant diseases.
- To prevent the introduction of *Phytophthora* dieback and other plant diseases into disease-free areas.

Four plant diseases have been identified in WCHNP during intensive surveys by CALM personnel. The best known of these is *Phytophthora cinnamomi* (commonly referred to as dieback disease). However, another *Phytophthora* species, *P. cryptogea*, has been identified, as have *Armillaria luteobubalina* and canker fungi.

PHYTOPHTHORA CINNAMOMI

Phytophthora cinnamomi has infected significant areas in some parts of WCHNP. It has been identified principally in the north of the Park in the lower areas around Lake William and in the vicinity of Shelley Beach Road. Two small infections also exist beside the road to Dingo Beach. The distribution of known *Phytophthora cinnamomi* infections is shown in Figure 7 which also indicates the general susceptibility of the vegetation throughout the Park.

Phytophthora cinnamomi is transported in infected soil on the tyres of vehicles etc. It spreads with the movement of water through the soil and in overland flow, being particularly active in warm, moist conditions but can also be spread in dry material in its dormant state and become active again when conditions are favourable. The disease appears to have been introduced into the Park during road construction and vehicle use with the most extensive infections occurring downslope of infected roads. All infections located are well established and seem to have been present for a considerable period of time. The impact of *Phytophthora cinnamomi* on the vegetation varies according to species present, soil type etc. but the disease is known to attack over 900 plant species in many different families. Fauna dependent on susceptible vegetation can also be severely affected.

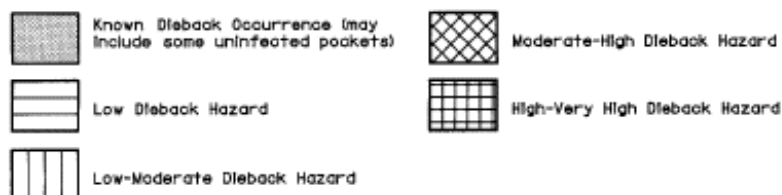
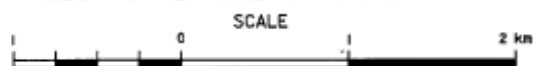
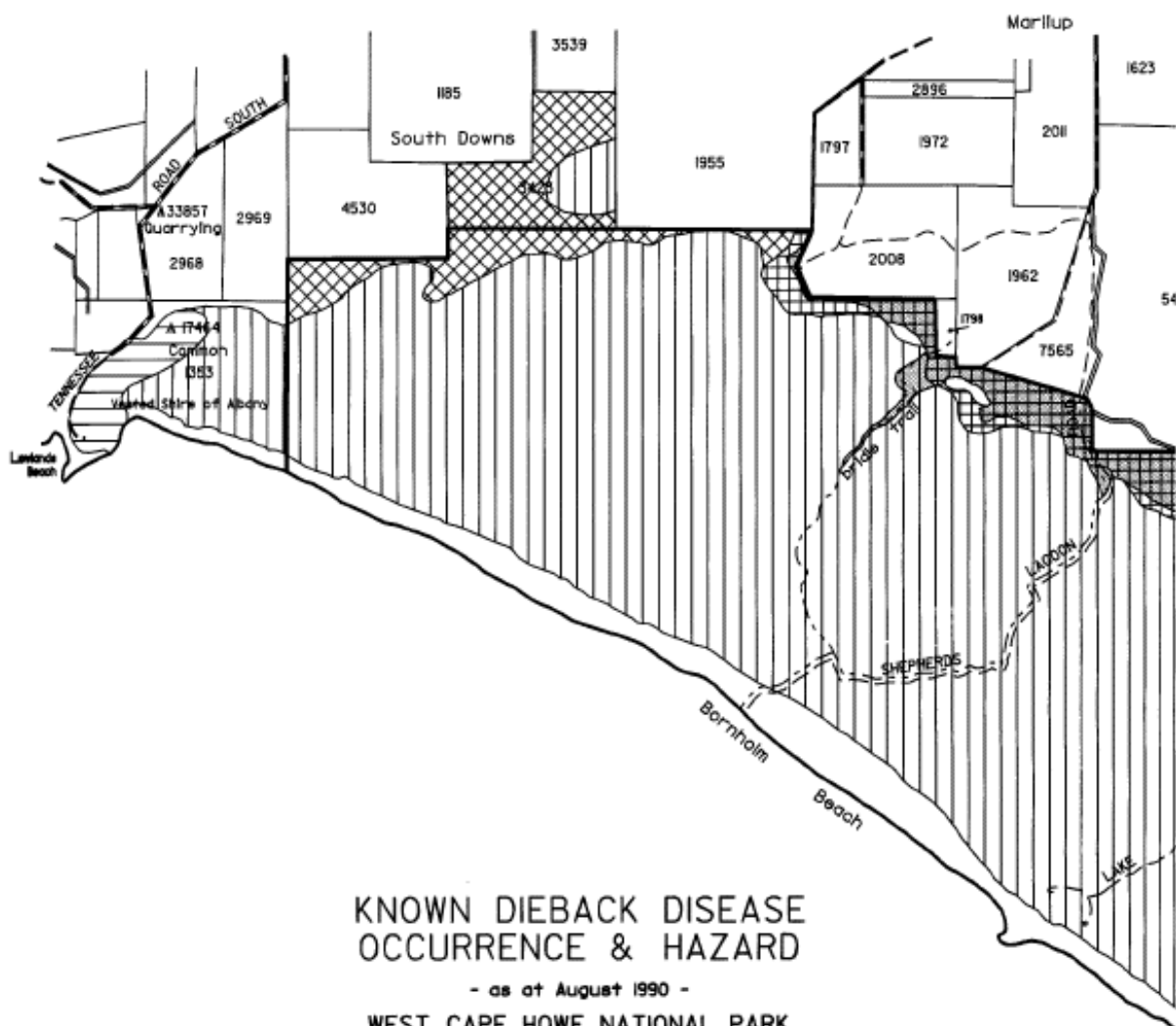
Strict dieback disease hygiene measures (such as the conducting of management activities under dry conditions when soil does not adhere to vehicle tyres), coupled with track realignments and closures will be essential to stop the transport of infected material and therefore to reduce the spread of the disease. In addition, recent research into the use of phosphonate suggests that it may be possible to control small *Phytophthora cinnamomi* infections.

PHYTOPHTHORA CRYPTOGEA

Only one sample in WCHNP has returned a positive result for this *Phytophthora* species which is much less common than *Phytophthora cinnamomi*. *Phytophthora cryptogea* was isolated in a dead *Xanthorrhoea priessii* beside Shelley Beach Road but occurred within a *Phytophthora cinnamomi* infection which had a dominant effect at the site.

ARMILLARIA LUTEOBUBALINA

Armillaria is a native fungus which attacks the woody material of susceptible species and like *Phytophthora cinnamomi* can cause their death. Infections have been identified from sites throughout the Park over the full range of landform types. In many instances, particularly in very active infections, *Armillaria* was found to occur within the boundaries of *Phytophthora cinnamomi* infections. It is not believed to be as much of a threat to Park vegetation as *Phytophthora cinnamomi*, and as the infections are spread by airborne spores, no known management strategies can be implemented to control its spread.



Southern Ocean

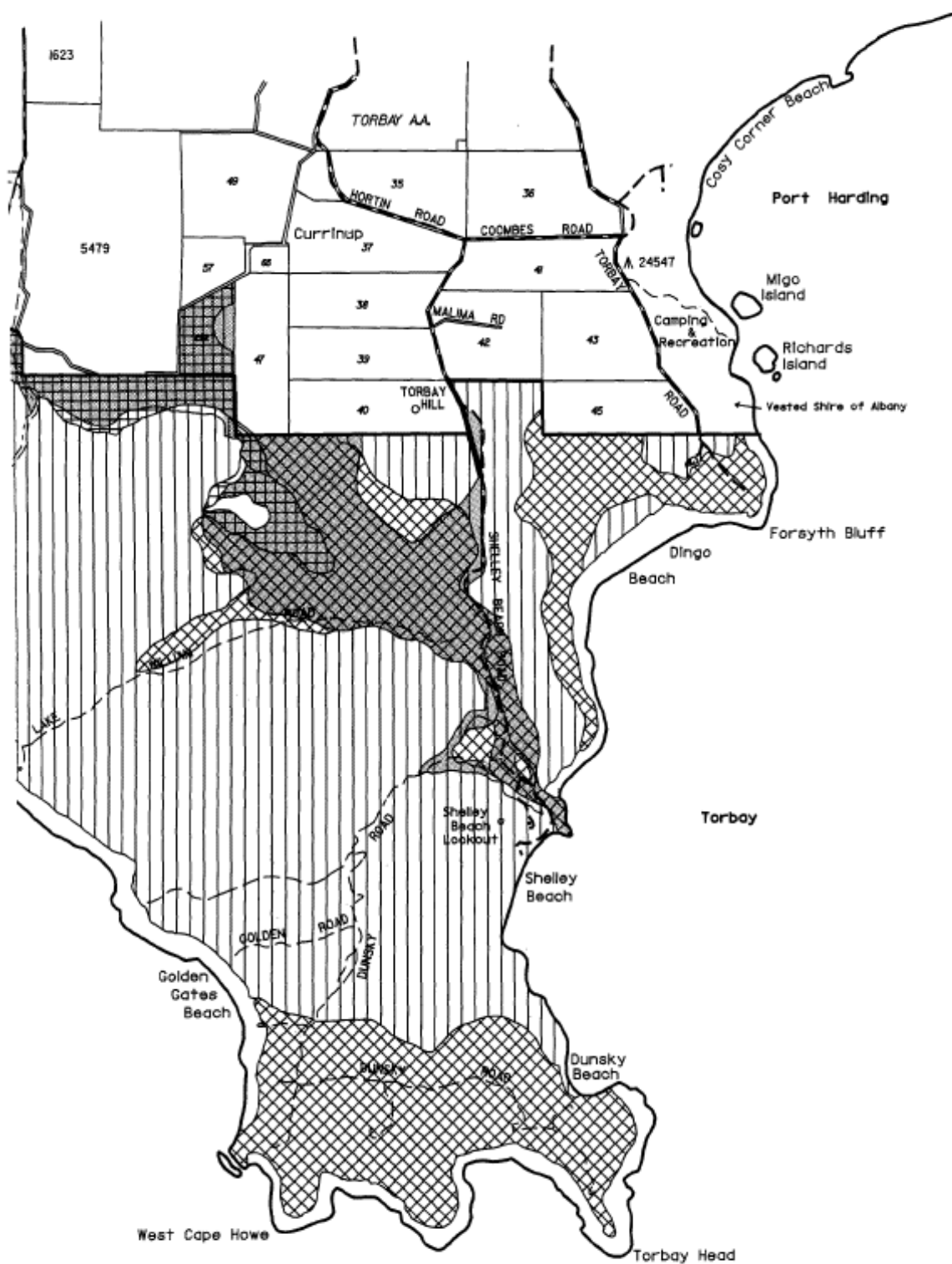


FIGURE 7

CANKER

A number of canker fungi including *Botryosphaeria* and *Diplodina* have been isolated from dying plants in the Albany area. The disease caused by these fungi is now known to occur in WCHNP although its extent requires further clarification. As with *Armillaria*, spores of the canker fungus disperse in the wind. No effective control measures are known but research into the disease is ongoing.

ACTIONS

1 Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 13.1, Plant Diseases):

- (i) Prevent the establishment of dieback disease in new areas and minimise additional spread in areas where the disease already occurs by controlling access and operations in susceptible areas.**
- (ii) Assess all operations and Park uses with an evaluation test for potential dieback disease impact and consequences.**
- (iii) Undertake all operations under hygienic conditions and monitor the effectiveness of such hygiene.**
- (iv) Identify priority areas within the Park for protection from dieback disease based on conservation values, risk of introduction and predicted impact.**
- (v) Improve understanding by the public and by CALM personnel of the dieback disease problem and protection measures in the Park.**
- (vi) Undertake dieback disease mapping and assist with *Phytophthora* dieback research.**
- (vii) Monitor the spread of known infections and where possible develop and implement action steps to limit their spread.**
- (viii) Develop and adopt appropriate strategies for other plant disease species including *Armillaria*, canker and other *Phytophthora* species.**
- (ix) Encourage the Shire of Albany and other Park neighbours to adopt similar dieback disease control strategies.**

2. Ensure, as resources permit, that access routes designated in *Access* are improved where necessary and maintained at a standard which will prevent the movement of infected soil.
3. Seek to contain the small *Phytophthora cinnamomi* infections beside the Dingo Beach track with phosphonate or other treatments to ensure they do not spread downhill. Provide 2WD vehicle access to Forsyth Bluff and to a terminus carpark on the ridge above Dingo Beach but foot access only to Dingo Beach itself as detailed in *Access*.
4. Close Lake William to vehicle access in view of the area's serious potential to lead to the spread of infected soil to other parts of the Park and to neighbouring lands. Provide foot access to the Lake as detailed in *Access* ensuring that the potential for disease spread from the area is minimised.
5. Close Bornholm South Road and the old overgrown access track to the western boundary in view of the large area of the Park which would be put at risk in the event of the introduction and spread of dieback disease in these areas. Upgrade Shepherds Lagoon Road to provide 4WD vehicle access to Bornholm Beach (see *Access*).
6. Close any other roads and tracks in the Park which, within resource constraints, cannot be upgraded and/or maintained to a standard which will prevent the movement of infected soil. (Proposed closures are detailed in *Access*).
7. Implement seasonal access restrictions in the Park where necessary in moist conditions under which dieback disease is most likely to spread.
8. Limit use of all management tracks in the Park to conditions in which disease spread and introduction will not occur.
9. Install the proposed northern firebreak in dry soil conditions to ensure that infection is not spread to new areas along the northern boundary.
10. Restrict all non-essential access to Location 3423 (see Figure 2), in the event that it is added to the Park, to protect its value as a dieback disease free reference area on the Park's northern boundary.
11. Monitor the status of all plant diseases in the Park and carry out any necessary management actions in the event that new threats to the Park develop. Actions may include:
 - Realignment, upgrading or closure of access routes.
 - Seasonal or permanent restrictions on access.

- **Chemical treatment of affected areas.**
 - **Education of Park users.**
- 12. Review management prescriptions in the light of any new research findings on the introduction, spread, impact or control of plant diseases in the Park.**
 - 13. Continue liaison with the Shire of Albany and other Government agencies to ensure their activities do not lead to the introduction or spread of plant disease in the Park.**

17. WEEDS

The objective is to control and if possible eradicate weeds with the potential to cause significant environmental degradation, using methods which minimise impacts on native species.

Although weeds are not a major problem in WCHNP, a total of 37 species has been recorded in the Park. The most serious of these weeds are spear thistle, taylorina, blackberry, buffalo grass, kikuyu grass, gorse, watsonia and arum lily. Of these, arum lily, blackberry and gorse are declared under the Agriculture and Related Resources Protection Act, 1976 and must, by law, be controlled.

The major infestations in the Park are to be found in the vicinity of quarry sites (most species), Shelley Beach (grasses and arum lilies), Dunskey Beach (grasses) and the northern firebreak (pasture weeds).

Weed species may compete with and eventually replace native flora and can have a significant adverse impact on conservation values. Control methods must be chosen to ensure minimal impact on native species and safety for Park visitors and staff.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 13.3, Weeds, Feral Animals and Pests):**
 - (i) Maintain an inventory of weeds in the Park.**
 - (ii) In conjunction with the Agriculture Protection Board and adjacent landholders, develop programs to control declared weeds as resources allow.**
 - (iii) Maintain liaison with neighbours to optimise control of boundary weed infestations.**

- (iv) **Carry out monitoring and control programs, as resources allow, on declared and non-declared weeds.**
 - (v) **Assess the efficiency of control on target species and any effects on non-target species and make changes to procedures if required.**
 - (vi) **Provide information to the public on the impacts and control of weeds.**
- 2. Identify communities of native flora and fauna which may be adversely affected by weed control programs and if necessary modify methods and chemicals used to ensure protection of susceptible species.**
 - 3. Conduct weed control programs in conjunction with rehabilitation operations in quarry sites.**
 - 4. Ensure containment of introduced grasses (buffalo and kikuyu) within the main recreation areas of Shelley and Dunskey Beaches. Replace them with native grasses if practicable.**
 - 5. Control and if possible eradicate the population of blackberries beside Shelley Beach Road and the population of arum lilies at Shelley Beach.**
 - 6. Seek assistance from volunteers in the monitoring and control of weed species within the Park.**

18. FERAL ANIMALS

The objective is to minimise the impact of feral animals on the Park environment using control methods which impact as little as possible on native flora and fauna.

The extent of feral animals within the Park is not known. Foxes and cats occur and although the impact of their predation on native fauna populations in this Park has not been determined, they are known to have a significant impact elsewhere. Rabbits are widespread throughout the Park and the impacts of their grazing can be clearly seen, particularly at some recreation sites. European rats and house mice are also known to occur. There are no known insect infestations in the Park.

No systematic control of feral animals is taking place in WCHNP at present (1994).

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 13.3, Weeds, Feral Animals and Pests):**
 - (i) Maintain an inventory of feral animals and pests in the Park.**
 - (ii) In conjunction with the Agriculture Protection Board and adjacent landholders, develop programs to control declared pests in the Park as resources allow.**
 - (iii) Carry out monitoring and control programs, as resources allow, on declared and non-declared pests.**
 - (iv) Assess the efficiency of control on target species and any effects on non-target species and make changes to procedures if required.**
 - (v) Provide information to the public on the impacts and control of feral animals and pests.**

19. REHABILITATION

The objective is to restore degraded areas of WCHNP to a stable condition resembling the natural environment as closely as possible.

Environmental degradation is a major management issue in WCHNP. Although considerable work has been done, vehicle tracks and footpaths within the Park are in need of further rehabilitation. The combination of coastal dune sands and low heath vegetation has led to serious erosion problems throughout the Park, particularly caused by 4WD vehicles being used to access various destinations on the coast.

Access for vehicles, walkers and horse riders is covered in Access. All vehicle tracks and footpaths to be closed require rehabilitation. In some parts of the Park, simply removing the "traffic" from degraded access routes is sufficient, as the native vegetation re-colonises denuded areas. However, in other areas, the effects of wind and water erosion need to be overcome before rehabilitation is successful.

Gravel and limestone pits within the Park will also require rehabilitation. Other areas from which native vegetation has been removed will require similar restoration.

Wherever possible, seed and/or cuttings from native species in the immediate locality should be used in rehabilitation operations and landforms should be recreated to resemble as closely as possible the natural landforms in the vicinity. In the case of gravel pits, this re-shaping may require the removal of some of the remaining native vegetation.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 13.4, Rehabilitation):**
 - (i) Survey lands in the Park and specify the areas that require rehabilitation programs.**
- 2. Carry out all rehabilitation works according to a rehabilitation plan.**
- 3. Close unnecessary vehicle tracks and footpaths (see *Access*).**
- 4. Assess on a site by site basis whether active rehabilitation will be required or whether the site will rehabilitate naturally to a satisfactory standard.**
- 5. Carry out rehabilitation of closed tracks and paths which require it according to the following guidelines:**
 - Recreate natural landforms to the greatest possible extent, bearing in mind the need to control water and wind erosion.**
 - Scarify the surface to be rehabilitated.**
 - Cover the surface with fibre matting and/or brush collected from sites as near as is practicable to the site being rehabilitated.**
 - Secure matting and/or brush in areas where it may be removed by wind or by Park visitors.**
- 6. Rehabilitate any emergency firebreaks as soon as practicable after completion of fire suppression operations (see *Fire*).**
- 7. Rehabilitate all disused gravel and limestone pits in the Park according to the following guidelines:**
 - Recreate natural landforms to the greatest possible extent bearing in mind the need to control erosion and minimise removal of remaining native vegetation.**
 - Deep rip all compacted areas.**
 - Re-establish native vegetation on the site using a combination of seedling plantings and seed distribution.**
 - Conduct weed control programs in conjunction with rehabilitation operations (see *Weeds*).**

8. Liaise with the Shire of Albany concerning the rehabilitation of any area for which access for road-making materials may be granted (see *Gravel and Industrial Minerals*).
9. Rehabilitate the area of the exposed shack at Dunskey Beach (see *Recreation Facilities*).
10. Encourage volunteers to participate in rehabilitation operations in WCHNP.
11. Provide information for Park visitors on the objectives of and reasons for rehabilitation operations.
12. Monitor the effectiveness of rehabilitation measures and carry out additional works in any area which is not stabilising satisfactorily.

20. ABORIGINAL HISTORY AND CULTURAL RESOURCES

The objectives are:

- To identify and protect Aboriginal sites within the Park.
- To provide for contemporary use for Aboriginal cultural activities.
- To increase the awareness of Park visitors of the history of use of the area by Aboriginal people and its significance.

Although there is little information specific to the Park, Aboriginal occupation in south-western Australia is known to extend back at least 40 000 years. The oldest date obtained for a site in the Albany region is 18 850 years (R. Reynolds, pers. comm., 1989). At the time of European settlement, the area of WCHNP was occupied by the Minang people (Tindale, 1974).

The Department of Aboriginal Sites currently has one archaeological site listed within the Park, however, the area has not been examined in detail and it is possible that other sites may exist. All Aboriginal sites are covered by the provisions of the Aboriginal Heritage Act (1972-80) regardless of whether they are known to the Department of Aboriginal Sites or not. Section 17 of the Act makes it an offence to excavate, destroy, damage, conceal or in any way alter an Aboriginal Site without written permission from the Minister for Aboriginal Affairs.

The Aboriginal history and significance of the Park must be recognised in Park management and will be of interest to visitors. It provides an important element in understanding the Park and its environment.

The local Aboriginal community in the area has expressed a desire to assist in the provision of information on the significance of WCHNP to Aboriginal people. Although to date (1994) there have been no specific requests for access to the Park for cultural activities, Aboriginal people have expressed a desire to access national parks elsewhere for such purposes.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 12.1, Aboriginal Cultural Resources):**
 - (i) Ensure that CALM's activities do not impact detrimentally upon known Aboriginal sites.**
 - (ii) Train staff, in liaison with the Department of Aboriginal Sites, in recognition of sites and report any new sites to them so that registers can be updated.**
 - (iii) Develop and implement management guidelines for Aboriginal sites in the Park in liaison with the WA Museum, tertiary institutions and Aboriginal organisations.**
 - (iv) Liaise with Aboriginal groups concerning requests for access to the Park for cultural activities. Negotiate access in accordance with Departmental policies.**
 - (v) Where appropriate, incorporate material on Aboriginal cultural resources in interpretive displays and community education programs.**
- 2. Seek to conduct ethnographic / archaeological surveys in any area of the Park which will be disturbed by new development proposals.**
- 3. Liaise with the local Aboriginal community on the significance of WCHNP to Aboriginal people.**

21. EUROPEAN HISTORY AND CULTURAL RESOURCES

The objective is to recognise the historical significance of the Park, protect its European cultural resources and provide information on its European history.

The early European history of the West Cape Howe area is associated with maritime exploration of the south coast. This section of the coast was charted by Captain George Vancouver in the "Discovery" in 1791 and he gave the name "Cape Howe" to the southernmost section in honour of an Admiral in the Royal Navy. Matthew Flinders visited the area in 1801 and noting that there was also a Cape Howe on Australia's east coast, added the prefix "West".

The wreck of a schooner, the "Harlequin" is located eight kilometres west of West Cape Howe. The ship was sailing from Adelaide to Singapore in 1850 with a cargo of copper ore and general goods but ran aground after encountering violent storms (Henderson, 1980).

Numerous names of features in the Park reflect its later European history. Some confusion exists with the name "Shelley" Beach which is referred to as "Hortons" Beach on official maps. These also refer to Hortons South Road as the name of the main road into the Park. These features are named after the Hortin family, (spelt with an "i", not a second "o"), one of the local rural families in the area.

The first Europeans to make regular use of the area were sealers and whalers who had been working in the vicinity for some time prior to the establishment of the settlement at King George Sound (Albany) in 1826. Their activities continued well into the twentieth century. John Sinclair, a builder from Albany, commenced whaling from Migo Island near Cosy Corner in 1845 (Garden, 1977).

In the 1830s a start was made in opening up the hinterland of the settlement with the commencement of pastoral activities. A property was established in Torbay by Hugh McDonald in 1842 but later failed.

In the 1880s a timber mill was established by Millars at Torbay to tap the timber resources of the area for railway sleepers. Initially these were taken to Albany by sea, but in 1887 a tramway on which the sleepers were transported was built to link the area with the railway. By this time, Torbay was a thriving community of 200 inhabitants. Millars apparently closed the mill in 1888 but reopened it in 1889 as the export market for timber expanded. Timber production operations continued until 1905 when all mills in the area closed as the timber resource had been depleted to below the level of profitability.

Agricultural production in the region grew steadily into the twentieth century with market gardening, particularly potato farming, becoming widespread in the Grasmere-Torbay area. These activities, along with dairy farming, are still the mainstay of agriculture in the area, having received a boost with the release of land to soldier settlers after the First World War. Grazing was carried on in the area of the National Park until the mid-1950s (D. Wolfe, pers. comm., 1990). Commercial fishing operations began from Shelley Beach during the 1960s and continue today (see *Commercial Fishing*).

The West Cape Howe area was vested in the Shire of Albany for the purpose of "Recreation" in 1977, having become a popular destination, particularly for recreational fishing. Two huts built at Dunskey Beach around the 1940s (L. Fennell, pers. comm., 1989) remain as evidence of this popularity.

An application to quarry monumental stone from the "black granites" of West Cape Howe saw the taking of samples in 1980, but extraction did not proceed.

Recreational use of the area has continued to increase since its gazettal as a national park in 1985.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 12.2, Historic Sites):**
 - (i) Collate existing information on historic sites located in the Park and maintain an up-to-date register of sites. Liaise closely with the National Trust and the Heritage Commission in the preparation and maintenance of registers and in the evaluation of potential additions.**
 - (ii) In accordance with the "Burra Charter"¹, develop management guidelines for any historic sites in liaison with the WA Museum, National Trust, Heritage Commission, tertiary institutions and historical societies.**
 - (iii) Where appropriate, establish a program to conserve historic places and to develop facilities and visitor information.**
 - (iv) Maintain liaison with local historical societies regarding volunteer work and other activities.**
- 2. Recommend to the State Nomenclature Committee that the name "Shelley Beach" be formally adopted and placed on future maps, that the name "Hortins Road" (omitting the "South") be maintained as far south as the intersection with Coombes Road in view of its historical significance and that the name "Shelley Beach Road" be adopted from that intersection south through the Park.**
- 3. Where appropriate, incorporate material on European history and cultural resources in interpretive displays and community education programs.**

1 Guidelines for the conservation of historic places are provided in the "Australia ICOMOS (International Council on Monuments and Sites) Charter for the Conservation of Places of Cultural Significance", otherwise known as the "Burra Charter".

RECREATION

22. ATTRACTIONS AND EXISTING USE

The objective is to provide for a broad spectrum of nature-based recreational uses within the Park while minimising both conflict between user groups and environmental impacts.

WCHNP contains a diversity of natural features suiting it to a broad spectrum of recreational uses. In addition to traditional national park pursuits such as bushwalking, camping and picnicking, the Park is of special value for rock climbing, ocean fishing, hang gliding and sightseeing. In all, 14 major recreational activities are carried out within WCHNP (Herford, 1990). These uses pre-date the declaration of the Park and a number have resulted in significant detrimental environmental impact. Management solutions to these problems will have to be determined within the context of available staff and funds (see *Implementation*). It is likely that requests for access to carry out new recreational activities in the Park will be received in the future. Any such requests will be assessed on the basis of their compatibility with the objectives of this Plan.

WCHNP is currently developed and managed to facilitate "Minimum facility, minimum impact" (low key) recreational pursuits only, complementing the nearby Torndirrup National Park which is more highly developed as discussed in *Regional Context*.

Visitor levels have been assessed using traffic counters installed within the Park. The number of vehicles using Shelley Beach Road from May 1990 to April 1991 was in the order of 9 500. A traffic counter installed to measure vehicles entering the Park on the Bornholm Beach access tracks suggests that in the order of 1 300 vehicles entered the Park in this way over the same period. This gives a total of approximately 11000 vehicles for the period measured, equivalent to 33 000 visitors per year (at an occupancy rate averaging 3.0 people per car).

Continuous records of numbers camping in the Park have not been maintained. The most popular camping areas are at Shelley Beach and at Dunskey Beach. Camping use fluctuates from none for much of the year to very high levels over the Christmas / New Year period, on summer long weekends and at Easter. Camping fees collected at Shelley Beach over Easter 1991, indicate that 24 campsites were in use for an average of 3 nights each over this period. Given the small size of the Shelley Beach site, this level of use creates severe overcrowding at peak times.

ACTIONS

- 1. Separate incompatible Park uses where possible (see *Zoning*).**
- 2. Provide a stable system of access tracks to recreational facilities and features within the Park (see *Access*).**
- 3. Provide only for the "minimum facility, minimum impact" end of the spectrum of recreation opportunities in WCHNP by limiting development of facilities.**

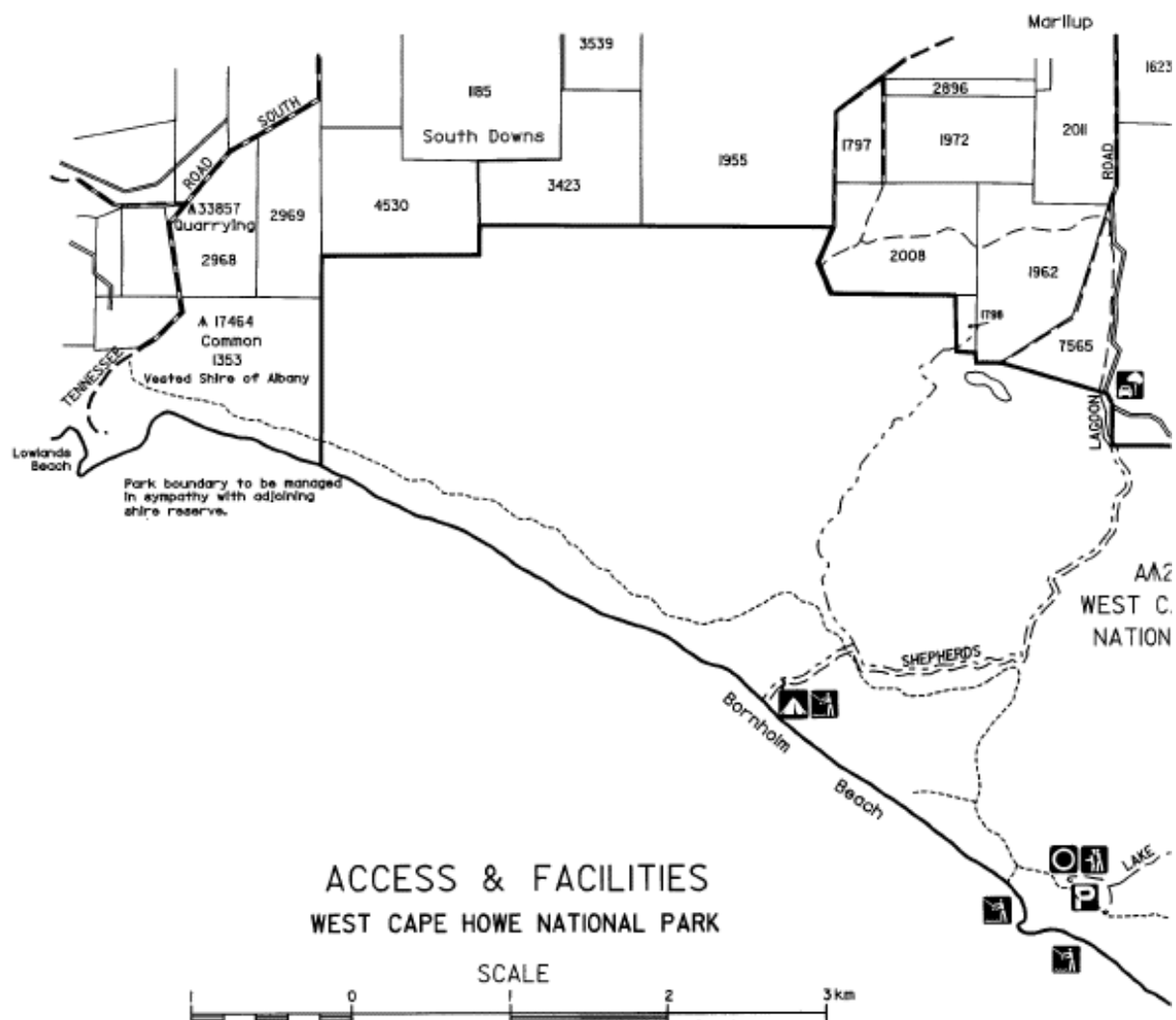
4. **Assess requests for use of the Park for new recreational pursuits using the following criteria:**
 - **Appropriateness in a national park.**
 - **Appropriateness in the Regional context.**
 - **Compatibility with existing uses.**
 - **Likely environmental impact.**
 - **Availability of alternative opportunities.**
 - **Management capability.**
5. **Conduct research to ascertain visitor use numbers, patterns, preferences and perceptions and to assess levels of satisfaction with Park management.**

23. ACCESS

The objective is to provide and maintain a structured access system to a variety of coastal and inland features within the Park, while ensuring that Park values and Park users are not adversely affected.

Shelley Beach Road currently provides the only 2WD vehicle access in WCHNP. The remainder of the access routes in the Park have been developed on an unplanned basis over many years. This has led to an uncoordinated network of tracks (some poorly located) throughout the Park. The majority of these tracks have been put in place by 4WD vehicles, though horse riders and walkers have also contributed to the process. Work is well advanced to rationalise the access system in the Park by stabilising designated tracks and closing and rehabilitating the remainder. Track closures are necessary due to factors such as the risk of dieback disease spread, unnecessary duplication of tracks and severe erosion damage in some areas. Provision will be made for vehicle passing on narrow 4WD tracks at suitable locations.

Figure 8 indicates the proposed access system for the Park. Alignments shown in this Figure are indicative only. Field conditions may necessitate some modifications. In particular the path shown connecting the Shelley Beach recreation area with the lookout will have to be carefully assessed in view of the steep terrain and erodible soils in the vicinity. The Figure indicates that 2WD access will be available to Shelley Beach and to the ridge above Dingo Beach. If warranted by * levels, consideration will be given to upgrading the Lake William Road to a 2WD access during the life of this Plan.



ACCESS

Park Boundary	
2WD Access	
4WD Access	
Footpath	
Bridle Trail	

VEHICLE BASED ACTIVITY AREAS

Camping	
Observation - vista	
Hang-gliding	
Visitor Information	
Coastal Access - fishing	
- climbing	
- surfing	
- diving	
Parking	
Picnic-Gas BBQ	
Park entry point by vehicle	

W:

Southern Ocean

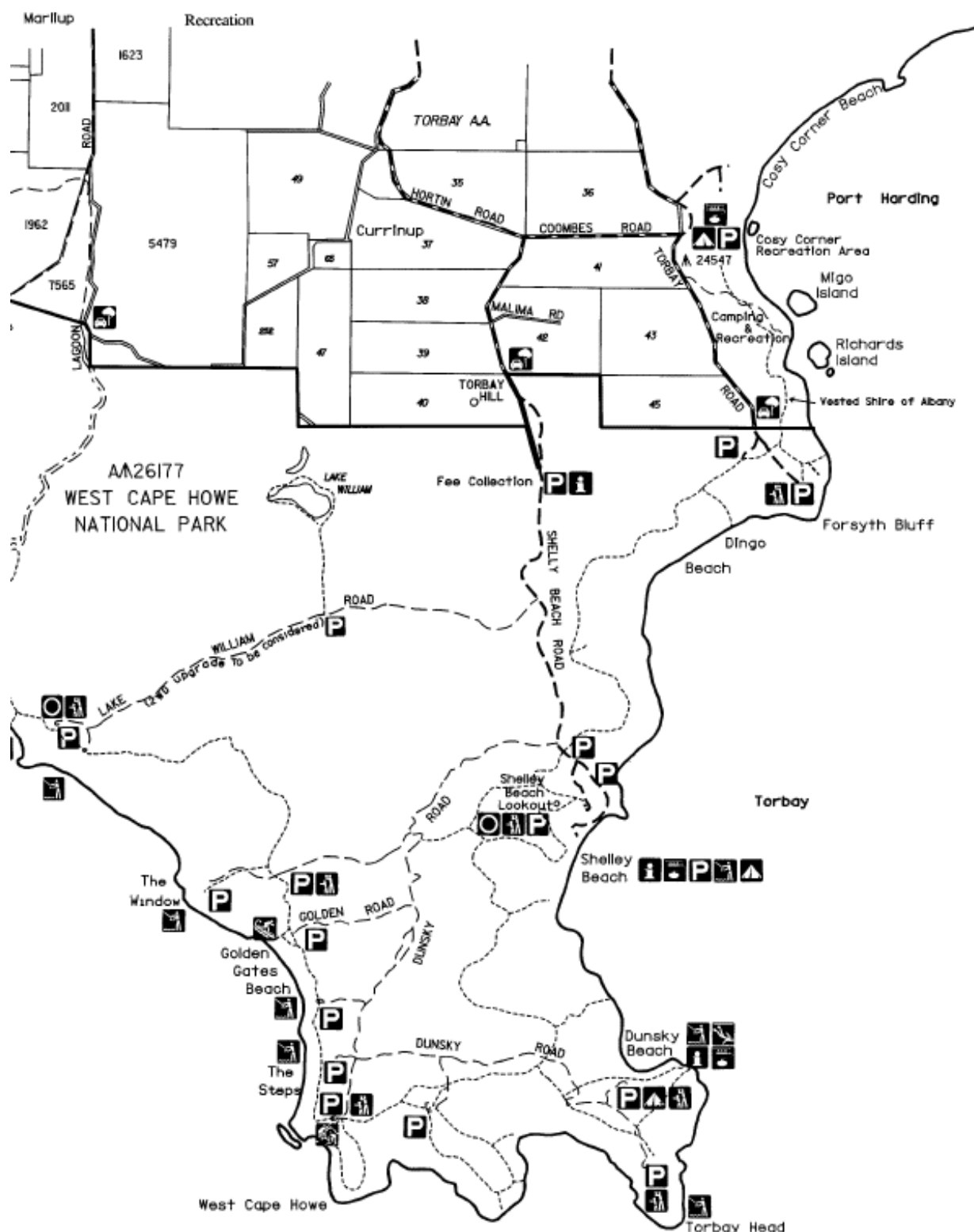


FIGURE 8

Due to site constraints, access for coaches, caravans and other large vehicles will only be provided to the Shelley Beach lookout area and the carpark on the ridge above Dingo Beach.

Progressive development of a path system is proposed to provide for bushwalking along the Park's magnificent coastline. It is essential that construction, maintenance and use of this path do not compromise Park values, for example by increasing the risk of dieback disease spread. For this reason the path sections from Dingo Beach to Shelley Beach and from Dunskey Beach to the western end of the Park will not be developed until their dieback disease status and susceptibility are clearly understood and techniques are available to ensure that disease is not inadvertently introduced into these susceptible areas of the Park. Due to their low disease susceptibility, the sections from Cosy Corner to Dingo Beach and from Shelley Beach to Dunskey Beach will be able to be developed when resources for construction and maintenance permit.

ACTIONS

- 1. Develop and maintain access routes as indicated in Figure 8.**
- 2. Ensure that access routes are developed and maintained to the highest practicable standard for each class of route and in ways which minimise both the risk of dieback disease spread and of other potentially detrimental impacts on flora and fauna.**
- 3. Close and rehabilitate all unnecessary access routes (as discussed in *Rehabilitation*) providing for vehicle passing on narrow 4WD tracks at suitable locations.**
- 4. Provide for beach access by vehicles to Shelley and Bornholm beaches only. Monitor the condition of the vehicle track to Bornholm Beach and investigate the possibility of stabilising this access route. Assess the viability of maintaining vehicle access to Bornholm beach on the basis of the track's condition during the life of this Plan.**
- 5. Consider upgrading the Lake William Road to a 2WD access during the life of this Plan if warranted by usage levels.**
- 6. Implement the relevant actions from other Sections of this Plan.**

24. DAY USE

The objective is to encourage enjoyment of the Park and understanding of its values through day use and to provide day users with information on the Park.

WCHNP is a popular destination for day use activities such as sightseeing, photography and picnicking.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.2, Day Use):**
 - (i) Provide facilities suitable for use by disabled visitors at appropriate locations throughout the Park.**
 - (ii) Minimise conflicts between the general public and commercial tourist operations.**
 - (iii) Maintain recreation sites in a safe, clean and tidy condition.**
 - (iv) Minimise impacts of day use recreation activities on nature conservation and aesthetic values.**
 - (iv) Provide information on opportunities for various types of day use recreation both in the Park and on other lands in the area.**

24.1. SIGHTSEEING / PHOTOGRAPHY

Coastal scenery including beautiful sandy beaches and spectacular cliffs, a range of vegetation types from local coastal heaths to Karri forest and inland lakes contribute to making WCHNP an excellent area for sightseeing and photography. Many management activities within the Park have the potential to impact on the visual and photogenic qualities of the area.

ACTIONS

- 1. Provide defined access to points from which to view major scenic attractions, either by vehicle or on foot (see Access).**

2. **Provide designated vista points accessible on foot, from which any visitors to climbing or hang gliding sites can view climbers and provide safety information at these sites. Direct visitors to vista points.**
3. **Provide information on points of scenic interest in the Park and provide interpretation at these points for visitors.**
4. **Consider the visual impacts of all Park operations, particularly those visible from scenic lookouts.**

24.2. PICNICKING

Picnicking is a traditional activity in most national parks either as a recreational pursuit in its own right or as an adjunct to other recreational activities. The most popular site for picnicking in WCHNP is at Shelley Beach as this site currently has the only 2WD access road and offers a grassy area as well as the beach itself. No picnic tables or barbecues have been provided at this site but there are toilets. Picnicking also occurs at other sites in the Park in conjunction with activities such as fishing and sightseeing. Picnickers frequently light fires in the Park to cook their meals.

ACTIONS

1. **Maintain low key day use sites at Shelley and Dunskey Beaches.**
2. **Prohibit campfires at Shelley Beach and at the day use area at Dunskey Beach and install gas barbecues at these sites.**
3. **Allow dispersed picnicking at other sites throughout the Park.**

25. CAMPING

The objective is to encourage low impact camping within WCHNP at designated sites which can be managed for this purpose on a sustainable basis.

Camping occurs regularly at several locations within WCHNP. The most popular camping area is at Shelley Beach and is used by hang gliders, fishers and other Park visitors. Fees are collected for camping at this site. Camping is also common at Dunskey Beach (fishers and divers), Bornholm Beach (fishers) and West Cape Howe itself (rock climbers). Elsewhere in the Park camping mainly occurs in

connection with bushwalking. At present, campfires are not encouraged in the Park due to the risk of wildfire and also damage to native vegetation during firewood gathering.

Toilet facilities are provided only at Shelley Beach at present. At Dunskey Beach, two old shacks have traditionally been used for accommodation. The shack which was concealed amongst the peppermints collapsed due to the effects of age and vandalism and has been removed from the site while the other is in a poor state of repair and is a conspicuous eyesore. Potential health problems due to a lack of toilet facilities require consideration at this and other locations used for camping in the Park.

Overcrowding of the Shelley Beach area occurs, particularly on long weekends and over the Christmas period, when hang gliders, recreational fishers and other Park users are camped while the commercial fishing camp is operating from this location. Damage to vegetation occurs at such times, causing site degradation and leading to enlargement of the cleared area. Overcrowding in other areas does not appear to be a problem.

Camping also occurs at Cosy Corner in the Shire of Albany recreation reserve on the eastern boundary of the Park (see Figure 2). A level, shaded area with a bitumen access road, toilets, picnic tables, gas barbecues and rubbish bins has been provided. Camping is prohibited between December 1 and March 1 to avoid overcrowding of the area during the peak day use season. Camping fees are payable to the Shire at their offices but are not actively collected at the campground. An excellent location upslope of the existing facilities area at Cosy Comer has the potential to be developed into a year round campground. Albany Shire has expressed an interest in developing this location as a camping area. Camping is also permitted at the Shire's Lowlands reserve which adjoins the western boundary of WCHNP (see Figure 2). Provision of camping areas within the Park should complement these existing facilities.

Approval has been granted for a commercial caravan park providing camping beside the Cosy Comer Motel on Cosy Comer Road. The possible development of this camping facility also needs consideration in planning for camping within the Park.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.1, Camping):**
 - (i) Ensure campgrounds are properly maintained and that environmental impacts are kept within predetermined limits.**
 - (ii) Permit campfires in designated areas only, where the risk of wildfire can be minimised.**

- (iii) **Maintain liaison with individuals and organisations who provide campgrounds on nearby or adjacent lands.**
 - (iv) **Provide information on camping opportunities.**
2. **Work with the Shire of Albany to develop the Cosy Corner campground to a high standard and to provide for camping all year round.**
 3. **Designate a limited number of campsites at Shelley Beach to ensure that the area is not further degraded by overuse by campers. Monitor the impacts of camping at the site and make any necessary modifications or close the site to camping if unacceptable negative impacts are found to be occurring on the environment or Park users.**
 4. **Continue to permit use of the Shelley Beach site for a commercial fishing camp subject to strict conditions as indicated in *Commercial Fishing*.**
 5. **Designate backpack campsites in the vicinity of West Cape Howe in accordance with Recommendation 5 in *Bushwalking*. Monitor useage levels and impacts in this area and if a clear demand exists, consider the designation of a low impact, concealed campground back from the coast.**
 6. **Designate a camping area at Dunskey Beach and permit camping on Bornholm Beach.**
 7. **Ensure the provision of facilities suitable for disabled campers in at least one campground in the Park.**
 8. **Provide and maintain, subject to the availability of community assistance, a public cabin for overnight accommodation at Dunskey Beach.**
 9. **Demolish and remove all evidence of the exposed shack at Dunskey Beach and rehabilitate the area.**
 10. **Permit backpack camping away from major facility areas, encouraging the use of designated backpack campsites (see *Recreation Facilities*).**
- It. Permit "overnight resting" in vehicles in designated parking areas along the coast from Bornholm to Dunskey beaches. "Overnight resting" is defined as sleeping in, or next to a vehicle provided neither tents nor any other external structures are erected.**

12. **Permit campfires for a trial period of one year on Bornholm Beach and at designated campgrounds (see *Recreation Facilities*) except Shelley Beach, in CALM approved containers (such as half 44 gallon drums). Wood (including kindling) free of seeds and soil must be brought in to the Park for this use. Closely monitor all impacts from the use of fires and extend the trial period or ban campfires on the basis of the results of monitoring.**
13. **Disallow all campfires on days of very high or extreme fire danger in compliance with the Bush Fires Act.**
14. **Provide gas barbecues at designated campgrounds (see *Recreation Facilities*).**
15. **Provide defined foot access from the Cosy Corner campground into WCHNP (see *Access*).**
16. **Provide rubbish bins at designated campgrounds if required (see *Recreation Facilities*).**
17. **Continue to collect camping fees in the Park, where feasible, to help offset the cost of provision and maintenance of facilities.**

26. NATURE APPRECIATION

The objective is to enhance the experience of visitors to the Park by providing opportunities to experience and appreciate its natural attributes.

With its wealth of physical and biological features contained within a relatively small area, WCHNP is a prime location for the observation of many natural phenomena. Many visitors to the Park will be keen to obtain information on its natural attributes.

ACTIONS

1. **Provide information on the physical and biological attributes of the Park.**
2. **Consider the construction of "hides" at quiet locations connected by sidepaths to the main path network.**
3. **Provide safe access to points of special natural interest where this can be achieved without threat to the resource itself (see *Access*).**

27. WATER-BASED RECREATION

The objective is to facilitate use of the Park for water-based recreation where this does not lead to degradation of the environment or unacceptable levels of conflict with other user groups.

Water-based recreation activities account for a large proportion of visitor use in WCHNP.

GENERAL ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.7, Water-Based Recreation):**
 - (i) Involve water-based recreation groups, interested community members and the Shire of Albany in planning for water-based recreation activities and publicise information such as access routes.**
 - (ii) Monitor the effects of water-based recreation on the environment and modify plans as necessary.**

27.1. RECREATIONAL FISHING

WCHNP has acquired a reputation as an important recreational fishing area offering both beach and rock fishing. Fishers come from all over WA and even interstate to catch a variety of species including salmon, shark and groper. Almost all fishing access is by vehicle at present with the main sites fished being Shelley, Bornholm and Dunskey Beaches and numerous sites around the area of the Cape itself. The majority of 4WD tracks to the coast in the Park are used for access to fishing spots.

Many fishers camp in the Park or rest in vehicles during the night, often lighting fires, particularly on beaches. Vehicles commonly drive onto Shelley and Bornholm beaches though not commonly onto Dunskey or Dingo Beaches due mainly to the difficulty of access. Vehicle access enables fishers to move up and down the beach with ease according to prevailing conditions.

Over-fishing could have an undesirable impact on the marine environment of WCHNP and discarded fishing tackle, bait containers etc. impact on Park fauna (especially birds) and scenic quality.

Recreational fishing is regulated under the Fisheries Act which is administered by the Fisheries Department. Through the South Coast Regional Management Plan, CALM has undertaken to liaise with the Fisheries Department to ensure the collation of known data on recreational fishing on lands and waters managed by CALM (such as spots fished, target species and fishing effort), with a view to minimising impacts and maintaining populations.

Restrictions on species able to be fished, bag limits etc. are detailed in the regulations and discussed in a publication entitled "The Future for Recreational Fishing. Final Report of the Recreational Fishing Advisory Committee", released by the Fisheries Department in 1991 after extensive community consultation.

ACTIONS

- 1. Continue to facilitate the responsible use of WCHNP by recreational fishers.**
- 2. Liaise with the Fisheries Department over the regulation of fishing activities in the Park.**
- 3. Provide vehicle access to major fishing spots as detailed in *Access*.**
- 4. Permit access to other fishing spots on foot.**
- 5. Permit camping at designated campgrounds (see *Recreation Facilities*) and resting in vehicles as detailed in *Camping*.**
- 6. Encourage recreational fishers to implement a "code of ethics" to minimise the impacts of fishing activities.**
- 7. Permit campfires as detailed in *Fire*.**
- 8. Alert fishers to the potential dangers of fishing from the southern coast.**

27.2. SURFING

Only one location in WCHNP, Golden Gates Beach, is currently used for surfing. Surfers access the beach by driving to an informal carpark above the beach and walking down to it.

ACTIONS

- 1. Provide vehicle access to the vicinity of Golden Gates Beach as detailed in *Access*.**
- 2. Develop a carpark area near the beach and a path down to it.**
- 3. Assess any requests for access to other surfing locations in accordance with Recommendation 4 of *Attractions and Existing Use*.**

27.3. BOATING

A small number of boats use the waters off WCHNP although no boat launching facilities are provided in the Park. The main users are fishers and divers, though some pleasure craft also use the Park. The most common point for boats to come ashore is Dunskey Beach. No moorings exist off-shore from the Park so boats must use anchors. This can cause damage to off-shore reefs.

Visitors arriving in the Park by boat will not have been exposed to any information provided within the Park.

ACTIONS

- 1. Facilitate the responsible use of Dunskey Beach for boating and liaise with the Department of Marine and Harbours, the Fisheries Department and the Environmental Protection Authority over the possible provision of mooring facilities in a suitable location off the beach.**
- 2. Liaise with the Department of Marine and Harbours, the Fisheries Department and the Environmental Protection Authority, concerning additional appropriate locations for the launching and mooring of boats as required.**
- 3. Provide information at Dunskey Beach concerning the Park and its proper use.**
- 4. Encourage the provision of information on appropriate use of natural areas at boat launching ramps and commercial outlets and by relevant recreational organisations.**

27.4. DIVING

WCHNP is considered a premier dive site in the Albany region for both snorkelling and scuba diving. Sponge and coral reefs off-shore are the main attractions. Most diving occurs off Shelley and Dunskey beaches with access mainly by vehicle, but on occasions by boat. CALM Policy Statement Number 18, "Recreation, Tourism and Visitor Services" states that spearguns and gidgies must not be carried in national parks. Local divers have expressed a desire to see spearfishing banned in the waters off WCHNP (Herford, 1989).

The South Coast Diving Club takes groups of up to 30 people at a time to Dunskey Beach for diving weekends, causing periodic overcrowding at the site. On these occasions, the club takes its own portable toilets to the site and divers camp or use the old shack for accommodation.

ACTIONS

- 1. Continue to facilitate the responsible use of WCHNP by divers.**
- 2. Provide vehicle access to Dunskey and Shelley Beaches as detailed in *Access*.**
- 3. Designate a camping area at Dunskey Beach as detailed in *Recreation Facilities*.**
- 4. Consider the provision of permanent mooring facilities off Dunskey Beach (see *Boating*).**
- 5. Request groups whose activities involve overnight stays for more than 10 people at Dunskey Beach to consider provision of their own portable toilets.**
- 6. Encourage the implementation of a "code of ethics" by diving groups to minimise the impacts of diving activities.**
- 7. Prohibit the carrying of spearguns, gidgies etc. within WCHNP.**
- 8. Provide information to divers discouraging spearfishing activities offshore from the Park and providing safety advice. This is to be available at Dunskey Beach as well as elsewhere (see *Boating*).**

28. ADVENTURE ACTIVITIES

The objective is to facilitate enjoyment of the Park for a range of adventure activities in a manner which minimises impact on other visitors and on Park values.

WCHNP provides excellent opportunities for a variety of adventure activities including bushwalking, rock climbing and hang gliding.

GENERAL ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.8, Adventure Activities):**

- (i) Recognise adventure activities to be legitimate forms of public recreation in WCHNP subject to protection of conservation values, safety and the enjoyment of other visitors.**
- (ii) Establish and maintain liaison with representative bodies of adventure activities to encourage "feed back" and advice on management and controls and to share knowledge of safety and rescue procedures.**
- (iii) Adopt codes of ethics for all adventure activities.**
- (iv) Consider the special requirements of remote area users (for example, scenic quality, feeling of remoteness, need for self-reliance).**

28.1. BUSHWALKING

Bushwalking has occurred in WCHNP at a relatively low level for many years. The Park offers some magnificent areas for bushwalking, in particular, the coastline and Lake William area. The Albany Bushwalking Club conducts walks in the Park on an infrequent basis and other groups and individuals make regular use of the area. "Back pack" camping is a feature of this use. The only formal bushwalking path in WCHNP is the Bruce Tarbotton Memorial Trail (1 kilometre in length), constructed by the Albany Bushwalking Club prior to gazettal of the Park.

Because of the lack of specific pedestrian access and the dense nature of the vegetation over much of the Park, bushwalking has traditionally been based on the network of 4WD tracks. This obviously has not facilitated access to areas free of vehicles and has led to safety concerns with walkers, including many school groups, using the same narrow track as vehicles. Accordingly, a path which parallels the Dunskey track and is located mainly on disused 4WD tracks has been developed from the end of the Bruce Tarbotton Trail out towards the Cape. Although this path has been developed as an interim measure, it is well used and could be considered as a permanent path providing it can be maintained in a satisfactory condition.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.8, Adventure Activities):**
 - (i) Encourage "low impact" bushwalking and camping.**

- (ii) Designate areas within the Park to provide for a range of bushwalking opportunities suitable for different users.
2. Progressively develop a varied system of paths within the Park, as resources for construction and maintenance permit. This is to be part of the Region's path network, distinct from tracks for vehicles or horses, as detailed in Access.
 3. Monitor the condition and level of use of the path which parallels the Dunskey track and consider maintaining it as a part of the path network or closing it on the basis of the results of monitoring, the availability of resources for maintenance and the development of alternative paths.
 4. Ensure that detrimental environmental impacts of construction, maintenance and use of the path system, including disease spread, are minimised by the use of appropriate path alignment, construction and surfacing techniques.
 5. Progressively designate preferred backpack camping areas along the path network on the basis of recreational pressures.
 6. Provide small carpark areas at designated vehicle access points on the path network.
 7. Install boot cleaning equipment at strategic locations along the path network to minimise the possibility of the spread of diseased soil on walkers' boots.
 8. Provide information on minimum impact bushwalking to Park users, including the use of boot cleaning equipment, maps of the path network, carpark areas, and locations of preferred camping areas.
 9. Signpost the path network.

28.2. ROCK-CLIMBING

The cliffs of WCHNP are widely considered to offer the best rock-climbing in WA and are nationally renowned. Height, aspect and quality of the climbs are all seen as exceptional by climbers who use cliffs around the Cape area itself as well as on the coast north of Shelley Beach to Forsyth Bluff. Access to climbing spots is mainly by 4WD vehicle though some groups walk in. Groups of climbers sometimes camp near the cliffs at West Cape Howe. Access for casualty evacuation may be required in the event of an accident.

Although not a common problem at present, non climbing spectators on cliff tops can pose a danger to climbers if they dislodge material or tamper with anchor points. Rock-climbing can give rise to negative visual impacts on cliff scenery due to placement of permanent anchor points and marking of climbing routes, although such actions are discouraged by climbing clubs.

ACTIONS

- 1. Provide defined access to climbing areas as detailed in Access.**
- 2. Designate backpack campsites in the vicinity of the Cape (see Camping).**
- 3. Require all rock climbers in the Park to adhere to the Climbing Association of Western Australia's "Code of Climbing Ethics".**

28.3. HANG GLIDING

This Section applies to hang gliding, para gliding and all other forms of recreational flight.

WCHNP has been used by hang gliders since 1976 and is regarded as the prime flying site in WA and one of the best in Australia. Gliders are launched from two sites in the Park - Shelley Beach lookout and the eastern headland above Bornholm Beach (known as "Back Beach"). Both sites are accessed by vehicle and they combine to permit flying in a broad range of wind conditions.

Hang gliders currently camp at Shelley Beach in numbers as high as 40 - 50 people during the peak season (Christmas - New Year) when up to 25 gliders are in use in the Park (Brad Cook, pers. comm., 1990). This coincides with peak use by other user groups. The existence of a base camp at Shelley Beach is very convenient and has safety implications as the beach is the emergency landing site for the lookout launch site and enables immediate assistance to be rendered by people in the camp to any pilot in trouble.

The activities of hang gliders are regulated by the Department of Civil Aviation, and are administered by the Hang Gliding Association of WA with whom all pilots must be registered.

Unregulated use of the Park by hang gliders could cause adverse environmental impacts and inconvenience to other Park users as the prime launch site is also a favourite destination for other visitors. Due to the physical requirements for taking off and landing with modern hang gliders, the safety of both pilots and sightseers could be compromised if unregulated access by vehicles continues at the Shelley Beach lookout. Tall signs or barricades at launch / landing sites can also pose a danger to hang gliders.

ACTIONS

- 1. Provide for priority use of Shelley Beach lookout by hang gliders at times when the safety of pilots or other Park users could otherwise be compromised. Close public vehicle access to the lookout at these times.**
- 2. Permit public vehicle access to the lookout when it is not in use by hang gliders.**
- 3. Provide an alternative public carpark in the vicinity of the lookout for use when the lookout road is closed and develop foot access from the carpark to the lookout.**
- 4. Require hang glider pilots to obtain a permit from the CALM District Manager for flying from Shelley Beach lookout. The permit may place restrictions on such factors as number of vehicles and level of impact at the site. Permission may be denied to craft or supporting activities which detrimentally affect Park values.**
- 5. Allow hang gliders to use the "Back Beach" area without obtaining a permit, unless detrimental impacts at the site or conflicts with other users become unacceptable.**
- 6. Provide vehicle access to the Shelley Beach lookout and "Back Beach" launch sites as detailed in *Access*.**
- 7. Modify the Shelley Beach area and lookout as specified in *Recreation Facilities*, to separate different uses and alleviate site congestion. Include provision of an improved launching area at the Shelley Beach lookout.**
- 8. Ensure that any signs or barricades at launch / landing sites are constructed as low as is practicable.**

29. MODEL AEROPLANE USE

The objective is to minimise the potential for conflict between model aeroplane use and other user groups, particularly hang gliders.

Radio controlled gliders have been flown from the Shelley Beach lookout for a number of years. The site is one of several in the Albany area which offers the benefits of height and suitable winds for this sport. Conflicts with hang gliders could occur when both groups wish to use the site at the same time.

ACTIONS

- 1. Permit the use of non-motorised model aeroplanes at the Shelley Beach lookout, except when the access road is closed to the public as specified in *Hang Gliding*.**
- 2. Permit the use of non-motorised model aeroplanes at the "Back Beach" area at all times.**
- 3. Do not require users of model aeroplanes to obtain a permit for flying in the Park unless detrimental impacts at the sites used or conflicts with other users become unacceptable, in which case permission may be denied to craft or support activities which detrimentally affect Park values.**
- 4. Prohibit the use of motorised model aeroplanes in the Park as specified in the Department's Recreation, Tourism and Visitor Services Policy (Number 18).**

30. MOTORISED RECREATION

The objective is to provide a defined and stable system of access tracks within the Park and to close and rehabilitate all other tracks.

Almost all users of WCHNP utilise vehicles to access destinations at which they carry out their particular recreational activity. Four wheel driving can also be recognised as an activity in itself. Unregulated access by 4WD vehicles over many years caused destruction of native vegetation and serious erosion throughout the Park. An unstructured network of 4WD tracks covered the Park and unconsolidated sands eroded badly on dunes. When tracks became difficult to traverse, vehicles made by-pass tracks and in places as many as seven or eight separate tracks existed side by side on one dune. As mentioned in *Access*, considerable work has been done since 1992 to define and stabilise many of these tracks.

As well as the problem inherent in 4WD use on sand dunes, it is widely believed by experienced Park users that many owners of 4WD vehicles are unfamiliar with procedures to minimise their impacts in such situations and are making the situation even worse. Unfortunately it seems that deflating of tyres immediately on engaging 4WD and use of low gears on hills, are practiced by only a minority of users.

In addition to serious erosion problems, 4WD vehicles have the potential to spread dieback disease within the Park by the movement of infected soil. Dieback disease has been positively identified at a number of sites within the Park (see *Plant Disease*).

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.3, Motorised Recreation):**
 - (i) Provide access for motorised vehicles on roads and tracks developed and maintained to Departmental standards.**
 - (ii) Manage vehicle access to ensure that recreational activities do not contribute to the spread of dieback disease.**
 - (iii) Direct motorised recreation to the most appropriate areas, close unsuitable roads and tracks and prescribe conditions of use which will minimise environmental and social impacts.**
 - (iv) Provide information on motorised recreation opportunities and responsible use of vehicles in natural environments.**
- 2. Provide roads for 2WD vehicles in the Park as well as tracks which are accessible to 4WD vehicles only (see Access).**
- 3. Provide access for caravans to the Shelley Beach lookout area and the carpark above Dingo Beach only.**
- 4. Reduce the risk of movement of soil infected with dieback disease by realignment, stabilisation or closure of tracks traversing dieback disease infected areas.**
- 5. Continue to provide information to Park users on appropriate 4WD techniques for coastal areas. This is to include "Code of the Cape" signs within the Park, brochures and information displays (see *Information, Education and Interpretation*).**
- 6. Liaise with local 4WD enthusiasts about the possibility of holding driver training courses.**
- 7. Rehabilitate all closed tracks within the Park.**

31. HORSE RIDING

The objective is to facilitate enjoyment of WCHNP by horse riders by providing designated trails for horses while minimising any negative impacts on the Park environment or other visitors.

WCHNP and the surrounding areas have been used by horse riders for many years. The combination of natural settings, soft tracks and comparative lack of vehicles make the Park an attractive venue. Numerous people living close to WCHNP own horses.

There is considerable debate within the community on the issue of access by horses to national parks. They have traditionally been ridden in many natural areas but can cause a number of detrimental impacts on the environment. Although to a lesser extent than 4WD vehicles, horses have the capacity to cause similar erosion problems and to spread dieback disease by picking up infected soil in their hooves. This is of particular concern because of the ease with which horses can move off established roads and trails. Horse droppings and feed can introduce weeds into natural areas and impact on the "wilderness experience" of other users. If not controlled horses will also browse native vegetation.

Safety issues must also be considered. Horse riders and people in vehicles can both be endangered if uncontrolled access on roads is permitted. Horses can also pose a threat to walkers on narrow tracks.

Numerous management techniques are available to minimise the potential occurrence of detrimental impacts on Park values as a consequence of horse riding. The designation of particular access routes as "bridle trails" can overcome potential conflicts between horses and vehicles and between horses and walkers. By careful choice of stable alignments, the scope for water and wind erosion on bridle trails can be considerably reduced. Proper attention to the design of drainage systems to prevent the flow of stormwater along the trail alignment will also considerably reduce erosion problems. Biological surveys and choice of alignment can ensure that individual populations of vulnerable flora and/or fauna are avoided. As in the case of vehicle tracks, the provision of a hardened, free-draining trail surface will eliminate "ponding" of water and thus minimise the risk of moist soil adhering to the hooves of horses and providing the opportunity for the spread of dieback disease.

As with any recreational activity, the co-operation of the users themselves is an essential element of the management of their activities in natural areas. Assistance from horse riding enthusiasts with the construction, monitoring and maintenance of bridle trails will be an important element in their successful operation. Similarly, a self regulatory approach to riding in the Park coupled with ranger presence will assist in overcoming the criticism that horse riding activities are more difficult to regulate than other recreational pursuits. Only if these measures fail should it be necessary to consider excluding horse riding from WCHNP.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.5, Horse Riding):**
 - (i) Provide for horse riding where it is environmentally acceptable and compatible with other uses.**
 - (ii) Manage approved trails to minimise the environmental impacts of horse riding.**
 - (iii) Provide information on trails available for horse riding including alternatives to WCHNP.**
- 2. Permit horse riding in the Park on designated trails only (see *Access*), subject to equestrian groups and individual riders providing financial and other assistance with the planning, monitoring and maintenance of horse trails, tethering areas and watering points.**
- 3. Ensure that designated horse trails are constructed and maintained according to strict dieback disease hygiene principles.**
- 4. Require horse riders to implement a "code of ethics" to minimise the impacts of their activities in the Park.**
- 5. Monitor the impacts of horse riding and make any necessary changes to management of the activity or exclude it from the Park if environmental or social impacts are found to be unacceptable.**

32. PETS

The objective is to protect the Park and its visitors from the negative impacts of pets.

Domestic pets are not permitted in national parks except where specified zones are created. There are a number of reasons for this, including disturbance to wildlife and to park visitors, potential for introduction of disease and fouling of recreation sites. Because of the small size of WCHNP and its high wildlife values, it would be inappropriate for pets to be allowed in the Park.

Guide dogs for the blind and tracker dogs for use in search and rescue operations are permitted in all national parks.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.6, Pets):**
 - (i) Provide information explaining the Departmental policy on pets to the public and enforce it as necessary.**
- 2. Continue to disallow pets in WCHNP.**
- 3. Continue to allow guide dogs for the blind and tracker dogs for use in search and rescue operations in the Park.**

33. RECREATIONAL FACILITIES

The objective is to encourage low impact recreation and to minimise conflict between user groups.

Few recreation facilities currently exist in WCHNP. The major recreational areas are located along the coast and centre mainly on the beaches (Dingo, Shelley, Dunskey, Golden Gates and Bornholm) and other fishing and climbing locations. The major exception is the Shelley Beach lookout. As indicated in *Regional Context*, it is proposed to maintain WCHNP as a "minimum facility, minimum impact" recreation area in order to complement other recreational opportunities in the vicinity. With this objective in mind, recreational facilities (apart from access routes, carparks etc.) are to be provided at Shelley Beach, Shelley Beach lookout and Dunskey Beach. This is indicated in Figure 8.

Concept development plans for Shelley Beach, Shelley Beach lookout and Dunskey Beach are shown in Figures 9, 10 and 11. As the name implies, these are concepts only. Detailed development plans will be produced prior to redevelopment of the sites. Due to the limits on available space at these sites, their capacities may still be exceeded at peak useage times.

ACTIONS

- 1. Provide minimal facilities at the main recreation sites in the Park as indicated in Figures 9, 10 and 11.**
- 2. Ensure that facilities are developed and maintained in ways which minimise both the risk of dieback disease spread and of other potentially detrimental impacts on flora and fauna.**

- 3. Provide access to other sites including (where appropriate), carparks and viewpoints but no other facilities (as indicated in Figure 8).**
- 4. Monitor the need for additional facilities resulting from changes in visitor use and provide them if warranted subject to assessment of their likely impact.**
- 5. Implement the relevant actions from other Sections of this Plan**

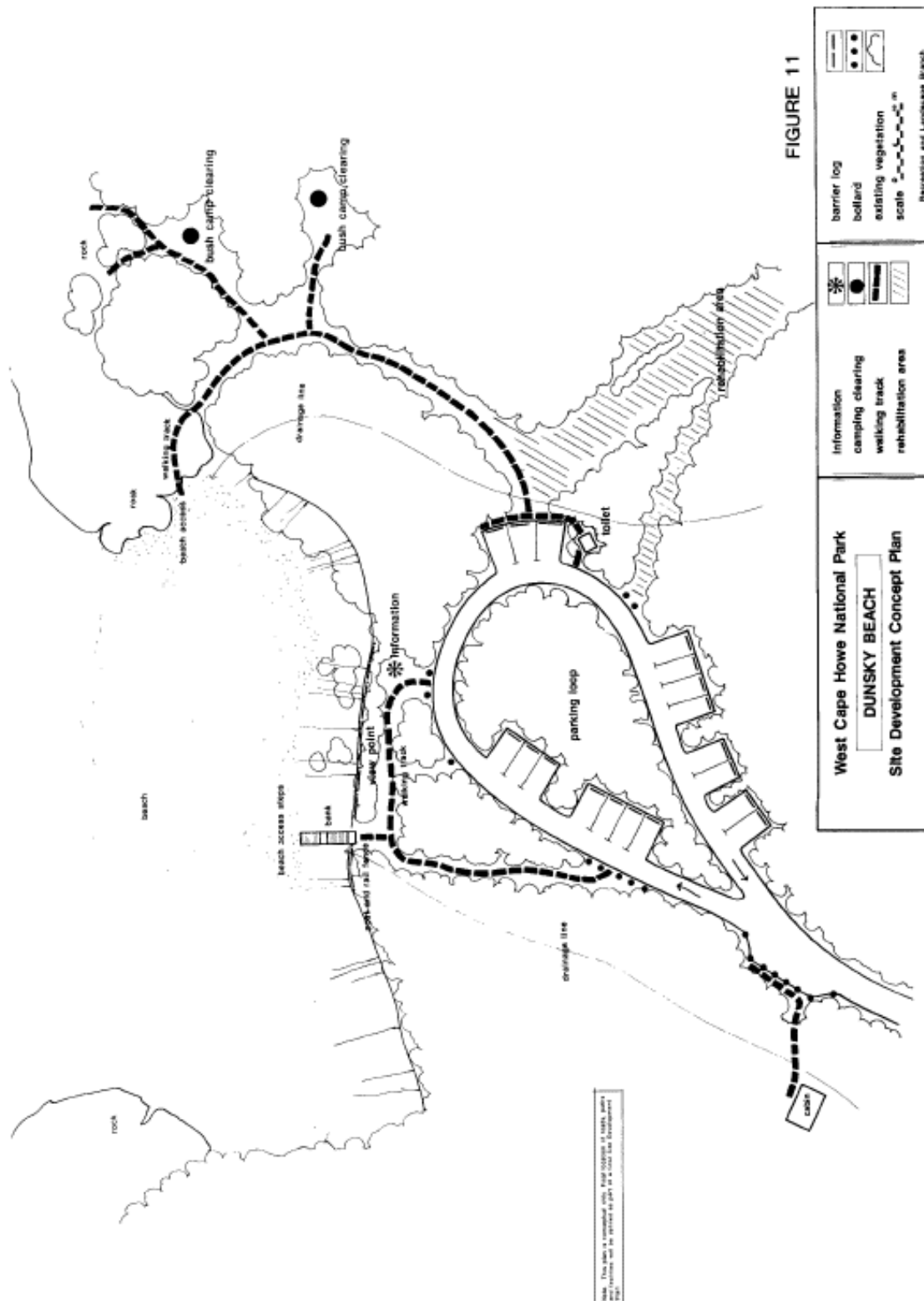


FIGURE 11

34. VISITOR SAFETY

The objective is to minimise risks to Park visitors using methods which do not unnecessarily detract from Park values.

In addition to the dangers inherent in any natural area, the southern coastline of WA poses some particular potential safety problems for Park visitors who must be made aware of their existence. The cliffs of WCHNP although scenically spectacular, are also potentially dangerous to visitors. "King waves" and heavy swells, features of the Southern Ocean, also pose a potential threat to the safety of visitors. Arrangements for co-operation between CALM, the Police and the State Emergency Service in the Albany area are detailed in an inter-agency agreement entitled "National Parks and Nature Reserves on the Albany Coast - Management Guidelines for Visitor Safety". These guidelines are revised annually. Rescue equipment is held by the State Emergency Service, however CALM maintains some equipment at Torndirrup National Park and this is available, if required in WCHNP.

Several "high risk" recreational activities are carried out in WCHNP. These include rockclimbing, hang gliding and diving.

As in all parks, roads can also pose a potential safety problem. Narrow 4WD tracks over crests can be particularly dangerous. In addition, the section of Shelley Beach Road which traverses the Karri forest at the northern end of the Park is narrow and winding with a number of trees obstructing the vision of drivers. The intersection of Shelley Beach Road and the road to Shelley Beach lookout is potentially hazardous. Wildfire in the Park may also pose a threat to safety and may necessitate the evacuation of visitors.

Management actions to reduce safety hazards should, if possible, be planned in sympathy with the purpose of the Park and should not intrude unduly on the experience of visitors.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 14.10, Visitor Safety):**
 - (i) Encourage visitor safety and safe working practices for CALM personnel within the Park.**
 - (ii) In liaison with the Police Department, prepare plans for dealing with accidents and search and rescue operations.**
 - (iii) Provide information for visitors which highlights potentially hazardous areas and activities.**

- (iv) Regularly inspect roads and recreation areas to ensure that potential hazards are identified and either removed or avoided by relocation of the facility.
 - (v) Provide basic rescue equipment and staff training so as to be able to assist the Police in emergency situations.
 - (vi) Ensure that permits (where used) are strictly adhered to. Otherwise encourage voluntary registration before participants embark upon adventure activities in areas away from roads or other facilities.
- 2. Design recreation facilities to ensure that potential risks to visitors and the impact of safety measures on Park values are minimised.
- 3. Remove the two karri trees obstructing the view of drivers on Shelley Beach Road.
- 4. Utilise existing roads and tracks for evacuation (see *Access*).
- 5. Prepare an evacuation plan for the Park.
- 6. Ensure that any potentially dangerous roads and tracks in the Park are signposted, realigned or closed as appropriate (see *Access*).

COMMUNITY RELATIONS

35. INFORMATION, EDUCATION AND INTERPRETATION

The objective is to increase community enjoyment, awareness and understanding of the values and management of WCHNP and to encourage responsible use of the Park.

The provision of information in national parks serves two main functions. The first is to increase the general level of awareness and understanding in the community of the value of natural areas. The second is to provide an opportunity for dissemination of information about appropriate use of these areas. WCHNP, like all national parks, can play an important role in these processes which are essential to the achievement of Departmental and specific Park objectives.

Information can be provided through numerous avenues both in the Park and more generally within the community. Currently (1994) little information is available on the Park and there are no regular interpretive programs. Educational group programs are discussed in *Educational Groups*.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 15.1, Community Education and Interpretation):**
 - (i) Liaise closely with other agencies, organisations and individuals (such as tourism agencies, schools and museums), who have similar interests in the interpretation of the Park.**
- 2. Develop and progressively implement an "information, education and interpretation plan" for WCHNP incorporating elements which include:**
 - Information displays at key sites.**
 - Interpretive programs or facilities (guided or self-guiding).**
 - Signs and brochures providing information on features and use of the Park and interpreting its environment.**
 - Media coverage of specific issues.**
- 3. Develop an information facility in conjunction with the proposed Park entry station on Shelley Beach Road.**
- 4. Incorporate information on a range of subjects as detailed in actions contained in other Sections of this Plan.**

36. EDUCATIONAL GROUPS

The objective is to facilitate use of the Park by educational groups in a way which minimises their impact on the Park environment and other Park users.

WCHNP, like all national parks, is a valuable educational resource. Both children and adults have the opportunity to learn about natural areas from engaging in activities in the Park.

The Woodbury Boston Environmental School, located near the Park, makes regular use of WCHNP in its educational program. Groups of up to 60 children are taken into the Park for a range of nature-based educational activities. The main areas of the Park used by these school groups are Shelley Beach, Lake William, West Cape Howe itself and Golden Gates Beach. Children are transported into the Park by 2WD bus and walk to each destination. A 4WD support vehicle carries the necessary supplies and equipment and provides evacuation capability in case of an emergency. The program includes activities to increase knowledge and understanding of the environment and to develop self awareness. Appreciation of danger is an important component of some activities.

Use of the Park for educational purposes is in accord with Departmental philosophies and assists in increasing awareness of the natural environment.

ACTIONS

- 1. Liaise with educational groups using the Park (in particular the Woodbury Boston Environmental School) to review the components of educational programs.**
- 2. Provide assistance to educational groups where possible.**
- 3. In liaison with program coordinators, modify any educational activities which may be having a detrimental impact on the Park environment or Park users.**
- 4. Provide information to educational groups which highlights potentially hazardous areas and activities.**
- 5. Consider the impact of any proposed Park management activities on educational programs.**

37. LIAISON AND COMMUNITY INVOLVEMENT

The objective is to seek the participation of organisations and individuals in the management of WCHNP both through the interchange of ideas and through the active involvement of community members.

Numerous organisations and individuals have a keen interest in the management of WCHNP. State and local Government agencies, local residents, Park users and conservation groups all have views concerning the management of the Park. Although these users have been actively canvassed during the management planning process, continuing liaison is essential to enable Park management to be compatible with the objectives and practices of land managers in the area and responsive to community preferences.

The process does not stop with the expression of views. Many groups and individuals have also become actively involved in Park management by working as volunteers. The Department is keen to facilitate such assistance and has a Community Involvement Co-ordinator based in Perth and a nominated volunteer co-ordinator in the South Coast Region. The involvement of community groups will form a valuable part of the implementation of this Management Plan.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 15.2, Community Involvement):**
 - (i) Continue existing involvement with local individuals and organisations with an interest in conservation and land management.**
 - (ii) Seek regular "feed back" from the community on Departmental policies and management practices through both formal and informal contacts.**
- 2. Seek to ensure compatibility between the management of lands in the vicinity of the Park and the management of the Park itself.**
- 3. Actively involve community groups and individuals in Park management.**
- 4. Identify actions within this Management Plan which can be implemented by involving the community.**

COMMERCIAL AND OTHER USE

38. COMMERCIAL VISITOR SERVICES

The objective is to utilise commercial operations to assist in the provision of quality visitor services where these are compatible with the goals for the Park.

The use of national parks by significant numbers of visitors creates commercial opportunities associated with the provision of visitor services. These can provide increased opportunities to visitors while saving Departmental resources, but must be compatible with the purpose and goals of the Park. They must also be managed to ensure maintenance of standards etc. Fees are charged for use of Departmentally managed lands by commercial operators.

Some commercial operators are currently making use of WCHNP. Interest has also been expressed in the operation of commercial 4WD tours to the Park though no formal proposals have been received. This would provide access to parts of the Park inaccessible to 2WD vehicles. No other specific suggestions have been made to date concerning commercial visitor services but it is likely that within the life of this Plan other ideas will be generated. The operators of such services can provide a useful point of contact with Park visitors.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 16.10, Tourist Operations and Other Concessions):**
 - (i) Require all commercial tourist operators wishing to make use of the Park to obtain the appropriate level of licence and to pay the necessary fees for their activities.**
 - (ii) Protect the Park from any undue environmental impact caused by concession activities and require operators to adopt safe procedures for the activities they provide.**
 - (iii) Ensure commercial operators maintain appropriate standards with respect to information and quality of service provided.**
 - (iv) Identify the sustainable level of tourist operator use where concessionaires wish to operate, monitor the impacts and regulate activities as required.**
 - (v) Establish and promote regular contact with tour operators so that they are kept abreast of regional and local management initiatives, developments and road conditions.**

- (vi) **Evaluate proposals for retail concessions according to Departmental policy and permit their establishment where appropriate.**
- 2. **Consider licensing commercial operators to provide 4WD tours to locations within the recreation zone which are inaccessible to 2WD vehicles.**
- 3. **Consider licensing other commercial operations where they are compatible with this Plan and the proper maintenance of Park values.**

39. COMMERCIAL FISHING

The objective is to minimise the potential for conflict between commercial fishers and other Park users while recognising that the operation is of interest to visitors.

Licensed commercial fishing for salmon began from Shelley Beach in the 1960s (D. Coombe, pers. comm., 1989). Shelley Beach is a Proclaimed Fishing Zone under the Fisheries Act and commercial fishing continues today. One licensee operates from within the Park, fishing for both salmon and herring. Other beaches in the Park may have potential for commercial fishing if access were to be improved. Two other commercial fishers are licensed to fish for herring from the Park but have not conducted operations to date (1994). The Fisheries Department is responsible for the administration of fishing licences, however as detailed in CALM's Policy Statement number 51 "Access for Commercial Fishing through CALM Lands", a CALM permit is required to transport the catch across a national park.

Through the South Coast Regional Management Plan, CALM has undertaken to liaise with the Fisheries Department to ensure the collation of known data on commercial fishing on lands and waters managed by CALM (such as spots fished, target species and fishing effort), with a view to minimising impacts and maintaining populations.

The existing fishing operation is concentrated at the southern end of Shelley Beach, though salmon were caught at the northern end of the beach for the first time in 1989 (D. Coombe, pers. comm., 1989). Fish must be transported along the beach and loaded into trucks at the northern end for transport to the processors and vehicle access onto and along Shelley Beach is therefore required. A pilot vehicle is used to warn visitors of the approach of the trucks on Shelley Beach Road.

Under the Fisheries Act, commercial fishing is a priority use at Shelley Beach from 15 February to 30 April during the peak of the salmon migration. The commercial fishers normally operate within the Park from February to April or May each year although on infrequent occasions, through the salmon "back run", opportunistic fishing takes place well after May. The main fishing period coincides with much of the peak visitor use of the Park. A fisher's camp consisting of a number of

caravans is located at the Shelley Beach recreation site during the season. Although considerable improvements have been made in recent years, this still detracts from the aesthetics of the site and creates congestion.

As the fishing operation is located at the most popular recreation site in the Park, it leads to overcrowding of the Shelley Beach site on occasions and potential competition with recreational fishers and other visitors. Vandalism of fishing equipment has also occurred infrequently in the past. The commercial fishing operation at Shelley Beach is, however, a feature of interest to Park visitors.

Abalone fishing licences also exist for waters off WCHNP.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 16.9, Commercial Fishing):**
 - (i) Develop working arrangements with the Fisheries Department and the commercial fishers who operate in the Park.**
 - (ii) Continue to require the commercial fishers to hold a Departmental permit for access through the Park and use of the operational base.**
 - (iii) Specify conditions under which the commercial fishing camp will be permitted in the Park and minimise its impact.**
- 2. Re-design the Shelley Beach recreation area as detailed in *Recreation Facilities* to maximise separation of the commercial fishing operation from other uses at this location.**
- 3. In conjunction with the licensee, develop guidelines covering the number, nature and location of accommodation, vehicles etc. to be located at Shelley Beach.**
- 4. Remove the commercial fisher's lookout from the hill above Shelley Beach but seek to establish a small parking bay on the seaward side of the road to provide for a lookout vehicle.**
- 5. Encourage the commercial fishers to land fish at the southern end of Shelley Beach to minimise conflicts with other beach users.**
- 6. Formalise the requirement for use of a pilot vehicle in front of fish trucks by inserting it as a condition on the commercial fishing permit.**

7. **Oppose the granting of any additional commercial fishing licences proposed to operate from a base in the the Park.**
8. **Assess requests for the transport of commercial fishing catches through the Park in accordance with CALM's Policy statement Number 51 "Access for Commercial Fishing through CALM Lands" and the goals and objectives of this Management Plan.**
9. **Consider provision of interpretive information on the commercial fishing operation at Shelley Beach.**

40. GRAVEL AND INDUSTRIAL MINERALS

The objective is to minimise the impact of the extraction of gravel and industrial minerals on Park values and to ensure satisfactory rehabilitation of all pits within the Park.

Gravel and industrial minerals, particularly for use on roads, have been extracted from within the area of WCHNP for many years. Both gravel and limestone have been extracted for this purpose, though gravel resources within the Park are of poor quality consisting of weathered granite.

There are two areas within the Park from which gravel has been extracted for the construction and maintenance of Shelley Beach Road. In the case of the pit on the east side of the road near the Lake William turnoff, gravel extraction has been completed, but the site has not yet been rehabilitated. It is visible from many places throughout the Park. The other, to the west of the road on the Park's northern boundary was the subject of an agreement with the Shire of Albany pre-dating gazettal of the National Park. Cabinet had endorsed the excision of an area and its vesting in the Shire for the purpose of "gravel". Albany Shire has now indicated that it does not wish to pursue gravel extraction in this part of the Park and thus the excision will not proceed.

The poor quality of gravel within the Park causes problems on Shelley Beach Road which is prone to pot-holing and erosion. Gravel will continue to be required for the upgrading and maintenance of this road and may need to be obtained from higher quality sources outside the Park. Extreme caution is required to ensure that gravel from within or outside the Park boundaries is free of dieback disease to avoid further spread of the disease within the Park (see also *Plant Disease*).

There are no operating limestone pits within the Park though a number of small industrial pits are located near the northern boundary. Crushed limestone has been used to stabilise some sections of the Park road system and has been very successful. Further material for this activity may be required. Albany Shire has expressed interest in obtaining access to limestone from an area at the western end of the Park. CALM will continue negotiations with the Shire over this proposal.

Rehabilitation of gravel and limestone pits is covered in *Rehabilitation*.

In 1979 before gazettal of the Park, a firm of monumental stone masons in Albany sought the right to quarry dolerite (known locally as "black granite") from the cliff tops on the Cape. Samples of material were taken for testing but showed a high degree of jointing making it unsuitable for use in the monumental stone industry. There was also very strong public opposition to mining in the area. The policy of the Association of Mining and Exploration Companies is that no industrial materials should be sought from the National Park if sufficient resources are available in the surrounding region.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 16.5, Gravel and Industrial Minerals):**
 - (i) Assess all requests for access to gravel and industrial minerals in the Park within the context of Departmental policy.**
 - (ii) Ensure that correct rehabilitation procedures are undertaken at extraction sites at the expense of the extracting agency.**
- 2. Wherever practicable, obtain supplies of gravel and industrial minerals from outside the Park boundaries.**
- 3. Where this is not practicable, identify suitable sources of gravel and industrial minerals within the Park, develop an extraction / rehabilitation plan and minimise the impacts of extraction on the Park's physical, biological, cultural and visual resources.**
- 4. Ensure gravel and industrial minerals used within the Park do not contribute to the spread of dieback disease.**
- 5. Liaise with the Shire of Albany concerning their request for access to road-making materials in the Park. Seek to minimise visual and environmental impacts should such access be granted and ensure complete rehabilitation of any area affected as specified in *Rehabilitation*.**
- 6. Consider bitumenising Shelley Beach Road if maintenance costs of the gravel road exceed funds available.**

41. MINERAL AND PETROLEUM RESOURCE DEVELOPMENT

The objective is to protect WCHNP through implementation of Government Policy on mining and exploration in national parks.

Any proposal for mineral resource development in WCHNP would be governed by the provisions of the Mining Act (1978). Interest was once shown in ilmenite deposits at Dingo Beach but an application to mine was refused (A. R. Main, pers. comm., 1989).

The Park is closed to petroleum resource development unless specially declared open for exploration or production under the Petroleum Act. On the basis of currently available data, areas within and off-shore from the Park are not considered at all prospective for petroleum deposits (Smurthwaite, pers. comm., 1992) and there are no current (1994) applications for petroleum exploration in the area.

As WCHNP is small in area (3 517 ha), any mining or exploration activity in the area would be likely to have a significant impact on the Park. Gravel, sand and stone extraction are covered in *Gravel and Industrial Minerals*.

ACTIONS

- 1. Liaise with the Environmental Protection Authority, the Department of Minerals and Energy and the mining industry over any proposals for mineral or petroleum resource development which may affect the Park.**
- 2. In view of the Park's small size and scenic beauty, oppose any mineral or petroleum resource development activity which would have a deleterious impact on Park values.**

42. OTHER COMMERCIAL RESOURCE UTILISATION

The objective is to protect the natural and cultural values of the Park from degradation by any commercial resource utilisation.

Although at present (1994) there are no proposals for further commercial resource utilisation in WCHNP, it is possible that during the life of this Plan, new proposals will emerge.

ACTIONS

- 1. Assess any proposal for further commercial resource utilisation in WCHNP.**
- 2. Apply stringent environmental controls to any such operations which may be approved within the Park.**

43. GROUP TRAINING

The objective is to minimise the impacts of group training exercises on the Park environment and other Park users.

WCHNP is used on occasions as a venue for military and rescue training. Rope training exercises (rock climbing and abseiling) are the most common, although more general field training is also conducted. These exercises can involve the use of large vehicles to transport personnel in the Park. Approval to conduct exercises must be obtained from CALM.

The Park is also occasionally overflown by low-flying jet aircraft which create a disturbing sound and pose a potential safety hazard for hang gliders.

ACTIONS

- 1. Implement the following strategies adapted from the Regional Management Plan for the South Coast Region, 1992 (Section 17.6, Group Training Exercises):**
 - (i) Permit group training to occur in the Park only where there is no other acceptable alternative for these specific activities, and where impact on other visitors and the environment is minimal.**
 - (ii) Continue to approve specialist training activities (such as rock climbing and rescue) subject to:**

- a) **Selection of areas where any environmental impacts and impacts on other Park visitors are at acceptable levels.**
 - b) **Sharing of knowledge with regard to rescue techniques with Departmental staff.**
 - c) **Full acceptance of risk by the co-ordinating organisation.**
- (iii) Ensure that activities do not impose long term environmental threats (such as dieback disease spread), to the Park.**
- 2. Issue permits detailing the conditions which apply to use of the Park for group training.**
- 3. Seek agreement from military authorities to avoid overflying the Park and its environs with low-flying aircraft.**

RESEARCH AND MONITORING

44. RESEARCH AND MONITORING

The objective is to improve knowledge of Park resources, values, processes and human impacts so that management practices can be objectively evaluated and then refined if required.

Effective management practices must be based on a sound knowledge of Park resources and values. Although a considerable volume of research data is available for WCHNP, it is imperative that research continue and that the success of management strategies be monitored.

Further research is required and in particular, in the areas of Park fauna; impacts of fire on the Park flora and fauna; impacts and control of plant diseases; ethnographic and archaeological significance of the Park; the Park's marine environment; and visitor use patterns, perceptions and impacts.

CALM staff will continue to research and monitor various aspects of the Park, but other organisations and individuals can also provide valuable expertise and resources for this important task.

ACTIONS

- 1. Actively encourage research by CALM staff and others into all aspects of the Park relevant to its management. Refine management practices on the basis of improved knowledge.**
- 2. Monitor the impact of Park management practices assessing them against defined criteria, evaluate their success in achieving objectives and refine them where required.**
- 3. Seek the participation of volunteers in research and monitoring programs in the Park.**
- 4. Monitor the impacts of all visitor activities in the Park and make any necessary changes to management practices if unacceptable impacts are found to be occurring.**
- 5. Implement the relevant actions from other Sections of this Plan.**

IMPLEMENTATION

45. MANAGEMENT PRIORITIES

The objective is to assign priorities to the actions detailed in this Plan and to implement them in order of priority as resources permit.

It will not be possible for the Department to implement all management actions detailed in this Plan at once and thus priorities will have to be assigned. The rate of implementation will be dependent on the availability of funds and staff for WCHNP and every effort needs to be made to attract resources. Priorities may need to be re-assessed as circumstances, including the availability of these resources, change.

ACTIONS

- 1. Seek resources for the implementation of this Plan as detailed in *Staffing* and *Funding*.**
- 2. Assign priorities to the management actions detailed in this Plan and implement them in order of priority, subject to availability of resources.**
- 3. Review priorities periodically and make any necessary changes.**

46. STAFFING

The objective is to provide sufficient staff for WCHNP to enable successful implementation of this Plan.

There is currently (1994) no permanent ranger in WCHNP. During the summer period (November to Easter), a mobile ranger is stationed in the Park but for the remainder of the year, it is normally serviced by rangers from Torndirrup National Park who travel to WCHNP on a periodic basis to carry out Park works, maintain facilities and conduct patrols. Park users have expressed a strong desire to see a permanent ranger presence in the Park.

Other staff from the Department's Albany office make infrequent visits to WCHNP.

Specialist staff (such as dieback disease interpreters, research biologists, fire specialists and recreation planners) visit the Park to examine specific management issues and to conduct research.

Successful implementation of this Plan will require a far greater management input from rangers and other staff than is available at present. Manual workloads and patrol and liaison duties will increase significantly.

ACTIONS

- 1. Seek the immediate appointment of a permanent ranger for WCHNP and consider providing accommodation within or immediately adjacent to the Park, ensuring a full time Departmental presence.**
- 2. Continue to utilise specialist Departmental staff as required.**
- 3. Provide staff with adequate fire fighting and other equipment as well as sufficient storage facilities in the Park.**

47. FUNDING

The objective is to obtain sufficient funds to enable the effective implementation of this Plan.

As well as requiring staff (see *Staffing*), the successful implementation of this Plan will require the provision of additional funds for WCHNP. Current budget allocations for the Park will be insufficient to initiate development of any of the new proposals in this Plan or to ensure adequate levels of maintenance in the future.

The Department's Policy on Recreation, Tourism and Visitor Services (Policy Number 18) states that whenever possible, fees will be collected from users when a service or opportunity is provided, as long as the benefit to the Department exceeds the cost of collection. Fees collected in WCHNP could be used to partially offset the costs of management and provide funds for provision of the facilities and services proposed in this Plan. The level of fees collected will influence the rate at which the actions in this Plan can be implemented.

As indicated in *Management Priorities*, the actions contained within this Plan will be implemented in priority order as resources permit, however urgent management actions will require an early injection of funds into the Park, followed by a continuing allocation to ensure further implementation and maintenance is possible.

ACTIONS

- 1. Actively seek a significant initial increase in the budget allocation of WCHNP to enable urgent completion of priority management actions.**
- 2. Seek funding from the Main Roads Department and other appropriate sources for proposed works on roads and tracks (see *Access*).**

- 3. Install a fee collection station at the entrance to the Park and collect fees for camping and other activities and services when feasible. Use the funds collected to assist with improving and maintaining Park facilities and services.**
- 4. Seek revenue from external sources including special grants and sponsorship.**
- 5. Continue to seek budget allocations for WCHNP sufficient to ensure the implementation of actions in this Plan.**

REVISION

48. TERM OF THIS PLAN

This Plan will direct management of WCHNP for a period of 10 years, the maximum permitted under Section 55.1 of the CALM Act.

49. EVALUATION

Continuous evaluation of this Plan will take place during its 10 year life. Factors such as success of the management actions, scientific research advances and changes in community attitudes will be considered in this evaluation. The need for changes in management of the Park will be assessed on the basis of the evaluation.

50. UPDATING

Should significant changes to this Plan be required during the 10 year period of its currency, public comment on the proposed revisions will be sought. At the end of the 10 year period, the Plan will be entirely revised, a process which will include full community involvement as for preparation of the initial Plan.

The revision of the Plan will involve consideration of the suitability of the many actions put forward in this Plan. One important issue to be further considered in the second 10 year Plan for the Park will be the zoning. The zoning plan contained within this Plan will need to be evaluated in terms of its success in separating the widely differing needs of visitors (from 2WD accessibility to non-motorised access only). It may be necessary to consider the longer term suitability of vehicle access.

In particular, access to Bornholm and Dingo Beaches must be evaluated. Bornholm Beach, which extends into the more remote western end of the Natural Environment Zone could be considered for conversion to a foot access beach only. Conversely, Dingo Beach, which is within the Recreation Zone could be considered for higher levels of facility and access development.

These and other issues will be considered at the time of revision in consultation with community groups, although public comment will also be sought during the life of this Plan.

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