Fitzgerald River National Park

Management Plan

1991-2001

Management Plan No. 15

Proposed Amendments 2010

Department of Environment and Conservation

Conservation Commission of Western Australia

OVERVIEW

The Fitzgerald River National Park (the Park) lies on the central south coast of Western Australia, 420 kilometres south-east of Perth, between Bremer Bay and Hopetoun in the Shires of Jerramungup and Ravensthorpe. It is one of the largest and most biologically significant national parks in Australia and provides an opportunity to maintain substantial parts of a south coast national park in an undisturbed state.

Major values and attractions include the highly diverse flora, numerous rare species of flora, extensive natural landscapes with rugged coastal ranges, sea cliffs, gorges, inlets, and opportunities for nature study, bush walking, camping, fishing and swimming. The Park also has richer fauna that any other conservation area in the south-west of Western Australia. It contains several threatened fauna species and offers one of the best long-term survival prospects in Western Australia for the western ground parrot and dibbler. Many of these values are recognised nationally and internationally.

Fitzgerald River National Park is one of the richest areas for plants in Western Australia with 1,748 identified species. About 75 of these are endemic (found nowhere else) and some 250 species are either very rare or geographically restricted. The Park contains almost 20 per cent of the State's described plant species. Although endemics occur throughout the Park, the highest concentration is in the Barren Ranges. The Park is one of only two International Biosphere Reserves in Western Australia (the other is Prince Regent Nature Reserve).

The greatest management concern in the Fitzgerald River National Park is Phytophthora dieback disease. Much of the regional flora is highly susceptible to the disease, and this problem is compounded by summer rainfall which provides warm, moist conditions favourable to the survival and spread of dieback. Dieback is most commonly introduced and spread in infected soil, mud or moist gravel on the wheels and underbodies of vehicles. Loss of vegetation to dieback will seriously reduce the Park's conservation and recreation values. Dieback is found at Bell Track, Susetta River and Pabelup Drive.

The State Government is proposing to improve access and facilities in Fitzgerald River National Park as an investment in nature based tourism and recreation, to assist the economic and social development of the surrounding communities. The facilities will also improve management of dieback through sealing of main access roads, spur roads and car parks and improvements to road drainage. The proposal is to:

- upgrade road access from Hopetoun to Hamersley Inlet and improve car parks, camping facilities and day visitor facilities at recreation sites in the eastern part of the Park;
- provide camping facilities at Hamersley Inlet;
- upgrade road access from Bremer Bay to Point Ann and improve car parks, camping and day visitor facilities at recreation sites in the western part of the Park;
- upgrade an overnight coastal walk trail between Hopetoun and Bremer Bay (with stage one being between Hamersley Inlet and Point Ann).

The overnight coastal walk trail will provide visitors with the opportunity to experience and appreciate the nature of the park in a way that is low impact and in keeping with the significant environmental values. The walk trail will be planned, designed and implemented to address visitor safety and minimise environmental impacts. Environmental impact assessment, cultural heritage and visitor risk management will be part of the planning process. In particular, measures to limit the risk of the spread of dieback will be central to planning, design and construction of the walk trail. As planning for the walk trail progresses, further information can be accessed from the Project Officer, Neil Worrell at (08) 9842 4500 or online at www.dec.wa.gov.au/frnp.

To allow for the development of recreation facilities and a walk trail through sections of the Park, amendments to specific sections in the *Fitzgerald River National Park Management Plan 1991-2001* (referred to hereafter as FRNPMP 1991) are required. The changes will allow for:

- modification of the standard of some overnight walk trails from ‘route’ to ‘track’;
- provision of appropriate recreation facilities; and
- provision of adequate access for management purposes.

While detailed planning for the overnight coastal walk trail is underway, amendments to the management plan that will provide for the walk trail concept are being advertised for public comment.

Comments from the public on the proposed amendments are now being sought.

The relevant sections of the management plan being amended are copied in this document and the proposed amendments are shown as:

- text with strikethrough for words deleted, and
- text underlined for words that have been added.

Copies of the current management plan can be downloaded from http://www.dec.wa.gov.au/content/view/104/1887/.

INVITATION TO COMMENT

In accordance with section 61 of the *Conservation and Land Management Act 1984*, amendments to specific sections of the *Fitzgerald River National Park Management Plan 1991-2001* (FRNPMP 1991) are proposed. The Department of Environment and Conservation (the Department) has addressed each item in the management plan that requires amendment. A review of the relevant sections of the management plan, the rationale for each proposed change and draft revised text is provided below. This is an opportunity to provide information, express your opinion, suggest alternatives and have your say on the proposed amendments.

MAKE YOUR COMMENTS COUNT

How to Make Effective Comments

It is important to indicate those strategies and recommendations you agree with as well as those with which you disagree. Each submission is important. However, those that give reasons for concerns, give support where appropriate and offer information and constructive suggestions are most useful.

If you prefer not to write your own submission you could make a joint submission with others. To ensure your submission is as effective as possible:

- make it clear and concise;
- list your points according to the subject sections and page numbers in the Plan;
- describe briefly each subject or issue you wish to discuss;
- say whether you agree or disagree with any or all of the aims or strategies within each subject or just those of specific interest to you – clearly state your reasons (particularly if you disagree) and provide supportive information where possible; and
- suggest alternatives to deal with issues with which you disagree.

WHERE TO SEND YOUR COMMENTS

Submissions are welcome for two months after the release date of the amendments and can be made online at: **http://www.dec.wa.gov.au/ ,** email to **planning@dec.wa.gov.au** or by writing to:

Planning Coordinator
Fitzgerald River National Park Management Plan Amendments
Department of Environment and Conservation
Locked Bag 104
BENTLEY DELIVERY CENTRE WA 6983

HOW YOUR COMMENTS WILL BE CONSIDERED

All submissions will be summarised according to topics discussed. The amendments will then be reviewed in the light of submissions, according to established criteria (see below). A summary of the submissions will be prepared along with the final amendments, including an indication of how the amendments were changed or not changed in response to the submissions.

1. The amendments *will* be changed if a submission:
   (a) provides additional information of direct relevance to management;
   (b) provides additional information on affected user groups of direct relevance to management;
   (c) indicates a change in (or clarifies) Government legislation, management commitment or management policy;
   (d) proposes strategies that would better achieve management objectives; or
   (e) indicates omissions, inaccuracies or a lack of clarity.

2. The amendments *will not* be changed if a submission:
   (a) clearly supports proposals in the plan;
   (b) makes general statements and no change is sought;
   (c) makes statements already in the plan or were considered during the plan preparation;
   (d) addresses issues beyond the scope of the plan;
   (e) is one among several widely divergent viewpoints received on the topic, but the text/strategies in the plan are still considered the preferred option;
   (f) contributes options that are not feasible (generally due to conflict with existing legislation, Government policy, lack of resource capacity or lack of research knowledge to make decisions);
   (g) is based on unclear, factually incorrect information; or
   (h) provides details that are not appropriate or necessary for inclusion in a document aimed at providing long term management direction.

5.0 MANAGEMENT ZONES

Section to be amended

Table 3 of the management plan, the 'Wilderness' management zone 'Public Opportunity' item is to be amended. It states:

- Primitive facilities, if any.'

(FRNPMP 1991)

Rationale for amendment

The management plan identifies a 'coastal walk from Bremer Bay to Hopetoun' (FRNPMP 1991). The plan includes a quote that the coastal walk could be a 'tremendous walk, … however at the moment only experienced walkers can use it' (FRNPMP 1991). It is intended that experienced walkers will use the proposed overnight coastal walk trail, however, it is recognised that the trail development will introduce more walkers and as such requires appropriate facilities. The proposed overnight coastal walk trail will require camping facilities, including shelter, water supply and toilets to ensure appropriate management of visitor safety, visitor impacts and environmental impacts such as dieback. The provision in this section of the management plan for non-motorised access only to the 'wilderness' zone, except for emergency and essential management, will not change.

Proposed amendments are shown on page eight of this document.

The objectives are to implement a system of management zones which:

1. *minimises conflict between conservation values and recreational use, and between different recreational uses.*
2. *specifies the type and extent of public access, recreational development, and interpretive, research and management activities, appropriate to maintaining the biological, physical and cultural resources, and natural processes of the Park.*

Background

Management zones establish a framework for the protection of conservation values and the provision of a range of recreation uses, and indicate the different levels of management required.

Management zones for Fitzgerald River National Park were identified using the following methods:

- Mapping and describing rare flora and fauna, landform and associated erosion hazard, Aboriginal and European cultural sites, and existing and potential access and recreation sites.
- Reviewing the conservation status of the Park's rare flora and fauna on an Australia wide basis.
- Reviewing recreation opportunities available elsewhere.
- Identifying the environmental effects of recreation use and the likely future public use through visitor surveys, public submissions, and a workshop.

Using the information collected, overlays of the mapped information and the management zone definitions given in Table 3, zones were delineated *which protect and enhance the conservation values of the Park while allowing for recreation use.* The zones maximise protection of the Park environment, particularly the rare flora and fauna; contribute to recreation diversity; minimise the adverse effects of any proposed change in recreational use on any one user group; and can be implemented feasibly.

The management zones used in FRNP are:

1. Special Conservation
   This management zone covers the northern part of the Park with its concentration of declared rare birds and mammals. A number of these species require habitat which has not been burnt for 15 years or more and protection from introduced predators, particularly foxes. Vehicle access through this zone is by Hamersley and Pabelup Drives. There is usually no other motorised access, except for research and management.

2. Wilderness
   An extensive area in the middle of the Park (78 000 ha) is maintained in a wilderness state. No motorised access is permitted, except for emergency and essential management operations.

3. Natural Environment
   Areas will be maintained as natural environments. Included are several 4WD accessible tracks (eg. Fitzgerald Inlet track, Quoin Head Track). Generally, motorised access is restricted. Facilities are semi-primitive and predominantly in natural settings.

4. Recreation
   These are small areas associated with vehicle access routes and recreation and interpretation sites. In FRNP, this zone is based on roads and recreation sites accessible to 2WD vehicles. Facilities are basic and in natural settings which may show signs of modification.

Allocation of the above zones is based on information and prescriptions given in this Part, and Parts C, D, E and F.

PRESCRIPTION

1. Use the above management zones (Table 3 and Map 3) as the basis for integrated management of FRNP.

Practical implementation of management zones may differ from the boundaries given on Map 3. Most communities and species have requirements which extend beyond these artificially delineated boundaries.

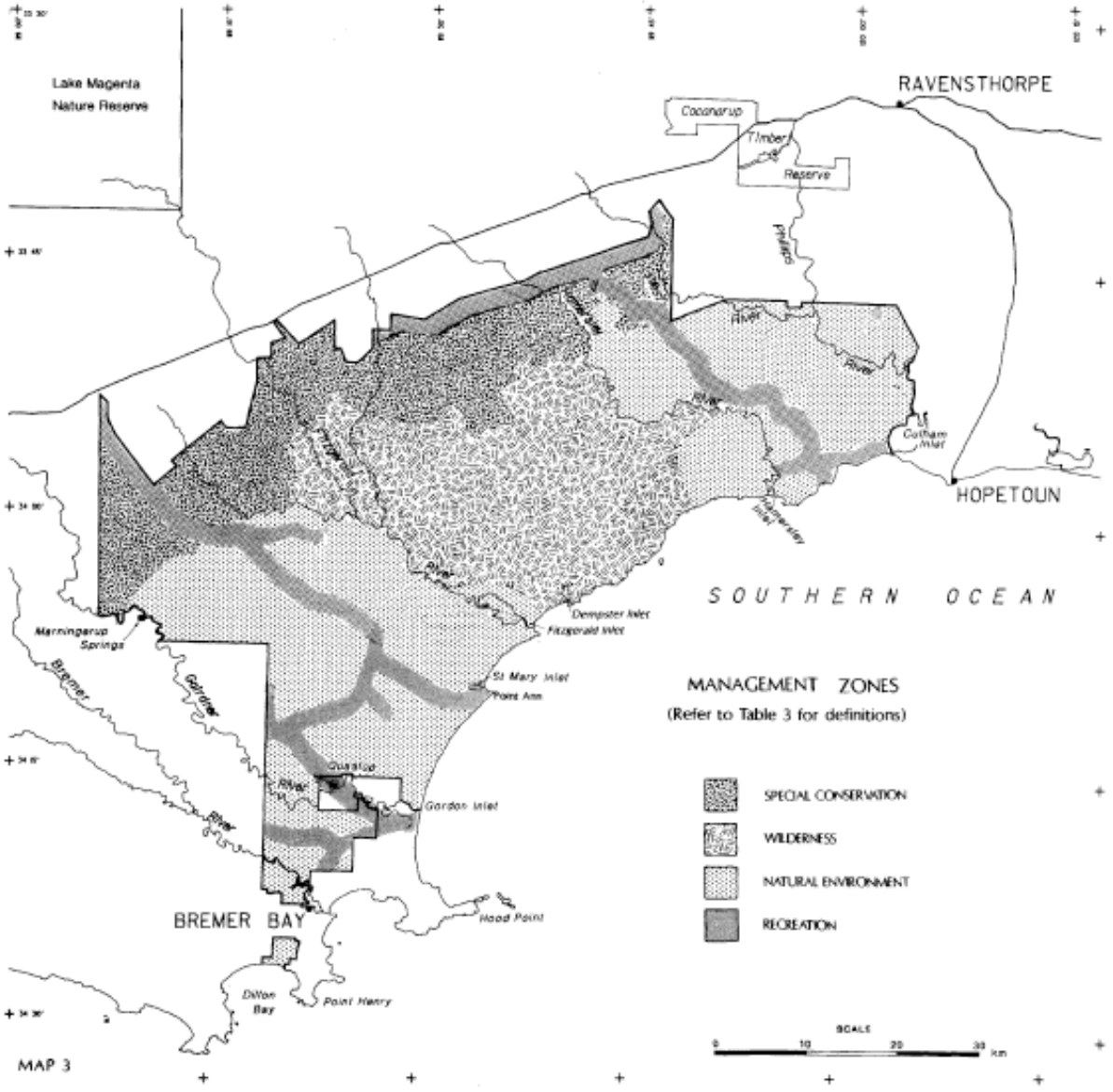

Lake Magenta
Nature Reserve
RAVENSTHORPE
Coconarup
Timber
Reserve
Phillips
River
Cotham Inlet
HOPETOUN
SOUTHERN OCEAN
Dempster Inlet
Fitzgerald Inlet
St Mary Inlet
Point Ann
Manningarup
Springs
Bremer
Gairdner
River
Quaalup
Gordon Inlet
BREMER BAY
Hood Point
Dillon
Bay
Point Henry
MANAGEMENT ZONES
(Refer to Table 3 for definitions)
SPECIAL CONSERVATION
WILDERNESS
NATURAL ENVIRONMENT
RECREATION
SCALE
0
10
20
30
Km
MAP 3

TABLE 3. FITZGERALD RIVER NATIONAL PARK MANAGEMENT ZONES

MANAGEMENT ZONES	GENERAL DESCRIPTION	BOUNDARY CRITERIA	MANAGEMENT FRAMEWORK		
			RESOURCES	**PUBLIC OPPORTUNITY**	**LEVEL OF MGT**
1. SPECIAL CONSERVATION	Specific areas which contain unique, rare or endangered features or the best examples of natural features.	The natural extent and buffer requirements of designated features.	Strict resource conservation.	• Usually non-motorised access, except for research and management purposes. • Visitor appreciation consistent with resources, conservation.	High
2. WILDERNESS	Extensive areas which will be maintained in a wilderness state.	The extent of natural systems in areas greater than 10 000 ha or greater	Strict resource conservation.	• Non-motorised access only, except for emergency and essential management. • ~~Primitive facilities, if any.~~ • Backpack camping facilities that may include shelter, water supply and toilets.	Low
3. NATURAL ENVIRONMENT	Areas which can sustain, with a minimum of impairment, a selected range of low-density outdoor activities with a minimum of related facilities.	The extent of natural environments and surrounding zones.	Conservation of the natural environment.	• Includes 4WD tracks; however, motorised access restricted. • Semi-primitive camping facilities.	Low to moderate
4. RECREATION	Limited areas that can accommodate a broad range of outdoor recreation opportunities.	The extent of outdoor opportunities and facilities and their area of immediate impact.	Minimal impact of activities and facilities on natural landscapes.	• Access motorised and non-motorised. • Basic camping facilities.	Moderate to High

6.3 HYDROLOGY

Section to be amended

Prescription 7 of the 'Hydrology' section of the management plan is to be amended. It states:

'Because fresh groundwater is very limited in the Park, drinking water cannot be provided at campsites. Maps for walking only areas may indicate the availability of limited fresh water.' (FRNPMP 1991)

Rationale for amendment

The strategy refers to providing water from groundwater sources but water can be provided from a variety of sources including structures that enable harvesting and storage of rainwater suitable for consumption.

Proposed amendments are shown on page eleven of this document.

The objectives are:

1. *Ensure that, as far as possible, activities both inside and outside the Park do not harm the quality and quantity of the Park's water resources.*
2. *Minimise the effect of road construction and recreation development on natural drainage.*
3. *Ensure that roads and site developments are properly located and designed so that damage by heavy rainfall or unseasonal flow is minimised.*

Background

(Based on information supplied by the Water Authority of Western Australia).

There are four main rivers in FRNP: the Gairdner, Fitzgerald, Hamersley and Phillips. These run roughly from north-west to south-east through the Park. All have at least part of their catchments in cleared agricultural land. A number of shorter rivers and streams, most notably the St Mary and Dempster, have all of their catchment within the Park (Map 5). All rivers in the Park are intermittent, with the majority of flows occurring during winter and spring.

The Dempster, in particular, could provide a useful reference catchment. It is completely uncleared and lies entirely within FRNP (Map 5). As part of the wilderness zone, access will generally be on foot only (Map 3). Such limitations on access substantially reduce the risk of further introduction and spread of dieback.

FRNP has numerous swamps, particularly on the plains. They are covered wholly or largely by woodland and/or shrubland. At least part of their floor is covered by a few centimetres of water during winter and spring. Floods add up to 1.5 m of water which may remain for up to 18 months (Chapman and Newbey, in prep.). Water quality varies from fresh to brackish. A number of fresh (eg. Pabelup Lake) and saline (eg. Doggers Swamp) lakes also occur.

All major rivers in FRNP terminate in an inlet which is normally closed to the sea by a sand bar. Only occasionally is river flow sufficient to fill any of the inlets so they overflow into the sea. Once open, inlets remain so for days to many months (Hodgkin and Clark, 1990).

Water Quality

The majority of surface and groundwater in the Park is saline. However, a thin layer of freshwater, overlying brackish or saline water, is likely to be present in the coastal sediments (Geological Survey

of W.A., pers. comm., 1988). Freshwater seeps occur at several places along the coastline. The Water Authority has suggested that fresh groundwater aquifers are present in certain parts of the Park, such as near the downstream end of the Hamersley River.

Management actions within the Park can affect water quality. Road works and road use can increase sediment loads through erosion. Boat use can result in fuel and oil spillage from motors and erosion of launching sites. Land-based facilities, such as camp grounds and toilets, can cause pollution and erosion.

Management actions outside the Park can also affect water quality, particularly given that the catchments of the Park's major rivers extend beyond the Park. In the Fitzgerald area, clearing for agriculture has increased salinity and sediment load of streams and rivers. The long-term effects on areas such as FRNP are uncertain. Replanting of parts of these catchments should help to counteract current water quality problems.

Water Supply Potential

Given the high salinity of water within the Park, it has limited potential for development of either surface or groundwater resources. In the past, the Water Authority proposed to carry out exploratory drilling to locate a new supply source for Hopetoun. The Environmental Protection Authority determined against the proposal and appears to have ruled out any water supply development within the National Park.

The Water Authority does, however, have interests in adjacent areas. The Bremer Bay Groundwater Area lies immediately south of the Park between Bremer and Dillon Bays. This Area incorporates Cardiminup Swamp, one of the few local, permanent, freshwater swamps. The Hopetoun Groundwater Area lies immediately east of the Park, abutting the eastern side of Culham Inlet. In the longer term, the Hunter River and Tooregullup Swamp, immediately north of Bremer Bay, and south of FRNP, have been identified as potential future sources of water supply.

Research and Facilities

One gauging station exists within the Park boundaries (Map 5). As the result of funding cuts it was closed in April 1987. Continued access to the site by Water Authority officers will be necessary if monitoring resumes. Relevant hydrologic studies would require, as a minimum, a gauging station on the Fitzgerald, at or near the existing station, and one on either the Dempster or St Mary Rivers.

PRESCRIPTIONS

1. **Assist the Jerramungup and Ravensthorpe District Soil Conservation Committees and liaise with the Department of Agriculture, Environmental Protection Authority and local government to:**
   - **encourage land use practices upstream of the Park, such as tree planting or clearing limits, which will help ameliorate deterioration in water quality or changes in quantity;**
   - **achieve some improvements in water quality (i.e. a decrease in salinity).**

2. **Retain Dempster catchment and inlet as a reference area free from human disturbance. This means minimal vehicle access, motorised boat use or building structures.**

3. **Design roads, tracks, paths, facility areas and associated drainage to cater for occasional flooding.**

4. **Ensure developments avoid swamps, as they may retain water for up to 18 months following flooding.**

5. **Do not construct new structures or facilities on sand bars which periodically open to the sea.**

6. **Do not use machinery or other human-induced means to open the bars of any of the inlets in the FRNP, unless it can be shown to be desirable by competent scientific authorities.**

~~7. **Because fresh groundwater is very limited in the Park, drinking water cannot be provided at campsites. Maps for walking only areas may indicate the availability of limited fresh water.**~~

7. **Drinking water may be provided at campsites either from groundwater sources if suitable or from any appropriate source, such as rainwater harvesting. Maps for walking will indicate the availability of water, if provided.**

Research and Monitoring

8. **Support continued monitoring of river flow and quality, with particular emphasis on the Fitzgerald River. Continue to provide access for monitoring to the gauging station on the Fitzgerald River in the northern part of the National Park.**

9. **Encourage, in consultation with the Environmental Protection Authority, longer term research and monitoring of inlet dynamics, such as opening and closing of bars, water levels and rate of sediment accumulation. Use the Dempster Inlet as an undisturbed reference.**

13.0 ACCESS

Section to be amended

Table 14 of the management plan 'Road and Track Prescription' lists road/track prescriptions. The management action for the roads/tracks in the central section of the Park is to change.

Rationale for amendment

The plan as currently written does not expressly allow for emergency and essential management access.

Proposed amendments are shown on page seventeen of this document.

NOTE. Throughout this plan a "4WD track" is defined as a track which can only be used by vehicles with high clearance and where 4WD may be required in exceptional circumstances. These tracks should have a surface which has minimal dieback risk. All 4WD tracks (and other unsealed roads within the Park) are generally closed after rain.

The objectives are:

1. *Ensure that dieback control receives the highest priority in any access considerations.*
2. *Ensure that the conservation and landscape values of the Park are recognised in all access provision and changes.*
3. *Provide and/or maintain 2WD, 4WD and foot access to a variety of coastal and inland features within the Park, while ensuring that the natural environment and other Park users are not adversely affected.*
4. *Ensure that all forms of access are constructed and maintained to a standard able to safely support current and expected use levels.*

Background

The Park is accessible, via all-weather gravel roads, from Highway 1, Bremer Bay Road and Hopetoun-Ravensthorpe Road.

Two 2WD loops provide access within the Park (Map 1b). In the east, Hamersley Drive enters the Park from Hopetoun and links in the north with Old Ongerup Road. The western loop, Pabelup Drive, may be reached from the South Coast Highway via Devil's Creek Road in the west or Quiss Road in the north. 2WD roads provide access to Point Ann, West Mt Barren, Mt Maxwell, Hamersley Inlet, West Beach, West Beach Point, Mylies and East Mylies, Barrens and Four Mile Beach. The remaining roads and tracks are suitable for 4WD only. There is also an extensive network of firebreaks, particularly on the Park perimeter. All are 4WD and are for management access only.

The track system in the Park evolved from the original alignment of the transcontinental telegraph line and associated service track, constructed in 1875. Other tracks were established to provide coastal access for fishermen. Access tracks were also associated with the rabbit proof fence and the mineral boom of the late 1960s (Smith, 1977).

All tracks were in place prior to gazettal of the National Park (in 1973). Landscape design or protection of the environment were not considered in their placement. The most critical problem is the possible introduction and further spread of dieback from roads and tracks placed high in the landscape. Many tracks also traverse extensive low-lying waterlogged areas. Other problems include safety, erosion and soil degradation, and tracks cutting across and intruding on extensive natural views or not optimising available views.

4WD tracks and sections of some 2WD roads present an added dieback risk as many have pools of water lying across them in winter, and in summer following rain. These pools provide an ideal environment for dieback spores to survive, multiply and spread. Recent "forming" of these tracks without realignment and/or sheeting or stabilisation has resulted in some sections of their surfaces becoming slippery following 20 mm or less of rain. Water also ponds in some sections of the adjacent drains.

A number of short footpaths (less than 1 day) provide access to the peaks of East and West Mt Barren and to the river valley and several low hills near Twertup. An unmarked coastal walk traverses the coast from Bremer Bay to Hopetoun. Walks up peaks present a substantial dieback risk, as they may lead to its introduction high in the landscape. Further comments on management of footpaths are given in 15.3 Bushwalking.

When full of water, some of the inlets are accessible by small boat. Boats can be launched on the Hamersley Inlet most of the year. The lower reaches of the Fitzgerald, Hamersley and Phillips Rivers can be explored by canoe. All inlets and rivers are generally too shallow to be easily or safely used by large power boats.

Some of the problems that can result from the provision and use of access, both public and management only, include the introduction of dieback and weeds, vegetation damage, soil compaction which may initiate wind and water erosion and blowouts in sensitive areas, and the impairment of scenic amenity. In addition, access may concentrate activity in areas with a limited ability to support public use or where the public is not easily safeguarded.

Much of the Park is sensitive to erosion and soil degradation (Map 4). In a number of places on the coast mobile dune-fields occur, interspersed with areas of recently consolidated wind-blown sand. The steep Barren ranges are highly susceptible to water erosion once the vegetation has been removed (eg. on footpaths). The plains suffer damage from vehicles under wet conditions. Even the more stable granite-derived soils of the northern Fitzgerald are susceptible to water erosion.

Strategy

Future access to the Park will be based on the two existing 2WD loops, Hamersley Inlet and Pabelup Drives, with 2WD spurs to Point Ann - St Marys, West Mt Barren and Mt Maxwell in the west, and Hamersley Inlet and a number of beaches between Four Mile and West Beach in the east (Map 10). The 4WD spurs to Fitzgerald Inlet and Quoin Head will also be retained, although restricted if necessary.

In the following prescriptions, dieback is the greatest management concern. Section 9.1 Disease provides further details on dieback, the extreme vulnerability of FRNP to this disease and relevant management prescriptions. If the presence of dieback is suspected or confirmed on or adjacent to the roads, tracks (including management-only) or footpaths proposed in this plan, future management of the particular access way should be carefully considered. Generally, evaluation should include consideration of further hardening of the road, track or path surface by adding gravel or limestone or, if appropriate, sealing. If required, consideration should also be given to re-assessing and altering the drainage, and realignment to reduce the area of catchments affected. Closure will also be considered.

Generally, every effort should be made to keep open the 2WD roads and 4WD tracks. All or parts of the Park may be closed following rain, using the same criteria presently applied to 4WD tracks. That is, closed when sufficient rains allow vehicles to pick up mud and soil.

Six classes of road are recognised:
Class 1. sealed through roads
Class 2. sealed spurs
Class 3. gravel through roads
Class 4. gravel spurs

Class 5. 4WD - dry weather access only
Class 6. management-only - dry weather access only.

Safety through the application of consistent standards will be a priority in all access provisions.

PRESCRIPTIONS

1. **Retain public access to most parts of the Park. The recreation and natural environment zones will be accessible by vehicle and on foot, and the special conservation and wilderness zones by foot only (except for management purposes) (Map 3).**

2. **Maintain, upgrade, realign or dose roads and tracks as indicated in Table 14. Roads and tracks will not be upgraded, except for dieback hygiene, unless resources are available to provide adequate facilities (e.g. car parks, camping areas, walkways to the beach) at the road/track end.**

3. **Road and track location and realignment must be based on selection of the best road or track corridor. The guidelines for selection are:**
   a. **the corridor minimises the risk of disease spread, based on up-to-date hygiene and hazard maps, position in the landscape and landform;**
   b. **the corridor is cost efficient to construct and maintain;**
   c. **the corridor offers a diversity of views, including some panoramic views;**
   d. **the corridor has minimal impact visually; and**
   e. **the corridor allows for a given design speed.**

   Once a corridor has been selected, the alignment of the road or track within the corridor must be designed in detail.

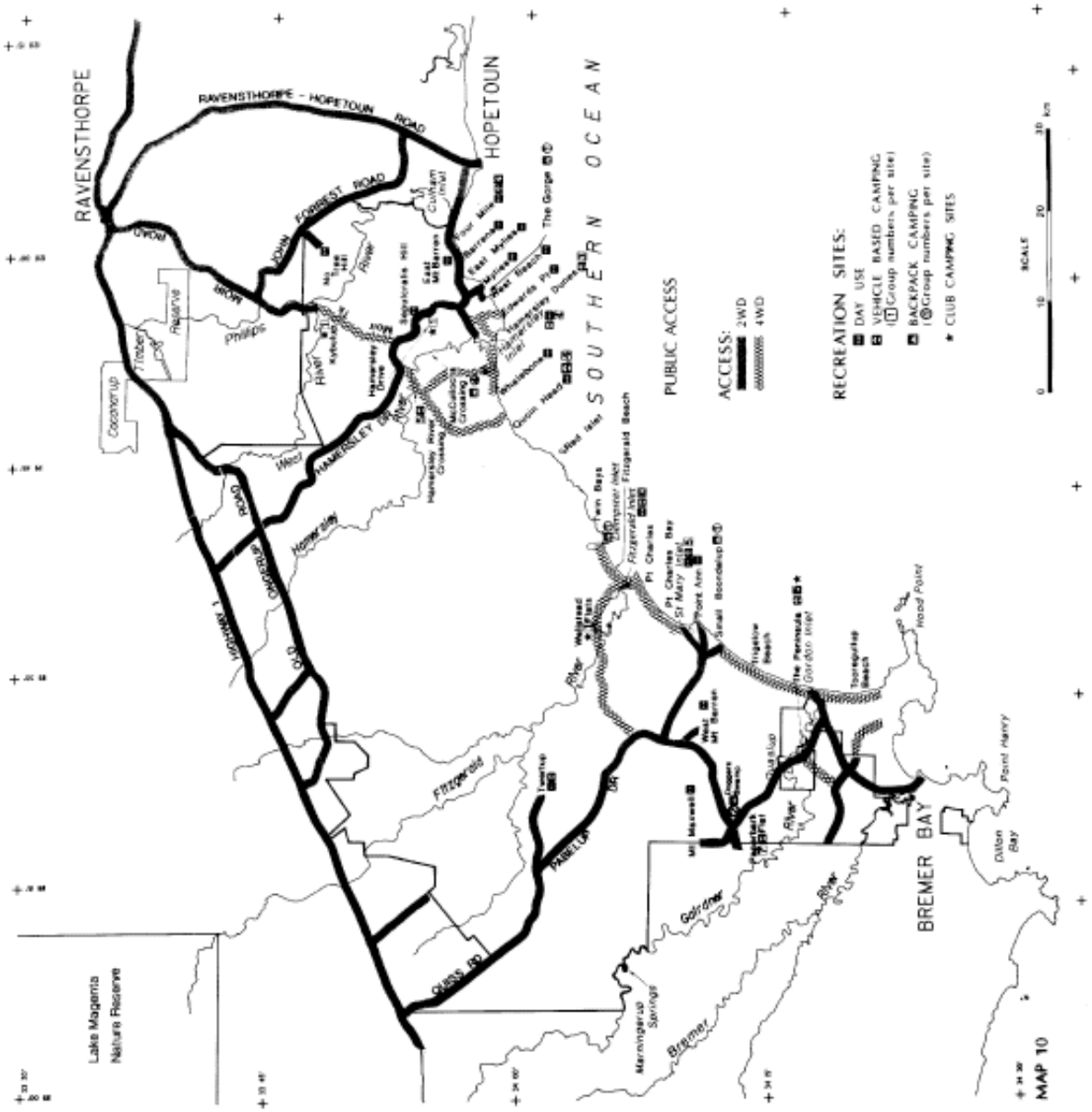
4. **For Class 1, 2, 3 and 4 roads (see strategy above for definition) design to provide for travelling speed of up to 60 km/hr. Provide signs at Park entrances and along roads to indicate this speed limit. Ensure safe visibility on curves and intersections.**

5. **For Class 5 and 6 tracks the most important consideration is minimising the risk of dieback introduction and disturbance. Design speed is not important.**

6. **On Class 5 tracks:**
   a. **test a range of water shedding and stabilising surfaces, such as gravel, limestone and geotextile treatments.**
   b. **continue track closures in some parts of the Park until satisfactory techniques for stabilisation. have been determined for broadscale implementation.**
   c. **once techniques are implemented, continue to closely monitor track status. d. consider dieback, landscape and erosion impacts before any technique is tested or implemented.**

7. **Exclude vehicles from the centre of the Park to reduce the risk of dieback introduction and/or spread to the lowest possible levels. Vehicle access for dieback sampling and fire management will be allowed under strict permit, subject to NPNCA approval. If a life-threatening emergency arises requiring the use of vehicles within these areas, entry will be authorised by the South Coast Regional Manager or a representative. Access for fire management purposes in the centre of the Park will be reviewed in 1995 (refer to 9.2 Fire).**

8. **Temporarily close East Mt Barren path because of confirmed dieback at the beginning of the path. Re-locate the beginning of the path and realign the path to both avoid the infected area and to minimise the area infected if further spread associated with the footpath occurs. Clearly delineate the infected areas. Establish a sealed carpark on old gravel pit site and provide a stable walkway to the first stage of the path.**



9. Because of dieback risks, prohibit access (including foot access) to the peaks of Mid Mt Barren, Woolbernup Hill and Thumb Peak, except by special permit. These peaks are proposed for closure or quarantine as they are part of the quartzite ranges which support high numbers of rare plants, many of which are susceptible to dieback. By walking on these peaks, walkers risk introducing dieback.

10. Provide parking and turning space for buses of up to 45 seats at East Mt Barren lookout, approaching from the east. Provide for buses of up to 20 seats at Point Ann, West Mt Barren and Mylies Beach and other destinations which may be approved from time to time. Elsewhere, roads should be designed and built to meet the requirements of cars, rather than those of buses or caravans.

TABLE 14. ROAD AND TRACK PRESCRIPTIONS

ROAD/TRACK	CLASS	MANAGEMENT ACTION	RECOMMENDED PRIORITY
EASTERN SECTION			
Hamersley Drive	1	Assess need for realignment. Provide "pull-overs" with interpretive material. Seal around East Mt Barren, for dieback reasons, as highest priority. Seal to Mylies or further, if needed	1
Moir Track	5	Assess need for realignment. Sheet where necessary	1
Barrens Road	4	Maintain	Ongoing
Four Mile Beach Road	4	Maintain	Ongoing
Mylies Road	4	Maintain	Ongoing
East Mylies Road	4	Maintain	Ongoing
West Beach Road	4	Maintain	Ongoing
West Beach Point Road	--	Close to vehicles, provide extended footpath to West Bch Point. 2	2
The Gorge Track	--	Close to vehicles, use as footpath, provide carpark at head of track	1
Hamersley Inlet Road	2	Maintain.	Ongoing
Hamersley Dunes Track	5	Monitor. Traffic will be along a defined corridor.	Ongoing
Edwards Pt Track	5	Monitor.	Ongoing
West Hamersley Inlet Track	5	Assess need for realignment. Sheet where necessary.	1
Whalebone (Dave Niels) Tk	5	Assess need for realignment. Sheet where necessary.	1
Quoin Head Track	5	Assess need for realignment. Sheet where necessary.	1
Quoin - Whalebone Track	5	Close. Alternative access available.	1
No Tree Hill Track	4	Assess need for realignment. Provide carpark on lower slopes. Gravel.	3
WESTERN SECTION			
Pabelup Drive	1	Assess need for realignment. Seal sections for dieback reasons, if needed. Provide "pullovers" with interpretive material.	1
Colletts Road	4	Assess need for realignment.	1
Gairdner Road North	5	Assess need for realignment. Stabilise crossing. Sheet where necessary.	3
Gairdner Road- South*	4	Assess need for realignment. Liaise with Shire re joint road maintenance program.	3
Gordon Inlet Road*	4	Assess need for realignment. Upgrade to 2WD all weather. Liaise with Shire re joint road maintenance program.	3
Gordon Inlet - Quaalup Tk*	4	Assess need for realignment. Upgrade to 2WD all weather.	1
West Mt Barren Road	2	Maintain.	Ongoing
Pt Ann Road	2	Assess need for realignment.	2
Mt Maxwell Road	4	Assess need for realignment.	3
Fitzgerald Inlet Track	5	Realign to avoid 'Lake Nameless' catchment. Assess need for realignment in the remaining section. Sheet where necessary.	1
Twertup Track	4	Assess need for realignment. Sheet where necessary.	1
St Marys Track	2	Realign, upgrade to 2WD all weather. Provide stable access to Pt Charles Bay Beach.	1
Trigelow East Track	4	Realign, provide stable all weather vehicle access	1

		to northern end of Trigelow Beach.	
Trigelow Beach Track	--	Close track which runs parallel to beach.	2
Trigelow Beach	--	Continue beach access, monitor.	Ongoing
"Small Boondalup" Track	--	Close to vehicles, use as footpath.	1
St Marys - Pt Charles Tk	5	Realign, keep beach open.	1
Point Charles Bay Beach		Continue beach access, monitor	Ongoing
Smokehouse Landing Track		Close on basis of continuing access to S bank of Bremer River through Jerramungup Shire reserve.	1
Fitzgerald Beach	--	Continue beach access, monitor.	Ongoing
Accesses around Quaalup	6	Review.	2
CENTRAL SECTION			
Telegraph Track (Fitzgerald Inlet - Quoin Head)	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Drummond Track	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Twin Bays Track	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Bell Track South	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Fitzgerald South Track	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Red Islet - Marshes	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except under strict permit for dieback sampling and survey, emergency and essential management purposes only.	1
Beach Track	6	~~Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.~~ Close to all access except for dieback sampling and survey under strict permit. Review for fire access in 1995.	1
Bell Track North	--	Keep closed.	1
Southern spurs off Old Ongerup Road	6	Maintain for fire (emergency) access.	2
GENERAL			

Firebreaks	6	Assess need for realignment. Minimise numbers, dieback risk and erosion. Ensure closure to public vehicles.	1

* Assess best provision of access to the Peninsula and Gordon Inlet and links with Bremer Bay and FRNP.

11. **Close all or parts of the Park following rain as necessary (ie. access ways where vehicles [or footwear] can pick up mud or soil). This is to minimise the risk of dieback infection and spread (see Section 9.1 Disease for explanation), damage to the track surface and to reduce safety risks to users. Use signs at all Park entrances and other media to indicate whether roads, tracks and footpaths are open or closed.**

12. **Realign the track on the hinterland of Point Charles Bay to ensure dieback cannot be introduced or spread to the "Lake Nameless" catchment, to reduce track visibility from Point Ann and St Marys, and to provide access to all of Point Charles Beach. Realign the Fitzgerald Inlet Track to avoid the 'Lake Nameless' catchment. The "Lake Nameless" catchment is one of the catchments from which all vehicles are being excluded to minimise the risk of dieback introduction and spread.**

13. **Keep Trigelow, Point Charles Bay, Fitzgerald/Dempster and Hamersley Beaches open to 4WD vehicles, with access available via the tracks indicated on Map 10. 4WD use of these four beaches has been retained on the basis that:**
    - **4WD access to the beach can be provided via a stable and visually acceptable alignment.**
    - **these beaches are remote and, therefore, conflict with other users is minimal.**
    - **a range of opportunities is available elsewhere in FRNP, firstly, for people to access the immediate hinterland of beaches in 2WD vehicles; and secondly, several remote beaches have been retained as foot access only, with no vehicle access to the immediate hinterland.**
    - **users are notified of safety risks (eg. quicksand, changing beach profile).**
    - **no breeding birds appear to be affected.**

    If the effects on breeding birds, safety risks or damage to foredunes, particularly at access points, become unacceptable, 4WD use of the specific beach should be re-assessed. The beach of particular concern, in terms of breeding birds and safety (ie. quicksands), is Fitzgerald Beach. Any reassessment should be in consultation with users and the Fitzgerald River National Park Advisory Committee.

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

15. **Rehabilitate closed tracks to minimise erosion and encourage revegetation. Provide explanatory signs to inform users.**

16. **Liaise with Shires to ensure that road standards within the Park and of adjoining roads are complementary.**

17. **Other than beach access as described, only permit the use of vehicles and machines off-road for fire control (and only in specified parts of the Park - refer to 9.2 Fire), search and rescue and other emergency circumstances. The decision will rest with the District Manager. Strict dieback hygiene must be observed and special care must be taken to avoid areas susceptible to soil erosion and degradation. Areas containing rare species or archaeological sites must also be avoided.**

18. **Subject all road and track maintenance to strict dieback hygiene measures.**

19. **A strictly limited number of management-only tracks will be maintained for the control of fire, pests, weeds and disease, and for survey, research and monitoring. These tracks will not be all-weather and may only be accessible in summer or following long dry periods. Their use will be subject to strict dieback hygiene and the approval of the District Manager. Maintenance works on these tracks should be limited to prevention of erosion and waterlogging, and should disturb the soil profile and natural drainage patterns as little as possible.**

20. **Management-only tracks will generally be open for walking but not to vehicle access by the public. They will be closed by secured gates.**

21. **New management tracks will only be established where no feasible alternatives for management exist, and only following evaluation using the Necessary Operations Checklist and obtaining the associated levels of approval. Location should be according to the principles given earlier (Prescription 3).**

22. **Liaise with local users prior to road closures, where possible.**

Research and Monitoring

23. **Monitor annually the status of roads, tracks and footpaths. If erosion gullies become greater than 10 cm deep, or if water ponds on a road or track for longer than three to four days after rain, then management action is necessary. These values are based on dieback risk, and soil degradation and erosion. They can be re-assessed and new values written if new information indicates the need.**

24. **Monitor access points to 4WD beaches. If 4WD tracks other than the**
    a. **designated main access point are created, management action is necessary.**

14.0 RECREATION SITES

Section to be amended

The text within the 'Strategy' section of section 14.1 'General' is to be revised. The first paragraph indicates a goal to cater for recreational use in a natural setting with minimal facilities including a choice of settings and development levels. The plan states:

'This should include areas accessible to 2WDs with facilities, 4WD-accessible areas with no facilities apart from toilets, and backpack campsites with no facilities.'
(FRNPMP 1991)

Rationale for amendment

This strategy defines backpack camping as having no facilities as a principle. However, it is proposed to develop an overnight coastal walk trail with facilities that may include shelter, water supply and toilets.

Proposed amendments are shown on page twenty-one of this document.

NOTE: There are circumstances where certain users, for example anglers, have a genuine requirement to be on-site overnight. This plan will allow recreational fishermen to rest in their vehicles at designated 4WD sites overnight. 'Overnight resting in vehicles' is defined as sleeping in, or next to, a vehicle for one night, provided neither tents nor any other external structure is erected. This system will be periodically reviewed, time restrictions may be applied and specific sites may become unavailable.

14.1 GENERAL

The objectives are:

1. *Provide a choice of recreation sites, within a range of natural settings, which can be used and maintained with minimal damage to the environment.*
2. *Ensure that recreation sites are located in stable landscapes where they are visually unobtrusive and where such use is sustainable in the longer term.*
3. *Minimise conflict between visitors by careful site location and design.*
4. *Consider visitors' safety at recreation sites as well as ensuring that the sites remain attractive.*

Background

There are about 28 recreation sites currently used in the Park. Of these, 11 are used for both day use (parking and/or picnicking) and overnight camping, 13 for day use only and 4 for camping only.

The Park visitor survey (Cavana and Moore, 1988) indicated that 49% of visitors are day visitors and that the majority of campers stay 2 to 3 nights. The most frequently used campsites are Fitzgerald Inlet, Point Ann, Four Mile Beach and Mylies. With average levels of use the capacities of day use and camping areas are not exceeded. However, during peak use periods (Christmas -New Year, January and March long weekends, school holidays and Easter) the capacities of Mylies, Point Ann and Hamersley Inlet are often exceeded. The ability to camp away from other people is considered important by 81% of visitors. Many recreation sites have generally been established at the end of fishing tracks or are associated with coastal features such as beaches and headlands. The majority of sites lie on the coast. This has led to two major problems.

Firstly, many sites are located on fragile, highly erodible soils, such as recently consolidated sands. Recreational use, particularly camping, has focused on small stands of melaleucas. Many of these stands have been progressively stripped for firewood or damaged by vehicles pushing under them for shade. Once the sandy soils in these areas are exposed, they are readily damaged by water and wind erosion.

Therefore, these fragile areas cannot continue to support intensive uses such as camping. Reductions in the intensity of use can be achieved by changing the site from camping to day use (thereby reducing the length of time and the demands users place on a site), closing the area to vehicles and providing for foot access only, or by closing the area to all access. The measure chosen depends on the fragility of the area, level of degradation and availability of alternative sites.

Secondly, the majority of sites cater for both day use and camping. Using one area to cater for both demands may lead to conflict between day users and campers. To make the most efficient use of space and minimise safety risks, day use and camping sites should be physically separated where possible. The three sites which are deteriorating most rapidly are Point Ann, Mylies and Quoin Head.

Point Ann is popular because it provides a sheltered beach and small sandy terrace protected by cliffs. It has become highly degraded. The stands of melaleucas which once provided shelter and shade have been progressively removed for firewood or otherwise damaged. Erosion gullies several metres deep run from the access track to the beach. There is conflict between day visitors and their parking requirements, campers and the occasional boat trailer. An old shack also adds to the congestion.

Mylies Beach is a long beach popular for fishing and swimming. The site itself lies between a stream and mobile dunes. It is limited in size, with the melaleucas being damaged by camping. The site becomes crowded at times, with the potential for conflict between campers and day users. The site was damaged by floods in 1988, when the walkway to the beach was washed away, and by fire in 1989 when vegetation was completely removed.

Quoin Head also provides a sheltered beach. The site is on sloping sands at the foot of a steep rocky slope. The melaleucas have been extensively damaged by stripping for firewood and by vehicles pushing into stands for shelter. Exposed areas are becoming damaged by wind and water erosion with gullies 1 m deep.

Stands of mallees on stable soils provide attractive alternatives for camping in the Park. A number of potential sites relatively close to the coast (100 m - 1 km) exist in the Park.

Strategy

Reference to the Recreation Goal for the FRNP indicates that the Park should cater for recreational use in a natural setting, with minimal facilities. Within this framework there should be a choice of settings, including coastal, heathland and mallee; and development, ranging from "developed" to "less developed". This should include areas accessible to 2WDs with facilities, 4WD-accessible areas with ~~no~~ facilities ~~apart from~~ such as toilets, and backpack campsites with ~~no~~ or without facilities. There are currently enough sites, albeit poorly planned, to meet demand, except over peak-use periods. It is an inefficient use of resources to plan on the basis of peak demand, which only occurs on 18-20 days per year.

Although the sites meet demand, their inherent fragility and obvious degradation mean that in a number of areas current levels of use cannot be sustained in the longer term. In terms of camping, the Park currently provides for about 21 groups in the western end and 19 groups in the east, giving a total of 40 groups spread over 18 locations.

The strategy proposed in this plan for camping is to provide attractive, additional/alternative areas which are stable and sustainable in the longer term. The number of proposed areas will cater for current demand plus a potential increase of about 100% over the next 10 years. This is based on

potential sites for 43 groups in the west and 36 in the east, giving a total of 79 across 18 areas (Map 10 and Table 15). Of these 18 locations, six will be accessible to 2WD, four to 4WD, five to backpackers only and four (2 to 2WD, 2 to 4WD) for clubs or organised groups.

Only limited changes to existing camping sites, to prevent further degradation, will be made until alternatives are provided. For example, a camping area will not be changed to day use until an attractive, alternative camping area has been established.

The strategy proposed for day use areas is to separate them from camping sites. Also, most parking areas require re-assessment to maximise the space available, while at the same time minimising the area disturbed. Details on specific sites are given in Table 15, Map 10 and the following prescriptions. The development of detailed plans for all sites within the National Park is beyond the scope of this plan but will be undertaken during the life of this plan.

14.2 RECREATION SITE MANAGEMENT (Level of development, campfires, caravans and rubbish)

Section to be amended

The text within the 'Strategy' section of section 14.2 the second paragraph is to be revised. It states:

'Flushing toilets, showers, and caravan sites will not be provided. Toilets will be "long-drop" only, with sealed vaults accessible to sanitary trucks at the busiest sites.'
(FRNPMP 1991)

Rationale for amendment

The provision of facilities, and the types of facilities required, at recreation sites should be determined by the desired visitor experience, visitor safety concerns and minimisation of environmental impacts.

Proposed amendments are shown on page twenty-four of this document.

Section to be amended

Prescription 3 of section 14.2 'Recreation Site Management' is to be revised. It states:

'Provide toilets at all camp sites and day-use sites as required, with the exception of backpack sites. The siting of toilets must be unobtrusive.'
(FRNPMP 1991)

Rationale for amendment

It is proposed to develop an overnight coastal walk trail with facilities that may include shelter, water supply and toilets. An amendment is proposed to allow facilities to be provided, where appropriate, in the context of the proposed amendment to Table 3 'Fitzgerald River National Park Management Zones'.

Proposed amendments are shown on page twenty-four of this document.

The objectives are:

1. *Manage sites to protect the natural environment and maintain each site's attractiveness to visitors.*
2. *Manage sites in the most cost-effective way.*

Background

To retain the natural setting of recreation sites requires a clear definition of the acceptable levels of facility development. This is given below in the Strategy. Other points of broad relevance to site management across the Park are campfires and rubbish bins.

A major problem in the Park, and many other areas on the south coast, is the destruction of trees for firewood. Trees are a particularly limited resource in FRNP. In coastal areas their removal often leads to erosion and a reduction in shelter for campers and other visitors. Stands of melaleucas are particularly susceptible.

Most recreation sites have rubbish bins provided. These are emptied regularly by Park staff. There is a need to rationalise the provision of bins as emptying them is very time-consuming, reducing ranger time for other tasks. Most visitors only stay in the Park 2-3 days and could readily take their rubbish with them.

Strategy

A range of facilities should be provided at sites across the Park. Sites nearest the eastern and western ends of the Park and closest to the rangers (and, therefore, more rapidly accessed and maintained) should be the most developed, while those further into the Park should be more primitive.

~~Flushing toilets, showers and caravan parks will not be provided. Toilets will be "long drop" only, with sealed vaults accessible to sanitary trucks at the busiest sites.~~
Appropriate facilities, including toilets, may be provided at recreation sites. The extent of facilities provided will be informed by the 'Public Opportunities' section of Table 3 'Fitzgerald River National Park Management Zones'.

Caravans should be actively discouraged because camping areas are small and not designed for caravans, and because the roads are not designed to safely accommodate them.

The facilities provided should be based on minimal maintenance to provide Park staff with more time for interpretive, educational, monitoring and research functions.

PRESCRIPTIONS

1. **Provide gas barbecues at the more intensively used areas.**

2. **Do not permit campfires on the ground within the Park, because of fire risks and impacts of firewood collection on fragile coastal vegetation. Allow fires in containers that meet with the ranger's approval on beaches and in approved campsites, provided a live fire is not left unattended and visitors supply their own fuel which is free of dirt and seeds. Brochures and general information on the Park will advise visitors to bring their own wood and fire container.**

3. **Provide facilities at ~~all~~ camp sites and day use sites as required~~, with the exception of backpack sites. The siting of toilets must be unobtrusive~~.**

4. **As far as possible remove bins. Provide bulk rubbish collection sites close to exits. Provide brochures and pre-visit information which encourage visitors to "pack it in, pack it out".**

5. **Provide tables at some major day use sites.**

6. **Accept the use of generators at some remote sites (such as Fitzgerald Inlet and Quoin Head, and the club sites). If conflict arises with other users, generator-only camping areas may need to be designated.**

7. **Use of post and rails should be minimal. Their use is acceptable in the more developed sites at the eastern and western ends, but less so at the more remote sites. Use natural features where possible.**

8. **Ensure that all signs conform with the CALM Sign Manual.**

Research and Monitoring

9. **Include a sign monitoring and maintenance program in the Park's annual works program.**

15.3 BUSHWALKING

Section to be amended

Prescription 10 of section 15.3 'Bushwalking' is to be revised. It states:

'On the longer walks, provide designated camping sites with no facilities at attractive places capable of supporting such use in the longer term. Several proposed backpack campsites are given in Section 14.0 Recreation Sites (Table 15, Map 10).'
(FRNPMP 1991)

Rationale for amendment

Facilities including shelter, water supply and toilets may be required at some sites on the proposed overnight coastal walk trail to ensure appropriate management of visitor safety and environmental impacts. The plan currently provides for retention of an existing water tank that is located at Twin Bays, in the wilderness zone.

Proposed amendments are shown on page twenty-seven of this document.

Section to be amended

Table 16 'Walks' is to be revised. It lists bushwalks in the Park, including '1 Day or Longer' paths as shown in the table below.

'Walk', 'track' and 'route' are defined in the Fitzgerald River National Park Management Plan as follows.

'A **walk** is the easiest and is relatively short and well formed. It is constructed to "shoe" standard and suitable for people of all ages and fitness levels.

A **track** is more difficult requiring some skill or experience. However, it is generally well designed, marked and suitable for people of average fitness. It is designed to "boot" standard.

A **route** is more difficult, being lightly marked to unmarked and requiring a high degree of experience. It is only suitable for well-equipped walkers.' (FRNPMP 1991)

Rationale for amendment

The management plan identifies a 'coastal walk from Bremer Bay to Hopetoun' noting that it is 'currently unmarked and in a number of places there is a bewildering number of paths converging and diverging. In some sections the path is nonexistent.' (FRNPMP 1991). The overnight coastal walk trail is proposed to be a defined track (except where short sections of the trail are on the beach). Path delineation and marking is required to ensure appropriate management of visitor safety, protection of the natural environment and a positive visitor experience.

Proposed amendments are shown on page twenty-eight of this document.

The objectives are:

1. *Provide a variety of bushwalking opportunities in the Park, ranging from short scenic and interpretive paths into each major natural community in the Park to extended walks of several days duration, sometimes into remote areas.*
2. *Ensure that footpaths are developed in locations which are capable of sustaining them, where maintenance is feasible and where Park values will not be adversely affected.*

Background

The second most popular activity in the Park is walking (46% of visitors; Cavana and Moore, 1988). It is an activity which is enjoyed by people of all ages, interests and levels of fitness. A range of opportunities is necessary to meet the needs of this diverse user group. Walks may be short self-guided circuit paths developed in conjunction with other facilities, such as campgrounds or picnic sites, long distance walking tracks, or cross-country tracks.

The Park offers a wealth of bushwalking opportunities. Currently, walks range from a 15 minute walk at Twertup, through 1-2 hour walks up East and West Mt Barren, to a weeklong coastal walk from Bremer Bay to Hopetoun. The "coastal walk" is currently unmarked and in a number of places there is a bewildering number of paths converging and diverging. In some sections the path is nonexistent. 'It could be tremendous walk, ... however at the moment only experienced walkers can use it' (L. Sandiford, pers. comm., 1988).

Other opportunities are available for development. Short footpaths of less than one day duration could be provided on the sandplains and river valleys as well as the peaks. Short walks associated with recreation sites such as Point Ann and Quoin Head also provide additional walking opportunities. Overnight walks could be developed along the Hamersley and Fitzgerald Valley, the rabbit proof fence and inland tracks. Places such as the Eyre Range should be left for experienced walkers.

The impact of bushwalking on the physical environment, while generally low, is variable depending on soil conditions, vegetation type and intensity of use. Where use levels are high, walking can lead to the loss of vegetation as well as localised soil compaction and erosion problems. Other imp-acts such as the spread of dieback disease, the introduction of weeds, or the escape of fires from overnight campfires may also occur. Usually these problems can be minimised effectively through the sensitive location and design of paths, the careful selection of campsites and suitable education. Access for bushwalkers may need to be altered from time to time depending on the dieback situation.

Of similar concern is the potential safety problem associated with long distance walks through remote areas. In the event of a walker becoming lost or injured, search and rescue operations could lead to substantial environmental impacts. Such problems can be largely offset through visitor information programs designed to ensure walkers are adequately informed about, and equipped to handle, the conditions they will encounter.

Guidelines for footpath development

- paths should be placed low in the landscape, wherever possible, to minimise the risk of disease introduction or spread.
- paths should be circuits or loops rather than commencing and ending at widely divergent points.
- beginning of the paths should be relatively accessible to vehicles to facilitate visitor use and management and provide information on the associated path.
- paths should provide views; that is, paths should be placed in a position in the landscape where this can be achieved without jeopardising Park values, particularly by creating dieback risks.
- path alignments or routes should be located along or near the boundaries of different landforms, soil types or plant communities to provide maximum visual diversity.
- longer walks (routes) should enable the walker to experience the remoteness and solitude of the Park.

Strategy

Walks in the Park were selected to provide a range of opportunities. Such opportunities cover both ends and the centre of the Park, a combination of the valleys, coast, mountains and northern upland and include a range of walk lengths.

Three footpath "standards" are used in this plan: walk, track and route. A **walk** is the easiest and is relatively short and well formed. It is constructed to "shoe" standard and is suitable for people of all

ages and fitness levels. A **track** is more difficult, requiring some skill or experience. However, it is generally well designed, marked and suitable for people of average fitness. It is designed to "boot" standard. A **route** is most difficult, being lightly marked to unmarked and requiring a high degree of experience. It is only suitable for well-equipped walkers.

The Strategy section in 13.0 Access outlines contingency measures in the case of possible or confirmed dieback infections associated with footpaths.

PRESCRIPTIONS

1. **Develop the paths detailed in Table 16. Development may range from the construction of a gravelled surface with gentle grades (a walk) to the provision of only a sign at the beginning of the path, pamphlets and/or route markers as required (a route).**

2. **Provide self-registration points for walkers using remote areas (for safety reasons and to evaluate the effects of users on remote areas).**

3. **Produce information for walkers on the dieback risks associated with the Park, how to protect Park values, and ensure their own safety.**

4. **Place signs at the beginning of paths regarding dieback, requesting walkers to scrape any earth off their boots into the waterproof rubbish bin provided before they start walking.**

5. **Close Mid Mt Barren, Woolbernup Hill and Thumb Peak to walkers because of the potential dieback risk and their botanical importance. Prescription 9 in 13.0 Access gives a more detailed explanation. Place signs at appropriate points to explain why.**

6. **Require walkers to carry their own cooking fuel and not to light wood fires. The fire risks are too great and wood is a scarce commodity in the Park. Require walkers to carry their rubbish out. Promote minimum impact bushwalking.**

7. **Produce individual brochures for most walks. Leave a number of routes unmarked for those who enjoy a high degree of challenge.**

8. **Develop some walks for interpretation.**

9. **As unobtrusively as possible, and based on the best possible alignment, mark sections of the coastal route which are currently confusing.**

10. **On the longer walks, provide appropriate visitor facilities at designated camp sites as required ~~provide designated camping sites with no facilities at attractive places capable of supporting such use in the longer term~~. Several proposed backpack camp sites are given in Section 14.0 Recreation Sites (Table 15, Map 10).**

11. **Retain the water tank at Twin Bays.**

Research and Monitoring

12. **Monitor the effects of bushwalking in remote areas.**

TABLE 16. WALKS

	PATH	DURATION	STANDARD
Less than 1 day			
1	Twertup Short Loop	1/2 hr	walk
2	Pt Ann - St Marys	1/2 hr	walk/track
3	West Beach Point	1-2 hrs	walk
4	Twertup Long Loop	1 1/2 hrs	walk
5	The Gorge	1 hr	track
6	Horrie & Dorrie (Twertup)	1 1/2 hrs	track
7	Dogger's Swamp	1-2 hrs	track
8	West Mt Barren	2 hrs	track
9	East Mt Barren	2-3 hrs	track
10	Pt Ann Heritage Trail	1-2 hrs	track
11	W edge of Culham Inlet	1 1/2 hrs	track
12	No Tree Hill	1-2 hrs	track
13	Boondalup River	3-4 hrs	route
1 day or longer			
14	Roe's Rock Pool	1 day	track
15	McCulloch's Crossing	1-2 days	track/route
16	Parwoonup	1-2 days	track/route
17	Mt Drummond	1 day	track
18	Dempster Inlet	1-2 days	track ~~route~~
19	Quoin Hd - Marshes	1-2 days	track ~~route~~
20	Fitzgerald Inlet - Twin Bays	1-2 days	track ~~route~~
21	Eyre Range	2-3 days	track ~~route~~
22	Quoin Hd - Twin Bays	1-3 days	track ~~route~~
23	Fitzgerald Valley	2-3 days	track ~~route~~
24	Hopetoun - Bremer Bay	7-10 days	track ~~route~~