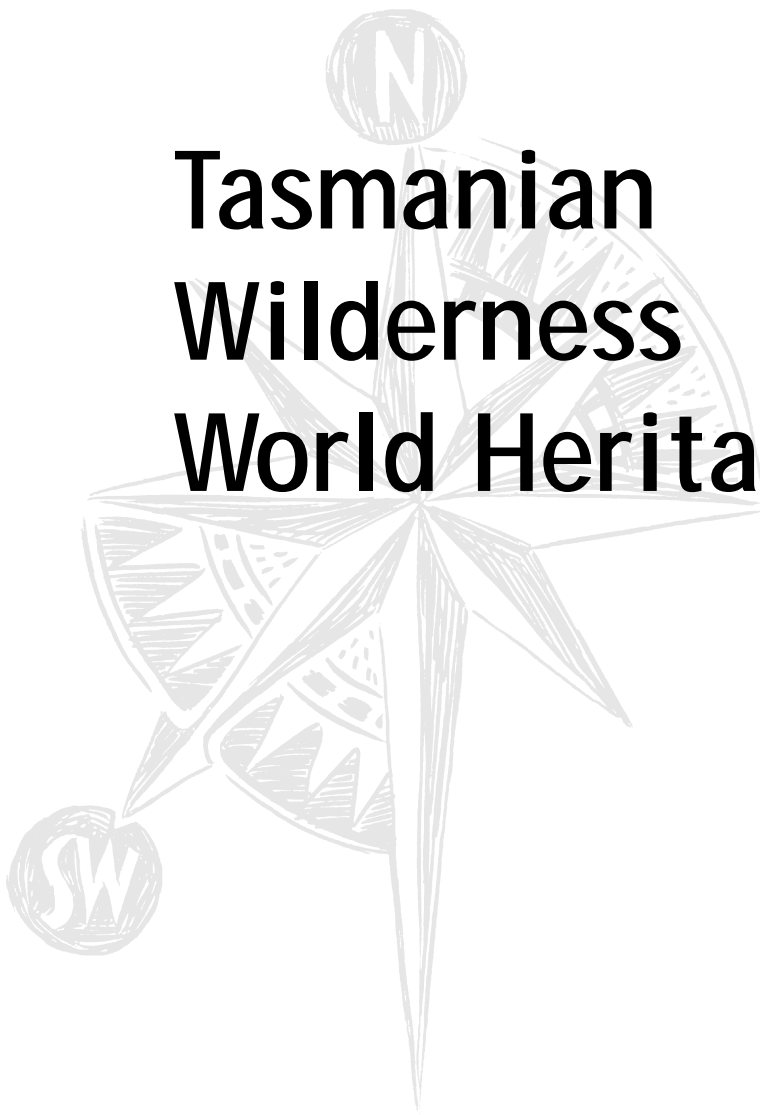


Tasmanian Wilderness World Heritage Area



Tasmania

PARKS
and WILDLIFE
SERVICE



MANAGEMENT PLAN
1999

TASMANIAN WILDERNESS WORLD HERITAGE AREA MANAGEMENT PLAN 1999

This management plan replaces the Tasmanian Wilderness World Heritage Area Management Plan 1992, in accordance with Section 19(1) of the *National Parks and Wildlife Act 1970*.

The plan covers those parts of the Tasmanian Wilderness World Heritage Area and 21 adjacent areas (see table 2, page 15) reserved under the *National Parks and Wildlife Act 1970* and has been prepared in accordance with the requirements of Part IV of that Act.

The draft of this plan (Tasmanian Wilderness World Heritage Area Management Plan 1997 Draft) was available for public comment from 14 November 1997 until 16 January 1998. This plan is a modified version of that draft, having been varied to take account of public input during that period and the views of the Tasmanian Wilderness World Heritage Area Consultative Committee and National Parks and Wildlife Advisory Council. It was endorsed on 11 December 1998 by the Tasmanian Wilderness World Heritage Area Ministerial Council under the joint management arrangement between the Tasmanian and Commonwealth Governments.

In accordance with Section 23(2) of the *National Parks and Wildlife Act 1970*, the managing authorities for the reserves covered by this plan shall carry out their duties in relation to the reserves for the purpose of giving effect to and in accordance with the provisions of this management plan.

Approval

This management plan was approved by His Excellency the Governor-in-Council on 8 March 1999 and, subject to the following paragraph, took effect on 17 March 1999 being seven days after publication of that approval in the *Government Gazette*.

Those provisions which authorise the exercise of other statutory powers (Chapter 8 — Statutory Powers in State Reserves) are of no effect until their inclusion is approved by both Houses of Parliament.

Abbreviations and General Terms

The meanings of abbreviations and general terms used throughout this plan are given below. A glossary of technical terms and phrases is provided on page 206.

the Director

The term 'Director' refers to the Director of National Parks and Wildlife, a statutory position held by the Director of the Parks and Wildlife Service.

the Minister

The 'Minister' refers to the Minister administering the *National Parks and Wildlife Act 1970*.

the Service

The 'Service' refers to the Parks and Wildlife Service, a part of the Department of Primary Industries, Water and Environment and the agency responsible for managing areas declared under the *National Parks and Wildlife Act 1970*, or such other agency of the Government of Tasmania that may in future be responsible for managing these areas.

the WHA

The 'WHA' refers to the Tasmanian Wilderness World Heritage Area (as detailed in table 1, page 14) and 21 additional areas of National Park and State Reserve that are contiguous with the Tasmanian Wilderness World Heritage Area, but do not have world heritage status. These additional areas are noted in table 2, page 15. See also map 2, page 215.

the Tasmanian Wilderness WHA

The 'WHA' less the 21 additional areas, ie only the area specifically listed as world heritage. See Plan Area, page 17.

IUCN

'IUCN' stands for the International Union for the Conservation of Nature and Natural Resources, now known as the World Conservation Union.

ICOMOS

The International Council on Monuments and Sites.

World Heritage Convention

The UNESCO convention concerning the Protection of the World Cultural and Natural Heritage.

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Illustrations: Petra Meer.



" This must be a National Park for the people for all time.

It is magnificent and people must know about it and enjoy it."

Gustav Weindorfer, 1910

Weindorfer was an Austrian who fell in love with Cradle Mountain and built Waldheim chalet. He was an ardent campaigner for the declaration of Cradle Mountain–Lake St Clair National Park.

" To identify, protect, conserve, present and, where appropriate, rehabilitate the world heritage and other natural and cultural values of the WHA, and to transmit that heritage to future generations in as good or better condition than at present."

WHA Management Plan, Overall Objectives, 1999

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SUMMARY

This management plan has been prepared under the *National Parks and Wildlife Act 1970*. It provides the policy framework and management prescriptions to guide management of the WHA for the next 10 years. (For definition of the term 'WHA' see page two.)

This is the second management plan for the WHA; the first was produced in 1992. Although much of the general thrust of the 1992 plan has been retained, this plan also:

- covers new issues that have arisen since 1992;
- incorporates greater community involvement in WHA management;
- more closely integrates recreation and tourism interests;
- provides greater linkage to the World Heritage Convention and
- adds a system of monitoring and evaluation for assessing achievement of the plan's objectives.

This summary highlights new approaches (marked [new]) and major management prescriptions. These are arranged under the relevant chapter headings below.



CHAPTER 1 BASIS FOR MANAGEMENT

At 1.38 million hectares, the Tasmanian Wilderness WHA covers approximately 20% of Tasmania. It includes Tasmania's four largest National Parks, a range of other reserves and some of the best wilderness areas in south eastern Australia.

The area was inscribed on the world heritage list in 1982 and expanded in 1989 in recognition of its outstanding world heritage value.

Joint Commonwealth-State Government arrangements are in place to oversee management of the WHA. These include agreed funding arrangements tied to the implementation of management plans. Full implementation of this plan is contingent upon these funding arrangements. The Tasmanian Parks and Wildlife Service is primarily responsible for management of the area.

The process of reviewing the 1992 management plan has been extensive. Public comment has been sought over a two and a half year period with a large amount of feedback received.



CHAPTER 2 SUMMARY OF VALUES

Features of outstanding significance include extensively glaciated landscapes; undisturbed habitats of plants and animals that are rare, endangered and/or endemic that represent a rich variety of evolutionary processes; magnificent natural scenery and an impressive assembly of Aboriginal sites that include cave art.

The WHA is also highly valued for recreation and tourism based on its natural and scenic qualities.



CHAPTER 3 FRAMEWORK OF MANAGEMENT

[New] The objectives of the 1992 plan have been remodelled and are now aligned more closely to the primary obligations of the World Heritage Convention. For each of the 10 overarching objectives, a brief outline is given of the concepts underlying the objective, and a number of 'key desired outcomes' are identified. These are major outcomes or end-points towards which the management prescriptions in the plan are directed. An overview of the major prescriptions to achieve these key

desired outcomes is presented, along with the main measures that will be used to evaluate the extent of success of management in meeting the plan's objectives.



CHAPTER 4 GENERAL MANAGEMENT STRATEGIES

[New] *10 year plan life*. The management plan is proposed to have a life of 10 years, with a limited review at the five year point.

[New] *Key Focus Areas*. Ten key focus areas are identified. These will be high priority areas to be implemented during the first five years of the plan. They are marked [KFA] where they occur under the relevant headings in this summary.

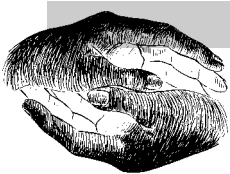
[New] *Resolving conflicts*. A process for resolving conflicts is included to resolve the situation where actions taken to achieve one objective may interfere with the achievement of another.

[New] *Evaluation*. An evaluation system (including reports on progress every 2.5 years) is included which is designed to track the implementation of the plan and measure achievement of the key desired outcomes. [KFA]

Zoning. Much of the 1992 zoning has been retained with the shrinkage of some recreation zones that were unnecessarily wide in some parts of the WHA. The zoning is based around tourism and recreational use of the WHA, retention of wilderness areas and protection of the area's World Heritage and other natural and cultural values.

[New] *Greater community engagement*. The plan acknowledges the need for community support and involvement in the management of the WHA, particularly for local communities. It sets up a framework for the active involvement of interested communities, groups and volunteers in the management of the WHA. [KFA]

[New] *New Proposals Process*. Because the plan has a 10 year life, a process is required to take account of new things that arise that were not considered when the plan was drafted. The New Proposals and Impact Assessment process does this. The process uses different assessment processes depending on the nature of the proposal, its potential impact on values and the degree of public interest in the proposal.



CHAPTER 5 IDENTIFICATION, PROTECTION, CONSERVATION AND REHABILITATION

[New] *Increased emphasis on identifying and protecting the world heritage and other natural and cultural values of the WHA*. A review of the values of the WHA will take account of new discoveries and clarify the status of presently recognised values. It may result in updating or re-nomination of the area for World Heritage listing. [KFA]

Current work will continue on threats to the values of the area such as the high altitude dieback on the Central Plateau, river bank erosion on the Gordon River, and threatened species such as the Lake Pedder galaxiid, orange bellied parrot and King's lomatia. There will be an increased emphasis on research dealing with threatened values. [KFA]

Geographic Information Systems (GIS). Much of modern land management deals with understanding and mapping the values of the land and how they interrelate. A powerful tool for handling this is a GIS. The Service will upgrade and standardise current GIS software and hardware to provide a powerful, accessible and easy-to-use system. [KFA]

[New] *Proposed marine reserve.* At the time of writing, a new marine reserve is being progressed to better protect the unique organisms found in the Bathurst Channel area. (This area is presently part of Southwest National Park; this tenure protects the land but not aquatic animals).

[New] *Feeding wildlife.* Because of the risks to animals, the damage to habitat and the potential risk of injury to visitors, the feeding of wildlife will be discouraged via an active education campaign. Within the WHA, the sale or provision of food for the feeding of wildlife by commercial operators will be prohibited.

[New] *Wilderness mapping.* Maintenance of wilderness is one of the primary ways that the values of the WHA are protected and conserved. Currently available GIS-based methodologies for wilderness assessment will be updated to take account of viewfields and the mountainous nature of Tasmania. The results will be made available as a priority for assessment of new proposals. [KFA]

[New] *Increased Aboriginal involvement in management of the WHA.* The Service recognises the special relationship that exists between the Tasmanian Aboriginal community and the WHA. The Service and the Aboriginal community will set up a partnership to manage for the conservation of Aboriginal values in the WHA. [KFA]

[New] *Established (traditional) Practices.* This section provides for the continuation of established practices, where these do not negatively impact on the values of the area. Partnerships with communities (particularly local communities) will provide for the direct involvement of the community in management of particular areas and values. Provision is made for companion dogs to be taken, under permit, to the Central Plateau Conservation Area and camps within the Macquarie Harbour Historic Site.

Increased fire research. Wildfires can be either destructive or regenerative depending on their timing, intensity and the ecological communities they affect. Managed fires can assist in the control of wildfire and can be a useful tool in habitat management to aid the maintenance of species and communities. The importance of accurate research into the use of fire is critical. The Service will markedly increase management-related fire research over the first five years of the plan. [KFA]

[New] *Fuel Stove Only Area.* An expanded Fuel Stove Only Area (an area where campfires are not allowed) covers most of the WHA, except day use areas where wood is provided, some sites in the Central Plateau, two sites on the South Coast Track and specified Macquarie Harbour camps.

Scientific research. Strict conditions apply for scientific research in the WHA. Collection of specimens requires a permit.



CHAPTER 6 PRESENTATION

Major expansion of WHA internet site. The present World Wide Web site will be expanded with additional background material, more pre-visit information, education content for schools and major reports related to the WHA, including the text of this management plan. [KFA]

[New] *Float planes and helicopters.* An investigation will be undertaken to see if some lakes can be found, outside the Wilderness Zone, where floatplanes and/or helicopters could land with minimal conflict with other users and minimal environmental impact. A maximum of three sites will be allowed. Apart from this provision, conditions on landings remain as per the last plan.

Accommodation. At the time of writing, opportunities for further accommodation within and adjacent to the WHA are being examined. The plan details the process

for approving new accommodation (the New Proposals and Impact Assessment Process) and provides criteria for siting.

[New] *Bait fishing in inland waters.* Baitfishing is as per Inland Fisheries Commission regulations. At the time of writing bait fishing is allowed in two lakes in the Central Plateau Conservation Area. Restrictions on bait types (eg no frogs) also apply.

[New] *Diving.* Preferred dive sites in the Bathurst Channel area are to be identified, education material on diving developed and, if necessary, conditions placed on the use of sensitive areas.

[New] *Hobbies and crafts: fossicking.* Fossicking for specified minerals is allowed at defined sites near Adamsfield, in the Adamsfield Conservation Area.

Horseriding. Current areas remain available under the present conditions and codes of practice. The old packhorse track to Adamsfield can also be considered.

Hunting. Hunting areas are to remain on the Eastern and Northern parts of the Central Plateau Conservation Area. Current boundaries can be varied as required though the overall size of the areas is to remain the same. Two possible small additional areas in and around Macquarie Harbour are to be investigated.

Huts. Existing huts and shacks will be subject to an assessment for their cultural and recreational significance and environmental impact. Huts may be retained, maintained or removed depending on the results of this assessment.

[New] *Huts partnership.* A partnership between the Service and interested members of the public will be encouraged to jointly manage publicly available huts within the WHA.

Vehicle access. Vehicle access remains largely the same as in the 1992 plan, with the exceptions that Raglan Range track has been closed and rehabilitated and the Mt McCall track remains open.

Walking Track Management Strategy. The WHA contains more than 1,000 kilometres of walking tracks and routes. The Walking Track Management Strategy will be finalised and implemented to sustainably manage this extensive track network.

[KFA]

[New] *Presenting the WHA: A Recreation and Tourism Strategy.* The 'natural quality' of the WHA is one of the State's major attractions for tourists. Tourism and recreation are also major ways of presenting the WHA to the public. To successfully marry visitors' expectations and the requirement to present the WHA in the best way possible, a recreation and tourism strategy will be developed. The strategy is part of the Tasmanian government's 'whole of government' approach to tourism. It involves assessing visitor needs in the WHA, looking at what is currently offered both commercially and by land management agencies, and putting together a strategy that meets market demand while minimising impacts on the world heritage and other natural and cultural values of the WHA. This strategy will be developed as a priority within 12 months of this plan being approved. [KFA]

Guided tours. Guided Tours may operate in any zone throughout the WHA subject to licence conditions and provided they abide by the conditions in the Walking Track Management Strategy.

[New] *Commercial huts.* A potential expansion of commercial huts is allowed within recreation zones (except Southwest National Park and the central major use areas of the Walls of Jerusalem National Park and the Central Plateau Conservation Area) if they meet market demand and environmental conditions.

[New] *Film production.* Commercial filming within the WHA is to be in accordance with the Service's Commercial Filming Guidelines.



CHAPTER 7 PRIMARY PRODUCTION

Mineral exploration and mining. These activities are potentially allowed in the Adamsfield Conservation Area under strict conditions.

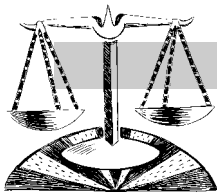
Beekeeping. This activity may continue at current sites. No expansion is permitted unless further research indicates that apiary activities do not pose a threat to the natural processes and biota of the WHA. Further research into the environmental impacts of bees is encouraged.

Grazing. Due to the extensive erosion on the Central Plateau, domestic stock grazing will not be reintroduced into this area.

Aquaculture. Due to potential environmental and social impacts, farming of marine or freshwater species in the WHA is not permitted.

Commercial fishing. Restrictions on commercial sea fishing will be determined by a specific sea fishery management plan, taking account of the proposed Bathurst Harbour – Port Davey area marine reserve.

Driftwood salvage. The salvage of Huon pine from Macquarie Harbour is allowed to continue.



CHAPTER 8 STATUTORY POWERS AND PRIVATE RIGHTS

This section authorises certain Statutory Powers other than those under the *National Parks and Wildlife Act 1970* to operate within the WHA subject to certain conditions.

The rights of private landholders within the WHA are also noted.



CHAPTER 9 ADMINISTRATIVE MATTERS

Management bases. Additional management responsibility and decision making power will be delegated to rangers in the field.

Staffing. Adequate staff levels and capacity will be maintained to carry out the tasks required by this plan.



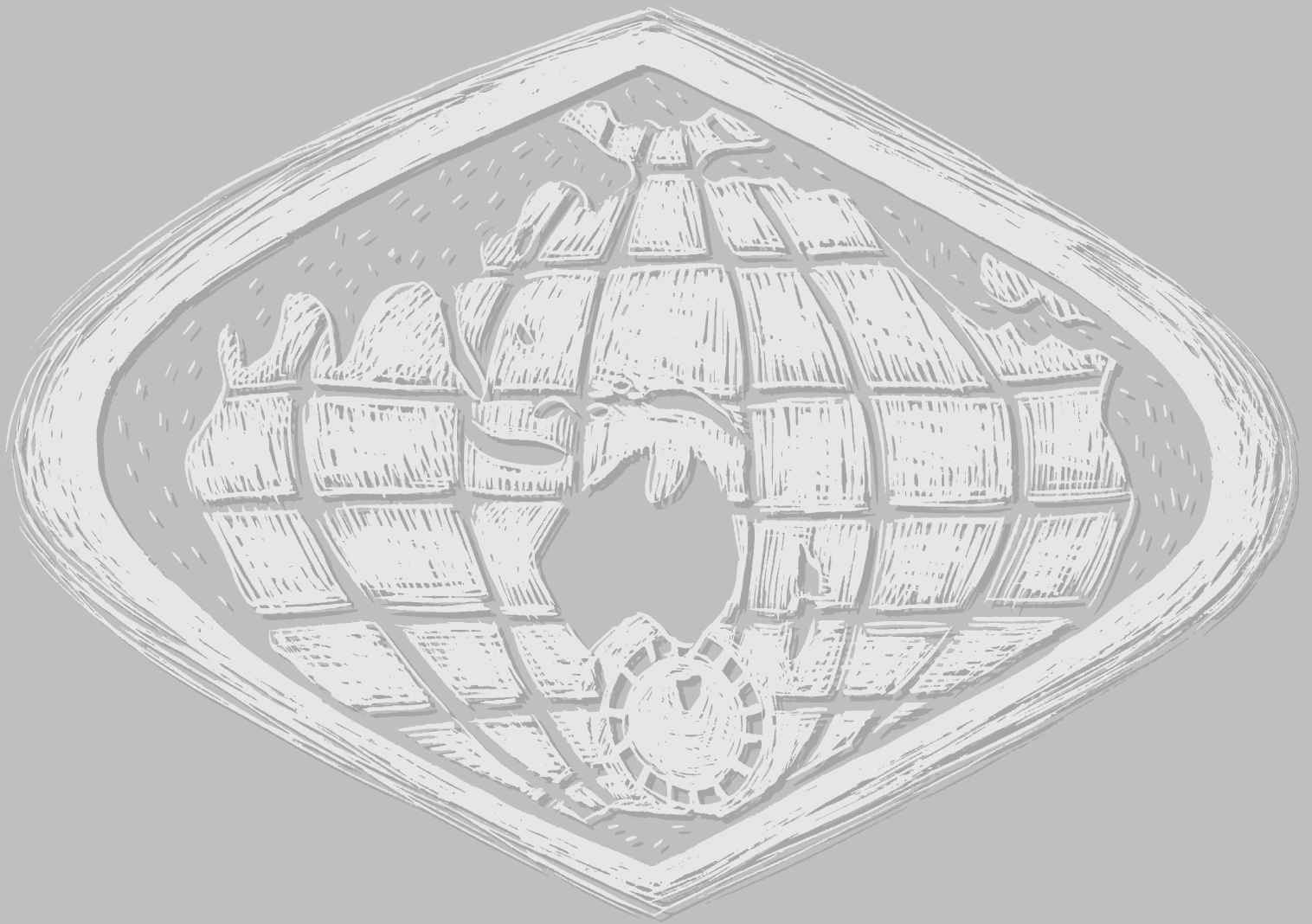
CHAPTER 10 MANAGEMENT OF ADJACENT AREAS

Sympathetic management. Adjacent land holders will be encouraged to manage areas adjacent to the WHA in a manner sympathetic to maintaining the values and presentation of the WHA.

Management plans for adjacent areas. Management plans will be prepared for high priority areas adjacent to the WHA that are managed by the Service.

Chapter 1

Basis for Management



ABOUT THIS PLAN

The purpose of this management plan is to provide a framework for management of the values and use of the WHA that is approved by both the State and Commonwealth Governments. This plan replaces the previous (1992) plan for the WHA.

The area covered by this plan includes most of the Tasmanian Wilderness WHA, except for some small areas of freehold land and 730 ha of Aboriginal land, (see table 1, page 14). It also includes 21 adjacent areas of National Park and State Reserve (see table 2, page 15 and plan area, page 17) which are outside the Tasmanian Wilderness WHA but are covered by this management plan. The Tasmanian Wilderness WHA and these 21 areas are, for the purposes of this plan, called the 'WHA' (see Abbreviations and General Terms, page 2). For the general location of the Tasmanian Wilderness WHA, see map 1, opposite.

The plan sets objectives for the WHA, defines management prescriptions both as policy and as management actions to realise the objectives, and establishes a monitoring system to evaluate whether the objectives are being achieved. The plan also provides the management framework within which subsequent implementation and further detailed planning will take place.

The first two chapters of the plan are descriptive. They cover the basis for management of the area and summarise the area's values. The third chapter casts the broad management vision for the area, sets the overarching management objectives and looks at how these will be implemented and monitored. Chapter four covers general management strategies to achieve these objectives.

Chapters five and six look in detail at the conservation, protection, rehabilitation and presentation of the WHA. Chapters seven, eight and nine cover Primary Production; Statutory Powers and Private Rights, and Administrative Matters respectively. The final chapter covers the Service's management intentions for important areas of Crown Land adjacent to the WHA where

the Service has management responsibility. This last chapter does not form part of the legal management plan for the WHA.

LAND TENURE AND CONSERVATION STATUS

Within the WHA there is a range of land tenure and conservation status determined by State legislation. The areas within each land tenure category are detailed below in Tables 1 and 2 (see pages 14 and 15) and shown on map 2, page 215.

Note that the tenure categories given below are proposed to be changed in accordance with the *Regional Forest Agreement (Land Classification) Act 1998*. This Act is expected to commence in the near future but the changes should not affect the management prescriptions of this plan.

An explanation of the major differences in the conservation status of the different tenures (as at January 1999) is given below. The Service's view of the appropriate IUCN protected area management category¹ for major reserve types is also given. This is a system of protected area management categories used around the world.

State Reserves

(National Parks and Wildlife Act 1970)

These areas are fully protected under the *National Parks and Wildlife Act 1970*. No statutory powers within the meaning of the *National Parks and Wildlife Act 1970* can be exercised within a State Reserve unless authorised by a management plan. State Reserve status cannot be revoked without the agreement of both Houses of Parliament. State Reserves are assigned one of the following names:

- National Park: a State Reserve which has high conservation, scenic and recreational values and, in general, is larger than 4,000 hectares (IUCN Category II);
- Historic Site: a State Reserve where places or structures of historic significance are sited;
- State Reserve: a State Reserve which is generally less than 4,000 hectares in area and which protects features of outstanding natural value but rarely whole ecosystems (IUCN Category II or III) and
- Nature Reserve: a State Reserve managed for the protection of a particular flora or fauna community where recreation is not generally provided for; in general, less than 4,000 hectares (IUCN Category Ia).

1 IUCN - The World Conservation Union 1994 *Guidelines for Protected Area Management Categories*, IUCN, Switzerland p 261 and Australian Nature Conservation Agency, 1996 *Application of IUCN Protected Area Management Categories*, ANCA, Canberra.



MAP 1 LOCATION TASMANIAN WILDERNESS WORLD HERITAGE AREA



**TABLE 1: Land Tenure: Tasmanian Wilderness World Heritage Area
(as at November 1998)**

Land Tenure	Area (hectares)
STATE RESERVES/GAME RESERVE	
Cradle Mountain–Lake St Clair National Park	161,000
Franklin–Gordon Wild Rivers National Park	440,105
Southwest National Park	605,000
Walls of Jerusalem National Park	51,800
Hartz Mountains National Park	7,140
Mole Creek Karst National Park (part)	790
Devils Gullet State Reserve	806
Liffey Falls State Reserve (part)	20
Macquarie Harbour Historic Site	15,300
Farm Cove Game Reserve	1,720
CONSERVATION AREAS	
Central Plateau Conservation Area (includes part of Central Plateau Protected Area)†	89,070
Adamsfield Conservation Area	5,400
Marble Hill Conservation Area	77
Maatsuyker Island#	180
St Clair Lagoon (includes 14ha vested in HEC)	254
Southwest Conservation Area (two parcels at Scotts Peak, vested in HEC)	616
Meander Forest Reserve §	1,660
Liffey Forest Reserve §	1,055
Drys Bluff Forest Reserve §	680
ABORIGINAL LAND	
Wargata Mina Cave	155
Ballawinne Cave	560
Kuti Kina Cave	15
FREEHOLD	
‘Gordonvale’, Vale of Rasselas	100
Central Plateau 5 blocks (approximately)	330
Lake Murchison (vested in HEC)	32
TOTAL AREA (approximately) (approx 20% of land area in Tasmania)	1,383,865

NOTES

† Includes areas at Lakes Augusta and Mackenzie vested in the HEC.

Maatsuyker Island was transferred from Commonwealth freehold to State land on 30/10/98.

§ These areas are managed by Forestry Tasmania and are State Forest as well as being Conservation Areas.

TABLE 2: Land Tenure: Additional reserved areas outside the Tasmanian Wilderness World Heritage Area but within the plan area

Land Tenure	Area (hectares)
NATIONAL PARK ADDITIONS	
Cradle Mountain–Lake St Clair National Park	
Dove River ^{RFA}	320
Mersey Valley (two discrete blocks)	108
Franklin–Gordon Wild Rivers National Park	
Beech Creek and Navarre Plains	841
Counsel River ^{RFA}	141
Beech Creek - Counsel River ^{RFA}	3,927
Tiger Range ^{RFA}	1,140
Nelson Falls ^{RFA}	325
Southwest National Park	
Hartz 'hole' and southeast of Cockle Creek	3,298
Little Florentine River ^{RFA}	821
Styx River ^{RFA}	1,008
Blakes Opening ^{RFA}	3,715
Cook Rivulet ^{RFA}	335
Farmhouse Creek ^{RFA}	334
East Picton ^{RFA}	405
Hastings Caves ^{RFA}	1,254
D'Entrecasteaux River ^{RFA}	1,446
Catamaran River ^{RFA}	394
STATE RESERVE ADDITIONS	
Devils Gullet ^{RFA}	302
Total Additional Areas	20,114

^{RFA} Areas that are to become reserves as a result of the *Regional Forest Agreement (Land Classification) Act 1998*. These areas will be added to the plan area when the Act commences. Until they become reserves these areas are not subject to this plan.

Game Reserves

(National Parks and Wildlife Act 1970)

These are areas where habitats and animals are protected to the same level as in State Reserves except that game species may be taken by permit (IUCN Category IV).

Conservation Areas

(National Parks and Wildlife Act 1970)

Unless greater protection is afforded under a management plan, these areas only provide protection for flora, fauna, geodiversity and cultural relics from the actions of the public, and

not from actions being undertaken in pursuance of a right granted under any other legislation (IUCN Category VI).

Protected Areas

(Crown Lands Act 1976)

These areas are reserved under the *Crown Lands Act 1976* and have a similar level of protection to Conservation Areas. [Rationalisation of these reserve categories is in progress and the Central Plateau part of the WHA, which currently has dual status, will retain only Conservation Area status] (IUCN Category V).

Forest Reserves (*Forestry Act 1920*)

Forest Reserves are also State Forest and are declared under the *Forestry Act 1920*. They are reserved for a variety of reasons including the preservation of flora and fauna, the protection of aesthetic values or sites of scientific interest or for recreational purposes. The three WHA Forest Reserves have also been proclaimed Conservation Areas under the *National Parks and Wildlife Act 1970* to enable them to be covered by this management plan (IUCN Category IV).

Hydro-Electric Corporation areas (*Electricity Supply Industry Act 1995*)

The Hydro-Electric Corporation administers limited areas both within and enclosed by the WHA under the *Electricity Supply Industry Act 1995*. In all land vested in it, the HEC has full authority under the *Electricity Supply Industry Act 1995* to do any works connected with electricity supply subject to the Statutory Powers section of this plan.

Aboriginal land (*Aboriginal Lands Act 1995*)

Aboriginal land is land that has been vested in the Aboriginal Land Council of Tasmania in trust for Aboriginal persons in perpetuity under the *Aboriginal Lands Act 1995*. This management plan does not apply to Aboriginal land in the WHA. The Council or a local Aboriginal group may prepare a management plan for Aboriginal land. The Aboriginal Land Council of Tasmania may enter into co-management arrangements with the Service for the management of Aboriginal land. Aboriginal land is potentially subject to the *Commonwealth World Heritage Properties Conservation Act 1983*.

Freehold land

Freehold land is potentially subject to the *Commonwealth World Heritage Properties Conservation Act 1983*. Freehold land may be made Conservation Area if the owner agrees; otherwise it is not subject to this plan.

Note on Sea and Lake Floors

The sea floor and lake floors within the WHA (eg Port Davey–Bathurst Harbour and lakes in the Central Plateau) are a part of the WHA. Marine animals dwelling on or attached to the sea floor or living within the water column are managed by the Department of Primary Industries, Water and Environment. Aquatic animals in lakes and rivers are managed by the Inland Fisheries Commission.

ADJACENT LAND USE

The WHA is located within the boundaries of six local municipalities — Central Highlands, Meander, Kentish, West Coast, New Norfolk and Huon Valley.

All of the eastern boundary of the WHA, south of the Lyell Highway adjoins State Forest or Crown Land. Apart from a relatively small area of private land associated with the settlement of Derwent Bridge, the WHA is bounded by State Forest from the Lyell Highway to Clarence Lagoon. State Forest is managed by Forestry Tasmania for multiple uses including wood production, recreation, conservation of flora, fauna, landforms, cultural heritage and scenery. The majority of the southern boundary of the Central Plateau Conservation Area adjoins freehold land apart from the Great Lake and environs which are administered by the Hydro-Electric Corporation (HEC). The freehold land is used for grazing and/or logging. HEC land is managed to protect the catchment of Great Lake.

The WHA boundary along the top of the Great Western Tiers and in the Mersey and Forth Valleys adjoins State Forest with the exceptions of the Meander, Drys Bluff and Liffey Forest Reserves; the Marakooopa Cave section of the Mole Creek Karst National Park (parts of which are bounded by private land) and where the WHA adjoins unallocated Crown Land west of Lobster Rivulet. The Middlesex Plains area, near Cradle Valley, is private property used for cattle grazing. The unallocated Crown Land which abuts the northern and north-western boundary of the Cradle Mountain-Lake St Clair National Park is subject to forestry activities.

The western boundary of the WHA adjoins the Southwest and Granite Tor Conservation Areas and Crown Land administered by the Parks and Wildlife Service, all of which is available for mineral exploration. The Teepookana State Forest south of the King River is managed for multiple uses including production of Huon pine and other specialty timbers. A corridor between Melaleuca Inlet and Cox Bight is also Conservation Area. Small-scale tin mining is currently conducted at Melaleuca.

In recent years tourism establishments have been developed or expanded near the WHA to take advantage of its attraction for visitors. Notable centres of development are Pencil Pine at the

northern edge of Cradle Mountain–Lake St Clair National Park, Derwent Bridge near Lake St Clair, Strahan on the west coast (where the tourism industry is largely dependent on cruises based on the Gordon River) and Geeveston in the south-east.

Other smaller businesses have been established on the approach roads to the WHA to provide services, accommodation and specialised holidays for visitors.

Commercial fishing is undertaken in coastal waters adjacent to the WHA and on a limited scale within Port Davey.

PLAN AREA

The area subject to this management plan is all of the Tasmanian Wilderness WHA as set out in table 1, page 14, (except for Lake Murchison [vested in the HEC without Conservation Area status - 32 ha], other freehold land [approximately 430 ha] and Aboriginal land [730 ha]) and 21 additional areas (see Table 2, page 15).

Tenure Changes and Additions

The Mole Creek Karst National Park was proclaimed on 13 November 1996. The park includes that part of the former Marakoopa Cave State Reserve within the WHA and several other areas outside the WHA. (See table 1, page 14 for the reserve's area and map 2, page 215, for its location).

The plan area also includes 21 small areas of National Park and one area of State Reserve that are not within the WHA but are contiguous with it. These areas are, or soon will be, covered by this management plan. (See table 2, page 15).

The 21 areas include two small areas added to the Southwest National Park (south of Hartz Mountains [the 'Hartz hole'] and south-east of Cockle Creek) in June 1991. Another two small areas included in the Franklin–Gordon Wild Rivers National Park, one in the vicinity of the Navarre Plains, the other in the Beech Creek area. Two further small areas at Lees Paddocks in the Mersey Valley were added in 1991. In December 1998 the *Regional Forest Agreement (Land Classification) Act 1998* received Royal Assent. On commencement this Act will declare a further 15 areas (one area of State Reserve and 14 National Park additions) to be reserved land. This plan hereby prescribes that once these areas become

reserved land they will become part of the plan area and subject to the relevant prescriptions of this management plan. See map 2, page 215 for their location.

The term 'WHA' is used throughout this plan to refer to the World Heritage Area and the 21 contiguous areas. The term 'Tasmanian Wilderness WHA' is used when referring to the declared Tasmanian Wilderness World Heritage Area alone.

There is an active proposal to re-instate the Truchanas Nature Reserve (currently part of the Franklin–Gordon Wild Rivers National Park). This area, which was previously a Nature Reserve, was subsumed within the Franklin–Gordon Wild Rivers National Park when it was proclaimed.

The coastal boundary of the WHA extends to the low water mark. Off shore islands, rocks and reefs adjacent to the coastal boundary are also part of the World Heritage Area.

INTERNATIONAL AGREEMENTS

The UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention) provides a permanent framework designed to complement and stimulate national programs aimed at conserving natural and cultural areas of outstanding universal value. The convention aims to promote cooperation among nations to protect world-wide heritage which is of such outstanding universal value that its conservation is of concern to all people. By becoming a state party to the Convention in 1974, Australia became one of the first nations to recognise that each country holds in trust for the rest of humanity those parts of the world heritage that are located within its boundaries.

The World Heritage Convention establishes a list of sites of global significance. When a country becomes party to the convention, it recognises that it is its duty to ensure the identification, protection, conservation, presentation and transmission to future generations of the world heritage on its property (Article 4 of the Convention).

The World Heritage Committee, which assesses sites for World Heritage listing, has no power in relation to the ownership or management of listed properties. The sovereignty of any listed site remains with the country within which the site is

located. Management should, however, be in accordance with the duties and obligations of signatories to the Convention. Of particular relevance is Article 5 of the Convention which states:

To ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party to this Convention should endeavour, in so far as possible, and as appropriate for each country:

- (a) *to adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community and to integrate the protection of that heritage into comprehensive planning programs;*
- (b) *to set up within its territories, where such services do not exist, one or more services for the protection, conservation and presentation of the cultural and natural heritage with an appropriate staff and possessing the means to discharge their functions;*
- (c) *to develop scientific and technical studies and research and to work out such operating methods as will make the State capable of counteracting the dangers that threaten its cultural or natural heritage;*
- (d) *to take the appropriate legal, scientific, technical, administrative and financial measures necessary for the identification, protection, conservation, presentation and rehabilitation of this heritage and*
- (e) *to foster the establishment or development of national or regional centres for training in the protection, conservation and presentation of the cultural and natural heritage and to encourage scientific research in this field.*

In 1982 the then Cradle Mountain–Lake St Clair National Park, Franklin–Lower Gordon Wild Rivers National Park and Southwest National Park were inscribed on the World Heritage List as the Western Tasmania Wilderness National Parks World Heritage Area — an area of 769,355 hectares. In 1989, an enlarged nomination, known as the Tasmanian Wilderness World Heritage Area, was accepted for inclusion on the World Heritage list. This listing incorporated the original 1982 property and further expanded the area to its current size (see table 1, page 14).

The Southwest National Park was designated as a Biosphere Reserve in 1977. The UNESCO Man and the Biosphere Program has established a network of Biosphere Reserves in different biogeographic regions as benchmarks against which to monitor human impact on the environment.

COMMONWEALTH LEGISLATION

The *World Heritage Properties Conservation Act 1983* was enacted to provide a means of ensuring that the WHA was managed in accordance with its world heritage status. The Act, which provides for the protection and conservation of those properties in Australia and its external territories that are of outstanding universal natural and cultural value, does not enable the Commonwealth Government to assume responsibility for the management of a property. The Act only authorises the Commonwealth to prevent the damage or destruction of a property by regulation through the prohibition of prescribed activities.

The majority of the WHA is included on either the Register or Interim List of the National Estate as defined by the *Australian Heritage Commission Act 1975*. The Act requires the Commonwealth Government not to take any action that adversely affects places on the Register of the National Estate unless there are no feasible or prudent alternatives. Where there are no feasible or prudent alternatives, all reasonable measures are to be taken to minimise the adverse effect (section 30, *Australian Heritage Commission Act 1975*).

The plan has been assessed under this Act and also under the *Environmental Protection (Impact of Proposals) Act 1974* and complies with the requirements of both Acts.

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984*, currently empowers the Commonwealth to protect threatened Aboriginal heritage at the request of Aboriginal people. However, at the time of writing this legislation is being reviewed.

The Australian Maritime Safety Authority operates a light station on Maatsuyker island under the *Lighthouse Act 1911*. The island was transferred from Commonwealth freehold to State land on 30 October 1998.



MANAGEMENT ARRANGEMENTS

Joint Commonwealth-State Agreement

In order to fulfil its obligations under the World Heritage Convention, the Commonwealth Government has played a significant role in the planning and management of the area. On 23 January 1985, the State and Commonwealth governments reached agreement on joint management arrangements for the Tasmanian Wilderness WHA. Under the terms of the agreement, a Council of Ministers (the Tasmanian World Heritage Area Ministerial Council) was created to advise and make recommendations to both governments on:

- management plans for the WHA;
- management requirements;
- annual and forward programs of expenditure for capital and recurrent costs of managing the WHA and development of appropriate infrastructure, accommodation and facilities and
- scientific studies in relation to matters of natural and cultural significance.

The Ministerial Council comprises two representatives each from the Commonwealth and State governments.

A Standing Committee of officials has been set up to advise the Ministerial Council and to oversee policies, programs, funding arrangements and the administration and preparation of management plans for the area.

A 15 member Consultative Committee has been established with a chair appointed by the Ministerial Council and half the members appointed by each government. Membership of the committee is broad-based and includes members from the scientific community, Aboriginal community, recreational interests, local government, conservation interests, industry and tourism. The role of the Committee is to provide advice to the Ministerial Council and Standing Committee on matters relating to the development and management of the WHA, of its own motion or in response to requests from the Ministerial Council or Standing Committee. The term of appointment of a committee member is three years, with provision for extension.

At the time of writing, the Review of Commonwealth-State Roles and Responsibilities for the Environment (Beale Committee) is still in

progress and its recommendations may lead to changes in the present management arrangements.

The Tasmanian Regional Forest Agreement (RFA) has been agreed between the State and Commonwealth governments. During the RFA process, 15 proposed extensions (14 to national parks and one proposed extension to a State Reserve) were identified as having potential world heritage values. These areas are to be added to the plan area (see Tenure Changes and Additions, page 17). See table 2, page 15 and map 2, page 215 for their area and location respectively. All these areas will be considered for world heritage nomination at a later date as part of the review of values, see page 74.

Some of the forests in the WHA are a part of the Comprehensive, Adequate and Representative reserve system negotiated as part of the Regional Forest Agreement. Management of these forests for their conservation values is compatible with broader WHA management objectives.

Funding

Since the initial listing of the WHA in 1982, the Commonwealth has made a significant contribution towards capital works and operational funding for the WHA.

Commonwealth funds for management were first paid to Tasmania following the decision of the High Court of Australia in July 1983 that resulted in cessation of the Gordon-below-Franklin power development. With expansion of the WHA in 1989, the existing Commonwealth funding was expanded.

In 1994 agreement was reached on a four year funding arrangement for the WHA comprising a 1994–95 State contribution of \$3.0 million and a Commonwealth contribution of \$5.1 million. These contributions were maintained for the period of the agreement.

In December 1998 the Tasmanian WHA Ministerial Council reached agreement on a further four year funding agreement. This agreement comprised a State contribution of \$3.4 million and a Commonwealth contribution of \$5 million in 1998–99. The funding agreement was negotiated based on the requirements to adequately implement the first four years of this plan.

The program for implementing the plan assumes continuation of at least this level of funding, in

real terms, for the life of the plan. (See Implementation of this plan, page 45).

Future funding arrangements between the Commonwealth and State governments for the WHA will be linked to the management prescriptions of this plan and/or any approved amendment to this plan.

MANAGEMENT PLANNING

The Planning Process

The 1992 management plan was the first management plan prepared for the Tasmanian Wilderness WHA and came into effect on 30th September 1992. The review of the 1992 plan commenced in 1995.

The review process considerably expanded on the public involvement required under the *National Parks and Wildlife Act 1970*. It was designed to allow the broadest possible involvement of the public at the earliest possible point in plan development. The review was a four stage process.

Stage one involved the distribution of 'Issues Stocktake Kits' to interested members of the public and stakeholders. These requested people list the major issues they saw for the area and how they felt these issues should be managed in the revised plan. 300 responses were received.

Stage two of the review saw the release of 10 Issues and Options papers. These outlined major issues and possible options for future management. 587 responses were received. This stage also involved public meetings to discuss the plan with communities bordering the WHA.

Two major projects were also undertaken during stage two. These looked at Aboriginal involvement in management of the WHA, and at non-Aboriginal 'established practices'.

Stage three involved the release of the draft management plan for a two month public comment period. 384 responses were received.

The fourth and final stage of the review was the production of the final management plan taking account of the comments received on the draft during stage three. The comment received was considered in the context of:

- the range of views expressed;
- the objectives of the plan;

- the requirements of the World Heritage Convention and the *National Parks and Wildlife Act 1970*;
- the views of the World Heritage Area Consultative Committee and the National Parks and Wildlife Advisory Council and
- the experience of Service staff.

The statutory and administrative procedure for approval of the plan, as shown in figure 2 (see page 47) was followed.

In addition to and consistent with the statutory management plan for the WHA, the Service will continue to prepare a range of subsidiary, non-statutory plans for special purposes including fire management, conservation of cultural resources, visitor interpretation, recreation management, Visitor Services Site development, walking track management, weed control, rehabilitation, wildlife and karst management.

In consultation with the Service, Forestry Tasmania will prepare non-statutory plans for the three Forest Reserves. The WHA management plan is the statutory management plan for these reserves. Forestry Tasmania, in collaboration with the Service, may prepare other plans for these areas. The relationship between this management plan and other plans for the area is detailed in the relevant Forestry Tasmania plan (currently the Great Western Tiers Management Plan or as replaced by any subsequent Mersey District Forest Management Plan).

The Inland Fisheries Commission will prepare a freshwater fisheries management plan for the Central Plateau area.

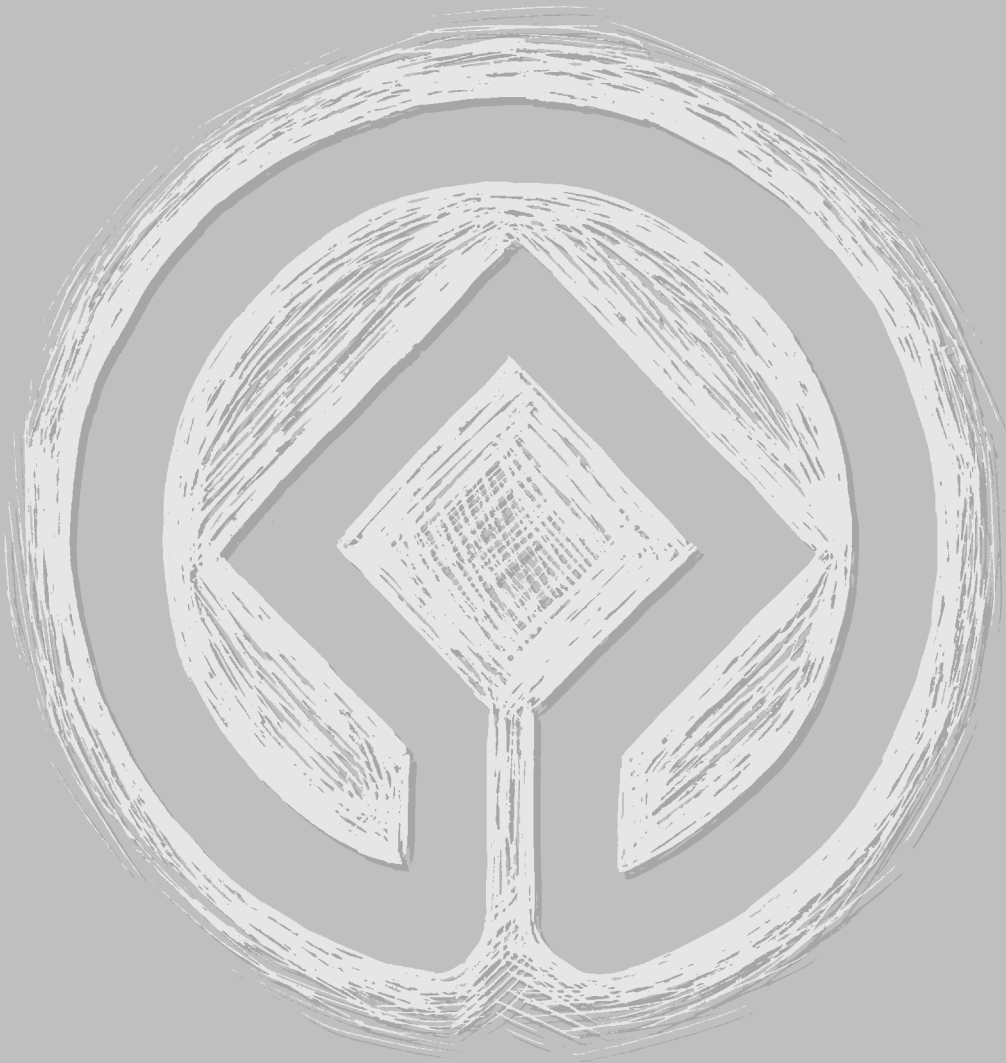
Responsibility for Plan Implementation

Plan implementation will be handled by the relevant management agency depending on the area's tenure. The majority of land within the WHA is reserved under the *National Parks and Wildlife Act 1970*, and is managed by the Parks and Wildlife Service. The Hydro-Electric Corporation administers the areas listed in table 1. Freehold land and Aboriginal land remain the responsibility of the land owners. The three Forest Reserves along the Great Western Tiers are managed by Forestry Tasmania.

How the plan will be implemented is covered in detail in Plan Implementation and Review, see page 44.

Chapter 2

Summary of Values



GLOBAL AND REGIONAL CONTEXT

The Tasmanian Wilderness WHA (see map 2, page 215) is one of over 506 properties in more than 107 countries on the World Heritage List (at December 1997). These properties are recognised as places of outstanding universal value forming part of the natural and cultural heritage of the world community. Listing gives formal recognition to the international significance of the natural and cultural values of the Tasmanian Wilderness WHA.

On a global scale, the Tasmanian Wilderness WHA can best be compared with two other temperate wilderness areas in the Southern Hemisphere — South West New Zealand and Los Glaciares in Argentina (both also World Heritage properties). Like these areas it is a rugged, glacially-formed mountainous region of exceptional natural beauty situated in the path of strong moisture-laden westerly winds. Although each region is unique, they are united in evolutionary history. Each displays strong floristic, geological and faunal links with the ancient supercontinent Gondwana and together they provide evidence of past continental formations and environments.

The characteristics of the Tasmanian Wilderness WHA are quite different from other places in Australia on the World Heritage list. As at December 1997 other listed places in Australia were Kakadu National Park, the Great Barrier Reef, the Willandra Lakes Region of Western NSW, the Lord Howe Island Group, Central Eastern Rainforest Reserves, Uluru-Kata Tjuta National Park, the Wet Tropics of Queensland, Fraser Island, Shark Bay, the Australian Fossil Mammal Sites (Riversleigh and Naracoorte) and Macquarie Island.

The Tasmanian Wilderness WHA is one of the largest conservation reserves in Australia. Consisting of 1.38 million hectares, the WHA occupies approximately 20% of the island State of Tasmania. Due to its size and qualities, it is of immense importance to the conservation of the State's natural and cultural values and of major importance to its social and economic future.

WORLD HERITAGE CRITERIA

The area was nominated for World Heritage listing and met the criteria noted below. The criteria for World Heritage listing have

subsequently been updated; however until the values of the Tasmanian Wilderness WHA have been reviewed in the light of these new criteria (see Identifying Values, page 74) the criteria listed below are those that formally apply.

The Tasmanian Wilderness WHA satisfies all four criteria for World Heritage listing for its natural values. It:

- is an outstanding example representing the major stages of the earth's evolutionary history;
- is an outstanding example representing significant ongoing geological processes, biological evolution and humanity's interaction with the natural environment;
- contains superlative natural phenomena, formations or features, or areas of exceptional natural beauty and
- contains the most important and significant natural habitats where threatened species of animals or plants of outstanding universal value still survive.

Additionally the area fulfils three of the seven cultural criteria for listing. It:

- bears a unique or at least exceptional testimony to a civilisation which has disappeared;
- is an outstanding example of a traditional human settlement which is representative of a culture and which has become vulnerable under the impact of irreversible change and
- is directly or tangibly associated with events or with ideas or beliefs of outstanding universal significance.

Note that this nomination does not deny the existence of the present day Aboriginal community, the continuity between the Aboriginal community and their ancestors and Aboriginal interests and rights, see Aboriginal Management, page 100.

The following sections provide a summary of the values of the area and are based principally on the World Heritage nomination document produced in 1989.

This summary does not attempt to address or evaluate recently acquired knowledge about values that may be of World Heritage significance (for example, the recently discovered benthic communities in Bathurst Channel) or to address

recent refinements or additions to the criteria for inclusion in the World Heritage list (for example cultural landscapes). For information on how new or additional values will be taken into account in the future, see Identifying Values, page 74.

The Tasmanian Wilderness WHA embraces a suite of individual sites with particular qualities. Many values are naturally disjunct (for example, a variety of alpine ecosystems on scattered mountain ranges) and it is the aggregate of individual but complementary occurrences which constitutes the world heritage value rather than any individual site. Individual sites may not possess the most outstanding example of a particular value but when viewed as a complex with many surrounding features of significance, the entire area serves to demonstrate an array of features of global significance. The significance of the area should therefore be considered as a whole — not merely as the sum of its specifically identified values.

The area comprises a large percentage of the remaining extensive, high quality, temperate wilderness in Australia, and is one of only a few such regions in the world. It is this wilderness quality which underpins the Tasmanian Wilderness WHA's success in meeting the criteria as a natural property and which is the foundation for the maintenance of the integrity of both the natural and cultural values of the area.

NATURAL VALUES

The outstanding natural values of the Tasmanian Wilderness WHA include glacially-formed landscapes of exceptional beauty such as Cradle Mountain, Frenchmans Cap and the Arthur



Ranges; an impressive assemblage of karst and erosional features; pristine catchments where natural processes continue; living evidence of the

previous existence of the supercontinent Gondwana; a profusion of threatened, rare and endemic plants including the native conifers, Huon pine (*Lagarostrobos franklinii*) and King Billy pine (*Athrotaxis selaginoides*); a complex mosaic of vegetation, including moorland, rainforest, alpine, eucalypt and riparian communities; undisturbed stands of the world's tallest flowering plant (*Eucalyptus regnans*); an assemblage of the world's largest carnivorous marsupials, the Tasmanian devil (*Sarcophilus harrisii*), the spotted-tailed quoll (*Dasyurus maculatus*), eastern quoll (*D. viverrinus*); two of the only three surviving species of monotremes — the most primitive group of mammals in the world — the platypus (*Ornithorhynchus anatinus*) and the short-beaked echidna (*Tachyglossus aculeatus*), and rare and threatened species such as the Lake Pedder galaxias (*Galaxias pedderensis*), Pedra Branca skink (*Niveoscincus palfremani*) and orange-bellied parrot (*Neophema chrysogaster*).

The Tasmanian Wilderness WHA is of immense importance to native species as an undisturbed natural ecosystem where biological, ecological and evolutionary processes can occur largely free from interference by humans. Not only are the natural values of the Tasmanian Wilderness WHA of scientific, educational and recreational importance to the world community but many believe they are also of intrinsic value in



themselves. The area is therefore of significance at all levels as a place where the rights of nature are recognised and respected.

In a national context the WHA is significant as one of the largest conservation reserves in Australia. It is noted for intrusions of Jurassic dolerite not found in Australia outside of Tasmania; the most extensive glacially-formed



landscapes in Australia; important karst features such as caves that are amongst the longest, deepest and best decorated in the nation; it contains a significant proportion of Australia's cool temperate rainforest and snow country; and is the stronghold of many animals that are extinct, rare or threatened on the mainland of Australia, including the pademelon (*Thylogale billardieri*), eastern quoll (*Dasyurus viverrinus*), broad-toothed mouse (*Mastacomys fuscus*), and ground parrot (*Pezoporus wallicus*).

In the Tasmanian context the WHA is significant because it contains most of the state's pristine high-rainfall environment; alpine and sub-alpine environment; glaciated landscapes and karstic rocks; extensive unmodified coastal formations; around 20% of the state's rainforest; approximately 240 out of a total of 320 Tasmanian endemic higher plant species — of which about half have most of their distribution within the WHA; stands of tall eucalypt forest and secure habitat for many species of animals.

CULTURAL VALUES

The outstanding cultural value of the Tasmanian Wilderness WHA is the rich, undisturbed suite of Pleistocene Aboriginal sites dating back over 35,000 years which include cave paintings and cultural deposits bearing testimony to an Ice Age society. Lack of disturbance enhances the value of these sites.

Holocene Aboriginal sites (up to 3,000 years old), consisting of extensive middens on the south and south-west coasts, exemplify a hunter-gatherer way of life in a rugged and harsh coastal landscape. These sites (which have been relatively undisturbed by European settlement) are significant as examples of a traditional settlement pattern.

In the national context, these Aboriginal sites provide valuable evidence about the original settlement of Australia, life in the most southerly part of the country during the Ice Age and human responses to climate change. The sites are of major cultural significance for the Tasmanian Aboriginal community.

Note that all Aboriginal sites within the WHA are important to the Aboriginal community. Note also that the Aboriginal perception of values, in many situations, does not divide natural from cultural values, eg plants and animals are of cultural value to the Aboriginal community.

Cultural values of the Tasmanian Wilderness WHA also include historic features from more recent activities. The remains of the Macquarie Harbour penal settlement — the first penal settlement in Tasmania — are internationally significant as an example of colonisation of remote parts of the world in the 18th and 19th centuries by means of the forced transportation of convicts across the world. The convict sites in the Tasmanian Wilderness WHA have outstanding importance as early examples of this major global social phenomenon. The WHA also contains remains of sites related to other historic themes including exploration, Huon pine logging, mining, hunting, high altitude



grazing, hydro-electric development and recreation. These sites have significance in terms of the history of Tasmania's development.

For the modern Australian community a significant cultural value of the Tasmanian wilderness is as a place for reflection, a source of inspiration and as a symbol of untouched nature. In these times of widespread environmental degradation, for many people there is great value in simply knowing that a large area of temperate wild country still exists in Australia. For other people direct experience of wild country provides challenge and adventure and can also be therapeutic and character-building.

RECREATIONAL VALUES

The outstanding recreational value of the WHA is the opportunity it provides for experiencing wilderness. A wide range of recreational activities is available including walking, sightseeing,



rafting, caving, and fishing — all of international significance.

At the national and State level, the WHA is of greatest significance for self-reliant recreation such as long distance walking trips, rafting and trout fishing. It has some of the best opportunities for these activities in the Australasian region. The WHA also provides many opportunities for less strenuous activities such as short walks, picnics and scenic flights and has the potential for specific activities based around nature appreciation.

On a local level, a range of established practices such as limited wallaby and duck hunting and horseriding continue in specified areas within the WHA under agreed conditions.

ECONOMIC VALUES

Tourism

Tourism is recognised as a major vehicle for economic growth in Tasmania. A 1997 report by the University of Tasmania's Centre for Regional Economic Analysis showed that in 1995 tourism provided jobs for 18,000 Tasmanians. The report also showed that tourism contributed, after tax, \$735 million a year to the State, or more than 10% of gross state product. Tourism 21, the Strategic Business Plan for Tourism, 1997-2000 has been developed with the aim of producing a single, comprehensive plan that will build a foundation for long term, sustainable tourism growth. Tourism 21 estimates that by the end of the plan period, tourism will be a billion dollar industry, employing 23, 000 Tasmanians.

The development of nature based tourism is integral to the future growth of the tourism industry. Tasmania's Wilderness World Heritage Area is the centrepiece of Tasmania's natural areas. Nationally, Tasmania is recognised for its natural qualities. Research over successive years has highlighted that Tasmania's core identity relates to our geographic position in the world with the attributes of a unique and diverse natural setting and a clean unpolluted environment.

Water catchment management

A large proportion of the catchments for the major hydro-electric power schemes in the State are within the WHA and these play a vital role in moderating runoff and minimising impoundment siltation. This function is highly significant for Tasmania's power supply.

Resource extraction

Between January 1992 and December 1996, 300 cubic metres of Huon Pine sawlogs were salvaged from Macquarie Harbour under commercial licence. In addition 9 cubic metres was taken under non-commercial craftwood licences from January, 1994 to January, 1997.

There are 45 apiary sites in the WHA, operated by thirteen beekeepers with annual production of leatherwood honey valued at \$245,000 (1997 dollars).

2 Tourism Tasmania and the Tourism Council of Australia (Tasmanian Branch), 1997 *Tourism 21, A partnership for Tourism Success - Strategic Business Plan for Tourism 1997-2000* Tourism Tasmania, Hobart.

Since the cessation of the small scale Osmiridium mining venture at Adamsfield, no mining activity is undertaken within the WHA.

It is recognised that other economic values may exist in the area.

OTHER VALUES

Human society relies on the natural and cultural resources of the WHA in many less visible ways.

Scientific Research

The array of natural and cultural values within the WHA is of immense scientific interest and provides opportunities for expanding knowledge about the processes of climatic change, the evolution and adaptation of many forms of life, (including humans) to profound environmental changes, and recent human history. The value of the WHA for research is of international significance.



Education

The WHA can be used as a giant outdoor classroom for learning about the natural world, bush skills and Aboriginal and colonial societies. It is of international, national and local significance in this regard.

Inspiration

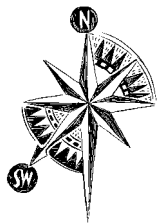
The beauty and natural forces of the WHA and our human interaction with the area are a powerful source of inspiration for artists, photographers and crafts people throughout the world and particularly for those living in Tasmania.



Chapter 3

Framework of Management: Plan Objectives and Key Desired Outcomes

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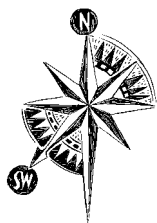
Background

The purpose of this chapter is to present the overall framework on which management of the WHA will be based.

The chapter firstly covers a number of guiding principles and documents that have assisted in framing the objectives and management prescriptions of the plan.

The chapter then presents the overarching objectives of this plan (the 'big picture' of what we are trying to achieve); the key desired outcomes of management (the main results or end-points we are aiming to achieve); an overview of the key prescriptions to be implemented to achieve these outcomes and an overview of the key mechanisms used to monitor and evaluate the extent of success. These last two elements link to other sections of the plan where the implementation, monitoring and evaluation programs are covered in detail.

The other chapters of this plan build on this management framework and present more specific objectives and detailed management prescriptions for implementation, monitoring and evaluation. The flowchart below (figure 1) displays the relationship between these various elements.



Guiding Documents and Principles

Formulation of this plan has been influenced by many considerations including:

- maintaining the general thrust of the 1992 WHA plan while updating and fine tuning the contents;
- covering omissions;

- providing a closer linkage to the responsibilities engendered by the World Heritage Convention;
- reflecting new information and the experience gained from administering the 1992 plan and
- taking on board feedback from the public, the World Heritage Area Consultative Committee and other advisory groups, Service staff and others.

The plan also reflects concepts contained in the legal instruments, guiding documents and principles cited below.

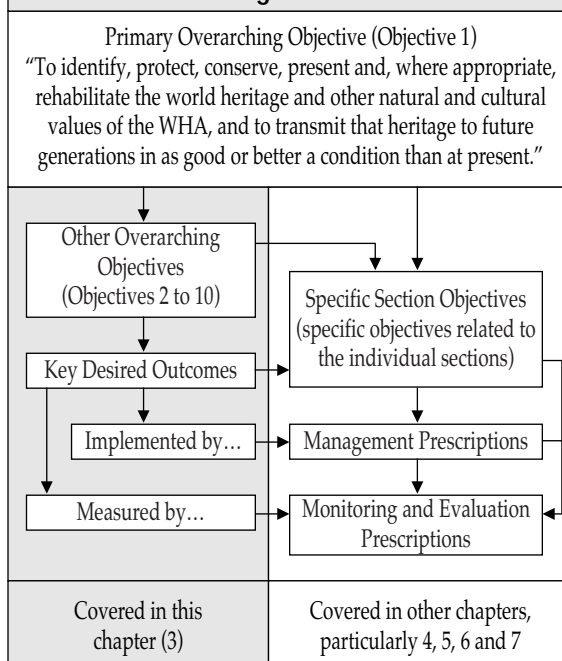
The World Heritage Convention

The obligations of management specified in the World Heritage Convention, in particular Articles 4 and 5, and the Operational Guidelines of the convention, see International Agreements, page 17.

Legal Requirements

The Service is required to manage the WHA under the *National Parks and Wildlife Act 1970* and its Regulations, and in accordance with other relevant National and State legislation, and common law. See Law Enforcement, page 199.

Figure 1: Inter-relationship between Objectives, Key Desired Outcomes, Management Prescriptions, Monitoring and Evaluation





Key Guiding Documents

- *The Richmond Communique: Principles and Guidelines for the Management of Australia's World Heritage Areas*, Australian Committee for IUCN Inc., ACIUCN Occasional Paper Number 6, 1995.
- *Managing Australia's World Heritage*, Parliament of the Commonwealth of Australia, House of Representatives Standing Committee on Environment, Recreation and the Arts, October 1996.
- *Australian Natural Heritage Charter: Standards and Principles for the Conservation of Places of Natural Heritage Significance*, Australian Heritage Commission in association with the Australian Committee for IUCN, 1996.
- *The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter)* in the Illustrated Burra Charter, Australia ICOMOS Inc with the assistance of the Australian Heritage Commission, 1992.
- *Nomination of the Western Tasmania Wilderness National Parks by the Commonwealth of Australia for Inclusion in the World Heritage List*, Tasmanian Government, Australian Heritage Commission, 1981.
- *Nomination of the Tasmanian Wilderness by the Government of Australia for Inclusion in the World Heritage List*, the Commonwealth Department of the Arts, Sport, the Environment, Tourism and Territories; and the Government of Tasmania, 1989.

Conservation Management Principles

Principle of Inter-Generational Equity

This generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations. (*The Burra Charter* and *Australian Natural Heritage Charter*)

Principle of Intra-Generational Equity

The policies and decisions that affect current generations must incorporate social equity measures in order to ensure the equitable distribution of costs and benefits. (*Based on 'Ecologically Sustainable development Working Group Chairs Intersectoral Issues Report', Commonwealth of Australia, 1992*)

Principle of Existence Values

Living organisms, earth processes and ecosystems may have value beyond the social, economic or cultural values held by humans. (*Australian Natural Heritage Charter*)

Principle of Uncertainty

Our knowledge of natural heritage and the processes affecting it is incomplete, and the full potential significance or value of natural heritage remains unknown because of this uncertain state of knowledge. (*Australian Natural Heritage Charter*)

Precautionary Principle

Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. (*Australian Natural Heritage Charter*). Also where there is reasonable risk of unacceptable or irreversible environmental damage from a development or management proposal to natural and cultural values the risk should be avoided or reduced. (*Based on 'Ecologically Sustainable Development Working Group Chairs Intersectoral Issues Report'*)

Principle of Ecological Sustainability

Decision-making processes should effectively integrate both long and short term considerations, and in particular should maintain geodiversity and biodiversity; the physical and ecological processes that support natural diversity; and the effective functional role of ecosystems and of natural diversity within those systems³.

Principle of Indigenous People's Rights

Management of the WHA should recognise the rights, and take into account the interests, of Australia's indigenous people. (*Based on Richmond Communique*).

Principle of Community Involvement

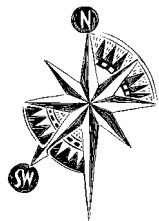
Decision-making processes should provide for broad and meaningful community involvement on issues that affect them, without being dominated or determined by particular sectors or interests. (*Based on ³ and Richmond Communique*)

Principle of Transparency of Decision-Making

The framework and processes for decision-

3 Developed from *National Strategy for Ecologically Sustainable Development*, Commonwealth of Australia, 1992; and *Multiple Use Management in the Australian Marine Environment: Principles, Definitions and Elements Report* commissioned by Environment Australia, June 1997.

making related to management of the WHA should be transparent, and the bases of decisions should be accessible to the public. (Based on *Richmond Communique*)



Overarching Management Objectives

The overarching management objectives of this plan are given below. They provide the basis from which the more detailed objectives and management prescriptions in later chapters of the plan are derived. Key words and phrases that are used in these objectives are defined in the glossary, page 206.

OVERALL OBJECTIVE OF MANAGEMENT

1. To identify, protect, conserve, present and, where appropriate, rehabilitate the world heritage and other natural and cultural values of the WHA, and to transmit that heritage to future generations in as good or better condition than at present.

The following objectives expand upon and augment the overall objective of management.

OTHER OBJECTIVES OF MANAGEMENT

Identify Values

2. To identify and more fully understand the World Heritage and other natural and cultural values of the WHA, their significance, and management requirements.

Protect, Conserve and Rehabilitate Values

3. To identify and take appropriate protective action to prevent, mitigate or manage within acceptable limits, adverse impacts on, or threats to, the World Heritage and other natural and cultural values of the WHA.

4. To conserve the values of the WHA in a manner consistent with their natural and cultural significance, and where appropriate, feasible and sustainable, to rehabilitate or restore degraded values. In particular to:
 - 4.1 maintain or restore natural diversity and processes;
 - 4.2 maintain or enhance wilderness quality;
 - 4.3 maintain or enhance environmental quality;
 - 4.4 maintain or enhance landscape quality and
 - 4.5 protect and conserve historic heritage and Aboriginal heritage (in partnership with the Aboriginal community).

Present Values and Engage the Community

5. To present the WHA in ways that foster community understanding and appreciation of its World Heritage and other natural and cultural values, and that maximise support for the area's conservation.
6. To assist people to appreciate and enjoy the WHA in ways that are compatible with the conservation of its natural and cultural values, and that enrich visitor experience.
7. To foster the role of the WHA as an integral and valued component of community life, and to involve the community in the area's conservation.
8. To identify, protect, conserve and, where appropriate, present Aboriginal values of the WHA in partnership with the Aboriginal community.
9. To minimise, or contain within acceptable levels, hazards to human life and property.

Manage with Excellence

10. To manage the WHA with excellence, and to progressively improve the basis for, and practice of, that management in accordance with the above objectives.





Objectives and Key Desired Outcomes – how they will be achieved and evaluated

This section considers each management objective in turn and provides:

- a brief outline of the concepts underlying the management objective;
- the key desired outcomes (KDO's) for that objective;
- the key management prescriptions (marked ✓) used to achieve the KDO and
- the key monitoring and evaluation programs (marked ⚙) that are used to measure the extent of success in achieving each Key Desired Outcome.

The above symbols are used throughout the plan to mark major sections or prescriptions that are particularly important for achieving the plan's overarching objectives and that will be monitored. They are also cross-referenced back to the relevant Key Desired Outcome in this section, eg [KDO 1.2].

Note that as the plan is implemented and monitoring and evaluation occurs the Key Desired Outcomes may be added to and/or the emphasis on particular outcomes may be modified.

OBJECTIVE 1 (OVERALL OBJECTIVE OF MANAGEMENT)

To identify, protect, conserve, present and, where appropriate, rehabilitate the World Heritage and other natural and cultural values of the WHA, and to transmit that heritage to future generations in as good or better condition than at present.

This overall objective of management is based on the obligations of management specified in Articles 4 and 5 of the World Heritage Convention (the Convention for the Protection of the World Cultural and Natural Heritage). The objective also places an obligation of long-term care and

stewardship of the WHA to ensure that the area's natural and cultural heritage is not degraded through cumulative impacts over time. The objective incorporates the benchmark of the present-day condition of the WHA against which long-term management performance must be assessed.

As this overall objective encompasses many of the more specific management objectives of this plan only the key desired outcomes that are not covered by other objectives are presented below.

Key Desired Outcomes (KDO's)

- 1.1 Achievement of all of the key desired outcomes derived from the plan's objectives as identified in this section of the plan.
 - ✓ Implemented by carrying out the management prescriptions of this plan. (In particular the sections marked ✓ throughout the plan) See Plan Implementation and Review, page 44.
 - ⚙ Measured by a system of monitoring, evaluation and reporting, see Monitoring and Evaluation Program, page 50 for the details.
- 1.2 Management of the WHA appropriately balanced across responsibilities for identification, conservation, protection, rehabilitation, and presentation of World Heritage and other natural and cultural values of the WHA.
 - ⚙ Measured by feedback from WHA management advisory bodies (including WHA Ministerial Council, WHA Consultative Committee, WHA Standing Committee), and other relevant groups. See External Assessment, page 51.
- 1.3 High level of acceptance of this plan and WHA management in general, by the general community and key client groups (including the Tasmanian and Australian governments and their representatives, the UNESCO-based World Heritage Committee, other authorities with interests in WHA management, and WHA management advisory committees, such as the World Heritage Area Consultative Committee).
 - ⚙ Measured by the level and nature of feedback about management of the WHA, from the general community and key client groups. See External Assessment, page 51.

- 1.4 Effective legislation and enforcement arrangements which support the management objectives of this plan.
- ✓ Implemented by appropriate use, and where necessary revision of, legislation, enforcement arrangements and land tenure. See Law Enforcement, management prescriptions, page 199.
 - ⚙ Measured by changes in powers of protection of the WHA or its values. See Law Enforcement, monitoring and evaluation, page 199.
- 1.5 Management decisions and actions in accordance with, and implementing as required, the obligations of international, national and state legal instruments and conservation agreements that relate to the WHA.
- ✓ Implemented by staff and the public being made aware of, and where necessary acting on, legal obligations and requirements. See Law Enforcement, management prescriptions, page 199.
 - ⚙ Measured by monitoring compliance with relevant statutes and the extent to which legal obligations have been met. See Law Enforcement, monitoring and evaluation, page 199.
- 1.6 Satisfactory resolution of conflicts that arise between different aspects of WHA management and/or conflicting legal mandates.
- ✓ Implemented by use, and as necessary development of, the process for resolving conflict, see page 46 while taking account of the management objectives for the WHA and, where necessary, legal advice.
 - ⚙ Measured by assessing the satisfaction of relevant authorities and WHA advisory committees with the process used for resolving conflicts, and the adequacy of the outcome. See External Assessment, page 51.
- 1.7 Land tenure, boundary and adjacent area management which affords the greatest protection to, and presentation of, the World Heritage and other natural and cultural values of the WHA, and which also satisfies land owners' and neighbours' needs.
- ✓ Implemented by close liaison with adjacent land managers and provision of guidance on complementary management to protect the values of the WHA. See General Adjacent Area Policy Guidance, page 203.
 - ⚙ Measured by the extent to which management of adjacent areas to the WHA enhances or detracts from the heritage values of the WHA and/or presentation of those values. See Management of Adjacent Areas, monitoring and evaluation section, page 205
- 1.8 Transmission to future generations of the knowledge and ability to protect and conserve the WHA and its heritage.
- ✓ Implemented by educational and interpretive programs and materials and community engagement in management of the WHA. See educational and interpretive prescriptions throughout Information, Interpretation and Education, management prescriptions page 126 and Community Engagement, Community Involvement, page 65.
 - ⚙ Measured by changes in community attitudes (especially youth) towards the WHA and the conservation of natural and cultural heritage. See External Assessment, page 51, also Information, Interpretation and Education, monitoring and evaluation, general, page 128.

OBJECTIVE 2

To identify and more fully understand the World Heritage and other natural and cultural values of the WHA, their significance, and their management requirements.

This objective is based on the premise that we need to know what is there, and how it works, in order to effectively manage and conserve the World Heritage and other natural and cultural values of the WHA. An understanding of the factors or processes that maintain or affect natural and cultural values will enhance the foundation for sound conservation management. Recognition of the level of significance of values will assist in focusing management effort appropriately.



Key Desired Outcomes (KDO's)

- 2.1 Definition, identification and, as necessary, updating of the World Heritage and other natural and cultural values of the WHA, in particular the area's values of world heritage significance.
- ✓ Implemented by the encouragement, facilitation and undertaking of research, see Prioritisation and Research Direction, page 117 and a review of the values of the WHA, see Identifying Values, page 74.
 - ⚙ Measured by the extent of and adequacy of coverage and/or documentation of the World Heritage and other natural and cultural values of the WHA, especially those of world heritage significance. See Identification, Protection, Conservation and Rehabilitation, monitoring and evaluation, page 76.
- 2.2 Identification of social and cultural values, and related management issues, affecting the World Heritage and other natural and cultural values of the WHA.
- ✓ Implemented by numerous areas of the plan that identify social and cultural values including Planning and Public Consultation, page 48, Aboriginal Management, management overview, page 101, Established Practices, continuation of established practices, page 104 and areas of community interest, page 105 and Community Engagement, general, page 64 amongst others.
 - ⚙ Measured by the effectiveness of the mechanisms put in place to capture these issues. See Planning and Public Consultation, Monitoring and Evaluation, page 49, Established Practices, monitoring and evaluation, page 106, Aboriginal Management, monitoring and evaluation page 102 and others.
- 2.3 Adequate knowledge of the World Heritage and other natural and cultural values of the WHA and related management issues to provide a sound basis for management.
- ✓ Implemented by directed research programs, experimental trials and monitoring of impacts (see in particular Geodiversity and Geoconservation, page 78, Vegetation, page 82, Animals, page 84

and Cultural Heritage, page 95) and the encouragement, facilitation and undertaking of research (see Prioritisation and Research Direction, page 117).

- ⚙ Measured in part by the extent of success of directed management programs to protect natural and cultural values (see in particular Geodiversity and Geoconservation, page 81, Vegetation, page 84, Animals, page 86 and Cultural Heritage, page 100), but also by the views of experts on the adequacy of the information base for sound management, (see Identification, Protection, Conservation and Rehabilitation, monitoring and evaluation, page 76).

OBJECTIVE 3

To identify and take appropriate protective action to prevent, mitigate or manage within acceptable limits, adverse impacts on, or threats to, the World Heritage and other natural and cultural values of the WHA.

Human activities (such as arson or unsustainable recreational use) have the potential to cause significant damage to the WHA. At times, natural processes (such as erosion) and other factors (such as climate change) can also pose significant threats to natural and cultural values.

This objective expands upon the obligation of world heritage management to protect the world's natural and cultural heritage which has outstanding universal value. It recognises that the best means of protecting values is by taking pro-active management measures to identify and avert potential impacts or threats before damage actually occurs. At the same time the objective recognises that some minor degree of impact (especially impact associated with the fulfilment of other objectives of management) may be acceptable under certain circumstances in some areas of the WHA. Similarly, there may be some situations where the containment or control of processes or other factors may be beyond the financial and/or management capacity of the managing authority.

Key Desired Outcomes (KDO's)

- 3.1 Accurate and timely identification and assessment of threats or adverse impacts to the World Heritage and other natural and cultural values of the WHA.
- ✓ Implemented by identification of threats, see Identification, Protection, Conservation and Rehabilitation, protecting values, page 75 also the Impact Assessment steps from the New Proposals and Impact Assessment process, see steps 5 and 5a, page 69 and 71.
 - ⚙ Measured by monitoring the nature and extent of threats. See Protecting Values under monitoring and evaluation within the Identification, Protection, Conservation and Rehabilitation section, page 76.
- 3.2 Aversion or management of threats or adverse impacts within acceptable, and where necessary, defined limits which do not compromise the achievement of the objectives of WHA management. Cessation, or a significant reduction in identified damaging activities or practices to minimal and ecologically sustainable levels.
- ✓ Implemented by applying the precautionary principle (see page 29), developing and implementing strategies, policies, plans, standards and conditions of use to manage threats and adverse impacts. See Identification, Protection Conservation and Rehabilitation, protecting values, page 75 for an overview, also numerous sections of the management prescriptions in chapters 5, 6 and 7 dealing with threats and their management.
 - ⚙ Measured, in part, by changes in the number, nature and extent of threats or adverse impacts on the values of the WHA and the level of compliance with limits imposed to reduce impacts. See protecting values under monitoring and evaluation within the Identification, Protection, Conservation and Rehabilitation section, page 76 for an overview. Also note that many of the monitoring and evaluation sections within chapters 5, 6 and 7 contain more

specific monitoring and evaluation related to particular threats.

OBJECTIVE 4

To conserve the values of the WHA in a manner consistent with their World Heritage and other natural and cultural significance, and where appropriate, feasible and sustainable, to rehabilitate or restore degraded values. In particular to:

- 4.1 maintain or restore natural diversity and processes;
- 4.2 maintain or enhance wilderness quality;
- 4.3 maintain or enhance environmental quality;
- 4.4 maintain or enhance scenic quality and
- 4.5 protect and conserve historic and Aboriginal heritage (in partnership with the Aboriginal community).

This objective recognises that within the WHA there is a spectrum of values which ranges from those of World Heritage significance, through those of international, national, regional, or local value, to those of an individual and personal nature. The highest level of management responsibility is to protect, conserve and present the area's world heritage values. Other values, however, also require sound management based on similar principles, however the extent of management involvement will vary depending on the level of natural and cultural significance and community values.

Some areas of the WHA have been degraded by past human activities (including the introduction of pests and disease, hydro-electric developments, mining, forestry, road construction, grazing and fire). Similarly, present-day human activities (such as recreational or other permitted uses) have the potential to cause damage to the World Heritage and other natural and cultural values of the WHA. Rehabilitation and restoration aim to reverse damage done and where possible to restore natural and cultural values. However, it is also recognised that in some cases, past actions or their ongoing impacts cannot practicably be reversed.

This objective complements Objective three (which focuses on averting active threats of damage to values) by focusing on maintaining the wellbeing of systems, and where necessary, restoring degraded values.



Key Desired Outcomes (KDO's)

- 4.1 Maintenance or restoration of natural diversity and processes.
- ✓ Implemented by developing strategies that maintain or restore natural diversity including fire management, avoiding the introduction of exotic species and pathogens, removing agents of disturbance, researching past influences on natural diversity and managing human activities, see Natural Diversity and Processes, page 76.
 - 🔍 Measured by changes in natural ecosystems. See Natural Diversity and Processes, monitoring and evaluation page 78.
- 4.2 Maintenance or enhancement of wilderness quality.
- ✓ Implemented by zoning the WHA predominantly as wilderness, removal of structures no longer required (following assessment for other values), careful development of facilities on the edges of the WHA, controlling impacts on wilderness and enhancing people's wilderness recreation experience, see Wilderness, page 91.
 - 🔍 Measured by changes in the extent and level of wilderness quality, compliance with zoning and other management guidelines and the satisfaction of visitor's with their wilderness experience. See Wilderness, monitoring and evaluation page 95.
- 4.3 Maintenance or enhancement of environmental quality.
- ✓ Implemented by use of management strategies, best practice and best practicable technology to retain the high standards of water and air quality in the WHA and the low levels of noise, air and water pollution, see Environmental Quality, page 110.
 - 🔍 Measured by targeted environmental monitoring programs. See Environmental Quality, monitoring and evaluation page 113.
- 4.4 Maintenance or enhancement of landscape quality
- ✓ Implemented by documenting landscape values, preparing landscape quality objectives and guidelines and by conserving and rehabilitating landscapes in consultation with other agencies, see Landscape, page 89.
 - 🔍 Measured by establishing a long-term monitoring program to monitor the impact of new developments and rehabilitation on landscape values. See Landscape, monitoring and evaluation page 91.
- 4.5 Protection and conservation of historic and Aboriginal heritage (in partnership with the Aboriginal community).
- ✓ Implemented by setting management benchmarks, identifying, protecting, conserving and presenting the cultural heritage values of the WHA. See Cultural Heritage, page 95.
 - 🔍 Measured by reporting on progress with the above measures, see Cultural Heritage, monitoring and evaluation page 100.
- 4.6 Conservation of World Heritage and other natural and cultural values of significance; no or minimal loss or degradation of identified significant natural or cultural values.
- ✓ Implemented by many sections of this plan, (especially chapters 5, 6 and 7). For an overview see Identification, Protection, Conservation and Rehabilitation, conserving and restoring values page 75.
 - 🔍 Measured by monitoring programs (including long-term programs) to detect changes in the condition of World Heritage and other natural or cultural values and in particular by changes in the nature, extent and severity of degradation of values. See Identification, Protection, Conservation and Rehabilitation, monitoring and evaluation, page 76 and especially monitoring programs in chapters 5 and 6.
- 4.7 Restoration of degraded World Heritage and other natural and cultural values.
- ✓ Implemented by rehabilitation (where appropriate) of degraded natural values

(see Rehabilitation, page 114), programs that aim to restore natural processes and rates of change (such as species recovery plans, erosion control programs, etc (see in particular Geodiversity and Geoconservation, page 78, Vegetation, page 82, Animals, page 84), and (where appropriate) restoration of cultural values (see Conservation of Cultural Heritage Places, Landscapes and Values, page 99).

- ⚙ Measured by monitoring programs (including long-term programs) to detect the extent and success of rehabilitation and restoration programs. See Rehabilitation, monitoring and evaluation, page 116 for natural values and Cultural Heritage, monitoring and evaluation, Conserve Cultural Heritage Places, Landscapes and Values, page 100 for cultural values, amongst others.

OBJECTIVE 5

To present the WHA in ways that foster community understanding and appreciation of its World Heritage and other natural and cultural values, and that maximise support for the area's conservation.

The Tasmanian Wilderness World Heritage Area is one of the modern-day equivalents of the 'Seven Wonders of the Ancient World'. People from all over the world have an interest in learning about the area and its unique natural and cultural heritage. It is especially important that the Tasmanian community (who live right on its doorstep) and visitors to the WHA (who experience the area first hand) have the opportunity to learn and understand more about what makes this area special on the world stage.

Community understanding and appreciation of the values and benefits of the WHA can also help engender a feeling of custodianship, and support for the WHA, which in turn can benefit both the Tasmanian community and management of the WHA. It is important that the manner in which information, facilities, services and activities within the WHA are managed fosters public support for the WHA and develops and harnesses this support to protect the area and its values from threats.

Key Desired Outcomes (KDO's)

- 5.1 Widespread community familiarity with, appreciation of, and support for the WHA, the protection and conservation of its natural and cultural values and the management of the conservation issues the area faces.
 - ✓ Implemented by community involvement with WHA management (see Community Engagement, page 63) and information, interpretation and education programs (see Information, Interpretation and Education, management prescriptions, page 126).
 - ⚙ Measured by monitoring community and visitor attitudes as well as media coverage (see Information, Interpretation and Education, monitoring and evaluation, page 128). Also by feedback from the general community and key client groups, (see External Assessment, page 51). Measured also by the level of ministerial correspondence to and from communities on management issues (see Community Engagement, monitoring and evaluation, page 65).
- 5.2 High levels of satisfaction of the community, a wide range of visitors, educational institutions and other interest groups with information, education and interpretation products, activities, programs and services.
 - ✓ Implemented by provision of information, interpretation and education programs (see Information, Interpretation and Education, management prescriptions, page 126).
 - ⚙ Measured by evaluating the popularity and effectiveness of different approaches to information, interpretation and education (see Information, Interpretation and Education, monitoring and evaluation, general, page 128).

OBJECTIVE 6

To assist people to appreciate and enjoy the WHA in ways that are compatible with the conservation of its natural and cultural values, and that enrich visitor experience.

This objective recognises that the WHA not only has intrinsic values for many people, but also offers





a wealth of recreational opportunities for people to experience. Many people simply enjoy being amidst the natural sights, sounds and scents of the WHA. Others enjoy more active nature-based recreation activities such as bushwalking, rafting or fishing.

Most people who visit the WHA use some form of facility, whether this be a visitor centre or a lightly marked walking track. Facilities can enhance recreational experiences and in certain cases make them possible (eg wheelchair accessible tracks for disabled people); however all facilities impact to some extent on the environment. A key role of management is to ensure that the types and levels of development and recreational use of the WHA do not compromise the achievement of the management objectives for the area.

Creative education and interpretation activities can enrich visitor experience by encouraging and assisting people to discover more about the area for themselves. At the same time, these programs can foster understanding and appreciation of the World Heritage and other natural and cultural values of the WHA.

Key Desired Outcomes (KDO's)

6.1 Ecologically sustainable management of human use of the WHA to within acceptable, and where necessary defined, limits of environmental and social impact which do not threaten or compromise the objectives of WHA management.

- ✓ Implemented by application of the zoning system (see Zoning, page 54) and by using the limits of acceptable change model (see many of the sections of chapter 6, in particular Ecologically Sustainable Management of Human Use, page 120, Recreation Opportunities, page 129 and the Walking Tracks and Walking, page 172).

⚖ Measured by the establishment of appropriate limits of acceptable change, and the results of monitoring programs. See in particular Recreation Opportunities, monitoring and evaluation, page 131 and Walking and Walking Tracks, monitoring actions as one example, page 175.

6.2 High levels of community and visitor satisfaction with:

- the range and quality of recreational opportunities and facilities available;

- the operations and services of the Service, licensed tour operators, and concessionaires and
- the quality of their experience in the WHA.
- ✓ Implemented by the provision, maintenance and quality control of facilities and services. See Concessions, page 177, Guided Tours, page 179 and Visitor Facilities, page 169.
- ⚖ Measured by a variety of ways of surveying community and visitor satisfaction. See the recreation and tourism strategy, page 176, Visitor Profile and Research, management prescriptions, page 124, see also Presentation, monitoring and evaluation, page 121 and many of the other monitoring and evaluation sections of chapter 6.

6.3 Co-operation of visitors and other users with the Service, especially in caring for the WHA, its values, and assets.

- ✓ Implemented by use of minimal impact recreational practices and compliance with regulations (such as the Fuel Stove Only Areas); see Caring for the WHA page 121. Also by involvement in community partnerships and volunteer projects; see Community Engagement, page 63.
- ⚖ Measured by the level of compliance with regulations and other promoted protocols (see presentation, monitoring and evaluation, page 121) and the level of involvement in community partnerships and volunteer projects (see Community Engagement, monitoring and evaluation, page 65).

OBJECTIVE 7

To foster the role of the WHA as an integral and valued component of community life, and to involve the community in the area's conservation.

This objective recognises that the integration of the WHA with community life, activities and values systems is fundamental to the long-term conservation of the WHA. Furthermore, the meaningful involvement of the community in the

planning and management of the WHA can:

- increase mutual understanding between the community and the Service about values, concerns and options;
- raise community understanding of management responsibilities and decision-making processes and
- create community ownership of the resultant management arrangements.

Key Desired Outcomes (KDO's)

7.1 Participation of the community (including schools, community groups and volunteers) in WHA-related activities, processes and projects which assist WHA management.

- ✓ Implemented by the active involvement of communities and groups in WHA management. See Community Engagement, page 63 and Established Practices, page 103.
- ⚡ Measured by monitoring the levels and type of participation of the community in WHA related activities, partnerships, projects etc. See Community Engagement, monitoring and evaluation page 65 and Established Practices, monitoring and evaluation, page 106.

7.2 Establishment of successful community–Service partnerships to assist in the management of specific parts or aspects of the WHA.

- ✓ Implemented by the formation and successful ongoing operation of partnership groups in WHA management, see Community Engagement (page 63) and Established Practices, community partnerships (page 105).
- ⚡ Measured by monitoring the level of, and type of participation in partnerships, and feedback about partnerships, see Community Engagement, monitoring and evaluation page 65 and Established Practices, monitoring and evaluation, page 106.

7.3 Increased understanding by the Service of the range of values which the community attaches to the WHA and increased understanding by the community of WHA

management obligations, the WHA management approach and decision-making processes.

- ✓ Implemented by raising the awareness of groups about management issues, involving them in research, and taking onboard local knowledge. See Community Engagement, (page 63), Cultural Heritage management prescriptions, 1 and 4 (page 98) and Established Practices, community communication, (page 105).
- ⚡ Measured by monitoring the levels of satisfaction of the community and the nature of feedback about the WHA. See Community Engagement, monitoring and evaluation, page 65 and Established Practices, monitoring and evaluation, page 106.

7.4 Integration of WHA management concepts and strategies with local and regional planning and operational strategies and instruments.

- ✓ Implemented by liaison with other government agencies and local councils (see Community Engagement, other government agencies page 65).
- ⚡ Measured by the extent to which new local and regional planning decisions integrate with WHA management objectives and the level of satisfaction of the Service and other agencies about management planning processes and outcomes, see Community Engagement, monitoring and evaluation page 65.

OBJECTIVE 8

To identify, protect, conserve and, where appropriate, present Aboriginal values of the WHA in partnership with the Aboriginal community.

In 1995, the Aboriginal Community of Tasmania was formally vested with the title and sole management responsibility for three cave sites in the WHA (Ballawinne, Kuti Kina and Wargata Mina). The Service and the Tasmanian Government recognise the rights and special interests of indigenous people and, in particular, support the involvement of the Tasmanian Aboriginal community in management of



Aboriginal sites and values within the WHA.

The challenge ahead is to ensure that increasing levels of Aboriginal involvement in the management of Aboriginal cultural values is integrated smoothly with other management responsibilities for the WHA, and that a cooperative relationship is maintained between the Aboriginal community, the wider community, and the Service in the management of heritage that is of shared value.

Key Desired Outcomes (KDO's)

8.1 Establishment of a successful management partnership between the Service and the Tasmanian Aboriginal community to identify, protect, conserve and, where appropriate, present Aboriginal values.

- ✓ Implemented by setting up a management partnership between the Service and the Aboriginal community to manage for the conservation of Aboriginal Values in the WHA. See Aboriginal Management, management overview, page 101; also Cultural Heritage, primary outcome 1, page 98.

- ⚙ Measured by progress made in establishment and performance of the partnership. See Aboriginal Management, monitoring and evaluation, page 102 and Cultural Heritage, monitoring and evaluation - primary outcome 1, page 100.

8.2 Increasing involvement of the Tasmanian Aboriginal community in the conservation of Aboriginal heritage, potentially leading, if practicable, to an Aboriginal community organisation administering Aboriginal heritage conservation on behalf of the Service through agreed management arrangements and in accordance with the management prescriptions of this plan.

- ✓ Implemented by the work of the management partnership between the Service and the Aboriginal community, see Aboriginal Management, management prescriptions, page 101. Also potentially by the transfer of Aboriginal heritage management to an Aboriginal community organisation for management on behalf of the Service, see Cultural Heritage, primary outcome 1, page 98.

- ⚙ Measured by the effectiveness of the management partnership approach, see Aboriginal Management, monitoring and evaluation, page 102 and progress made towards transferring Aboriginal heritage resource management to an Aboriginal organisation, Cultural Heritage, monitoring and evaluation - primary outcome 1, page 100.

8.3 Presentation of Aboriginal heritage to the wider community in ways which are supported by the Tasmanian Aboriginal community.

- ✓ Implemented, in part, by negotiating and carrying out the Aboriginal interpretation strategy for the WHA (see Aboriginal Management, management overview, page 101).

- ⚙ Measured by the level of satisfaction of the Aboriginal community with this part of management of Aboriginal values (see Aboriginal Management, monitoring and evaluation, page 102).

8.4 High levels of satisfaction of the Service, the Tasmanian Aboriginal community, and the wider community with the management of Aboriginal values.

- ✓ Implemented by increasing Aboriginal involvement in the management of Aboriginal values of the WHA. See Aboriginal Management, management prescriptions, pages 101–102 and Cultural Heritage, management prescriptions, pages 97–99.

- ⚙ Measured by monitoring the level of satisfaction of the Aboriginal community, the Service and the wider community with the management of Aboriginal values (see Aboriginal Management, monitoring and evaluation, page 102).

8.5 Effective processes for integrating and/or resolving management issues related to the changing level of Aboriginal involvement and activity within the WHA.

- ✓ Implemented by establishment and progress with a management partnership between the Service and the Aboriginal community to manage for the conservation of Aboriginal values in the WHA (see Aboriginal Management,

management overview, page 101). Also utilising the methods to resolve conflict, see Plan Implementation and Review, resolving conflict, page 46.

- ♻ Measured by monitoring progress in resolving management issues. See Aboriginal Management, monitoring and evaluation, page 102.

OBJECTIVE 9

To minimise, or contain within acceptable levels, hazards to human life and property.

This objective recognises the common law duty of care and responsibility to protect human life and property. At the same time, it recognises that some level of risk may be acceptable or unavoidable, and in some circumstances may be actively sought.

Visitors seeking challenge and adventure through recreational activities in remote and wild environments cannot avoid some degree of risk. However, the risk of death or injury can be substantially reduced if visitors are sufficiently well informed to allow them to make responsible decisions.

Some management measures that could be taken to reduce risk to human life or property (eg the use of management-initiated fires or 'fuel reduction burns' to reduce the risk of uncontrollable fire) may potentially threaten conservation values.

Management has to determine what can, and should, be done to limit risks to human life and property within acceptable limits, with due regard to the other management objectives for the WHA.

Key Desired Outcomes (KDO's)

- 9.1 Minimal loss of life, injury and environment-related illness.
 - ✓ Implemented by developing and implementing a range of preventive strategies and programs to minimise risk of death, injury or illness. See Public Safety and Risk Management, management prescriptions, page 157 and Information, Interpretation and Education, safety, page 128.
 - ♻ Measured by monitoring the incidence of death, injury or environment-related

illness. See Public Safety and Risk Management, monitoring and evaluation, page 158.

9.2 Minimal loss of, or damage to, property.

- ✓ Implemented by developing strategies to target arson, vandalism etc. See Public Safety and Risk Management, management prescriptions, page 157.
- ♻ Measured by monitoring the incidence and extent of damage to property. See Public Safety and Risk Management, monitoring and evaluation, page 158.

9.3 Rapid and capable response to emergency situations and identified hazards to public safety.

- ✓ Implemented by putting in place the capacity to respond to hazards and emergency situations, see Public Safety and Risk Management, Emergencies and Search and Rescue, page 158.
- ♻ Measured by periodically reviewing the adequacy of the Service's search and rescue and safety measures. See Public Safety and Risk Management, monitoring and evaluation, page 158.

OBJECTIVE 10

To manage the WHA with excellence, and to progressively improve the basis for, and practice of, that management in accordance with the above objectives.

This objective recognises that progressive management comprises a continuing cycle which includes the setting of objectives, the implementation of a management program targeted at those objectives, and a corresponding program of evaluation to assess the effectiveness of management and to feed back into, and improve, the next cycle of management.

Key Desired Outcomes (KDO's)

- 10.1 Application of best practice principles and techniques in natural and cultural heritage management.
 - ✓ Implemented by the adoption of best practice principles and techniques (see Plan Implementation and Review, best practice page 46).





- ⚖ Measured by the level of application of, or compliance with, best practice principles and techniques in managing the World Heritage and other natural and cultural values of the WHA (see Plan Implementation and Review, monitoring and evaluation, page 49).

10.2 Establishment of evaluation programs to assess management performance and the incorporation of the results of such programs into WHA management.

- ✓ Implemented by the establishment of a WHA monitoring and evaluation program. See Evaluation of WHA Management, monitoring and evaluation program, page 51.
- ⚖ Measured by the effectiveness of the above monitoring and evaluation program and the incorporation of the recommendations of the program into future management. See Evaluation of WHA Management, monitoring and evaluation, page 50.

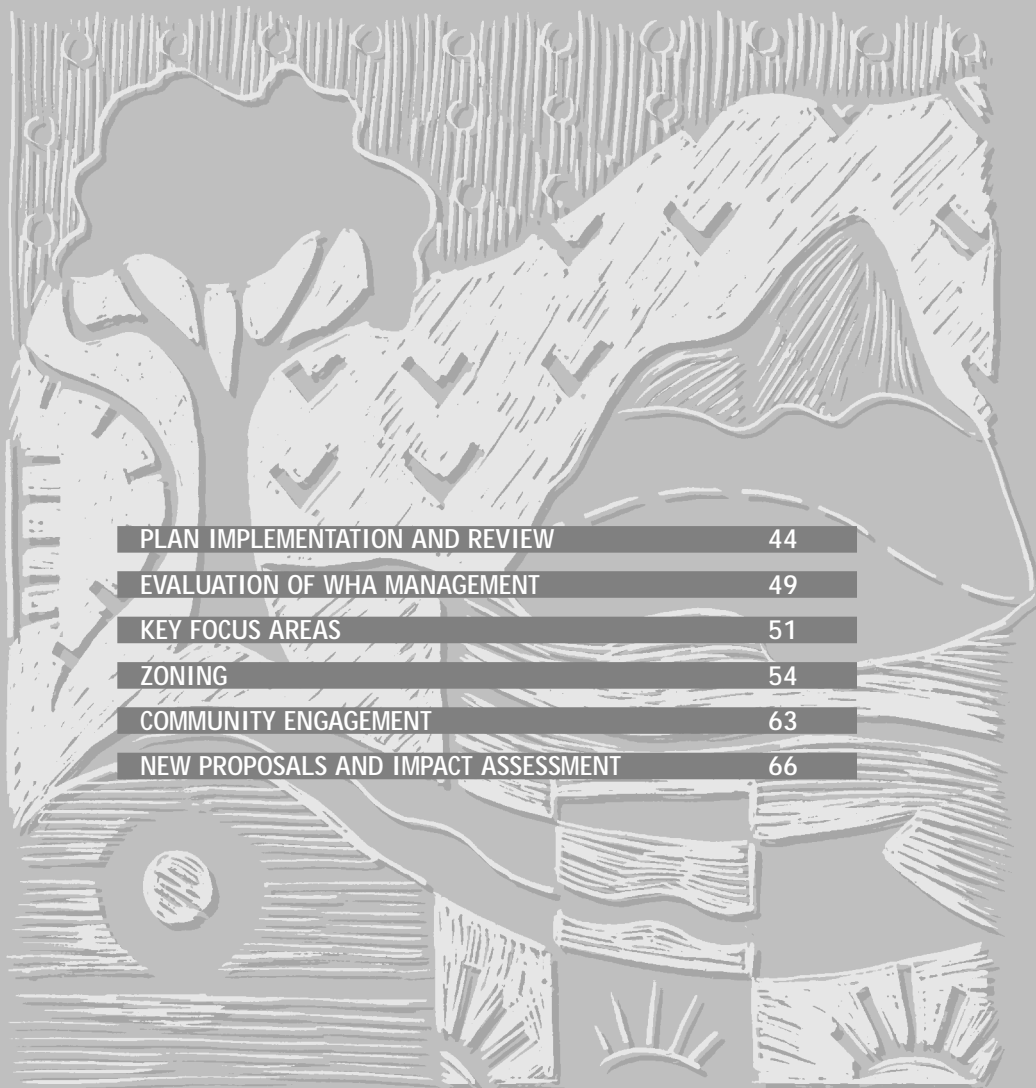
10.3 World-class expertise in WHA management.

- ✓ Implemented by recruiting and supporting excellent staff; progressive development of staff expertise in WHA management through information exchanges with other WHA management agencies and experts and by establishing links with other conservation management agencies and experts involved in WHA management (see Plan Implementation and Review, best practice page 46).
- ⚖ Measured by changes in the qualifications, training and expertise of Service staff and the level of leadership demonstrated by the Service in WHA management (see Plan Implementation and Review, monitoring and evaluation, page 49).



Chapter 4

General Management Strategies

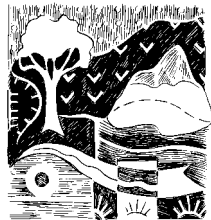


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This chapter looks at how the plan will be implemented, reviewed and evaluated and how it deals with new issues.

The first two sections cover plan implementation (including prioritisation of management actions and resolving conflicting objectives) and the general evaluation program. The third section covers 10 key focus areas — areas of additional effort for the first five years of the plan.

The fourth, fifth and sixth sections cover three major ways the plan provides guidance on new proposals and managing new issues — through zoning (page 54), community engagement (page 63), and the new proposals and impact assessment process (page 66).



Plan Implementation and Review

BACKGROUND

This management plan has a proposed 10 year life compared with the five year life of the 1992 plan.

The nature of the management issues towards the end of the plan period is less clear than what the immediate issues are now, at the time of writing. The plan therefore needs to be broad enough in scope to cover the many issues that may arise, ie it needs to have a generic and strategic component as well as prescriptions for specific actions. These generic elements are contained within the specific prescriptions for each chapter and particularly in the general sections at the start of chapters five and six.

To implement the plan a works program is required. This is a rolling program of works that is developed from the management prescriptions of the plan. The works program must clearly give effect to the plan's prescriptions and focus on the management priorities for the WHA. The section 'Implementation of this plan' (page 45) describes how this will be achieved. It also details a number of criteria for prioritising the works program.

As the plan is implemented, there may arise situations where the consequences of management action to achieve one objective may negatively impact on the achievement of another objective (eg allowing natural processes to occur may impact on cultural sites). If this occurs, the procedures outlined in the section 'Resolving Conflict' (page 46) will be followed.

While the life of this management plan is 10 years, a limited review at five years is also planned. The process for reviewing the plan is detailed on page 47. The public consultation aspects of reviewing the plan and planning in general are covered on page 48.

PREVIOUS MANAGEMENT

The 1992 management plan was implemented via a rolling works program which was the agreed basis for funding arrangements between the State and Commonwealth governments. This arrangement did not fully fund all management actions prescribed under the 1992 plan but did allow most high priority actions to be undertaken. The Service re-prioritised the five year works program on an annual basis to take account of changing circumstances.

At the time of writing there is no mechanism under the *National Parks and Wildlife Act 1970* for the public to seek redress if they feel some action is being taken contrary to the provisions of a management plan. A procedure to provide for civil enforcement of management plans was suggested by the Public Land Use Commission in November 1995. At the time of writing this is under consideration.

In 1997 the Ministerial Council agreed to enter into a process to amend the 1992 plan. The Council decided that the Mt McCall track would remain open (instead of being rehabilitated as required under the 1992 plan) and that a fifth commercial hut could be constructed on the Overland Track at Kia Ora. The 1992 plan only approved the operation of four huts. The plan was amended on 4th September 1997 in accordance with the requirements of the *National Parks and Wildlife Act 1970*.

Public consultation has been a major part of the review process leading to the development of this plan (see the planning process, page 20). Additionally the public has been involved in the preparation of site plans for Visitor Services

Zones and for other subsidiary plans to this plan both through public comment and the advice of advisory groups.

During the public comment period on the draft management plan numerous groups requested a right of appeal against actions taken by the Service, particularly where these were allegedly not in accord with the management plan. Such a right of appeal would apply to all management plans under the *National Parks and Wildlife Act 1970* and is therefore beyond the scope of this plan. It is however the view of the Service that a mechanism for civil enforcement of management plans is appropriate. The Service has recommended to Government that a mechanism be provided where the public can seek redress if actions are allegedly being taken contrary to a reserve's management plan.

OBJECTIVES

- To ensure that the Service staffing and financial management arrangements, resources and processes allow for, and contribute to, the efficient and effective implementation of this management plan.
- To provide appropriate procedures for reviewing the plan taking into account its intended 10 year life and legislative requirements.

MANAGEMENT PRESCRIPTIONS

Implementation of this plan ✓ [KDO 1.1]

- Prepare and implement a 4-year rolling works program which gives effect to the prescriptions of this plan.
- Develop a four year funding agreement, based on the works program and gain the approval of the State and Federal Governments to this agreement. The full implementation of this plan relies on this agreement providing the necessary resources to fulfil the works program. Should it not prove possible to fully fund the implementation of the works program the criteria for prioritising works (see below) will be used to identify the highest priority tasks to be undertaken.
- Renegotiate the four year funding agreement on the basis of this management plan and/or

any amendments to it for the second four year period of the plan. Negotiate similarly for the final two years of the plan.

- Prioritise the works program on the basis of the following criteria:
 - Is the work consistent with the plan? If not, do not proceed.
 - Is the work a legal obligation? If yes, highest priority class.
 - Does the work address a threat to World Heritage or other significant natural and cultural values of the WHA? If yes, highest priority class.
 - Is the work urgent? (ie will the situation become markedly worse if something is not done urgently?) If yes, higher priority than other less urgent work.
 - How well does the proposed action assist in achieving the overarching objectives of the management plan, the key desired outcomes listed in chapter three and/or the specific objectives listed for sub-sections of the plan? Does it meet a number of objectives, or one objective particularly well?
 - Does it aid in presenting the WHA, particularly the world heritage or other important natural and cultural values of the area? In particular does it benefit large numbers of people and/or the general public?
 - Does it maintain or improve vital management infrastructure (eg radios, vehicles, fire fighting equipment, computers, GIS systems, monitoring systems etc)?
 - Does it aid decision-making or ongoing management (eg in resolving issues, demonstrating outcomes etc)
 - Is it more efficient to do now? Will doing it now reduce risks/costs in the long run?
 - Is it an important political commitment, Government policy or decision of Ministerial Council?
 - Will it generate income? Is there an income generation potential with a net positive return to the Service?
- Review the rolling works program annually and re-prioritise as necessary.

- Allocate works program projects to specified responsible officers and work teams, and ensure that these responsibilities are factored into work programs and schedules according to their priority.
- Maintain a database of the plan's management prescriptions, link this to the rolling works program and regularly update as actions are progressively undertaken and completed.

Best Practice ✓ [KDO 10.1 and 10.3]

- Establish groups of relevant staff (and others as required) to evaluate, revise, and as necessary develop, WHA management policies and processes based on the application of relevant best practice principles and techniques.
- As appropriate, adopt and implement the recommendations of the ANZECC Best Practice and Benchmarking Program. (ANZECC=Australian and New Zealand Environmental and Conservation Council)
- Manage the WHA in accordance with the guiding documents and conservation principles given at the start of chapter three.
- Establish links with other conservation management agencies and experts involved in the management of World Heritage Areas, in Australia and around the world and participate in exchanges of information, workshops/conferences and personnel exchanges in order to share information, ideas and experiences, and to advance the practice and performance of WHA management.

Resolving Conflict

The following prescriptions cover situations where actions taken to assist in achieving one management objective interfere with, or negatively impact on, the achievement of another objective.

- Resolve issues where objectives conflict, taking into account the guiding documents and conservation management principles given on page 29, and using the following process:
 - 1 Identify the existence of, and clarify the nature of, conflict between the maintenance of values.
 - 2 Identify and fill any important gaps in

knowledge of the values affected.

- 3 Consider alternative approaches to management that minimise the effect on values.
- 4 Identify the degree of irreversibility of alternative management approaches taking account of the potential for cumulative impacts.
- 5 Identify the relative importance of the conflict area for the maintenance of each of the conflicting values.
- 6 Rate the importance of each of the values with World Heritage values rated highest and locally important values rated lowest.
- 7 Give priority to the most significant of the values (taking account of cumulative effects) unless:
 - the resolution of the conflict in favour of the less significant value would not seriously affect the overall representation of the more significant value and
 - the less significant value is restricted or largely restricted to the conflict area.
- 8 Implement the most appropriate solution and monitor as required.
- 9 If necessary, halt or modify the solution on the basis of the results of monitoring.
- In the event of a major conflict of objectives, establish a program to monitor, evaluate and report the outcomes of management decisions (especially with respect to the anticipated or projected benefits and impacts). Clearly identify the criteria for evaluating the success or failure of the final approach taken.
- Identify sites or issues where there is significant conflict of interest or competing values for management and develop issue or site specific mechanisms for assessing and resolving these issues.

Plan Review

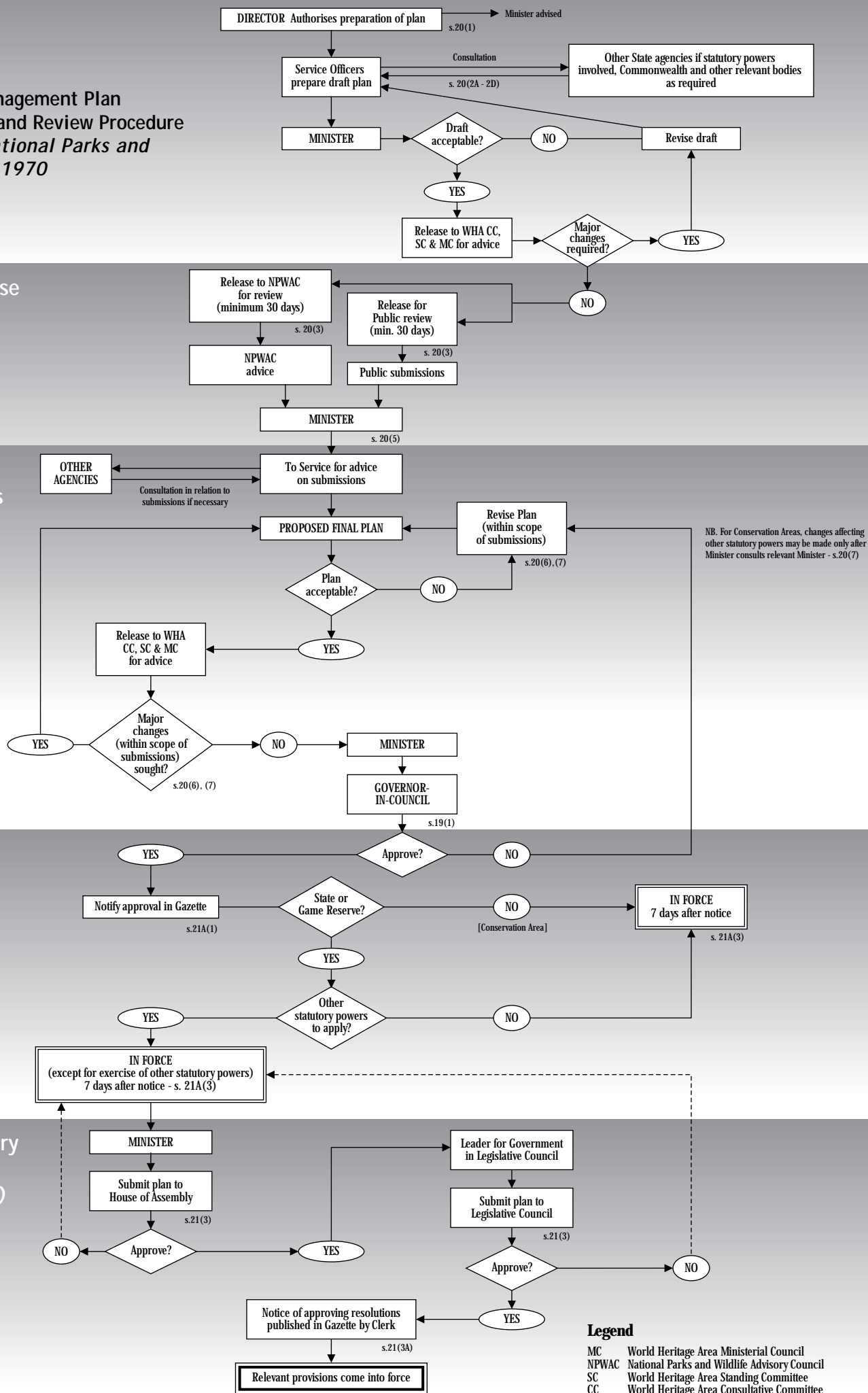
It is intended that the plan have a ten year life (with a limited review at the five year point). This is a short time in the context of the objective to protect the WHA in perpetuity, but is considered sufficient to enact the prescriptions in this

**Figure 2: Management Plan
Amendment and Review Procedure
under the *National Parks and
Wildlife Act 1970***

Public release

Review of
submissions

Approval

Parliamentary
Approval
(if required)

document and to evaluate management performance.

A ten year timeframe provides some degree of certainty to the public and to those responsible for implementing the plan regarding long-term management direction, while the proposed review process allows sufficient flexibility for new approaches to be adopted if necessary.

- The planned life of this management plan is ten years (with a limited review at the five year point) from the date of approval by the Governor-in-Council of the final plan (see page 2 and flowchart page 47).
- A limited review of the plan is to commence five years into the plan's life. Changes will only be made to sections of the plan where significant new issues and information have arisen and/or where aspects of the plan are not achieving the objectives. It is not proposed that the plan structure or content will alter if they are not in need of updating.
- A full review of the plan is to commence 10 years after approval of the final plan.
- The plan remains in force until such time as a new plan is approved.
- As well as the planned review times, the plan can be reviewed at any time provided the procedure set out in the *National Parks and Wildlife Act 1970* and illustrated in figure 2, page 47 is followed.
- A review of the plan will be required if:
 - any intended activity or development is proposed which conflicts with the provisions of the plan, but has been agreed to proceed via the new proposals and impact assessment process, or
 - research or new information indicates that prescribed actions need to be changed in order to better achieve management objectives.
- Any proposed changes to the plan will be assessed using the New Proposals and Impact Assessment Process, see page 67.

Planning and Public Consultation ✓ [KDO 2.2]

- Undertake a formal public consultation program (as required under *the National Parks and Wildlife Act 1970*) should any part of this management plan be reviewed.

- Continue to maintain and regularly update a database of groups and individuals interested in, or knowledgeable about, the WHA who wish to be consulted on planning and management issues.
- Undertake public consultation programs to assist the development of major site plans and other subsidiary plans.
- Base community consultation processes for planning on the principles of open communication and honesty; transparency of process and inclusion rather than exclusion. These generally provide for:
 - effective use of different forms of publicity to notify people of the program;
 - early involvement in the process;
 - sufficient time for the public to reasonably participate;
 - clarity of purposes of consultation (eg decision-making versus advisory);
 - a public education component to highlight management obligations and to ensure the public is sufficiently well informed to formulate a considered opinion;
 - early identification of the range of issues involved;
 - ready access to appropriate information;
 - a clearly identified process, methodology and timeframe;
 - where appropriate, the level of confidentiality applying to submissions;
 - where appropriate, opportunities available for non-written input or submissions;
 - the extent and means of any reporting of results of the consultation process to the public;
 - where appropriate, opportunity for ongoing involvement in planning and implementation;
 - where appropriate, criteria or rationale for decision-making or determining outcomes in the event of conflicting opinion and
 - use of an independent chair or facilitator where appropriate.

- Publicise and make available copies of draft and final management plans, other subsidiary plans and, where relevant, summaries of public submissions to the planning processes.

MONITORING AND EVALUATION

Best Practice

- Document the extent of application of, or compliance with, best practice principles and techniques in natural and cultural resource management of the WHA. [KDO 10.1]
- Monitor changes in the qualifications / training of Service staff. Record the number and nature of training courses or educational events related to WHA management provided for, or undertaken by, rangers and other Service staff. [KDO 10.3]

Planning and Public Consultation [KDO 2.2]

- At the completion of major public consultation programs (including the program for this management plan), critically review the process and, where appropriate, document recommendations for amendments to future public consultation programs.
- Evaluate the level of satisfaction of a variety of audiences with the format, structure, presentation, and level of detail of this management plan in meeting their respective needs (eg for public understanding, managers' needs etc).
- Evaluate the usefulness and effectiveness of the public consultation and other processes used in preparing this management plan in order to improve future WHA management plans.



Evaluation of WHA Management

BACKGROUND

The aim of evaluation is to show what is, and what is not, being accomplished against management objectives and, through feedback, to improve overall management performance.

Evaluation shows the situation we came from, what we tried to achieve, what we actually did, and how well we accomplished what we set out to achieve. Having this information provides the opportunity to learn from the process and improve future management. As such, evaluation is both a critical and integral component of the overall program of WHA management.

Increasingly, public sector agencies are being called upon to be more open and accountable about what they are doing and accomplishing. Evaluation can be used to assess a wide range of levels and functions of management ranging from everyday tasks (such as the delivery of visitor services), to long-term changes in the overall condition of the WHA.

The overarching objectives of this plan (see chapter three) provide the fundamental basis against which management performance of the WHA will be judged.

This section sets out the overall monitoring framework that will provide the basis for evaluating, reporting on, and reviewing management performance for the WHA. Other sections of this plan expand upon this framework and present additional and/or more detailed prescriptions for monitoring and evaluation that relate to the individual chapter topics and the key desired outcomes listed in chapter three.

PREVIOUS MANAGEMENT

The 1992 management plan did not incorporate a monitoring and evaluation system into the plan structure; however it did prescribe the

development of a system to evaluate the effectiveness of the policies and actions detailed in the plan.

A major project⁴ was undertaken to investigate how the Service could strengthen its capacity to monitor, evaluate and report on its effectiveness in managing the WHA. This study has significantly contributed to the development of chapter three and the evaluation program presented in this chapter.

Progress in the implementation of the actions prescribed in the 1992 WHA management plan has been reported in the Actions Evaluation Report No. 1 (1996). Work is in progress to update this and to report on the extent to which the objectives of management of the 1992 plan have been achieved as of the end of the 1992 plan period. This will form a baseline against which to compare the Service's future performance in achieving the 1999 WHA plan's objectives.

OBJECTIVES

- To evaluate the extent to which the prescribed actions in this management plan are implemented and how effectively this is done.
- To evaluate the extent to which the objectives of this management plan are achieved.
- To continually improve the management of the WHA in response to the findings of evaluation.

MANAGEMENT PRESCRIPTIONS

Monitoring and Evaluation Program 🏠 [KDO's 1.1, 10.2]

- Establish an ongoing monitoring and evaluation program to assess management performance; in particular in relation to the key desired outcomes of management outlined in chapter three.
- Develop and expand the present baseline data available to monitor change, particularly long term cumulative change, in the condition of the World Heritage and other natural and cultural values of the WHA.

4 Hocking H. 1993 *World Heritage Area Evaluation Project*, a series of internal reports to the Parks and Wildlife Service, Hobart.

- Prepare and make publicly available progress reports (including a concise 'State of the WHA' report every two and a half years) to document and evaluate progress in implementation of the plan, and the results, as these become available, of monitoring against the plan's objectives. Include in progress reports:
 - an evaluation of the extent to which the management prescriptions of this plan have been implemented;
 - the number and nature of major plan initiatives implemented, and the extent of success of these initiatives;
 - an analysis of the reasons for delays or failures in implementation;
 - the nature and level of compliance/non compliance with the provisions of this plan and any amendments to the plan;
 - data (as this becomes available) on the extent to which the objectives of management for the WHA have been achieved and
 - recommendations for improving management;
 - documentation of significant changes in management practice and
 - a review statement outlining the current state of conservation of the World Heritage and other natural and cultural values of the WHA.
- Produce major reports looking in detail at the achievement of the plan's objectives at the five and ten year points.
- In conjunction with the preparation of reports convene a workshop of Service staff and relevant advisory committees to review and evaluate management to date, to identify and discuss achievements, obstacles and new issues.
- Prepare status reports as required by the Commonwealth Government on World Heritage values and key indicators of the condition of the WHA.
- Keep under review and revise as necessary the performance indicators for evaluating management of the WHA.
- Revise management according to the results of evaluation, scientific research, new

information etc. If Key Desired Outcomes are not being adequately achieved adjust management to better achieve outcomes.

External Assessment

- ✓ Regularly assess and monitor the satisfaction of WHA management advisory bodies with:
 - the balance of management effort across WHA management responsibilities and management objectives (in particular the extent to which management effort and resources are focused on World Heritage and other heritage values);
 - the rate of progress in implementing the provisions of the plan;
 - the adequacy of staffing, funding, and other support to capably implement the plan and
 - the methods used for resolving conflicting issues and the adequacy of the outcomes achieved. [KDO 1.2, 1.3 and 1.6]
- Use WHA advisory bodies, in particular the World Heritage Area Consultative Committee, as a means of external assessment for major and/or controversial management issues.
- ✓ Review suggestions put forward from advisory bodies for improving WHA management. [KDO 1.2, 1.3 and 1.6]
- Use external consultants to assess the performance of the Service, as appropriate.
- ✓ Establish an ongoing monitoring program using mechanisms such as surveys, feedback sessions, etc to assess the level of satisfaction of key client groups, government representatives, management committees and the wider community with the management of the WHA. [KDO's 1.3, 1.6 and 1.8]♾

MONITORING AND EVALUATION ♾

[KDO 10.2]

- Evaluate at regular intervals (in particular at the major reporting points) the level of

coverage of the monitoring and evaluation system, the effectiveness of the indicators for measuring outcomes and the costs/benefits of the various programs within the system.

- Monitor the extent to which the results of monitoring and evaluation programs contribute to, or affect management decisions.



Key Focus Areas

To help strategically implement the plan ten key focus areas have been identified. These are largely new areas of effort or areas where substantial additional effort will be focused over the first five years of the plan. At the five year point the focus areas will be reviewed at the same time as a limited review of the plan is carried out.

The strategies are numbered for convenience below. This does not denote priority.

1. INCREASED EMPHASIS ON IDENTIFYING AND PROTECTING THE WORLD HERITAGE AND OTHER NATURAL AND CULTURAL VALUES OF THE WHA

One of the major recommendations of a report on managing Australia's World Heritage⁵ was to focus more clearly on defining, and then managing for, the areas' world heritage values. This plan seeks to manage for the area's acknowledged world heritage values. The plan uses the overarching objectives (see Management Objectives, page 30) to link to the World Heritage Convention requirements to identify, protect, conserve, rehabilitate, present and pass on to future generations the area's natural and cultural heritage.

However our understanding and perceptions of the heritage values of the WHA are not static.

⁵ House of Representatives Standing Committee on Environment, Recreation and the Arts October, 1996 *Managing Australia's World Heritage*, Parliament of the Commonwealth of Australia, Canberra.

New discoveries are made, old values are re-evaluated in the light of new knowledge and new criteria for world heritage listing may also be recognised, eg the recently introduced criterion for cultural landscapes.

To take account of these changes, the Service will undertake a review of the values of the area. This will clarify presently recognised values and potentially identify new values at the world, national, State and regional levels. Should the values identified warrant nomination at the World Heritage level, the present nomination may be updated or the area renominated to take account of them. See Identification, Protection, Conservation and Rehabilitation, Management Prescriptions, page 74 for details. Where Aboriginal values are included in any review or renomination this will be done in partnership with the Tasmanian Aboriginal community.

(Note that under the *National Parks and Wildlife Act 1970* the Service is required to manage for all the natural and cultural values of the area, including those which have not been recognised as being of world heritage significance. The Service will continue to manage for all the natural and cultural values of the area but will give priority to identified world heritage values.)

Work will also be expanded on the protection of the World Heritage and other natural and cultural values of the WHA. Recent research has greatly improved our knowledge of threatened species and threatening processes and how these issues should be managed. In the period of this plan increased effort will focus particularly on threatened values, this will include the full range of World Heritage and other natural and cultural values of the WHA. See chapter five for details, page 74.

2. ABORIGINAL INVOLVEMENT

A major project to establish the best mechanism for Aboriginal involvement in WHA management was completed in 1997. The end result is a model of co-management that will involve the Aboriginal community at a variety of levels in the management of issues and areas. See Aboriginal Management, page 100 for details.

3. COMMUNITY ENGAGEMENT

A major project to examine traditional or established practices within the WHA and the interaction between communities (particularly local communities) and the WHA was completed in 1997, (see page 103). The project points to a need for better communication between the Service and these communities and calls for their active involvement in management of specific parts of the WHA.

The Service recognises the need for, and supports better communication channels with local (and other) user groups. This plan details a process for actively engaging communities that wish to be involved in WHA management. In doing this, the Service will form partnerships with communities that wish to be involved, and in particular will involve local communities where there is a committed interest in the management of the WHA. See Community Engagement, page 63 and Established Practices, page 103.

4. PRESENTING THE WHA

The WHA is a key part of the 'natural quality' of Tasmania that attracts visitors to the island. It is an extremely important asset for tourism. The challenge for management is to present the area to a wide variety of visitors without damaging the area's natural and cultural values.

A recreation and tourism strategy will be developed which will analyse visitor requirements and how well the present facilities are meeting these requirements. This analysis will examine visitor data, visitor needs, the quality of visitor experience, the present Visitor Services Zones and Sites, visitor facilities, signs, interpretation and impact on the environment. This analysis and the development of the strategy will be undertaken in association with Tourism Tasmania, the Department of State Development (Office of Sport and Recreation) and Forestry Tasmania.

The strategy may lead to a different mix of facilities or services at existing sites. It may also identify the need for the development of new Visitor Services Sites. (See Integration with Tourism, page 175).

5. WALKING TRACK MANAGEMENT STRATEGY

Many of the prescriptions in the 1992 management plan regarding walking tracks have now been incorporated into the Walking Track Management Strategy. The strategy is a long term plan to sustainably manage the 1,000+ kilometres of walking track in the WHA. It was published in early 1998.

Many aspects of track management covered by the strategy (such as monitoring, track work and education materials) are already in place. At the time of writing the major component still to be finalised is the walker permit system. Over the first three years of this plan, a major focus of management will be to have all the strategy's components in place. See Walking and Walking Tracks, page 172.

6. FIRE RESEARCH

Wildfire poses a major threat to the values of the WHA. While some parts of the biota require fire, others are harmed, if not killed by it. To arrive at the best fire regime for the WHA requires considerable further research into the ecological impacts of fire. This applies not only to the negative effects of fire such as its effect on peat soils but also its positive effects, eg its role in maintaining vulnerable fire dependent plant communities. This research will be a priority over the next five years. See Fire Management, page 106.

7. GEOGRAPHIC INFORMATION SYSTEMS

An important requirement for modern land management is easy access to accurate maps detailing the values of the WHA and other critical management information. This requires mapping many WHA features such as geoheritage, flora, fauna habitat, Aboriginal and historic cultural heritage, fire related information, facilities, etc. This is best accomplished in many cases using a geographic information system (GIS). The information can then be put to use in a variety of ways, eg fire management, assessing the impact of new activities on values, planning new facilities etc.

The Service will upgrade and standardise current GIS systems to provide a powerful, accessible,

and easy-to-use GIS system to store and manipulate this data. See Identification, Protection, Conservation and Rehabilitation, Identifying Values, page 74.

8. MONITORING AND EVALUATION

Integral to this new management plan is a system of monitoring and evaluation. This system is designed to monitor and document the outcomes of management and to allow the Service to evaluate the extent to which the plan's objectives are being met.

A concise 'State of the WHA' report, will be produced every two and a half years to outline progress with the plan's implementation and to present the available results of monitoring. A major progress report will be produced at longer intervals to evaluate management performance in detail. See Evaluation, page 49 for an overview of the monitoring and evaluation system and chapter three (page 31) for the plan's objectives and key desired outcomes, the major strategies to achieve these and how they will be measured. See also the monitoring and evaluation sections at the end of most sections for monitoring and evaluation specific to each section topic.

9. TAKING THE WHA TO THE WORLD

The Tasmanian WHA was one of the first Australian World Heritage Areas to have a major presence on the world wide web. The web site (www.parks.tas.gov.au/wha/whahome.html) currently includes a series of maps of where the WHA is in the world, a virtual tour of the WHA covering the area's values, links to other WHA's, pre-visit information, basic information on recreation and threats to the area and matters to do with the management plan review process.

This site will be expanded to provide a major information source on WHA related matters, including major publications that relate to the WHA, a copy of the final version of this management plan in searchable database form, a range of curriculum materials, a kids' site with games and interesting WHA facts, extensive pre-visit information and other management related matters. As the technology evolves, greater use of video footage of the area will be included. Opportunities to produce this material via other media such as CD ROM and Digital Video Disk

will also be investigated. See Information, Education and Interpretation, Promotion through the media, page 127.

10. WILDERNESS MAPPING

The concept of wilderness has been the issue around which many of the conservation debates in Tasmania have focused. Recognition of the values embodied in wilderness is one of the major reasons why the WHA was originally proclaimed and this is reflected in the naming of the area as the Tasmanian *Wilderness* World Heritage Area.

Wilderness is one of the primary ways in which the area's World Heritage and other natural and cultural values are managed, protected and conserved. It is also now a key marketing image used to promote the 'natural quality' of Tasmania for tourism.

To be able to assess the impact of new proposals on wilderness quality is a key requirement of management (from both a public accountability and an environmental impact viewpoint).

The Service will enhance currently available GIS-based wilderness assessment methodologies to take account of viewfields and the mountainous nature of the WHA and make this information available as a priority for assessment of new proposals. See Wilderness, page 91.



Zoning

BACKGROUND

The WHA is diverse both in the nature and distribution of natural and cultural values and in patterns and types of visitor use. Zoning is a way of recognising this diversity and at the same time creating an overall framework for management designed to ensure that management objectives for the WHA are fulfilled.

The management objectives for the WHA (see chapter 3) emphasise the identification, protection, conservation and rehabilitation of the area's values and the presentation of these values

to visitors. The zoning system establishes where the major presentation points are, and defines the areas that will remain free of high levels of use to allow natural processes to continue.

With existing levels of knowledge, the most effective means of protecting and conserving the WHA's natural values and processes is to maintain the majority of the area free from development and to manage with great care selected areas where developments or activities are considered appropriate. The protection and conservation of the WHA's values will however in some cases require active management to arrest or prevent degradation.

Tasmania depends heavily on the WHA as a drawcard for visitors to the State and there are increasing demands to give visitors a variety of firsthand experiences of the area's values. In recognition of the existing and future significance of the WHA for recreation and tourism, and because these uses have the potential to significantly affect the area's values over time, the zoning scheme is largely concerned with the appropriate levels and forms of tourism and recreation, associated facilities and management requirements.

Management activities for protection of values (such as rehabilitation and control of exotic species and disease) may occur throughout the WHA wherever necessary, regardless of zoning. However, these activities will mainly be required in the higher use visitor zones.

In determining management zones, the following factors have been taken into account: World Heritage and other natural and cultural values, wilderness quality, drainage catchments, sensitive environments, tourism and recreational attractions, existing patterns of use, access and pre-existing authorised uses. The major zones reflect the two broad management objectives of protection/conservation of values and presentation to visitors. Zone names have been chosen to indicate the appropriate level and type of management input for recreation and tourism rather than the environmental, wilderness or cultural qualities of the zones.

Application of the zoning scheme to the WHA has in certain places resulted in a gradual progression of zones from more developed through less developed to undeveloped, but in other areas (such as where a walking track passes through an otherwise undisturbed area and it is not

considered appropriate to develop side tracks in the future) a juxtaposition of disparate zones occurs (eg Wilderness Zone beside Recreation Zone). In these cases the application of a gradual progression of zones has been deliberately avoided in the interests of maintaining the wilderness quality of the WHA.

In more remote parts of the WHA application of the zoning scheme largely reflects maintenance of the status quo. This is in keeping with the objectives to maintain natural processes and wilderness quality. However, more accessible locations in the WHA have been zoned to enable future expansion of appropriate recreation and tourism activities.

PREVIOUS MANAGEMENT

Since 1992 a number of issues have emerged with regard to zoning.

The boundaries of hunting areas on the Central Plateau have been adjusted twice since 1992, once to better meet hunters' needs and a second time to take account of the high altitude dieback quarantine area (see Vegetation, page 82 and map 4, page 217) which limited access to the most north-easterly hunting area on the Central Plateau. The ability to modify hunting area boundaries — while not expanding the size of the total hunting area — was allowed for in the original plan, and has proved useful in managing this activity.

A prescription in the 1992 plan disallowed fuel reduction burns in the Wilderness Zone. This reduced the Service's ability to reduce the risk of fire burning into the King William range area. The prescriptions regarding fire have been carefully reviewed in this plan (see page 108) and the former zoning-related prohibitions on the use of fire as a management tool have been removed.

The width of the Recreation and Self-Reliant Recreation Zones in the previous plan was in some cases a number of kilometres wide when the walking track to which they applied was only a metre wide. This level of width was allowed in the original plan to cater for potential requirements for future walking track rerouting and campsite development. However, progress with the Walking Track Management Strategy, which details future track works, now means that in many areas the size of these zones can be reduced to more realistically reflect future needs.

An additional overlay area has been requested to recognise areas where established practices can take place. This will be considered by the Service and is dealt with in the relevant section below and the Established Practices section (page 105).

Considerable scientific work has been done in a number of areas that are currently being considered for Scientific Area status (see page 62 for Scientific Area criteria). These include (amongst others):

- The part of the Warra Longterm Ecological Research and Monitoring Site that lies within the WHA. This is a proposed benchmark area. The Warra is a 14,791 hectare site almost equally divided between State Forest and the WHA. One of the main purposes of the site is to foster long-term ecological research and monitoring in the management of Tasmanian forests. The project is a joint initiative of Forestry Tasmania and the Service.
- The Wilderness Ecosystem Baseline Studies sites in the Pelion Area and at Melaleuca. These were developed on the basis of a directed ecological research program organised by the Service to improve understanding of ecosystem relationships, establish baseline biodiversity data and improve knowledge and management of flora and fauna in the WHA. Scientists from around Australia were invited to conduct research studies at Pelion Plains — Mt Ossa and Melaleuca over three years from 1990–91 to 1992–93. Both areas contain remote environments with unusual fauna and flora.

The majority of the zoning system used in the 1992 plan has proven appropriate to management needs. Only fine tuning of the system is proposed in this plan.

OBJECTIVE

- To maintain a spectrum of recreational opportunities from most developed for recreation and tourism in the Visitor Services Zones and Sites, to undeveloped in the Wilderness Zone consistent with the protection, conservation and presentation of the World Heritage and other natural and cultural values of the WHA.

Note that many objectives and policies are common to all zones (and are dealt with

Figure 3: Zoning – main prescriptions

WILDERNESS	SELF RELIANT RECREATION	RECREATION	VISITOR SERVICES ZONES & SITES
Wild country – limited recreation	Challenging walking and fishing areas	Major walking, boating and vehicle areas	High use areas and vehicle access points
No new facilities will be provided.	No new facilities except for environmental protection purposes.	Limited facilities for recreational and environmental protection purposes.	Major facilities for recreation and presentation of the WHA.
No new walking tracks , old ones managed as T4 or routes (WTMS*).	No new walking tracks, old ones managed as T3, T4 or routes, rerouting for environmental purposes only (WTMS*).	Potential for limited new walking tracks, old ones managed as T1 to T4 or route (WTMS*).	Potential for limited new short walking tracks, all walks managed as W1 or W2 (WTMS*).
Mechanised access – None, except for management purposes and then only when no alternative.	Mechanised access limited to management purposes. [See below regarding additional aircraft landing sites.]	Major high volume overnight walking areas, motorised boating areas, vehicle access restricted to existing vehicle tracks.	Established major mechanised access points. High use walking tracks.
Assess structures – Allow to decay or remove except where their cultural, recreational or management value outweighs impact on wilderness.	Assess structures – Allow to decay or remove except where their cultural, management or recreational value outweighs impact on wilderness. Central Plateau huts to remain.	Remote infrastructure, eg huts, toilets, can be upgraded and replaced in accord with environmental prescriptions.	Major high use area, facilities provided.
Management inputs – Minimal, for protection of natural and cultural values and essential safety purposes only.	Management inputs – Minimal, for protection of natural and cultural values and essential safety purposes only.	Management inputs – Moderate, for protection of natural and cultural values and recreation management.	Management inputs – Substantial, for protection of natural and cultural values, recreation and tourism.
Promote use – No.	Use not promoted but information provided on how to minimise impact.	Promote major walking, boating and vehicle access corridors.	Promote major areas of concentrated use.
Special events – No.	If in accord with WTMS*.	Special events – Yes.	Special events – Yes.
Snowpoles – No.	Snowpoles – No.	Snowpoles - Acceptable (see WTMS*).	Snowpoles – Yes.
Plaques and memorials – Exceptional circumstances only.	Plaques and memorials – Maybe, under special circumstances.	Plaques and memorials – Maybe, in association with facilities.	Plaques and memorials – Yes in association with facilities.
Aircraft – Adopt flight guidelines and appropriate routes that may bypass this zone. No landings except for search and rescue and management.	Aircraft – Adopt flight guidelines and appropriate routes.	Aircraft – Adopt flight guidelines and appropriate routes.	Aircraft – Adopt flight guidelines and appropriate routes.
Investigate three additional landing sites within the WHA outside the Wilderness zone.			
Signs – Strictly for management and environmental protection purposes.	Signs – for management and environmental protection.	Signs – Yes in highly serviced areas, in association with facilities.	Signs – Yes.
Interpretation - No.	Interpretation – No.	Interpretation – Yes in highly serviced areas, in association with facilities (eg Overland Track).	Interpretation – Yes.

◀ increasing naturalness and remoteness

increasing infrastructure, development, recreation and tourism focus ▶

The information above is, in general, how the plan will deal with matters in relation to zoning. For further detail on tracks, signs, snowpoles and promotion see the Walking Track Management Strategy; for further detail on other aspects, see the relevant section of the plan.

*WTMS = Walking Track Management Strategy.

elsewhere in this plan). Specific objectives and management prescriptions for each zone are given in the following management prescription section. Refer to map 3, page 216, for locations of zones.

MANAGEMENT PRESCRIPTIONS

Zoning general

The names for the major zones have been retained from the 1992 plan; the names of the overlay areas have been revised to clarify their purpose.

- The four major zones (see map 3) are:
 - Wilderness Zone
 - Self-Reliant Recreation Zone
 - Recreation Zone
 - Visitor Services Zone/Site

A summary of the key management prescriptions for each major zone is given in figure 3, Zoning — Main Prescriptions. This includes the management prescriptions given by zone below and additional prescriptions that relate to zoning from other sections of the plan.

- The six overlay areas (covered in detail from page 60) which may overlie any of the major zones are:
 - Motorised Boating Area
 - Hunting Area and Hunting Access Area
 - Quarantine Area
 - Mineral Exploration Area
 - Scientific Area
 - Remote Area Management Site

Maatsuyker is generally zoned as wilderness, but the facilities associated with the light station, weather bureau data collection devices and radio communication devices are included within a remote area management site. Management of the island is to be in accord with the Maatsuyker Island Conservation Area Management Strategies document (1993), prepared by the Parks and Wildlife Service and the Australian Maritime Safety Authority or any subsequent site plan prepared for the area.

The Australian Maritime Safety

Authority has placed an automatic light station on the island. This new station only requires annual servicing.

- A further potential overlay area, an 'Area of Community Interest', will be evaluated along with a number of other mechanisms for taking on board the interests of communities in a spatially specific way. Should such an approach be used it will be recorded in a subsidiary policy document to this management plan. (See Established Practices, areas of community interest, page 105)

Wilderness Zone

The Wilderness Zone includes areas of high wilderness quality (see Wilderness, page 91) and also areas within the WHA that have remote and/or natural characteristics. It also includes some areas of lower wilderness quality and areas which, in the future, may have a lower wilderness quality due to activities outside the WHA. All of the offshore islands are included in the Wilderness Zone.

Wilderness Zone Objectives

- To allow natural processes to operate with minimal interference.
- To retain a challenging unmodified natural setting that suitably experienced and equipped people can visit for wilderness recreation and scientific purposes.
- To use wilderness as a primary means of managing, protecting and conserving World Heritage and other natural and cultural values.

Wilderness Zone Management Prescriptions

- Provide minimal management input, and then only for environmental protection, monitoring and essential safety purposes.
- Allow sustainable recreational use but provide no new facilities or tracks. Manage existing walking tracks (largely routes and T4 tracks) in accordance with the Walking Track Management Strategy (see page 172).
- Progressively assess existing structures and allow to decay or remove unless they are of sufficient heritage, recreational or management importance to outweigh their impact on wilderness values. Conserve cultural heritage places in accordance with their cultural values. Removal or allowing

decay may not be appropriate for culturally significant places, therefore special measures may be required to conserve some places. These may be undertaken provided that they do not significantly affect natural ecological processes.

- Limit mechanised access to management and search and rescue purposes, and then only where there are no feasible alternatives.
- Encourage use of upgraded or stable tracks in the Recreation Zone and minimise environmental damage in the Wilderness Zone by not publicising walking destinations and routes within this zone. Encourage authors and editors to adopt a similar policy (see Walking and Walking Track, education, page 174).
- To maintain environmental quality, to avoid the unplanned formation of walking routes and tracks, and to preserve the sense of isolation that is sought by most visitors to these areas, access may be controlled or managed in keeping with the Walking Track Management Strategy for the WHA (see Walking and Walking Tracks, management prescriptions page 173).
- Minimise new nomenclature for natural features in the Wilderness Zone. The Service will only support new nomenclature proposals in this zone in exceptional circumstances (note that nomenclature is the responsibility of the Nomenclature Board, but the Board is obliged to consult with the Service before assigning new names or changing existing ones). If new nomenclature is assigned it should generally reflect either the character of the landscape or the recorded history specific to the particular region or feature.
- Encourage aircraft operators to adopt flight guidelines including minimum flight heights and appropriate routes over or bypassing this zone.

Self-Reliant Recreation Zone

The Self-Reliant Recreation Zone includes areas of environmental sensitivity and /or high wilderness quality as well as some areas that have been impacted, often as a result of relatively low levels of use. It encompasses some of the most challenging walking and fishing country in the WHA.

Self-Reliant Recreation Zone Objective

- To retain a challenging and relatively unmodified natural setting that suitably experienced and equipped people can use for recreation purposes.

Self-Reliant Recreation Zone Management Prescriptions

- Provide minimal management input, and then only for environmental protection, monitoring and essential safety purposes.
- Allow sustainable recreational use, however provide new facilities only for the protection of values. Manage existing walking tracks (largely routes, T4 and T3 tracks) in accord with the Walking Track Management Strategy (see page 172).
- Progressively assess existing structures and allow to decay or remove unless they are of sufficient heritage, management or recreational importance to outweigh their impact on wilderness values. Consult with stakeholders with an interest in these structures prior to any removal. Public accommodation huts on the Central Plateau may be retained if of recreation value and acceptable environmental impact. Conserve cultural heritage places in accordance with their cultural values, special measures may be required to conserve some places. These may be undertaken provided that they do not significantly affect natural ecological processes.
- In order to minimise or repair environmental degradation and /or to retain a sense of solitude, access may be controlled or managed in keeping with the Walking Track Management Strategy for the WHA (See Walking and Walking Tracks, page 172).
- Undertake track work to prevent erosion while being as unobtrusive as possible and maintaining a challenging walking experience.
- Minimise signposts and track markers; use for management and environmental protection purposes only.
- Encourage use of the many upgraded or stable tracks in the Recreation Zone and minimise environmental damage by discouraging publicity of walking destinations and routes within the Self-Reliant Recreation Zone. Encourage authors

and editors to adopt a similar policy (see Walking and Walking Tracks, education, page 174).

- Limit mechanised access to management and search and rescue purposes, and then only where there are no feasible alternatives. However existing 4WD tracks that access the edges of this zone may remain where they do not threaten the World Heritage or other natural and cultural values of the WHA.
- Helicopter and float plane landings may also potentially occur at a limited number of sites in this zone following an investigation of impacts on other users and the area's values. (See Aircraft Activities, landings, page 133 for details of this assessment)
- Encourage aircraft operators to follow flight guidelines which will include minimum flight heights and appropriate routes when overflying this zone (see Aircraft Activities, page 133).

Recreation Zone

The Recreation Zone includes certain areas that are popular with bushwalkers, boat users, anglers, climbers and rafters or which are suitable for relatively high levels of day and overnight recreational use due to their location and proximity to road access.

Recreation Zone Objectives

- To provide a range of recreational experiences in a moderately challenging, largely natural setting that suitably equipped people can use for recreation purposes.
- To enable relatively high levels of active day and overnight recreation.
- To improve access for a wide range of visitors and enable them to gain a rewarding experience of the WHA environment.

Recreation Zone Management Prescriptions

- Repair and upgrade suitable walking tracks and associated toilets, huts and campsites in this zone. Manage tracks to a variety of standards in terms of track length, surface, grade and level of associated facilities in accordance with the track classification scheme (a part of the Walking Track Management Strategy — see page 172).
- Once upgraded, promote the use of suitable tracks and associated facilities in this zone.

Encourage authors to publish information on particular tracks in this zone where increasing use is not expected to have any major adverse effect.

- Encourage guided tours principally in this zone (see Guided Tours, page 179).
- Produce information and interpretation materials principally in the form of printed materials. Limit on-site information to directional signs along tracks, display boards in huts and information booths or signs at track heads (see Signs, page 161).
- Prepare a Recreation Zone plan for the Overland Track that identifies the appropriate level of facilities, (eg huts, toilets, track standard etc), interpretation, marketing and commercial use of this zone. The plan is to be consistent with the WHA Walking Track Management Strategy.
- Helicopter and float plane landings may also potentially occur at a limited number of sites in this zone following an investigation of impacts on other users and the area's values. (See Aircraft Activities, Landings, page 133 for details of this assessment)
- Encourage aircraft operators to follow flight guidelines which will include minimum flight heights and appropriate routes when overflying this zone.

Visitor Services Zones and Sites

Visitor Services Zones and Sites are areas where the majority of visitor facilities are, or will be, provided and where the majority of visitors will experience the WHA. In general these zones and sites take advantage of existing road access and are, or will be, located around the margins of the WHA.

Visitor Services Zones and Sites complement visitor services centres located nearby but outside the WHA at Strahan, Queenstown, Pencil Pine, Sheffield, Deloraine, Mole Creek, Liawenee, Miena, Derwent Bridge, Bronte Park, National Park, Strathgordon, Geeveston, Melaleuca and Dover.

Zones and Sites, including potential additional sites are shown on map 3, page 216.

Visitor Services Zones and Sites Objectives

- To provide a range of appropriate facilities strategically located to facilitate visits to the WHA and to enable all visitors to gain a first

hand experience of a range of the values of the WHA.

- To maintain, as far as possible, a natural setting and cultural integrity and to minimise the environmental, aesthetic and social impacts of facilities and visitor use.

Visitor Services Zones and Sites Management Prescriptions

- Design Visitor Services Zones and Sites to cater for a wide range of visitors, providing principally for the needs, interests and abilities of day visitors. These visitors usually have a limited amount of time and are less active than visitors to the more remote zones.
- Within the WHA, Pencil Pine-Cradle Valley and Lake St Clair are the designated Visitor Services Zones. Adjacent to or near the WHA, reserved land managed by the Service at Mt Field National Park and Liawenee also provide visitor services for the WHA.
- Within Visitor Services Zones, provide for high levels of day and some overnight use by developing and/or maintaining a range of facilities and services that may include: park accommodation to suitable design and scale; campgrounds; refreshment sales; interpretation and education centres; visitor information and appropriate recreational and management facilities. In general there will be an on-site management presence.
- Permit concessionaire-operated facilities which contribute to the presentation of the World Heritage and other natural and cultural values of the WHA. Seek private sector investment in the provision of some facilities where appropriate.
- Review the present Visitor Services Sites as part of the Recreation and Tourism Strategy (see Integration with Tourism, page 175). Delineate their area, establish carrying capacities, note present and potential visitor experiences and develop approaches for the future management of these sites.
- Develop Visitor Services Sites to cater for a range of levels and forms of day and overnight use to suit the needs of different visitors and provide a range of recreation opportunities. In general, cater for higher numbers of visitors at sites along major tourist routes and for relatively low levels of

use at less accessible sites. Facilities may include park accommodation to suitable design and scale, interpretation and nature walks, picnic shelters, toilets, boat ramps and camping areas. Management presence will generally be regular, although not usually based on site.

- Develop, upgrade or maintain Visitor Services Sites, both within the WHA and on State-managed land adjacent to or near the WHA. (See Visitor Facilities, page 169 and map 5, page 218 for details and location).
- Helicopter and float plane landings may also potentially occur at a limited number of sites in this zone following an investigation of impacts on other users and the area's values. (See Aircraft Activities, Landings, page 133 for details of this assessment.)
- Prepare site plans for Visitor Services Zones and major Visitor Services Sites prior to commencement of any new development or significant upgrading of facilities.

Overlay areas

The Overlay Areas outlined below lie on top of the major zones noted above. They recognise pre-existing uses of the area prior to world heritage listing and identify other more specialised management regimes that apply within parts of the major zones. The general policies that apply to overlay areas are usually as specified in the underlying zone.

Motorised Boating Area

Motorised Boating Areas are overlays to major zones that indicate where motorised boats may be used. Motorised boats are boats with engines, they do not include floatplanes or other aerial craft that can land on water, these are covered under Aircraft Activities, see page 133.

Motorised Boating Area Objective

- To allow for mechanised boating access consistent with the protection of World Heritage and other natural and cultural values of the WHA and recreational values.

Motorised Boating Area Management Prescriptions

- Encourage and monitor appropriate use by motorised boats and, as and where necessary, apply conditions to protect values including: waste containment, number limits, speed limits, length of stay and noise.

- Motorised boats may use Macquarie Harbour, the Lower Gordon River as far as Angel Cliffs, Port Davey–Bathurst Harbour, Double Lagoon and Lakes Pedder, St Clair, Mackenzie, Augusta, Ada, Pillans and Julian. Motorised boating is not permitted on any part of the Franklin River except for essential management purposes.
- Strictly control the operation of large commercial tourist vessels on the Lower Gordon River. Private vessels over eight metres will also be subject to controls.
- To reduce the potential for bank erosion the following limits on Motorised boats are imposed within the Port Davey–Bathurst Harbour area:
 - Davey River: Motorised boating is not permitted upstream of Grid Reference 55GDN135217 (the upstream end of the gorge). (See Map 3, page 216, for this and the following prescriptions)
 - Spring River: Motorised boating is not permitted upstream of Grid Reference 55GDN238055 (the mouth of the Spring River in Manwoneer Inlet).
 - North River: Motorised boating is not permitted north of the line joining Grid Reference 55GDN312032 and Grid Reference 55GDN331024 (the two headlands forming the entrance to North Inlet).
 - Old River: Motorised boating is not permitted upstream of Grid Reference 55GDN386040 (the upstream end of the island).

Hunting Area

Hunting areas are overlays to major zones that show where wallaby or duck hunting is permitted. These areas are in parts of the Central Plateau and Macquarie Harbour. See maps 3 and 4, pages 216 and 217.

Hunting Area Objective

- To allow wallaby and duck hunting to continue in areas of pre-existing use under conditions that minimise environmental and social impacts on the World Heritage and other natural and cultural values of the WHA.

Hunting Area Management Prescription

- Permit wallaby and duck hunting in designated areas subject to adherence to a code of conduct and ongoing assessment of impact (see Hunting, page 151).

Note on Hunting Access Area

Hunting Access Areas are overlays to major zones that show access corridors to Hunting Areas. They are areas across which guns may be carried to access Hunting Areas, but within which hunting is disallowed. General policies to apply in the area are as specified in the underlying major zone.

Quarantine Area

A Quarantine Area is an overlay to a major zone or zones. It is an area where human access is denied to assist in preventing the possible spread of pathogens outside the area. The only Quarantine Area at present is at Pine Lake in the Central Plateau Conservation Area. See also Vegetation, page 82. The boundaries of a Quarantine Area may vary as required to manage the pathogen/s contained within the area.

Quarantine Area Objectives

- To prevent the possible spread of pathogens outside the area.

Quarantine Area Management Prescriptions

- Disallow access to the Pine Lake Quarantine Area until such time as management of the pathogen involved has been resolved.

Mineral Exploration Area

A Mineral Exploration Area is an overlay to major zones where the continuation of mineral exploration or mining was agreed at the time of the WHA nomination. The remaining area where this applies is the Adamsfield Conservation Area.

Mineral Exploration Area Objective

- To minimise the impact of approved mineral exploration or mining on the World Heritage and natural and cultural values of the WHA.

Mineral Exploration Area Management Prescriptions

- Any exploration or mining is to be subject to the New Proposals and Impact Assessment process (see page 66) and other relevant Acts and guidelines (see Mineral Exploration, page 185 for details of these).

Scientific Area

Three types of Scientific Area are recognised: Reference Areas, Benchmark Areas and Sites of Special Significance.

Reference Areas

A number of the more pristine areas will be designated as Reference Areas where no management actions will be undertaken and visitor use will be discouraged as far as possible to allow natural processes to operate undisturbed. Such areas will be of great value for management and scientific research, particularly for studying the effects of management practices in other parts of the WHA.

Benchmark Areas

A small number of relatively restricted areas in the WHA that have been the subject of detailed and comprehensive systematic scientific study will be designated as Benchmark Areas. These areas will be used for monitoring environmental changes and the effects of environmental impacts such as global warming ('the greenhouse effect'), and effects of human visitation such as sewage effluent.

Sites of Special Significance

Locations that are highly significant for conservation of particular natural or cultural resources will be identified as Sites of Special Significance. These locations will be listed on two separate registers: 'Natural Sites of Special Significance' and 'Cultural Sites of Special Significance'. Examples of Sites of Special Significance for conservation of physical resources include features such as the localities of rare rock types or minerals, rare fossil localities and rare or outstanding examples of the products of geological or geomorphological processes such as erosional surfaces, aeolian dunes and rare and restricted soil types. Examples of Sites of Special Significance for conservation of biological resources include habitats of species or communities with very restricted known distributions, habitats of threatened species and rare habitats. Examples of Sites of Special Significance for conservation of cultural resources include archaeological and Aboriginal sites of special importance.

Scientific Area Objectives

- To ensure that there are representative areas of pristine ecosystems where natural processes may continue as far as possible without interference.
- To monitor environmental change and

provide 'control areas' to assist the study of human impact.

- To identify and protect localised areas of special physical, biological and cultural value.

Scientific Area Management Prescriptions

REFERENCE AREAS

- Generally locate Reference Areas in Wilderness Zones.
- The location of Reference Areas may be advertised but public access will normally be discouraged.
- Minimise activity in or near Reference Areas that may disturb the natural ecological processes acting within them.

BENCHMARK AREAS

- Locate Benchmark Areas in areas that have been, or will be, the subject of detailed scientific study, whether because of the potential for disturbance or because of their global significance as ecosystems.
- Longterm monitoring will be carried out within Benchmark Areas.
- Allow limited facilities where these are essential for monitoring purposes. As far as possible any facilities are to be in accordance with the underlying zoning.

SITES OF SPECIAL SIGNIFICANCE

- Visits to Sites of Special Significance for management or research purposes will be controlled to avoid unnecessary disturbance and risk of damage.

GENERAL

- Approval to conduct research in Scientific Areas will be subject to stringent conditions.
- Any visits or proposals for management or research purposes to Aboriginal sites within Scientific Areas will be carried out with the approval of the Tasmanian Aboriginal community.
- Review the criteria for designation and selection of Scientific Areas.
- Management procedures for Scientific Areas will be developed by a working group consisting of appropriate scientific specialists.

Remote Area Management Site

Remote Area Management Site Objective

- To provide for vital infrastructure in an otherwise remote setting.

Remote Area Management Site Management Prescriptions

- Review, and as necessary revise, the 1993 Maatsuyker Island Conservation Area Management Strategies document.
- Maatsuyker island will be occupied periodically by Service staff and volunteers to protect the area's natural and cultural values.

MONITORING AND EVALUATION

- Monitor the extent to which zoning contributes to or interferes with the achievement of management objectives.
- Record the number and nature of any zoning infringements and any requests for changes to zones.



Community Engagement

BACKGROUND

One important requirement under the World Heritage Convention is to adopt a general policy which aims to give the natural and cultural heritage a function in the life of the community.

Involving communities in planning and managing the WHA assists with the integration of the WHA into the community and provides the opportunity for a two-way flow of information between managers and the public.

Input from the community can reveal the diversity and intensity of opinions held and highlight contentious issues that need to be resolved. At the same time, the process can raise community awareness of management responsibilities and understanding of other points of view. Community involvement in planning and

management usually results in better decisions being made by managing authorities and better community acceptance of those decisions.

In addition to involvement in planning, people are increasingly wanting to actively help in managing the area. Volunteers can expand the Service's work capabilities and assist in achieving management objectives.

PREVIOUS MANAGEMENT

Over the period of the 1992 plan, numerous mechanisms were used to consult with and engage relevant communities in WHA planning and management issues. These included the use of committees to plan for areas such as Cradle Mountain and Melaleuca, activity-based consultative groups, such as those on walking tracks and horseriding and more formal mechanisms such as the World Heritage Area Consultative Committee and the National Parks and Wildlife Advisory Council.

The World Heritage Area Consultative Committee has been a major mechanism for consulting with the public and reaching resolution on many of the more complicated and difficult management issues in the WHA over the life of the 1992 plan.

Two major projects have been undertaken to look at the active involvement in WHA management of both the Aboriginal community and non-Aboriginal people undertaking established practices. The outcomes of these projects are detailed in the Aboriginal Management section, page 100 and the Established Practices section, page 103.

The National Parks and Wildlife Advisory Council completed a review of all Service committees in 1997 with a view to improving community consultation. In mid 1997 the Service established a Community Partnerships Section to better engage the community in the management of reserved land and across the activities and responsibilities of the Service.

The Service has traditionally enjoyed the support of a variety of volunteer groups and individuals, eg for track repair, hut maintenance, fire-fighting etc. However there is significant potential to expand the role and involvement of support groups and volunteer workers to benefit the WHA.

To this end the Service launched 'Wildcare — Friends of the Parks and Wildlife Service' in

December 1997. Wildcare provides a structure and opportunities for on-ground assistance and involvement of the community in natural and cultural heritage conservation and management.

OBJECTIVES

- To engage the public in WHA planning and management in a meaningful and productive manner.
- To harness community ideas and resources to benefit the planning and management of the WHA.
- To encourage and facilitate voluntary activity which contributes to the achievement of WHA management objectives.
- To enable the Service to gain a better understanding of community values and expectations.

MANAGEMENT PRESCRIPTIONS

General ✓ [KDO's 7.1 to 7.3]

- Develop and implement a comprehensive strategy for effectively involving the community in WHA planning and management. (See also Planning and Public Consultation, page 48 for an overview of the Service's approach to community consultation in planning). [KDO 7.1]
- Develop a range of opportunities and mechanisms for involving the community and volunteers in ways that can assist WHA management and complement the role of Service employees. [KDO's 7.1, 7.3]
- Form collaborative partnerships with communities or groups that wish to be involved in the management of specific parts or aspects of the WHA. In particular with local communities and other communities where there is a committed interest in management of the area. [KDO 7.2]
- Develop opportunities and mechanisms for consulting with communities on WHA management issues and principles and keeping them informed about findings and outcomes. [KDO 7.1, 7.2 and 7.3]
- Develop and provide appropriate programs to address specific management issues and

problems, and where possible collaborate with the community to find solutions to management problems. [KDO 7.1, 7.3]

- Educate and assist the community, stakeholders and interest groups to gain an understanding of conservation issues within the WHA, management obligations and decision-making processes. [KDO 7.3]
- Acknowledge and respond to past use (both social and cultural) and management of the WHA and the values attached to the area by users. [KDO 7.3]

Advisory Groups/Committees

- Implement a district-based network of consultative committees which provide community input to management decisions relating to the WHA. These committees will assist management to recognise and respond to community-related issues.
- If relevant, forward policy recommendations arising from consultations with interest groups for consideration by the WHA Consultative Committee and, if necessary, Ministerial Council.

Volunteers and Community Groups

- Encourage and actively support community groups and individuals in voluntary activities which assist the Service in achieving WHA objectives. This will primarily be achieved through the Wildcare program (specifically through the Community Action in Reserves [CAREs] groups though other partnerships may also be developed). The program will:
 - Develop mechanisms to provide opportunities for volunteer and community groups to be involved in WHA management.
 - Establish formal structures, processes and arrangements for recruiting, managing, supporting and, where appropriate, training voluntary workers.
 - Develop a Service policy related to the use of voluntary workers which covers such issues as occupational health and safety, insurance, the nature of activities to be undertaken by volunteers etc.
 - Develop a system for identifying (and where appropriate prioritising) projects

suitable for volunteer involvement, and facilitate and/or coordinate volunteer and professional input as required to implement such projects.

- Establish mechanisms and processes to ensure that:
 - * the activities of volunteers and voluntary groups are consistent with WHA management objectives;
 - * all volunteer projects are formally approved by the Service;
 - * necessary precautions are taken to avoid volunteer activities damaging natural or cultural values, or otherwise causing management problems.
- Provide opportunities for volunteers to enhance their knowledge and understanding of the WHA, its values and management responsibilities.
- Provide opportunities for volunteers to provide feedback on their experience of working for the Service and ensure that management is responsive to that feedback.
- Ensure that volunteers and others engaged in unpaid work that assists WHA management receive appropriate recognition and support for their contribution.

Community Involvement (see also Established Practices section, page 103) ✓ [KDO 7.1 and 7.2]

- Develop opportunities for close links between field management offices and their local community.
- In partnership with others encourage and develop specific programs to involve local schools in WHA-related activities and projects.
- Promote partnerships between field centres and local schools to develop and support ongoing co-operation.

Neighbours

- In consultation and cooperation with owners or managers of neighbouring land and others who have responsibilities or interests related to the region, develop cooperative strategies

or joint initiatives in relation to specific management issues or projects of common interest eg:

- access
- fire prevention and fire management
- tourism
- recreation management
- viewfield management
- catchment protection
- weed and disease management
- rehabilitation
- protection of wilderness values
- protection of cultural values.
- Regularly liaise and develop good working relations with adjacent land managers, local community leaders, recreational groups and other relevant organisations (particularly in the tourism industry) to further WHA management objectives.

Other Government Agencies [KDO 7.4]

- Maintain liaison with local government to ensure consistency between the WHA management plan, site plans and municipal planning schemes and policies.
- Where possible and appropriate, integrate management concepts and strategies for the WHA (eg for wildlife conservation, interpretation, walking tracks, tourism etc) into local, regional, and state planning procedures, instruments and actions.
- Consult and liaise with relevant government agencies and other organisations regarding any developments or activities that have the potential to affect the World Heritage and other natural and cultural values of the WHA or the achievement of WHA management objectives, and on other matters of mutual interest.

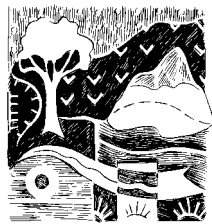
MONITORING AND EVALUATION ⚖️ [KDO'S 7.1 TO 7.4]

- Monitor the levels and types of participation or involvement of the Tasmanian community (including schools, community groups, volunteers etc) in WHA-related activities, processes, projects, partnerships, events etc. See also Information, Interpretation and

Education, monitoring and evaluation, page 128.

- Monitor the level and nature of feedback about WHA-related activities, processes, projects, partnerships, events etc.
- Monitor the nature and level of use of the WHA by local community residents, and their level of satisfaction with the management of those areas.
- Monitor the level of satisfaction and / or nature of feedback about management planning processes and outcomes.
- Monitor the level of ministerial correspondence to and from communities on management issues. [KDO 5.1]
- Each district-based committee or Wildcare group is to provide an annual report on decisions and activities. This is to include issues that were resolved at the group's level and other issues that were passed to other bodies for resolution. Analyse reports to see where effort should be targeted and where processes can be improved. This may take the form of a feedback session for each group on progress made over the year.

[See also Established Practices, monitoring and evaluation, page 106]



New Proposals and Impact Assessment

BACKGROUND

The proposed 10 year timeframe of this management plan raises the likelihood that new issues will emerge which have not been specifically addressed in this plan. A process is needed to tackle these issues effectively and to ensure that all actions taken within the WHA are consistent with achieving the management objectives for the WHA.

The process needs to be open, transparent, have clear decision points and provide certainty to proponents in a reasonable timeframe. At the same

time it has to include a full assessment of the impacts of the proposal and, for major proposals, include mechanisms for public comment.

For minor projects a new process is also required to assess potential impacts from proposed management actions.

PREVIOUS MANAGEMENT

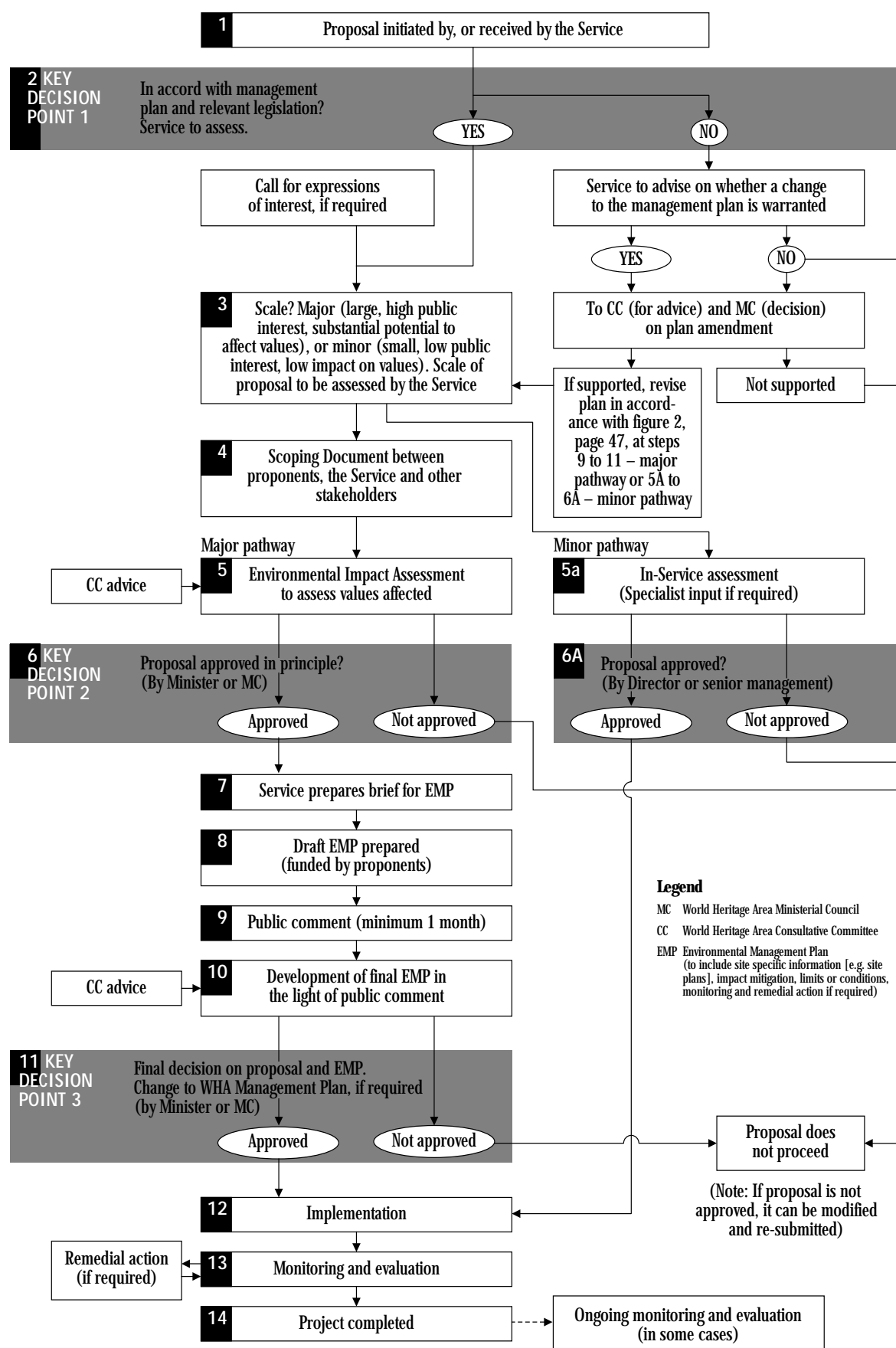
The major new, non-Service proposal dealt with in the period of the 1992 plan was the proposed development at Pump House Point. The HEC Pump House Point site at Lake St Clair was identified as a strategic site for tourism development. In 1994 expressions of interest were invited from potential developers and a preferred developer selected. In accordance with the 1992 plan, the developer prepared a site plan (incorporating an environmental impact management plan) for the development area which was made available for public comment. The site plan was subsequently amended and approved by the WHA Ministerial Council.

The Pump House Point development raised the issues of inconsistencies in applying the separate planning provisions contained within the *National Parks and Wildlife Act 1970* (NPWA) and the *Land Use Planning and Approvals Act 1993* (LUPAA). In order to circumvent some legal uncertainty about the applicability of the LUPAA to the project (on land administered under the provisions of the NPWA) the developer submitted a development application, based on the site plan, to the Central Highlands Council. This was approved by the Council in April 1996 and a development permit was subsequently issued under the LUPAA. At the time of writing the development is yet to proceed. (See also Accommodation, page 131)

The general issue of whether LUPAA applies on NPWA land is yet to be clarified, but will most likely be resolved by legislative changes arising out of recommendations of the Public Land Use Commission's Land Classification Inquiry. It is the view of the Service that major development proposals should be subject to LUPAA, but that minor activities by the Service should not be covered.

Should the Service be partially or totally under the LUPAA then the appeal mechanism in the LUPAA would apply. In addition the Service is seeking to introduce a mechanism for civil enforcement (see Plan Implementation and Review, previous

Figure 4 New Proposals and Impact Assessment Process



Management, page 45) that would apply to all management plans for NPWA reserves.

Other new proposals that have progressed since the 1992 plan include the fifth commercial hut on the Overland Track (see Guided Tours, Previous Management, page 180), the new visitor centre at Lake St Clair (see Visitor Facilities, Previous Management, page 170) and the improved accommodation at Lake St Clair (see Accommodation, Previous Management, page 132).

The project proposal system previously used by the Service to review internal, minor projects is currently under review and will be replaced by a more streamlined system. This new system will cover the minor pathway process noted below.

OBJECTIVES

- To provide an appropriate mechanism for considering new issues that have not been covered by this management plan.
- To ensure that decisions related to proposed developments or activities reflect the management objectives of this plan.
- To ensure that sound processes exist for the assessment of potential impacts of proposed developments and activities (including scientific and management activities).

MANAGEMENT PRESCRIPTIONS

New Proposal Assessment

A flowchart describing the process for considering new proposals (including new developments, activities and management actions) is given in figure 4, page 67. It provides an overview of the steps detailed below.

Timeframes are indicated below each step in brackets. Where the Service is wholly responsible for a step, it will complete the step within the time given. Steps marked '#' are dependent upon prescriptions contained in the scoping document and — at least partially — time taken by the proponent. At key decision points (steps 8 and 12) the Minister or Ministerial Council will reach a decision in the time stated.

Note that the process to resolve issues when objectives conflict (see page 46) is also to be used throughout this process, as required.

STEP 1 - Proposal received

- A proposal is received by, or initiated by the Service, for a development or activity within the WHA. [Note that day-to-day activities of Service staff are not required to go through this process, unless values could potentially be affected.]

STEP 2 - Key Decision Point 1 - Compliance with the management plan and legislation [2 weeks]

- The Service assesses whether the proposal accords with the management plan and relevant legislation.
- This is the first key decision point. If the proposal is in accord with the plan and relevant legislation, it continues on to step 3 via the 'Yes' pathway.
- If it isn't in accord with the plan or relevant legislation it follows the 'No' pathway and one of the following actions occurs. The proposal:
 - is rejected and doesn't proceed;
 - is modified and resubmitted in accord with the requirements of the plan and relevant legislation or
 - a change to the plan is agreed (see below) and the proposal goes on to step 3.
- Further consideration of proposals that do not accord with the plan, but are recommended to proceed by Ministerial Council, would require that the relevant sections of this plan be formally reviewed and amended. For details of the formal review process refer to Plan Review, figure 2, page 47.
- Should the above situation arise, the proposed plan review and amendment process is to be integrated with the new proposals process so that the relevant public consultation steps required for each process are undertaken simultaneously.

Expressions of Interest

- The Service will decide whether the proposal should be open to expressions of interest other than that of the original proponent. [5 weeks, one week to place advertisements and four weeks for potential proponents to prepare and submit expressions of interest]

STEP 3 - Scale of proposal — the major and minor pathways [2 weeks]

- At step 3 the process splits into major and

minor pathways. The pathway taken depends on the scale of the proposal, its perceived potential for impact and the likely level of public interest. The major pathway is described first below.

- Major proposals are large in scale, often have high public interest and/or the potential for substantial impact on the World Heritage and other natural and cultural values of the WHA. Projects like the 48 unit Pump House Point development at Cynthia Bay, a new series of commercial or public huts, or additional landing sites for floatplanes or helicopters would all be considered major (though the assessments for these would vary - see step 4 below). Minor proposals are considerably smaller in scale, have low public interest and low potential for impact on values, eg rerouting a section of walking track, refurbishment of an existing facility.
- The Service will assess whether the proposal is of major or minor status. This assessment will take account of the above criteria and also whether the proposed site is a 'greensite' or has been previously disturbed.
- The Service will ensure, for both major and minor pathways, that expert advice and adequate information about the World Heritage and natural and cultural values of the WHA, and management planning considerations, are provided at the earliest possible stage. This will alert proponents to significant issues, and guide the development of proposals which minimise potential impacts.

STEP 4 - Major Proposal Pathway - Scoping document [# 6 weeks]

- At this stage a scoping document is developed between the proposal's proponents, the Service, and any other relevant stakeholders. It will involve a preliminary investigation to assess environmental parameters of the site, including identifying values, issues and constraints. This document will detail:
 - whether a change to the management plan is required;
 - the level of environmental impact assessment required;
 - where required, the level of social impact assessment;

- the extent of public consultation required;
- key decision points and the decision makers and
- the timeframe for the assessment process.

- These aspects will be agreed as far as is possible prior to the environmental impact assessment process (see step 5 below).

STEP 5 - The Major Pathway - Environmental Impact Assessment [# 4 – 12 weeks]

- Proposals with the potential for significant environmental impact will be subject to detailed environmental impact assessment and public review at this step.
- A draft Environmental Impact Statement will be prepared. This may be done by the proponent, consultants or the Service, as appropriate — it will however be funded by the proponent.
- Environmental Impact Assessment may take a number of forms. Where an impact assessment is required under the *Environmental Management and Pollution Control Act 1994*, this will be undertaken in accordance with that Act. Where this Act does not apply, adequate environmental assessment and evaluation of alternative options will take place to allow informed decision-making on the proposal. The level of assessment required will vary substantially depending on the scale of the proposal, but will be in accordance with the requirements specified in the scoping document (step 4).
- At times, the Commonwealth *Environment Protection (Impact of Proposals) Act 1974* may also apply. If in the view of the Commonwealth Minister administering that Act, the Commonwealth is involved in a decision or providing advice on a matter of environmental significance, the Minister may refer the matter under that Act. Such an action may result in the Minister requiring a proponent to carry out an environmental impact statement or a public environment report. (The Commonwealth in 1997, through their participation in Ministerial Council, referred the proposal to retain the Mt McCall track under this Act).
- Where required, potential social impacts and potential cumulative impacts of proposals will also be assessed.

- Public participation in the proposal's impact assessment processes and further parts of the decision-making process will be available at appropriate times through relevant statutes or through the public consultation processes of the Service. Public consultation periods will be noted in the scoping document.
- During this step the WHA Consultative Committee also provides advice on the proposal.

STEP 6 - The Major Pathway - Key Decision Point 2 - In principle approval? [4 weeks]

- At this step, the results of the Environmental Impact Assessment are available and are considered by the Minister or Ministerial Council (depending on the scale of the project and the extent of potential impact on World Heritage and other natural and cultural values). Any advice from the WHA Consultative Committee is also considered at this step.
- At this key decision point preliminary answers to the following questions will be required:
 - the extent to which the proposal contributes to or compromises WHA management objectives;
 - how it aids in presenting the WHA and whom it specifically benefits;
 - specifically why the development or activity needs to be located within the WHA (rather than adjacent to, or elsewhere outside the WHA);
 - the adequacy of the level of knowledge about the values of the area likely to be affected by the proposal;
 - the estimated level of impact on the World Heritage and natural and cultural values of the WHA, other risks associated with the proposal, the steps that are proposed to ameliorate these and an assessment of how adequate these steps are;
 - the cost-benefit to the Service and the financial viability of the project and
 - the suitability and/or past record of performance of the project managers/operators.

- The proposal is then either given in-principle approval (and moves to step 7), or is not approved (and does not proceed).

STEP 7 - The Major Pathway - Brief for Environmental Management Plan [2 weeks]

- In the light of findings from the EIS process and the in-principle approval granted at step 6, the Service, in consultation with the proponent, prepares a brief for the Environmental Management Plan.

STEP 8 - The Major Pathway - Draft Environmental Management Plan [# 4 weeks]

- A draft Environmental Management Plan (EMP) is then prepared. This may be done by the proponent, consultants or the Service, as appropriate — it will however be funded by the proponent.
- Note that proposed developments or activities which have been considered and given in-principle approval (at step 6) may only proceed where the following issues have been adequately addressed in an Environmental Management Plan:
 - the siting and design of all infrastructure and facilities minimises environmental and scenic impact on the World Heritage and natural and cultural values of the WHA;
 - appropriate preventive strategies and measures are in place to avoid potential impacts of the development or activity (eg the spread of disease, the introduction of exotic species, the unnecessary disturbance of vegetation) or to minimise impacts (eg rehabilitation program for disturbed sites, how the threat of fire is to be managed etc);
 - conditions of operation, performance standards or other critical performance requirements have been adequately defined;
 - formal arrangements exist and mechanisms are in place to monitor compliance with defined performance requirements and/or other outcomes of the development or activity (see also Environmental Quality, page 110) and
 - mechanisms, procedures and/or penalties that will apply in the event that

specified conditions of operation, performance standards or other defined performance requirements are not met or are breached.

STEP 9 - The Major Pathway - Public Comment [4–6 weeks]

- The draft EMP is then made available for public comment. A minimum comment period of one month applies.
- Should a change be required to this WHA management plan, this period of public comment will also form the comment period legally required to amend the management plan.

STEP 10 - The Major Pathway - Final EMP [# 4 weeks]

- A final EMP is then developed in the light of the public comment and advice from the WHA Consultative Committee.

STEP 11 - The Major Pathway - Key Decision Point 3 - Final Decision [4 weeks]

- At this step the Minister or Ministerial Council makes the final decision on the final EMP and, if required, any changes to the WHA management plan.
- At this key decision point, final answers to the questions asked at key decision point 2 (step 6) and the following additional questions will be required:
 - the findings of monitoring and evaluation programs related to similar developments or activities;
 - the adequacy of proposed mechanisms for monitoring and evaluating impacts and for responding to identified problems and
 - the nature and levels of public complaint/feedback concerning the proposed development or activity and how these concerns have been addressed.

STEPS 12, 13 and 14 - The Major Pathway - Implementation, Monitoring and Evaluation, Project Completion

- Following approval, the proposal is implemented, monitored and evaluated, as required by the Environmental Management Plan. For some projects monitoring and evaluation ceases at the end of the project, for others the monitoring is ongoing.

Remedial Action

Should monitoring or evaluation identify problems (eg breaches of the EMP, failure to meet specified requirements etc), remedial action and/or penalties foreshadowed in the EMP will be activated, and/or management arrangements will be reviewed.

STEP 5A - The Minor Pathway - In Service Assessment

- Proposals that are considered minor and that are provided for by the management prescriptions of this plan (and/or the provisions of approved site and other subsidiary plans where relevant) will be subject to normal Service approvals taking into account advice from relevant staff (including specialists).
- The Service will evaluate current processes to ensure that adequate assessments and decision-making processes are in place to consider minor developments, activities or changes in use.

STEP 6A - The Minor Pathway - Key Decision Point 2

- Taking account of the information gathered at step 5A, the Director, or senior Service managers will approve or not approve the proposal.

General

- Develop detailed guidelines to more fully explain the new proposals process and arrangements for the consideration of proposed developments and activities. These will include criteria for the definition of projects to be subject to public review; guidelines for Environmental Impact Assessment and Environmental Management Plans; requirements for ensuring the adequacy of assessment studies; funding arrangements for assessment and other procedural requirements; responsibility for defining, monitoring and enforcing conditions of operation, or meeting performance standards or other critical performance requirements.
- Provide advice and, where appropriate, develop guidelines on how to avoid or minimise environmental or scenic impacts.
- Consult with the Tasmanian Aboriginal community prior to any determination on development proposals that may have

potential impacts on Aboriginal cultural heritage or values. (See also Aboriginal Management, page 100).

- Ensure that conditions of operation or use of the WHA contain adequate provisions to cover the costs of any necessary subsequent requirements for environmental protection or remedial measures.
- The project budget for proposed developments or activities will be required to cover the costs of specified resource studies, provision of management planning advice, impact assessment processes and review, and any necessary subsequent requirements for environmental monitoring and management. Such studies and plans may be prepared by the proponent under the direction of the Service, or Service staff may undertake the work at the proponent's expense. This may be varied if the project is seen to be of major State-wide importance.
- Where proposed developments or activities are found to threaten the conservation of significant natural or cultural values, the following options will be considered:
 - re-site the proposed development or activity;
 - proceed with the development or activity, following recording of the site or sites — in the case of Aboriginal sites this must be in accordance with the provisions of the *Aboriginal Relics Act 1975* or
 - cancel the proposed development or activity.

MONITORING AND EVALUATION

- Report on the extent to which projects impact on the World Heritage and other natural and cultural values of the WHA.
- Monitor the nature and levels of public support for, or complaints about, proposed developments and activities within WHA.
- Gain feedback from project proponents, relevant staff and specialists regarding the effectiveness of the New Proposals and Impact Assessment process.
- Evaluate and review assessment procedures for developments and activities periodically and improve as required.

Chapter 5

Identification, Protection, Conservation and Rehabilitation

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BACKGROUND

This section of the plan focuses on measures to identify, protect, conserve and, as necessary, rehabilitate the values of the WHA. These values include those that are considered to be of World Heritage significance, as well as all other natural and cultural values.

The values of the WHA and associated management issues are described in a separate Resources and Issues report⁶ prepared by the Service in 1992. An updated version of this document is planned.

In some cases, management for some values may potentially conflict with management for other values. In these cases, the recommendations for resolving conflict between objectives will be employed (see page 46).

A number of management prescriptions apply generally to the management of natural and cultural values throughout the area. These general prescriptions are presented immediately below and in the following section entitled Natural Diversity and Processes. Prescriptions that apply to specific values are presented under the relevant subject headings in subsequent sections of chapter five.

PREVIOUS MANAGEMENT

Identifying Values

During the life of the 1992 plan, various additional values of the WHA were identified; these are noted in the specific sections that follow later in chapter 5. However, one area was identified as having particularly significant natural values.

The Port Davey–Bathurst Harbour embayment is the largest undisturbed estuarine system in Southern Australia, and the Davey and Bathurst catchments are free of introduced fish. Unusual features of the system are the extraordinarily low level of nutrients in the waters of Bathurst Harbour and its associated marine invertebrate fauna.

Following the discovery of unique fauna in the area, it is State government policy to create (in consultation with stakeholders) a marine reserve in the Port Davey–Bathurst Harbour area to

protect this unique habitat and a representative area of one of Tasmania's marine bioregions. At the time of writing the Service and the Marine Resources Division of the Department of Primary Industries, Water and Environment are working to implement this proposal (see also Commercial Fishing, page 187).

OBJECTIVES

This general section at the start of chapter five covers management prescriptions and monitoring and evaluation designed to broadly achieve objectives two, three and four of the overarching objectives of the management plan (see pages 31–36 for details of these).

MANAGEMENT PRESCRIPTIONS

Identifying Values ✓ [KDO's 2.1 and 2.3]

The values of the WHA are not always static. New discoveries are made, the environment can change through natural processes, old values are re-evaluated in the light of new knowledge and new criteria for World Heritage Area listing may also arise. The following prescriptions provide the mechanisms for dealing with this potential for change.

- Undertake a review of the values of the WHA to define, identify and update values at the world, national, State and regional levels. Include in this review the proposed 15 dedicated reserves identified during the RFA process (see page 19) as potentially having world heritage value. Clearly document these values. Should new values of world heritage significance be identified, the area may be renominated or the present nomination document may be updated to include them. [KDO 2.1 and 2.3]
- Encourage, facilitate and undertake research, surveys, inventories and mapping of the World Heritage and other natural and cultural values of the WHA (including geology, geomorphology, soils, vegetation, animals, landscape, wilderness, Aboriginal and historic cultural values), focusing particularly on areas or values which are threatened. [KDO 2.3]
- Identify critical gaps in knowledge of the World Heritage and other natural and cultural values of the WHA and strategically

6 Department of Parks, Wildlife and Heritage, Tasmania, 1991 *Tasmanian Wilderness World Heritage Area Draft Resources and Issues*, pages 13 to 85, Hobart.

target these gaps. [KDO 2.3]

- Upgrade and standardise current Geographic Information Systems to provide a powerful, accessible, and easy-to-use computerised GIS to facilitate mapping and manipulation of data on the values of the WHA.

[Note that database and GIS information relating to Aboriginal heritage within the WHA is controlled by the Aboriginal community, who decide how and when such information is to be shared.]
- Identify and protect sites of special natural and cultural significance. (Note that for Aboriginal values this is to be done in consultation with the Aboriginal community). See also Scientific Areas in Zoning, page 62. [KDO 2.3]
- Update the Resources and Issues document and make this and other information on the values of the WHA available on the Service's internet site.

Protecting Values ✓ [KDO's 3.1 and 3.2]

- Identify activities or factors that threaten the achievement of the management objectives for the WHA. Develop and implement targeted strategies to address these threats and, where appropriate, establish standards, targets or acceptable limits of use or impact. [KDO 3.1]
- Develop and implement management strategies to protect identified sites and values of special natural, cultural and scientific significance from threats. Focus particularly on sites or values that are vulnerable or threatened. [KDO 3.2]
- Assess the significance of values and prepare conservation plans for specific natural and cultural values where necessary eg for threatened or rare species, fragile formations within karst systems and significant cultural sites. [KDO 3.2]
- Utilise or establish regulations, policies, guidelines, conditions of operation, and prescriptions in subsidiary plans to prevent identified threats or to control their impacts within acceptable, and where necessary, defined limits. [KDO 3.2]
- Establish adequate mechanisms to ensure

that in the event that specified standards or guidelines are not achieved, the problem can be rectified within an appropriate timeframe, and, where appropriate, that penalties can be applied. [KDO 3.2]

- Assess the potential impacts on natural and cultural values when planning any development or action that may disturb these values. Undertake appropriate surveys to determine likely impacts. [KDO 3.2]
- In applying the precautionary principle (and as provided for by the Intergovernmental Agreement on the Environment, 1992) decisions will be guided by:
 - careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and
 - an assessment of the risk-weighted consequences of various options.
- Actively manage physical development and human usage of the WHA to minimise or contain within acceptable limits impacts on the natural and cultural values. Based on best available knowledge and taking a precautionary approach, determine appropriate levels or conditions of use. Where necessary, change or redirect activities, behaviour, conditions of operation etc that are shown to impact, or are assessed as likely to impact, on natural and cultural values. [KDO 3.2]
- Inventory, monitor and, where practicable, eradicate or control exotic species and diseases, particularly those that can cause significant ecological damage.

Conserving and Restoring Values ✓ [KDO 4.1]

- Develop and implement management strategies to halt and reverse identified impacts, and to restore values.
- Undertake rehabilitation or restoration programs when such action is likely to be sustainable in the long term and will not unduly impact on other values.
- Provide advice to guide the location, scale, design etc of proposed structures, developments or activities so as to minimise the impacts on natural and cultural values, and to minimise the need for rehabilitation.

- Encourage editors and map producers to avoid publication of the locations of sensitive features such as wild caves, archaeological and Aboriginal sites and locations of rare plants and animals in order to protect the resource from deliberate or unintentional damage. Service publications are to exercise care in this regard.
- Promote familiarity with, and understanding of WHA natural and cultural values amongst Service staff.

MONITORING AND EVALUATION

Identifying Values 🗺️ [KDO's 2.1 and 2.3]

- Monitor and document progress in the extent of coverage and/or documentation of World Heritage and other natural and cultural values of the WHA, particularly those of world heritage significance. Note particularly progress in relation to previously identified gaps in knowledge. [KDO 2.1]
- Regularly survey relevant Service staff and and/or other relevant experts to find the:
 - number and nature of management problems or delays in management caused by a lack of knowledge of the natural and cultural resources or their management requirements;
 - level of satisfaction of natural and cultural heritage experts with the adequacy of the information base for sound management;
 - level of satisfaction with the rate of progress in resolving outstanding management issues and
 - level of satisfaction of natural and cultural heritage experts with the management of the values in their area of expertise. [KDO 2.3]

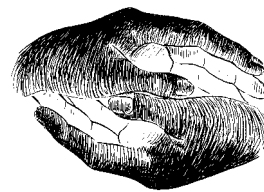
Protecting Values 🛡️ [KDO's 3.1 and 3.2]

- Monitor the nature and extent of threats and adverse impacts on the World Heritage and other natural and cultural values of the WHA, especially noting changes in the extent or level of severity of damage or degradation, together with causes. [KDO 3.1]

- Monitor, document, evaluate and report on incidents of accidental or unforeseen damage to WHA values and management responses. [KDO 3.2]
- Document and monitor compliance/non-compliance with policies, guidelines, conditions of operation, specified standards, defined limits of usage, conditions of operation etc which have been established to prevent or control impacts. [KDO 3.2]
- Monitor and evaluate the effectiveness of provisions for limits of acceptable change. [KDO 3.2]

Conserving and Restoring Values 🌱 [KDO's 4.1 and 4.2]

- Establish or maintain programs to monitor the condition of identified significant World Heritage and other natural and cultural sites, features and values, especially those that are recognised as being especially vulnerable or at risk or considered to be good indicators of change. Document changes in the extent or level of severity of damage or degradation, together with causes. [KDO 4.1]
- Establish monitoring and documentation systems to record and evaluate the success of rehabilitation or restoration programs and to monitor changes in the condition of the WHA (including long-term changes). [KDO 4.2]



Natural Diversity and Processes

This section deals broadly with maintaining and protecting the WHA's range of earth features (or geodiversity) and its biological diversity (or biodiversity). Later sections of this chapter deal more specifically with the management of flora, fauna and geodiversity.

In attempting to manage for 'natural' diversity, the Service is not setting out to capture and preserve the ecosystem at any particular point in

time, but recognises past human activities and their present-day influences, and aims to establish a management regime that will provide for the continuation and well-being of the full range of earth, and indigenous plant and animal systems.

In general, the protection of natural diversity and the maintenance of natural ecological, evolutionary and earth processes is best achieved by minimising human interference with the area. However, ongoing human use and associated impacts can also be managed with varying degrees of success through a variety of strategies which can limit, or contain impact on the natural environment.

Restoration of natural processes and systems may involve the removal of introduced species, structures or activities which are disturbing systems or impeding natural processes. In certain circumstances, active management intervention in natural processes may be required in order to protect or conserve significant natural or cultural values (eg the use of management-initiated fires to maintain fire-dependent communities, or the protection of significant cultural sites from erosion).

OBJECTIVES

The specific objectives for natural diversity and processes given below are also parts of the Key Desired Outcome for objective 4.1 of the overarching management objectives (for objective 4.1, see Framework of Management, page 35). As they are subsets of objective 4.1 they are labelled 4.1.1 to 4.1.4 (see below). To avoid repetition these subsets are only listed here and not at objective 4.1.

- 4.1.1 To maintain geodiversity by maintaining natural rates and magnitudes of change in geomorphological and soil systems.
- 4.1.2 To maintain biodiversity, ie the full range of species, communities, ecosystems, genetic diversity and biogeographic integrity. No or minimal loss of native species or communities or establishment of introduced species due directly or indirectly to human activities.
- 4.1.3 To restore biodiversity and geodiversity in formerly degraded communities or systems.

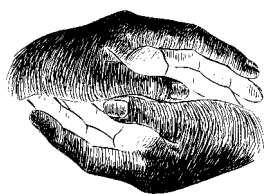
- 4.1.4 To maintain or restore natural rates and magnitudes of ecological, evolutionary and earth processes, as appropriate.

MANAGEMENT PRESCRIPTIONS ✓ [KDO'S 4.1.1 - 4.1.4]

- Develop and implement management strategies (including fire management regimes) to maintain the full range of natural habitats and communities. [KDO 4.1.2]
- Assist the ongoing management of the WHA by researching present day, historical and Aboriginal influences on the processes and rates of change of ecosystems. [KDO 4.1.4]
- Identify outstanding or vulnerable natural features, species, habitats, communities etc and develop targeted management strategies to enhance their protection and/or recovery. [KDO's 4.1.1 to 4.1.4]
- Develop and implement regional or state-wide strategies to avoid the introduction of exotic species, especially those identified as high-risk weeds, pests and pathogens. [KDO 4.1.2]
- Develop and implement strategies to remove or contain the spread of introduced species and pathogens (especially high-impact weeds, pests and diseases) or to reduce their impacts to minimal and sustainable levels which do not threaten the achievement of the objectives of the plan. [KDO's 4.1.2 and 4.1.3]
- Identify agents or activities which significantly disturb or degrade natural processes and where possible, remove or reduce those impacts to minimal and sustainable levels which do not compromise the objectives of the plan. [KDO's 4.1.1 to 4.1.4]
- Actively manage human activities so as not to significantly impact on the population structures or distributions of native species. Develop and implement strategies to restore natural population levels in communities where factors directly or indirectly related to human activities have distorted natural population levels or removed natural population checks. [KDO's 4.1.3 and 4.1.4]

MONITORING AND EVALUATION [KDO'S 4.1.1 - 4.1.4]

- Monitor changes in the conservation status of earth resources (including changes in the number, extent and condition of geoheritage features and processes), especially those that are outstanding, representative, rare, vulnerable, or likely indicators of change. [KDO 4.1.1]
- Monitor changes in the conservation status, distribution, abundance, or other population parameters of ecosystems, communities and species, especially those that are outstanding, representative, rare, vulnerable, or likely indicators of change. [KDO 4.1.2]
- Monitor changes in the number, distribution and abundance of introduced species, especially weeds, pests or pathogens. In particular document the introduction or removal of foreign provenance plants or animals by humans. [KDO's 4.1.2 and 4.1.3]
- Document and monitor rehabilitation of selected degraded geoheritage sites, revegetation in selected degraded areas or communities and restoration of natural population characteristics in selected previously disturbed communities. [KDO's 4.1.3 and 4.1.4]



Geodiversity and Geoconservation

BACKGROUND

The geodiversity of the WHA forms the foundations for the area's rugged and natural scenery and strongly influences the distribution of its biological and cultural features. As well there are many rock, landform and soil features of significance in their own right (see chapter 2 of the Tasmanian Wilderness WHA Resources and Issues document, 1991).

The WHA has an unusually complete geological record stretching back 1,100 million years and has

rocks representative of most major geological periods from the Precambrian to the Holocene. In addition, the structural history of parts of the area is extremely complex. The WHA encompasses an incredible variety of landforms or land forming processes including marine, wind generated, fluvial, karst, periglacial and glacial. The geo-processes that have influenced the area have produced spectacular scenery, including drowned coastline, tortuous river courses and rugged glaciated mountain ranges. If the full range of soils is also considered, the WHA is arguably the most geo-diverse world heritage area in Australia.

Some aspects of the geoheritage such as the dunes, alluvial deposits, karst systems, unconsolidated glacial deposits and organosols (peats) are highly vulnerable to disturbance. Even bedrock features can be impacted, for example, where road works or scientific work remove or deplete formations of restricted extent.

Surface disturbance in karst catchments can significantly affect cave systems and all visits to caves result in some form of damage. Particular care with recreation activities and management action is required in karst areas.

Organic soils cover extensive tracts of the WHA and are highly susceptible to trampling damage and erosion. Horses, vehicles and bushwalkers can cause significant damage to these soils. Erosion of peat as a result of frequent burning and/or fire over dry soils is one of the most serious land degradation problems in the WHA and has implications for fire management in the area.

There is continuing concern about erosion on the Gordon River, rivers in the Bathurst Harbour–Port Davey area and also about the erosion of important or sensitive deposits around the shores of artificial impoundments.

Marram grass, an exotic species, has been discovered in the WHA. It has a major impact on dune forming processes and produces dunes which are more hummocky and steeper than natural dunes. The foredune parts of such 'feral' dunes are prone to wave attack.

Geoscientific work, and in particular specimen collection, has the potential to impact on geodiversity. Many aspects of geodiversity are not forming today or form so slowly that they are essentially non-renewable.

PREVIOUS MANAGEMENT

A wide range of major projects and management actions has been undertaken over the last five years in the WHA. These have contributed to the Service's understanding of the area, prevented or minimised damage to earth phenomena or identified potential threats to geodiversity.

The Central Plateau erosion survey, which mapped the extent and severity of erosion and established erosion monitoring sites, recommended continuing the exclusion of grazing from this part of the WHA.

Research into stream bank erosion problems on the Gordon River has included long term monitoring, sedimentation studies, research into wave characteristics of cruise boats and bank stability assessments. Waves produced by cruise boats have been identified as a major cause of streambank erosion on the Gordon River. Limitations on where cruise boats can operate and the speed at which they operate have decreased rates of river bank erosion. Further work is required to identify the wave types which pose a threat to bank stability.

Large scale impacts on karst systems have decreased significantly with the closure of Benders Quarry. Geomorphological, hydrological and water quality studies of the Exit Cave system have allowed rehabilitation works to proceed. Ongoing monitoring is required to assess the success of rehabilitation completed in 1996. Other karst issues being addressed include the management of the Ida Bay and Mole Creek karsts, cave classification, gates, water quality and air quality monitoring. Guidelines for cave management and a cave classification system have been developed.

Investigations into coastal dune development and lake shore erosion and management have been undertaken.

The threat of fire to peat has been partly reduced by strict criteria for management burns. However further work is required to understand the relationship between vegetation, soil, litter accumulation and fire.

A new management regime has been proposed for Lake St Clair to minimise the erosive effects of the impounded lake. A Water Management Strategy to implement this has been developed.

Inventories of sites of geoconservation significance have been compiled and the Service has facilitated work with Mineral Resources Tasmania and the Australian Geological Research Organisation in

order to further geological understanding of the WHA.

OBJECTIVES

See also Natural Diversity and Processes (page 76) and Caving and Karst Management (page 141).

- To identify, protect and conserve geodiversity and sites of geoconservation significance.
- To maintain natural rates and magnitudes of change associated with geo-processes.
- To improve the earth science information base to better understand, manage, and interpret geoconservation values in the WHA.

MANAGEMENT PRESCRIPTIONS

Natural Processes

- Only give consideration to interfering with natural processes where the threats are to highly significant features and remedial work is likely to succeed.
- Eradicate or control exotic species which impact on or pose a threat to landforms, soils or geo-processes.
- Assess the status of peat degradation in the WHA.

Karst

- Undertake geomorphological, archaeological and hydrological assessments prior to any proposed works in karst areas.
- Compile an inventory of karst areas within the WHA. Record all known caves in more frequently visited areas, however leave undocumented (other than a name listing) caves in seldom visited wilderness karsts, unless user pressure demands a change from wilderness classification.
- Apply the cave classification system developed by the Service and Forestry Tasmania (based on that proposed by the Australasian Cave and Karst Management Association). Classify caves using this system to protect their World Heritage and other natural and cultural values. This includes the following cave categories:

Public Access Cave

- Adventure Cave: available for general recreational use.
- Show Cave: existing or potential tourist cave.

Special Purpose Cave

- Reference Cave: sites of scientific interest where access is restricted.
- Outstanding Value Cave: access restricted to protect outstanding natural or cultural values.
- Wilderness Cave: cave within designated wilderness area. Any development or recording discouraged, location information restricted.
- Dangerous Cave: access restricted.

Wild Cave: remote area cave where access may be restricted or location information restricted to retain wild character.

- Maintain a Cave and Karst Management Committee (with representation of cave users and karst specialists) to:
 - apply the cave classification system;
 - evaluate the existing cave permit system;
 - investigate alternative means of regulating caving;
 - identify priority karst areas and caves for management planning;
 - provide specialist advice on cave and karst management issues and
 - facilitate co-operation between Service staff and cave user groups to aid karst management projects.

Human Caused Impacts

- Assess potential impacts on geodiversity that may arise from scientific research, recreational or other activities.
- Prevent or minimise impacts arising from human activities on geoheritage values in the WHA.
- Identify, and where feasible manage erosion and geomorphic hazards initiated by human actions to prevent or reduce their impact.
- Assess all practical alternatives before deciding to blast or drill bedrock, or excavate generally, in association with any development, particularly where sites of

geoconservation significance may be affected.

- Road cuttings, quarries or any other excavation may be retained or enhanced for research, education or interpretation if consistent with other policies for the area.

Lakeshore and Streambank Erosion

- Where practicable, reduce and minimise bank erosion caused or accelerated by human activities. (See Gordon River bank erosion in Boating (Motorised), pages 137 and 139).

Lake St Clair Erosion

- Implement a Water Management Strategy for Lake St Clair that aims to prevent or minimise shoreline erosion, maximise revegetation, and enhance the aesthetics of the lake shore environment.

Towards this aim, the Hydro-Electric Corporation (HEC) undertakes to modify its operating rules for Lake St Clair with the intent of achieving the following targets:

- the lake level will be maintained above 736.0 m less than 2.0% of the time and
- the lake level will be maintained above 735.6 m less than 6.0% of the time.

[Note that the probabilities associated with these target levels are derived from ten years of model simulation of the Hydro system. In wetter than average years the targets may be exceeded. Additionally, extreme weather conditions may make it impossible to safely lower the water levels quickly, in which case the HEC undertakes to achieve these targets as soon as weather conditions permit.

Because the results are based on a probabilistic model, the HEC is unable to make a more definite commitment to achieving the lake level targets within a given year. The HEC will conduct further analyses of their operating rules governing Lake St Clair, and continue to work closely with the Service, in attempting to meet the lake level targets specified above.]

- Assess the effectiveness of the above management regime, as appropriate, in collaboration with the HEC.
- Review of the lake level targets may be undertaken, if deemed necessary by both the

Service and the HEC.

- Undertake a shoreline rehabilitation program in high priority areas, in consultation with the HEC.

Marram Grass

- Identify the extent of marram infestation in the WHA and implement a control strategy. Where practicable, eliminate marram grass infestations in the WHA.

Central Plateau Erosion

- Do not re-introduce domestic stock grazing on the Central Plateau.
- Treat erosion damage on the plateau using the best methodology following trials. (See Rehabilitation, Central Plateau, page 116.)

Collection

- Where appropriate, investigate the impact of geoscientific investigations on deposits, processes or features considered vulnerable to collection. Pay particular attention to non-renewable or relict features and deposits considered to be vulnerable because of their slow natural rate of development.
- Collection of earth materials may be permitted for geoscientific purposes only (however note an exception for fossicking, see Hobbies and Crafts, Management Prescriptions, page 148). Hand tools only will be permitted for specimen collection.

Research

- Only geoscientific research which is both consistent with protecting and preserving the values of the WHA and contributes to the conservation of the area's values will be permitted.
- Research which is of benefit to other geoscientific issues outside the WHA, may be considered provided it does not adversely impact, or have the potential to adversely impact on the conservation of the area's natural or cultural values.

- Document any further impact on, or destruction of sites, features and processes of geoconservation significance, particularly those of World Heritage significance.
- Commence monitoring geomorphic, hydrological and pedological processes at representative baseline sites for areas which are likely, in future, to be adversely affected by human activities.
- Assess the progress and effectiveness of thematic and regional inventories, the geoconservation classification system and the Tasmanian Geoconservation database.
- Review the effectiveness of site specific management plans for sensitive, threatened or vulnerable geoheritage sites, and of site specific geoconservation interpretation materials.
- Review the extent to which geoconservation principles are applied to all aspects of land management and conservation.

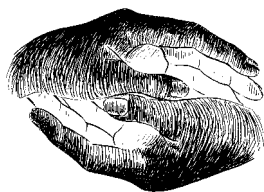
Specifically:

- Continue to monitor:
 - rehabilitation work conducted at the Lune River (Benders) Quarry;
 - streambank erosion on the Gordon River and in the Port Davey-Bathurst Harbour area;
 - erosion plots and rehabilitation work on the Central Plateau;
 - recreational and other impacts on cave and karst systems at Mole Creek, Lune River, Precipitous Bluff, Cracroft Valley and in the Gordon River catchment;
 - erosion of organosols (peats);
 - effects of fire on peats and mineral soils;
 - erosion of walking and vehicular tracks, campsites, visitor services areas and other trafficked areas and
 - the effects of marram grass on coastal dune systems.

MONITORING AND EVALUATION

In general:

- Monitor the effects of human use on geodiversity, earth features, processes and values.



Vegetation

BACKGROUND

The diverse vegetation of the WHA reflects the range of fire regimes, altitudes, rock types, rainfall and other environmental parameters present in the area. The insularity of the WHA in a global context has contributed to the uniqueness of the flora. Habitats of special significance include rivers, lakes, lagoons, coastal areas and rock types such as limestone and dolomite.

The large size, geographical extent and remoteness from disturbance of much of the WHA is considered to assure the protection of a wide variety of plant species and communities in Tasmania.

The vegetation of the WHA demonstrates a variety of responses to fire and may be divided into three categories accordingly. 'Fire-sensitive' communities exhibit few or no adaptations to fire. They include communities dominated by conifers and deciduous beech, species which may be eliminated by a single fire. Rainforest, alpine and sub-alpine communities, including *Sphagnum* bogs are also fire-sensitive due to their slow recovery rates after fire. 'Fire-adapted' vegetation types require fire for their perpetuation but may be degraded by a frequent fire regime. Such vegetation types include most *Acacia*, *Eucalyptus* and *Leptospermum* dominated communities in the WHA. 'Pyrogenic' vegetation is very flammable and recovers well after fire. Buttongrass moorland is the principal vegetation type in this category. These three types form a complex mosaic and the effect of fire on the stability of boundaries between them is not fully understood.

Many issues relating to the protection and long term perpetuation of vegetation exist within the WHA. Issues include: fire management (including wild fire control, habitat burning, fuel reduction burning see page 106), factors affecting species rarity (habitat rarity, fire frequency), control of exotic plants and diseases, rehabilitation of disturbed areas, the appropriate control of erosion

resulting from human disturbance (eg trampling) and impacts from developments associated with park management and visitor facilities (eg pollution and disturbance). Also of concern is the potential impact of climate change on plant communities, particularly communities at high altitudes.

While most of the WHA is free of weed species, there are corridors of infestation, particularly in areas of mechanical disturbance such as roadsides. *Rubus fruticosus* agg. (blackberry) is a common weed in these disturbed areas. *Ammophila arenaria* (marram grass), *Cortaderia* spp. (pampas grass), gorse (*Ulex europaeus*) and ragwort (*Senecio jacobaea*) are also among weeds of concern in the WHA. There are only minor isolated instances of exotic species occurring in undisturbed ecosystems within the WHA and these are generally confined to river bank and littoral sites.

Management of exotic species will frequently require co-operation with neighbouring landowners and other land management agencies if re-infestation of the WHA from adjoining land is to be avoided. In many instances it may not be possible to eradicate weed species, in which case measures to minimise their impact and spread are required.

Exotic species may have cultural value when associated with a site of historic significance. In this situation they may be maintained for their cultural values as long as they do not pose a serious risk of invasion to the native vegetation.

Phytophthora cinnamomi is an introduced microscopic soil fungus that causes root rot in some plants. It is widespread in Tasmania and poses a severe threat to moorland, heath and scrub communities in the WHA.

Phytophthora cinnamomi is spread by transportation of soil and by water. The fungus is very difficult to contain and the best that can be expected is to slow the rate of infestation. The fungus attacks a wide range of plants with varying severity and can cause death in many species of the Epacridaceae, Proteaceae and Fabaceae.

Phytophthora cinnamomi may have the capacity to permanently alter moorland and heathland floristics in the WHA. It presently occurs along roads such as the Lyell Highway, Gordon River Road and Scotts Peak Road. It also occurs along walking tracks such as the Port Davey track and

the South Coast track west of the Ironbound Range.

A native pathogen, myrtle wilt, caused by the fungus *Chalara australis*, can cause foliage wilt and subsequent tree death in *Nothofagus cunninghamii*. Present throughout myrtle forests, the disease is only of concern where its severity is increased due to impacts which cause root or stem damage to trees.

PREVIOUS MANAGEMENT

Early flora conservation management concentrated on surveys and inventories (such as the directed research programs, Wilderness Ecological Baseline Studies and vegetation mapping at 1:25,000). This is continuing, but much effort is now directed into impacts adversely affecting flora conservation (such as fire management, trampling, impacts of research such as dendrochronology, weed and disease impact and control), as well as research into rare and endangered species (such as *Lomatia tasmanica*, *Centrolepis paludicola*) and rare habitats and communities (such as the flora on limestone and serpentinite areas).

A new high altitude dieback in conifers and subalpine heath communities has been identified at Pine Lake in the Central Plateau. An interim management plan has been prepared while research is undertaken to determine the cause of the dieback. The fungus *Phytophthora sp nova* has been implicated in the dieback.

OBJECTIVES

- To identify, protect and conserve native plant species and communities, and the ecological processes that maintain them, giving priority to those that have World Heritage and other natural and cultural values, those that are endangered, vulnerable, rare or reserved mainly in the WHA.
- To minimise the impact of threatening processes on the flora including weeds, diseases, fire, pollution, introduced animals and erosion, with priority given to high conservation value assets.
- To further our understanding of the flora resources of the WHA, their ecology and

processes impacting upon the conservation of these assets.

MANAGEMENT PRESCRIPTIONS

Biodiversity Management

- Minimise disturbance to all vegetation and manage the risk of introducing pests, weeds or pathogens into the WHA.
- Undertake surveys of the distribution of plant species and communities. Identify, maintain and inventory flora values and undertake research to improve our understanding of ecological processes and impacts of disturbance.
- Encourage and facilitate research into management requirements for threatened species, rare and threatened plant communities and rare habitats.
- Initiate and support research programs into threatening processes and, as appropriate, adopt management practices recommended by such research.
- Encourage and facilitate research into the ecology of lower plant species and communities.
- Continue to map the vegetation of the WHA giving priority to areas receiving high visitor numbers or that are of particular management concern (at 1:25,000 and other scales as appropriate).

Exotic Plant Management

- Develop and implement regional weed management strategies such that weeds are managed to:
 - eradicate or control new or potentially serious environmental weeds;
 - protect significant areas that are substantially weed free from weed invasion;
 - protect threatened species, communities and other high asset areas from the impacts of weed infestation;
 - contain and reduce existing infestations of major weeds in cooperation with adjoining landholders and the general community and

- ensure there is no loss of amenity due to weeds at Visitor Service sites.
- Only native species of local provenance may be used in rehabilitation work unless special approval is given by the Service for alternatives.
- Where exotic plants exist within sites of cultural significance, and they pose a serious invasive risk to the surrounding natural vegetation, their management will be determined based on an assessment of the level of threat to conservation values, heritage values and the potential impact on those values of available management options.

Plant Disease Management

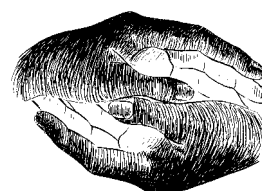
- Manage to protect large areas that are both susceptible to, and free of, introduced plant pathogens.
- Protect high conservation value flora assets from the effects of introduced plant pathogens.
- Investigate and assess the cause and potential impact of new introduced plant diseases.
- Manage public access where this will achieve effective control over the spread of pathogens causing serious and permanent impacts.
- Monitor the spread of *Phytophthora cinnamomi* and Pine Lake dieback.
- Establish and monitor permanent plots to examine the effects of both *Phytophthora cinnamomi* and Pine Lake dieback on community floristics and structure over time.
- Continue to implement a statewide program to identify management areas for communities that are highly susceptible to *Phytophthora cinnamomi*.
- Maintain a temporary quarantine area at Pine Lake to prevent possible spread of plant pathogens from the area, until such time as future management is resolved. (See map four, page 217, for location.)
- Educate and inform the public about major plant diseases, including methods visitors can use to minimise the spread of disease.

Management of Other Threatening Processes

- Where human activities seriously impact or are likely to seriously impact upon flora conservation, establish research to study the extent of the impact and mechanisms to ameliorate these impacts (for example, impacts of trampling by horseriding and bushwalking or the impacts of scientific research such as dendrochronology).

MONITORING AND EVALUATION

- Document, evaluate and report on conservation measures employed to conserve native plant species and communities, especially those that are endemic, rare or threatened.
- Report on actions undertaken to acquire baseline information of the flora resources and dynamics of the WHA.
- Document, evaluate and report on threatening processes (such as fire, introduced species, pathogens, developments), their impacts on WHA flora, particularly high conservation assets (such as those of World Heritage status).



Animals

BACKGROUND

Animals are a significant natural feature of the Tasmanian Wilderness World Heritage Area. They provide living evidence of major changes in the earth's evolutionary history and on-going biological evolution. The WHA includes outstanding examples of faunal communities and significant natural habitats for threatened, rare and endemic species.

Ancient Connections

The fauna of the WHA provide living evidence for the existence of the great landmass Pangea

which existed over 200 million years ago. During this time Australia was linked to most of the world's land masses.

Pangea divided into the supercontinents Laurasia in the north and Gondwana in the south. The WHA is well endowed with animals that have their closest relatives living today in land masses that were formerly part of Gondwana, such as Africa, Madagascar, South America, New Zealand and Antarctica. Invertebrates provide the most abundant evidence of Tasmania's Gondwanan origins. Perhaps the best known example is the mountain shrimp (*Anaspides tasmaniae*), which is little changed from fossils found in Triassic sediments. Its closest relatives are found in New Zealand and South America.

Unique Fauna

The fauna of the World Heritage Area and Tasmania continues to evolve in isolation. There are many unique species of birds, frogs, lizards and fish which have evolved in Tasmania. Many of our mammal species are recognised as distinct subspecies from their mainland counterparts and with time will probably become new species. Alpine heaths and boulder fields on mountain ranges in the WHA have been the habitat for adaptive radiation of skinks in the genus *Niveoscincus* with three distinct species having evolved. Some of their adaptations include the production of live young rather than eggs and the ability to efficiently raise and maintain their body temperature.

It is amongst the invertebrates that evidence of evolutionary processes is most apparent. A remarkably high degree of genetic and phenotypic diversity has been recorded in invertebrate groups, particularly in rainforest, alpine, freshwater and cave habitats. For example the cold, well-oxygenated lakes and streams of Tasmania are a unique environment which have existed for tens of millions of years. The crustacean assemblage in these habitats is globally unique and comprises 5 families of primitive mountain shrimps (Syncarida), 30 species of freshwater crayfish and a multitude of amphipods and isopods.

Rare and Threatened Species

The extensive wilderness of the WHA contains important habitat for a diverse range of rare or threatened fauna. In total the WHA contains 13 vertebrate and 13 invertebrate animals listed as either rare or threatened (endangered, vulnerable

or extinct) in the *Threatened Species Protection Act 1995*. Endangered species include the Lake Pedder galaxias (*Galaxias pedderensis*), the Orange-bellied parrot (*Neophema chrysogaster*) and the Lake Pedder earthworm (*Diporochaeta pedderensis*).

Vulnerable species include the Pedra Branca Skink (*Niveoscincus palfreymani*), the shy albatross (*Diomedea cauta*), and the pencil pine moth (*Dirce aesiodora*). Rare species include the New Zealand fur seal (*Arctocephalus forsteri*), the grey goshawk (*Accipiter novaehollandiae*), the swamp galaxias (*Galaxias parvus*), Hickmans pygmy mountain shrimp (*Allanaspides hickmani*), and the cave harvestman (*Hickmanoxymma cavaticum*). In addition to these species the WHA contains populations of species which are listed nationally as rare or threatened but are secure in Tasmania such as the spotted-tailed quoll (*Dasyurus maculatus*), eastern quoll (*Dasyurus viverrinus*) and the hooded plover (*Charadrius rubicollis*).

Tasmania, and the WHA in particular, now serves as a refuge for many animals that have become rare or have vanished from the rest of the continent. Some, such as the Tasmanian devil (*Sarcophilus harrissi*), the long-tailed mouse (*Pseudomys higginsii*), the bettong (*Bettongia gaimardi*), eastern quoll and pademelon (*Thylogale billardieri*) survive nowhere else, after having disappeared relatively recently from south-eastern Australia.

Discoveries

Because of its size and in particular its rugged and isolated nature, there is still much to discover in the WHA. A previously unknown and unique community of marine invertebrates was only discovered in Bathurst Channel in the far south-west of Tasmania in 1995. Many of the species found in the channel are new to science and remain undescribed. In addition to marine invertebrates, many new species of terrestrial invertebrates have been identified since the WHA listing. Three new vertebrate species have also been discovered: the moss froglet (*Bryobatrachus nimbus*), the mountain skink (*Niveoscincus orocryptus*) and the Bathurst Harbour skate (*Raja* sp). Further surveys will greatly improve the knowledge and hence management of fauna in the WHA.

PREVIOUS MANAGEMENT

Two major research programs were undertaken to increase the level of knowledge about fauna in the

WHA. Both programs invited scientists from around Australia to visit the WHA to conduct research. The first program, Directed Wildlife Research (DWR), resulted in scientists undertaking research surveys throughout the WHA. The second program, Wilderness Ecosystem Baseline Studies (WEBS), concentrated research studies in two areas, Melaleuca and Pelion Valley. These surveys generated a wealth of previously unknown information, including the discovery of many new species and a previously unknown and unique community of marine invertebrates in Bathurst Channel.

18,000 records for 7,000 locations have been entered onto the Tasmanian Wildlife Atlas for WHA fauna. Species distribution maps have been produced for all vertebrates, all rare and threatened species and all introduced species.

Recovery plans have been developed and implemented for the Pedder galaxias, ptunarra brown butterfly (*Oreixenica ptunarra*), swift parrot (*Lathamus discolor*), wedge-tailed eagle (*Aquila audax*), orange-bellied parrot, Clarence galaxias (*Galaxias johnstoni*) and swamp galaxias. Annual monitoring of rare and threatened species such as the New Zealand fur seal, shy albatross and Pedra Branca skink has been undertaken on WHA islands. A list of rare and threatened invertebrate species in the WHA has been developed and action plans produced.

Since 1993, Fauna Conservation Research Grants have been provided to post-graduate students at the University of Tasmania. Funds have been for research expenses only. This has been a very successful and cost-effective means of encouraging research on fauna in the WHA. Examples of projects funded include: the ecology of the recently discovered moss froglet; impacts of fire on small mammals and the incidence of the human pathogen *Giardia* in the WHA.

OBJECTIVES

- To identify, protect and conserve native animal species and communities, and the ecological processes that maintain them, giving priority to those that are rare or threatened.
- To further our understanding of the fauna of the WHA, its World Heritage and other values, its ecology, and processes impacting upon its conservation.

MANAGEMENT PRESCRIPTIONS

Human Impact Management

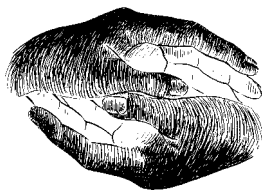
- All proposed developments and major management activities will be assessed in terms of their impact on faunal values of the WHA.
- Where human activities are, or are likely to, impact upon fauna conservation, research will be established to study the extent of potential impact and mechanisms to ameliorate this.
- Initiate and support research programs into threatening processes.
- Undertake research to investigate the impacts of cave visitors on cave fauna.

Biodiversity Management

- Undertake surveys of the distribution of animal species and communities. Maintain inventories of fauna values.
- Encourage and facilitate research into the ecology and taxonomy of invertebrates.
- Encourage and facilitate research of faunal communities in habitats and microhabitats of significance to the WHA such as caves, alpine areas, oligotrophic waters, rotting logs, peat mounds, endemic plant species and the burrows of freshwater crayfish.
- Record and monitor wildlife parasites and diseases with emphasis on human pathogens.
- Develop and implement management plans for rare and threatened species.
- Develop long-term monitoring programs to monitor biodiversity and to detect global climate change.

MONITORING AND EVALUATION

- Monitor the number of known animal species in the WHA.
- Monitor the distribution and status of native animals, particularly those that are threatened, rare, endemic or of world heritage status.
- Monitor any loss or degradation of fauna habitat in the WHA.
- Monitor threats to selected animal species and communities and the effectiveness of management actions to counter these.



Feeding Wildlife

BACKGROUND

Feeding of wildlife in the WHA can enhance visitor experience, provide an opportunity for visitors — particularly children — to form an empathy with wildlife and contribute to encouraging visitors to the State's parks. However, feeding wildlife can also increase the risk of disease amongst wildlife, disrupt animal social behaviour, damage habitat (as a result of maintaining artificially high numbers) and the wildlife can also become pests — raiding people's food and equipment. Of particular concern is the risk of injury to visitors as a result of insistent wildlife.

Within the WHA the Service is required to maintain natural processes as well as provide visitors with an opportunity to observe wildlife in their natural state. There are a number of excellent wildlife parks as well as other non-reserve areas within Tasmania where visitors can feed wildlife.

PREVIOUS MANAGEMENT

In the past, management of feeding wildlife in the WHA has been inconsistent, being prohibited in some areas and encouraged in others.

In 1997 a 'Keep Wildlife Wild' education program was developed to actively discourage visitors from feeding wildlife. Notesheets explaining the problems feeding can cause have been made available at relevant locations in the WHA. Signs have been erected within the WHA and at other Tasmanian national parks.

OBJECTIVES

- To maintain or restore natural processes by discouraging the artificial feeding of wildlife.
- To allow visitors to observe wildlife behaving naturally in the WHA.
- To minimise risk of injury to visitors.

MANAGEMENT PRESCRIPTIONS

- Feeding of wildlife will be actively discouraged in the WHA.
- The educational/interpretation program 'Keep Wildlife Wild' will be continued to raise awareness of the problems and hazards associated with the feeding of wildlife.
- Feeding of wildlife will be prohibited in locations where significant negative impacts are caused, for example, damage to habitats, injury to wildlife and harassment of visitors.
- The sale or provision of foods for the purposes of feeding wildlife is prohibited in the WHA and will be discouraged in enterprises close to the WHA.
- The feeding of wildlife by commercial operators and concessionaires in the WHA is prohibited.

MONITORING AND EVALUATION

- Monitor the behaviour and attitude of visitors and the behaviour of wildlife at selected visitor sites.



Introduced Animals

BACKGROUND

The presence of introduced species within the WHA impacts upon natural ecological processes. Introduced species may reduce the range and/or abundance of native species through predation, competition or disease.

Compared with the Australian mainland and even the rest of Tasmania, the WHA contains both fewer numbers and species of introduced animals. This is largely a result of limited disturbance by contemporary societies and because the region is not conducive to invasion by exotic species.

Nevertheless the WHA does contain introduced mammals (eg cats, goats, rabbits, rodents), birds (eg starlings, sparrows, blackbirds, goldfinches,

lyrebirds), fish (eg trout, red-fin perch) and invertebrates (eg wasps, bees, springtails, earthworms). Fortunately, species such as the European fox, which have been so damaging to wildlife on the Australian mainland, do not occur in Tasmania. Dingoes are absent, as are feral pigs (from mainland Tasmania).

Most of the introduced species that occur in Tasmania are well established and would be virtually impossible to eradicate without the development of new technology. The most that can be achieved at present is localised control where introduced species are threatening significant values (starlings and cats in orange-bellied parrot habitat), impacting on visitors (eg wasps at tourist nodes) or occur in 'islands' of habitat (eg rabbits at Strathgordon and Breaksea Island). Species such as feral goats are yet to become well established and there is a reasonable chance of eradicating them from the WHA.

PREVIOUS MANAGEMENT

Starlings

A small number of starlings have been shot and nests destroyed in orange-bellied parrot breeding areas at Melaleuca.

Goats

The feral goat eradication program has identified 15 sites inhabited by feral goats which are in or near (within 5km) the boundary of the WHA. In total 227 goats have been removed from 14 sites, 11 sites have now been declared inactive leaving 4 active sites.

Cats

Cat control by shooting and trapping has occurred throughout the WHA in response to sightings.

Bait dispensers to control cats were developed and trialed successfully in captive experiments. However, field trials in the WHA were less successful as some native species managed to access the baits. (The trial baits did not contain poison).

A fact sheet on cats (both feral and domestic) has been produced with information on responsible pet ownership.

Rabbits

A survey of the impact of rabbits on Breaksea Island has been completed and photographic monitoring of erosion established. Eradication of rabbits at Breaksea Island is dependent on securing adequate funding.

Rabbit numbers are being controlled at Strathgordon to prevent their migration into surrounding native vegetation. In co-operation with the HEC, revegetation of parts of Strathgordon has been undertaken which included the erection of rabbit proof fences. This should reduce the area of suitable habitat for rabbits.

Red Fin Perch

There has been concern that Red Fin Perch present in Lake Gordon (outside the WHA) may make their way through the McPartlan Pass canal into Lake Pedder (inside the WHA). The HEC is managing waterflows to reduce the likelihood of perch migrating through the channel.

Introduced Animal Distributions

Information on the distribution of introduced species is being compiled and entered onto the Tasmanian Wildlife Atlas.

OBJECTIVES

- To minimise the impacts of introduced animals on natural values and visitor enjoyment.
- To prevent, as far as possible, further introductions of exotic species.

MANAGEMENT PRESCRIPTIONS

General Prescriptions

- Develop management plans for introduced species and prioritise control programs.
- Encourage the public to report the presence of introduced species.
- Priority will be given to eradication programs where there is a high chance of success and little chance of re-introduction.
- Eradicate or control introduced animals in localised areas where they may threaten values with high conservation significance or where they may impact on visitor enjoyment or from where they can spread into such areas.

- Encourage, as appropriate, the participation of 'Friends of ...' Groups or other Community Groups in the control or eradication of introduced species.
- Monitor the distribution of introduced species, particularly in relation to rare or threatened native species.
- Control of exotic animals, feral stock and vermin may be achieved by special operations authorised by permit at the discretion of the Director.
- Facilitate research into the management of introduced species.
- Facilitate research into the impacts of introduced animals on native plants and animals, particularly those which are rare or threatened.
- Produce interpretation and educational material on the problems of introduced species and prevention methods.

Specific Prescriptions

- Eradicate rabbits from Breaksea Island and Strathgordon.
- Eradicate goats from the WHA.
- Prevent the establishment of deer populations in the WHA.
- Develop methods for localised control of wasps and bumblebees.
- Investigate the impacts of honey bees on native flora and fauna (see Beekeeping, page 185).
- Investigate the impacts of trout on native flora and fauna (see Fishing, page 147).

MONITORING AND EVALUATION

- Monitor the number of introduced animal species.
- Monitor the distribution of introduced animal species.
- Monitor the number of complaints from the public about introduced species (eg wasp attacks).
- Evaluate the success of control and eradication programs.
- Evaluate the impacts of selected introduced animals on native fauna.



Landscape

BACKGROUND

Tasmania's magnificent natural scenery has long been a source of inspiration for visitors and today it remains the principal motivation and source of enjoyment for visitors to the WHA. Much of the area retains its pre-European settlement character. The geological and glacial events that have shaped the land, the climatic patterns and the results of Aboriginal occupation have combined to produce a varied and outstanding landscape. The significance of this is recognised by the area being accepted against the world heritage criterion for 'superlative natural phenomena, formations or features'.

Sheer quartzite or dolerite capped mountains are prominent features. Deep lakes, created by glacial action, are perched amongst many of the mountain ranges. On the Central Plateau thousands of lakes, tarns and pools contribute to an alpine environment unique in Australia. Rivers have cut deep gorges through mountain ranges while in the South West, extensive lowland plains extend between mountain ranges. The south and south-west coasts consist of bold headlands interspersed with sandy beaches and rocky coves.

The forms, textures, colours and juxtaposition of vegetation types within the area contribute significantly to landscape diversity. The vegetation of the area consists of a mosaic of communities including towering eucalypt forests, tracts of rainforest, buttongrass plains and alpine meadows.

The natural beauty of the area is largely derived from the naturalness, diversity and spatial relationships of landform and vegetation.

The WHA also encompasses cultural landscapes, containing widespread evidence of Aboriginal and historic periods of use of the land. The evidence of past use of the WHA is interwoven with the natural qualities of the area, at times complementing and at times deflecting from these values.

Cultural landscape elements include: the mosaic of vegetation patterns across the landscape derived from Aboriginal burning practices; the suite of Aboriginal middens extending almost continuously along the coastal margin; the patterns of land use created by the huts, fences and other sites related to historic agricultural practices on the Central Plateau and the combined impact of cultural features associated with various historic activities including timber getting, mining and hunting. Cultural landscapes include small scale sites and their presentation in the environment and the interrelationship of sites across an environment.

Given their significance as a world heritage value it is important that the complete range of viewfields from distant vistas to foregrounds is carefully managed. Views out of the WHA, as well as within it, need to be considered and require cooperative management with neighbours. The visual impacts of all types of developments, eg from signs, walking tracks, huts and toilets, to roads, carparks and other major developments, need to be determined and minimised. Assessments need to consider factors such as siting, design, materials used in construction and rehabilitation.

PREVIOUS MANAGEMENT

Progress in the management of landscape since the 1992 plan has been limited. Landscape factors have been taken into account in the development of all site plans produced since the 1992 plan (for a listing of these see Visitor Facilities, Previous Management, page 170); in particular, landscape issues were studied extensively during the preparation of the Pump House Point site plan. However no overall assessment of landscape, scenery and viewfields has so far been conducted.

A revised sign manual for the Service, which will also assist with sign design and placement, is nearing completion.

OBJECTIVES

The specific objectives for Landscape given below are also parts of the Key Desired Outcome for objective 4.4 of the overarching management objectives (for objective 4.4, see Framework of Management, page 35). As they are subsets of objective 4.4 they are labelled 4.4.1 to 4.4.4 (see below). To avoid repetition these subsets are only listed here and not at objective 4.4.

- 4.4.1 To protect and maintain World Heritage and other landscape values, including scenic (particularly vistas and viewfields) and cultural landscape values.
- 4.4.2 To minimise the visual intrusiveness of new structures and developments in the WHA.
- 4.4.3. To reduce the incidence, severity, and extent of existing human impact on scenic quality.
- 4.4.4 To restore the natural character and diversity of landscapes consistent with conservation of wilderness, cultural landscape and other significant cultural values.

MANAGEMENT PRESCRIPTIONS ✓ [4.4.1 TO 4.4.4]

General Management

- Investigate, identify, map, document and assess landscape values in the WHA including scenic, viewfield and cultural landscape values, giving priority to high use areas or areas under threat. This will involve the identification of viewfields and determination of the visual intrusiveness from high use vantage points and significant natural and cultural destinations of developments within the WHA and on neighbouring land. [KDO 4.4.1]
- Develop a viewfield databank consisting of inventory maps of the extent of viewed areas, photographs and/or computer-generated images to enable the visual impacts of future developments to be determined.
- For each management zone, specific high use vantage points and significant natural and cultural destinations, prepare landscape quality objectives which will maintain and enhance existing scenic quality and cultural landscape values. [KDO 4.4.1]
- Prepare landscape protection guidelines for each management zone and/or specific locations. These guidelines will include prescriptions on siting, design and construction materials for permitted developments ranging, as appropriate, from signs and walking tracks to roads and buildings.

Conservation and Rehabilitation

- Cultural landscapes will be conserved in accordance with the program for management of cultural resources set out in the Cultural Heritage, Aboriginal Management and Established Practices sections, see pages 95, 100 and 103 respectively. Structures and other features of cultural landscapes may be protected and conserved by appropriate conservation procedures. [KDO 4.4.1]
- Subject to protection of significant cultural values, rehabilitate those intrusions which are inconsistent with the landscape quality objectives for each zone, taking account of other management requirements. Rehabilitation may include stabilisation of eroding slopes, revegetation of scarred areas or measures to reduce changes to the scenic quality of water bodies such as are caused by suspended sediments or eutrophication. See also Rehabilitation, page 114. [KDO 4.4.3]
- Where feasible remove, relocate or appropriately replace insensitively located facilities that significantly impact on scenic quality. Where such action is not feasible in the short-term, consider options for the long-term enhancement of scenic quality. [KDO 4.4.3]

Consultation

- Liaise with the Hydro-Electric Corporation, Forestry Tasmania, Department of Infrastructure, Energy and Resources (Transport Division) and Mineral Resources Tasmania regarding the rehabilitation of degraded areas within the WHA where these agencies have some present or past management responsibility. [KDO 4.4.4]
- Consult with other government agencies, private organisations and individuals regarding future management and developments outside or within the WHA which are likely to impact upon the viewfields of high use vantage points in the WHA. [KDO 4.4.2]

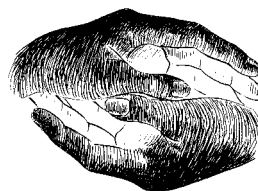
7 Kirkpatrick, J.B. and Haney, R. A., 1980 *The Quantification of Developmental Wilderness Loss, The Case of Forestry in Tasmania*, in Search Vol 11 No 10.

8 Based on Robertson, M., Vang, K. and Brown, A.J., 1992 *Wilderness in Australia: Issues and Options* Australian Heritage Commission, Canberra.

MONITORING AND EVALUATION [KDO 4.4.1 TO 4.4.4]

- Establish a long-term scenic quality monitoring program, initially documenting baseline information on landscape, scenery and viewfields and focussing on areas of potential risk from scenic degradation and on sites/values of particular sensitivity.

As part of this program establish baseline photographic records from identifiable points documenting the scenic quality within and visible from the WHA eg outstanding vistas and viewfields, photographic sequences along popular walking tracks and scenic roads, and at Visitor Services Zones and Sites. Record the location, extent and nature of existing human impacts on scenic quality visible within and from the WHA.
- Monitor the impact of new developments, structures and facilities and rehabilitation work on scenic, viewfield and cultural landscape values.



Wilderness

BACKGROUND

Definition of Wilderness

Although wilderness areas have important ecological and scenic values, neither of these qualities are unique to wilderness. The commonly recognised qualities of wilderness are naturalness and remoteness. Many definitions of wilderness have been proposed based on these attributes. For example, wilderness is concisely defined as land remote from access by mechanised vehicles and from within which there is little or no consciousness of the environmental disturbance of contemporary people⁷.

The definition used in this plan⁸ and detailed below, expands on this simple definition.

A wilderness area is an area that is:

- of sufficient size to enable the long-term

protection of its natural systems and biological diversity;

- substantially undisturbed by colonial and modern technological society; and
- remote at its core from points of mechanised access and other evidence of colonial and modern technological society.

Explanation of terms used in the definition:

- The phrase 'colonial and modern technological society' is used in recognition that:
 - Aboriginal custodianship and customary practices have been, and in many places throughout Australia continue to be, a significant factor in creating what non-Aboriginal people describe as wilderness. For information on the Aboriginal view of nature and culture, see Aboriginal Management section, page 100; and
 - non-Aboriginal people perceive and value 'naturalness' as the absence of impacts of colonial and modern technological society.
- The phrase 'substantially undisturbed' recognises that:
 - there may be relatively minor evidence of previous activities of colonial or modern technological societies in the area (there are few, if any, wilderness areas totally unaffected by such activities);
 - all wilderness areas are, and will continue to be, affected to some extent by external influences (eg pollution and climate change); and
 - emergency and essential management operations may have some continuing

impact on the naturalness of the wilderness area.

- The expression 'remote at its core' recognises that the boundary of some areas may be near or adjacent to mechanised access or settlements.

Note that many members of the Tasmanian Aboriginal community have objections to the definition and use of the word wilderness as used above as in their view it limits indigenous rights. The Service view is that the definition of wilderness above takes into consideration this concern of the Aboriginal community. Further dialogue on this issue will occur under the provisions of the Aboriginal Management section.

Measurement of Wilderness Quality

It is sometimes necessary to measure wilderness quality, for example to assess the impact on wilderness quality of proposed developments or management actions and to allow ongoing monitoring of the degree of wilderness quality of the entire WHA.

Various studies have been undertaken to measure wilderness quality in Tasmania⁹. The Service will use the most appropriate technique to measure wilderness quality. This is likely to be an enhanced implementation of the National Wilderness Inventory (NWI) methodology as defined by the Australian Heritage Commission (AHC)¹⁰. This is a computerised model based on:

- Remoteness from Settlement
- Remoteness from Access
- Apparent Naturalness
- Biophysical Naturalness.

The NWI does not attempt to define areas as 'wilderness' or 'not wilderness', rather it recognises a continuum of wilderness value from high to low. On this basis the entire WHA has some level of wilderness value. The basic NWI model takes no account of the effect of topography on viewfields and does not deal systematically with the effects of walkers' huts and walking tracks, which are significant in the Tasmanian context. For this reason it is intended to develop, in conjunction with the AHC, an enhanced NWI methodology incorporating these refinements.

This approach enables an objective measure to be used to compare the wilderness quality of different areas of the WHA and to enable future

9 Russell, J.A., Matthews, J.H. and Jones, R., 1979 *Wilderness in Tasmania. A Report to the Australian Heritage Commission*. Centre for Environmental Studies, Occasional Paper 10, University of Tasmania, Hobart; Hawes, M. and Heatley, D., 1985 *Wilderness Assessment and Management*, The Wilderness Society, Hobart; Leslie, R.G., Mackey, B.G. and Shulmeister, J., 1988 *National Wilderness Inventory: Stage II. Wilderness Quality in Tasmania, A Report to the Australian Heritage Commission*. Commonwealth of Australia, Canberra; see also footnote 6, previous page.

10 Lesslie, R. and Maslen M., 1995 *National Wilderness Inventory. Handbook of Principles, Procedures and Usage*, 2nd edition, Australian Heritage Commission, Canberra.

management decisions to be weighed against their impact. It also enables incorporation of the impacts of cultural resources.

General Background

Tasmania's WHA is one of only three large temperate wilderness areas remaining in the southern hemisphere (the others being the Fiordland region of New Zealand and the Patagonian Andes in South America). In a national context, the WHA contains the largest tracts of high quality wilderness in south-eastern Australia.

For the broad Australian community, perhaps the most significant value of the Tasmanian wilderness is as a place away from the rat race, a place where nature reigns, a source of inspiration and also a place for reflection. With population growth, urban expansion and widespread environmental degradation throughout the world, many people place great value in simply knowing that a large area of wilderness still exists in Australia. Campaigns to save wilderness areas in Australia, and in Tasmania in particular, have heightened public awareness of the values of wilderness.

The wilderness quality of the WHA has, until relatively recently, safeguarded its special natural and cultural features. The characteristics of wilderness — a pristine environment remote from modern human development — have become rare in the world and are likely to become more so in the future. The long-term retention of wilderness quality now requires active management. Hence maintenance and enhancement of wilderness quality is regarded as a key management strategy to protect and conserve the World Heritage and other natural and cultural values of the WHA in perpetuity.

Increased visitor numbers may result in pressure for additional visitor facilities which may impact on wilderness quality. Even existing levels of recreational use of bushwalking areas are degrading wilderness quality through deterioration of existing tracks and formation of new tracks in previously trackless areas.

The single factor that is likely to have the greatest impact on the wilderness quality of the WHA is the addition or removal of roads. Other factors which may affect wilderness quality include vehicle and walking tracks, accommodation and infrastructure and rehabilitation programs. The nature of wilderness is such that developments on neighbouring land also have the potential to affect

the wilderness values of parts of the WHA.

Wilderness Recreational Experience

The wilderness recreational experience of visitors to the WHA is a topic closely related to, but distinct from, the topic of wilderness. It is affected not only by the wilderness quality of the area but also by disturbance factors such as overcrowding or noise from boats or aircraft. Acceptable standards for disturbance will vary according to the location; eg visitors in Visitor Services Sites accessing the WHA from their cars are more tolerant of disturbances than walkers who have ventured into trackless areas remote from evidence of modern technological society.

PREVIOUS MANAGEMENT

Previous management has consolidated and promoted visitor and management facilities at pre-existing access points or new points along existing major roads. This has improved access and recreational opportunities with no or negligible impact on wilderness quality.

Several redundant huts/shelters have been removed from the Southwest and Franklin-Gordon Wild Rivers National Parks (see Huts and Shacks, page 153).

Several vehicle tracks which impact on wilderness quality (including the Raglan Range track and minor tracks in the Little Fisher River area) have been closed and rehabilitated. The Mt McCall track, scheduled for closure in the 1992 plan, has remained open. On 4 September 1997 an amendment to the 1992 plan was approved to keep the road open.

There have been no major developments that have substantially detracted from wilderness quality since the 1992 plan took effect.

OBJECTIVES

The specific objectives for Wilderness given below are also parts of the Key Desired Outcome for objective 4.2 of the overarching management objectives (for objective 4.2, see Framework of Management, page 35). As they are subsets of objective 4.2 they are labelled 4.2.1 and 4.2.2 (see below). To avoid repetition these subsets are only listed here and not at objective 4.1.

- 4.2.1 To maintain and enhance wilderness quality.

- 4.2.2 To maintain and enhance the quality of the wilderness recreational experience for visitors to the WHA.

MANAGEMENT PRESCRIPTIONS ✓ [KDO'S 4.2.1 AND 4.2.2]

Zoning and Activity Management ✓ [KDO 4.2.1]

- Designate the majority of the area a Wilderness Zone (see Zoning map 3, page 216) and manage as wilderness (even though parts of it may not meet criteria for high wilderness value) — see Zoning section for further explanation, page 57.
- In general, apply zoning, access and activity controls to assist in managing the physical development and human use of the WHA so as to protect wilderness quality while taking account of the need to present the WHA.

Removal of Structures ✓ [KDO 4.2.1]

- Remove structures from Wilderness or Self-Reliant Recreation Zones except for those of cultural or other significance (see Zoning pages 57 and 58) and where removal can be achieved without further disturbing wilderness qualities.
- Undertake removal of structures and rehabilitation of disturbance only after assessment of cultural significance demonstrates that such actions are warranted.
- Rehabilitation may be achieved by allowing areas to return to a natural condition of their own accord, or by earthworks and revegetation. Special measures may be taken to conserve cultural heritage sites.

Visitor Facilities ✓ [KDO 4.2.2]

- In general provide high use visitor facilities on the periphery of the WHA where there is easy access for the majority of visitors.
- Develop facilities, such as lookouts, to provide extensive views of wilderness areas. Take into account the visibility of facilities from within wilderness areas and site facilities to minimise their impact.

Control of Wilderness Impacts ✓ [KDO 4.2.1]

- Ensure that management decisions regarding future activities, developments or actions take into account the degree to which those actions will adversely impact on, or alternatively enhance, wilderness quality, and give preference to those which maintain or enhance wilderness quality.
- Enhance wilderness quality by closing tracks where they are no longer required and they significantly reduce the remoteness or naturalness of areas or they degrade or pose a risk to the natural or cultural values of the WHA.
- Control unplanned development of tracks and routes. (See Walking and Walking Tracks, page 173).

Wilderness Recreational Experience ✓ [KDO 4.2.2]

- Protect people's wilderness recreational experience by actively managing overflights (see Aircraft Activities section, page 133), motorised boats (see Motorised Boating section in Zoning (pages 60–61) and Boating (Motorised), page 137) and overcrowding (see Walking and Walking Tracks section, page 173).
- Identify key factors that degrade the wilderness experience of visitors and establish strategies to actively manage those factors to maintain or enhance the quality of visitor experience.

Methodology Development ✓ [KDO 4.2.1]

- Develop an enhanced methodology for the quantification of wilderness which more accurately reflects the Tasmanian situation eg incorporates the effect of the three dimensional nature of the terrain on viewfields, and deals systematically with the effects of walkers' huts and walking tracks.

Liaison with Adjoining Landholders ✓ [KDO 4.2.1]

- Liaise with managers of adjoining land in order to encourage management practices which protect the wilderness values of the WHA as far as this is compatible with their primary management objectives.

MONITORING & EVALUATION [KDO'S 4.2.1 AND 4.2.2]

- Periodically map the extent and level of wilderness quality, based on defined criteria, highlighting changes and noting the causes. [KDO 4.2.1]
- Document and map factors affecting wilderness quality eg addition or removal of roads, structures, activities, development of unplanned walking tracks, areas of disturbance etc. [KDO 4.2.1]
- Establish monitoring programs to record long-term changes in factors identified as adversely affecting the quality of visitors' wilderness experience. [KDO 4.2.2]
- Document and monitor the level of compliance/non-compliance with zoning and access controls and management guidelines related to maintenance of wilderness quality. [KDO 4.2.1]
- Monitor the impacts on wilderness quality of recreational uses and take appropriate action, as necessary, to maintain wilderness quality. [KDO 4.2.2]
- Monitor the level of satisfaction of a range of visitor types with their wilderness experience of the WHA and the key factors that affect the quality of visitors' wilderness experience. [KDO 4.2.2]



Cultural Heritage

BACKGROUND

A former chairperson of the Tasmanian Aboriginal Land Council, Roy Sainty stated that people need to see the World Heritage Area 'not as an empty, untouched place, but as an

Aboriginal landscape with an ancient, but vital history'¹¹. It is a rich and dynamic cultural landscape demonstrating an equally dynamic history, that for over 35,000 years has been, and continues to be, an important place to Tasmanian Aborigines. The cultural values of the area are evident in more than just the physical cultural materials of the past, they include the rights and interests of the Aboriginal community today.

Over 50 cave sites with deposits attesting to occupation of the area between 35,000 and 11,000 years ago (prior to the inundation of the Bassian Bridge which had linked Tasmania to the mainland) are now known. One cave site, Parmerpar Meethana, attests to occupation from 35,000 years ago to the present, but equally of note are Kuti Kina, Ballawinne and Wargata Mina. The latter two sites contain hand stencils which are amongst the earliest known in the world. The cultural values of the WHA relate to this record of Aboriginal occupation.

In 1995, recognition of the importance of these sites to Tasmanian Aboriginal people resulted in three of them being returned to the Aboriginal community. Innumerable other sites, mostly demonstrating occupation between 11,000 years ago and the present, are dotted around the landscape, including the large shell middens and hut sites of the west and south coasts, and the alpine sites of the Central Plateau. These sites testify to a continuity of use and the continuing connection of Tasmanian Aborigines with all parts of the landscape to the present day.

In the late 1820's and early 1830's, it was to the Central Plateau that the 'Big River' people sought refuge late in a war for the land that was the result of the invasion of the island by Europeans. This war, aided by the earlier effects of the sickness that followed the Europeans, led, for a period, to a forced removal of the Aborigines from the land, and the arrival of new communities and their ways of life in the area.

Of particular note to the European history of the area is Sarah Island, in Macquarie Harbour. This was established as a penal settlement in 1821 and used as a place of internment until 1833, and again between 1846 and 1847. Numerous satellite sites associated with the penal settlement were located around Macquarie Harbour. Huon pinning, which has been given as one of the reasons for establishing a penal settlement on Sarah Island, was among the first economic pursuits practised

11 Foreword to Lehman G. 1995 *Aboriginal Interpretation of the Tasmanian Wilderness World Heritage Area - A Strategy for Interpreting Palawa Culture and Heritage*. Report prepared for the Department of Environment and Land Management on behalf of the Tasmanian Aboriginal Land Council, Hobart.

in what is now the World Heritage Area. The remains of a small settlement at the mouth of the Davey River, occupied between the 1830s and 1880s, and remnants of piners' camp sites and felling grounds on the Gordon and Franklin Rivers bear witness to the piners' activities.

Miners, whalers, snarers and hunters also left their mark in many areas, the latter two activities more particularly on the Central Plateau — which was also the locale for numerous high country pastoral activities. Also of note are the abandoned settlements of Adamsfield and Pillinger.

Today, our material and cultural perceptions of the WHA are informed chiefly by these Aboriginal and historical uses of the area, and by recreational, scientific, environmental, historical and spiritual concerns and interests.

Our cultural heritage can be seen as a non-renewable resource. It can be damaged by cultural practices and through natural factors. The Tasmanian Aboriginal heritage and the historic heritage of the area is threatened: by people — through oversight, ignorance, mis-use and overuse; by natural processes — through deterioration over time and through the process of erosion; by perceived conflicts between 'natural' and 'cultural' values; and by changes in management practices and uses.

PREVIOUS MANAGEMENT

Numerous investigations have been undertaken to identify and help manage the cultural values of the WHA. Professional investigations from the early 1970s until fairly recently have concentrated on the archaeological component of the area. A considerable amount of work on Tasmanian Aboriginal heritage has been undertaken along coastal areas, in the Port Davey area, in the karst areas around the Gordon and Franklin Rivers, and on the Central Plateau, in addition to historical archaeological work on the settlements, industrial sites, tracks and huts established by non-Aboriginals throughout the WHA.

Increasingly, professional investigations have utilised and reflected community resources and interests in the cultural material contained in the WHA. The Service has been able to foster the protection, conservation and presentation of Aboriginal cultural heritage by working through Aboriginal community organisations, in particular the Tasmanian Aboriginal Land

Council. The most recent involvement with TALC has been a project aimed at finding the best mechanism for Aboriginal involvement in management of the WHA. The results of this project are dealt with separately under Aboriginal Management (see page 100).

It is recognised that Aboriginal cultural heritage is much broader than just the issue of 'sites'; it includes the use of plants, animals and other materials, and commitment to the land and the rights of the Aboriginal people in this regard.

The principles of the Australia ICOMOS (International Council on Monuments and Sites) Charter for the Conservation of Places of Cultural Significance form the basis of management of cultural heritage resources in the WHA. This charter, known as the Burra Charter, provides an internationally accepted standard for the conservation of cultural property. It is particularly applicable to historic heritage. Conservation planning mechanisms contained in the charter, and established interpretations of these mechanisms (in particular the conservation plan model provided by Kerr¹²), are used to protect cultural heritage resources from both cultural and natural impacts.

The Australian Heritage Commission has recently produced *'Protecting Aboriginal and Torres Strait Islander Cultural Heritage Places'*, which specifically provides guidance for managing Aboriginal cultural heritage. This work, and other related documents such as *'The Richmond Communique'* (see page 29), provide a basis for management of Aboriginal heritage in the World Heritage Area. A theme common to all these recent initiatives, is the recognition of the rights of Aboriginal communities to control their cultural heritage.

Significant projects undertaken during the operation of the 1992 management plan include:

Aboriginal Heritage

- Area surveys for Aboriginal cultural values at Macquarie Harbour northern shore, the south east coast, the south coast, Port Davey and Bathurst Harbour, the inland south west, the south west coast, the Central Plateau and Walls of Jerusalem.
- Protection and conservation works of Aboriginal cultural values including middens

12 Kerr, J.S. 1996 *The Conservation Plan* (4th Edition), National Trust of NSW, Sydney.

on the south west coast.

- Monitoring projects for Aboriginal cultural values at several Aboriginal cave sites and on the Central Plateau.
- 'Aboriginal Management in the Tasmanian World Heritage Area' project. Conducted as a consultancy by the Tasmanian Aboriginal Land Council for the Service. For further explanation of the project see Aboriginal Management section, page 100.
- A survey for Aboriginal cultural values exposed and affected by erosion.

Historic Heritage

- Area surveys for historic cultural heritage at Macquarie Harbour northern shore, the south coast, Port Davey and Bathurst Harbour, the Raglan Range, the Southwest National Park, and the Central Plateau and the Walls of Jerusalem.
- Conservation plans or assessments for historic places at Pillinger, Kelly Basin Track, Lake Nameless Hut, Dixons Kingdom, Du Cane Hut, Sarah Island Gaol and Bakehouse, Kitchen Hut, Mt McCall Haulage Way, Sir John Falls Huts, Blandfordia Lodge, Scout Hut, New Pelion Hut, Old Pelion, Lake Tahune Hut, Echo Point Hut, Narcissus Hut, Adamsfield 'Hilton', Bennetto's Hut, Gordonvale, Rangers Hut, Mt Kate House, Braddon River Hut, Reindeer Lodge, Dunc's Camp, Joyce Creek track, Lake Dove Boatshed, Crater Lake Boatshed, Derwent Bridge Hut, Lake Meston Hut, Allisons Hut, and Raglan Range Hut.
- Implementation of conservation plans and assessments at selected sites.
- Implementation of the Community Huts Partnership program (see Huts and Shacks, page 153).
- Historical background projects for the Southwest National Park and Franklin – Gordon Wild Rivers National Park, Walls of Jerusalem National Park and Central Plateau Conservation Area.
- Survey for exotic plant species at selected historic sites throughout the World Heritage Area.
- Presentation of cultural heritage on site, at visitor centres and through publication.

Objectives

- To manage the on-going protection and conservation of World Heritage and other cultural heritage values.
- To cultivate, within the wider community, and in partnership with the Aboriginal community, appropriate management and conservation of Aboriginal values and potentially to transfer a viable conservation system for these values to a representative Aboriginal organisation to manage on behalf of the Service.
- In partnership with the community, to cultivate the value of historic cultural values through appropriate management, conservation and education.

Management Prescriptions

The management prescriptions for cultural values relate to seven primary outcomes, which provide focus for activities and their outputs (or products), and which, when taken together, provide a path leading to the attainment of the objectives for cultural heritage management. This approach is necessarily on a general level, creating a flexible, strategic path for implementing specific actions throughout the period of the plan.

The seven primary outcomes are also aspects of the Key Desired Outcomes (KDO's) relevant for Aboriginal and historic heritage in the overarching objectives, see overarching objectives 4.5 (page 35), and 8.1 and 8.2 (page 39) in particular. The relevant KDO is noted against each primary outcome below.

Each primary outcome is a step leading to the attainment of the objectives for cultural heritage management. These steps are arranged in order below. To achieve an appropriate result requires not only specific activities under each step, but is also partly dependent on completion of activities associated with prior steps; equally, the results of an activity will lead to the need to initiate activities under subsequent steps. For instance, undertaking interpretation of a particular area would ideally first require completion of an identification survey and protection activities for that area. Specific activities will be enacted as needs and priorities are identified during the period of the plan.

Primary (numbered) outcomes form the broad policies under which subsidiary (dot point)

activities and their outputs will be implemented. The monitoring and evaluation section is also arranged under these broad policy headings. Some general management issues are presented at the end of the section.

As stated in the objectives for cultural heritage, community involvement in developing and undertaking all aspects of management is an underlying principle of these seven primary outcomes.

1. Integrate Service management responsibilities with an Aboriginal community organisation. (See also Aboriginal Management, page 100.) ✓ [KDO 8.1]

- Develop clear integrated arrangements between the Service and a representative Aboriginal community organisation for the management of Aboriginal heritage. If practicable, develop arrangements that provide for an Aboriginal community organisation to administer Aboriginal heritage on behalf of the Service.

This activity will lead to: the formal involvement of an Aboriginal community organisation in Aboriginal cultural heritage management undertaken by the Service; and establishment of Aboriginal heritage operational prescriptions.

2. Establish benchmarks for cultural heritage planning and policy requirements, and review and monitor cultural heritage management activities. ✓ [KDO 10.1]

- Initiate a WHA Team group, comprised of relevant program staff, cultural heritage specialists, and representatives of the Aboriginal community, to establish benchmarks of cultural heritage policy and planning requirements regarding Service activities and to monitor and review the performance of management against those benchmarks.
- Review and monitor performance of the Service against benchmarks.

These activities will lead to: the establishment of benchmarks for Service activities and resolution of issues affecting successful attainment of benchmarks.

3. Identify and assess cultural, aesthetic and scientific values of the area and the issues affecting these values. ✓ [KDO 2.1 and 2.2]

- Undertake surveys to identify and determine the significance of cultural values and assess issues affecting these resources. Note that surveys pertaining to Aboriginal values are to be done in partnership with the Tasmanian Aboriginal community.

This activity should lead to: a clear understanding of the scope and the significance of cultural heritage in particular areas and of particular types; a knowledge of issues affecting this heritage, together with a specific program for managing this heritage; the delineation of resources that should be protected, conserved, left to 'nature', or that are not heritage; the creation of different levels of conservation planning for cultural heritage places, landscapes and values (eg plans of management, conservation plans, management plans) and the delineation of tools for managing this heritage (eg predictive mapping of cultural values in the WHA).

4. Community participation in cultural values management and identification of community values in this resource. ✓ [KDO 8.2 and 8.4]

- Undertake partnership projects for cultural heritage places, landscapes and values.

This activity should lead to: a clear understanding of the scope of community requirements for cultural heritage; integration of community needs into programs for managing this heritage; establishment of the relevant community requirements regarding impact of proposed works on community values; development of community partnership projects and establishment of review mechanisms to assess community perceptions of cultural heritage management activities.

5. Protect cultural heritage places, landscapes and values, and stabilise this heritage. ✓ [KDO 4.5]

- Undertake protective measures for cultural heritage places, landscapes and values. Note that any protective measures pertaining to

Aboriginal values are to be done in partnership with the Tasmanian Aboriginal community.

This activity should lead to: establishment of impact mitigation works (eg stabilisation of a threatened site), vital maintenance works, vital repair works, planning controls regarding usage, monitoring programs, and the enforcement of regulations.

6. Conservation of cultural heritage places, landscapes and values. ✓ [KDO 4.5]

- Undertake conservation work for cultural heritage places, landscapes and values. The management of Aboriginal values will be done in partnership with the Tasmanian Aboriginal community as outlined under the section on Aboriginal Management, see page 100.

This activity should lead to: establishment of conservation policy works; repair and maintenance programs; monitoring programs; usage and presentation parameters for cultural heritage.

7. Presentation and use of cultural heritage resources issues. ✓ [KDO 8.3 & 5.1]

- As appropriate, undertake presentation of cultural heritage places, landscapes and values that are protected, conserved, or left to nature.
- Provide education and training activities for the public and Service staff.
- Integrate conservation practices with non-cultural heritage uses of cultural heritage places, landscapes and values.

These activities should lead to: the establishment of interpretive material on-site and off-site, at visitor centres, through publication, or through seminars and workshops - as relevant - for the different types of identified cultural resources; negotiation and implementation of the recommendations of the *Aboriginal Interpretation of the Tasmanian Wilderness World Heritage Area: A Strategy for Interpreting Palawa Culture and Heritage* (Lehman 1995); establishment of sustainable adaptive use of cultural

heritage places, landscapes and values; and establishment of education and training programs.

General

In undertaking the above management prescriptions, the Service will:

- adhere to the principles of the Australia ICOMOS (International Council on Monuments and Sites) *Charter for the Conservation of Places of Cultural Significance* and the Australian Heritage Commission guidance contained in *Protecting Aboriginal and Torres Strait Islander Cultural Heritage Places*. These works, and other established interpretations of these mechanisms and related documents (such as *The Richmond Communique* (see page 29) and *The Conservation Plan* by Kerr 1996) will form the basis of management of cultural heritage resources in the WHA;
- adhere to the conditions and requirements of the relevant Federal and State legislation, including the *Aboriginal Relics Act 1975* (currently under review) and the *Historic Cultural Heritage Act 1995*;
- adopt the precepts of the *Coroners Act 1995*, when dealing with Aboriginal skeletal remains. Aboriginal skeletal remains will not be disturbed;
- adopt a pro-active stance to the conservation of sites, landscapes and values that are being or could be affected by human actions (eg recreational use, visitor use, access, management activities, lack of assessment, ignorance, oversight) and natural actions (eg erosion, disturbance by animals);
- adopt Service guidance and resource registration forms as a standard for the identification and recording of cultural heritage resources and use this dataset to guide management;
- promote research into the identification of cultural resources and issues in the WHA, and the means of managing these resources. Research should be undertaken in co-operation with relevant community groups.

MONITORING AND EVALUATION

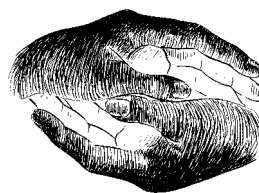
1. **Integrate Service management responsibilities with an Aboriginal community organisation. [KDO 8.1]**
 - Report on progress in developing integrated arrangements for administering Aboriginal heritage and joint work with Aboriginal community agencies.
 - Report on partnership projects in Aboriginal heritage management.
2. **Establish benchmarks for cultural heritage planning and policy requirements, and monitor and review cultural heritage management activities. [KDO 10.1]**
 - Report on the application and review of benchmarks.
3. **Identify and assess cultural, aesthetic and scientific values of the area and the issues affecting these values. [KDO 2.1 and 2.2]**
 - Report on places identified, surveyed, mapped, assessed, planned and registered with the Cultural Heritage Branch.
4. **Community participation in cultural resource management and identification of community values in this resource. [KDO 8.2 and 8.4]**
 - Report on community requirements and involvement in management of cultural resources.
5. **Protect cultural heritage places, landscapes and values, and stabilise this heritage. [KDO 4.5]**
 - Report on measures employed to protect cultural values, particularly those of World Heritage status.
6. **Conserve cultural heritage places, landscapes and values. [KDO 4.5]**
 - Report on the conservation measures employed at threatened places, landscapes, and values.

7. **Presentation and use of cultural heritage resources and issues. [KDO 8.3 & 5.1]**

- Report on places presented to the public, review of public consultation, and client satisfaction with presentation of cultural heritage resources.
- Report on the extent and nature of uses of cultural heritage places.
- Report on the range and number of education and training sessions.

General

- Report on the development and operation of joint planning and liaison processes between Cultural Heritage branch and other branches of the Service.
- Report on detailed audit of inventory records.



Aboriginal Management

BACKGROUND

Aboriginal heritage is a major part (alongside natural values) of the reason for the WHA being World Heritage listed. The area meets three of the seven cultural criteria for World Heritage listing as a result of its Aboriginal heritage.

The Service recognises the special relationship that exists between the Tasmanian Aboriginal community and the WHA. As a result of their long association with the area, the members of the community experience a unity with the land and consider natural and cultural values as inseparable. The Service recognises that this special relationship is best maintained by a major role for Tasmanian Aboriginals in the protection, conservation, presentation and cultural use of the Tasmanian World Heritage Area. The Aboriginal community will therefore be involved as a partner in the management of the area.

PREVIOUS MANAGEMENT

Since the 1992 plan, which primarily noted the archaeological values of Aboriginal heritage, the Aboriginal community, has become increasingly involved in the management of Aboriginal heritage within the WHA.

Since the financial year 1993-94 most Aboriginal cultural heritage contract work conducted in the World Heritage Area has been carried out by the Tasmanian Aboriginal Land Council (TALC).

In 1995 twelve areas of land were returned to the Aboriginal community, including three cave sites in the WHA at Ballawinne, Kuti Kina and Wargata Mina. This is the first time that an Aboriginal community in Australia has been given both title and sole management responsibility for land in a World Heritage Area.

The rights of the Aboriginal community to take resources for cultural reasons were recognised by the *Living Marine Resources Act, 1995*, which allows Aboriginal people to take marine resources for traditional purposes. *The Aboriginal Lands Act 1995* provides for similar hunting and gathering rights over Aboriginal land in the WHA.

In the review of the 1992 plan, the extent of Aboriginal management of the WHA was seen as a major issue. The Service contracted TALC to examine Aboriginal rights and interests in the WHA and to develop a proposal, from within the community, on the level of Aboriginal management in the WHA.

The project identified the following as areas of interest to the community: burial grounds, caves, traditional animals, plants and minerals (eg ochres), fire, sites (landscapes), interpretation, native forests, tracks old (eg Aboriginal) and new (eg bushwalking). This list is not exhaustive.

Resulting from this project and negotiations with the Service an agreement to increase community involvement in management of the WHA has been reached, this is detailed in the objectives and management prescriptions below.

OBJECTIVES

- To protect, conserve and, where appropriate, present Aboriginal values.
- To increase Aboriginal management of Aboriginal values in the WHA.

MANAGEMENT PRESCRIPTIONS

Management Overview ✓ [KDO 8.1, 8.2 and 2.2]

- The Aboriginal community and the Service will, in partnership, manage for the conservation of Aboriginal values in the WHA.
- Management for Aboriginal values will be undertaken in such a way that it does not adversely affect the values for which the area was reserved or inscribed on the World Heritage list.
- Management involvement of the Aboriginal community will be consistent with relevant statutes and this management plan and will range from:
 - specific areas (eg Aboriginal burial sites) and values where the Aboriginal interests are substantially more important than other values. In these areas operational management responsibilities of the Aboriginal community will be maximised;through
 - specific areas and values when Aboriginal and other values are both important. In these areas, a mechanism for co-management will apply;to
 - specific areas where other values predominate where there will be minimal involvement from the Aboriginal community.
- A process will be developed to implement this range of involvement of the Aboriginal community in management; it will include the following:
 - the Aboriginal community will identify its level of management interest in areas;
 - in identifying the degree of Aboriginal management interest in an area, the Aboriginal community and the Service will take account of non-Aboriginal values in that area;
 - in cooperation with the Aboriginal community, the Service will progressively increase the degree of Aboriginal management in areas of strong Aboriginal interest;

- in areas with both Aboriginal and other values, discussions between the Service and the community will occur to determine the appropriate level of Aboriginal co-management;
- in the future this may include recognition of a representative Aboriginal organisation as a management authority.
- Negotiate and implement the Aboriginal interpretation strategy. (For reference see footnote page 95.) See also Information, Interpretation and Education, page 126.

Aboriginal Values and Cultural Practices

- The Service considers that the WHA needs to be managed for a set of values, including Aboriginal values, extending beyond those relating to cultural heritage. The Service and the Aboriginal community will develop an agreed set of values for developing and refining existing land management strategies.
- The Service will consult with the Aboriginal community and its representative organisations concerning Aboriginal use of the WHA, with the aim of developing a joint animal, plant and material use policy, and (with the input of other relevant authorities), implementing that policy.
- In co-operation with the Aboriginal community the Service will review current acts, regulations and protocols to identify how they impact on Aboriginal cultural practices in the WHA and develop options as to how these cultural practices could be accommodated in the WHA by legislative change where necessary.
- The Service will work co-operatively with TALC and other Aboriginal groups in the planning process, especially where Aboriginal values are involved.
- Research into Aboriginal cultural knowledge to assist in land management is supported by the Service.

Employment

- The program for employment of Aboriginal people, in administrative, specialist and field positions, will continue to be developed and implemented in consultation with the Aboriginal community, with the objective of implementing management to conserve

agreed Aboriginal values and practices into land management in the WHA.

- Secondments or exchanges of staff with Aboriginal organisations will be negotiated.
- The Service will continue to work co-operatively with the Aboriginal community on in-house or externally funded projects and programs to assist Aboriginal people gain experience in a range of land management practices.

Consultation and Education

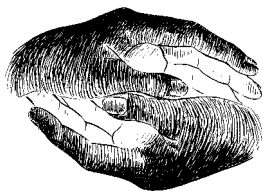
- The Service will review current procedures for consulting with the Aboriginal community about Aboriginal values and will develop clear lines of communication between the Service, TALC and other organisations (particularly local organisations) representing the Aboriginal community.
- The Service, in consultation with the Aboriginal community, will review procedures to prevent damage and destruction of Aboriginal values in the WHA and implement amended procedures in the course of undertaking management activities.
- The Service will implement cross cultural training of staff to increase the understanding and protection of Aboriginal cultural values.
- The Service will work with the Aboriginal community to involve the local Aboriginal people in land management of the WHA.
- Aboriginal representation will be encouraged on all relevant management committees and will be a part of the district-based community consultative committee structure. (see Community Engagement, page 64)

MONITORING AND EVALUATION **[KDO'S 8.1, 8.2, 8.4 & 8.5]**

- In consultation with the Aboriginal community, review progress in implementing these management prescriptions at no less than two yearly intervals.

As part of this review and with the agreement of the Tasmanian Aboriginal community:

- Monitor and review the level and nature of participation of the Tasmanian Aboriginal community in the management of Aboriginal heritage.
- Document and review the number and nature of current or unresolved issues related to the management of Aboriginal values.
- Monitor the level of satisfaction of the Aboriginal community and the Service with the management of Aboriginal values.
- Monitor the level and nature of feedback from the wider community about the management of Aboriginal values.



Established Practices¹³

BACKGROUND

With the change in land tenure accompanying WHA nomination in 1989 a number of practices that were previously undertaken in the WHA became proscribed or problematic in relation to the conservation aims for the area and in some cases the legislative requirements of the new land tenures. These activities include, but are not limited to: hunting, horseriding, live bait fishing, hut and track construction and maintenance, grazing, taking dogs into the area, four wheel drive use, patch burning of the area and use of campfires (instead of fuel stoves). Some people wish to continue these practices within the WHA.

Most people interested in continuing these activities are from local communities adjacent to the WHA, particularly in the Central Plateau and West Coast areas; however some users from other parts of the State are also involved. As a result of undertaking these activities, sometimes over a number of generations, these users have a sense of ownership and responsibility for particular areas within what is now the WHA.

Some of these activities have the potential to impact substantially on the World Heritage and other natural and cultural values of the WHA, eg grazing, use of fire and the potential introduction of exotic fish (such as carp) with live bait use.

Other activities may impact on the WHA, but at current levels of use, their impacts are manageable, eg horseriding. Still other activities have limited or no impact on values, and provided they are well located, planned and executed will add to the presentation of the area, eg hut and track maintenance.

Management prescriptions relating to established practices in general are noted below, other sections of this plan, cover prescriptions for specific activities.

PREVIOUS MANAGEMENT

Under the previous plan there were no procedures for assessing activities and practices which people consider to be traditional or established (see footnote ¹³, for definition). A project was undertaken to identify traditional practices, to develop procedures for assessing their significance, to evaluate their cultural significance and to determine the appropriateness of maintaining them within the WHA.

A social anthropologist was employed as a consultant by the Service, to examine and recommend on these issues. The consultant's report¹⁴ which studied five selected communities associated with the WHA (West Coast, Central Plateau, angling, walkers and environmentalists) noted that all users of the WHA could be defined as 'traditional' and that the idea of traditional practice was an evolving concept. The report however suggested that where a practice is spatially specific (ie cannot occur anywhere else) and where it is part of building community identity and solidarity the activity should be seen as significant by land managers.

The report stated that a number of these spatially

13 This plan uses the term 'established practices' for non-Aboriginal traditional practices, so as to avoid confusion with Aboriginal traditional practices and to adopt a similar terminology used for such activities on mainland Australia. At the time of the consultant's report the term 'traditional practices' was used and is retained here for the Previous Management section; other sections of the plan refer to non-Aboriginal traditional practices as 'established practices', see also glossary, page 206.

14 Knowles, J.N. 1997 *Traditional Practices in the Tasmanian Wilderness World Heritage Area - A study of Five Communities and their attachment to the area*. A report for the Steering Committee of the Traditional Practices in the World Heritage Area, published by the Parks and Wildlife Service, Hobart

specific practices were of significance to local communities (particularly those in the Central Plateau and the West Coast geographic areas and anglers) and noted the suggestion from many of those interviewed by the consultant that the Service had ignored or actively worked to rule out these practices in parts of the WHA. The report suggests that this has led to feelings of frustration within these communities and a view that they were being 'locked out' of management involvement in areas they feel are 'their own backyard'.

The report also recognised that these groups want to see these areas conserved, but their view of the best way to do this was different from that of the Service and that by involving these communities in the management of the area the Service had a lot to gain. The key recommendations from the report were that traditional practices zones be recognised in the WHA, that the Service should work towards joint management of these areas with local communities (in particular) and that communication channels between local communities, user groups and the Service should be improved.

Of the five communities studied in the report, the West Coast, Central Plateau and angling communities supported the report and stated that it had captured their views well. Walkers and environmentalists took issue with many aspects of the report in terms of the report's depiction of their world view and disagreed with what they considered was a trivialising of their views.

The Service believes the views of the whole community about management of the WHA are important and need to be recognised. It is one of the requirements of the World Heritage Convention to 'adopt a general policy which aims to give the cultural and natural heritage a function in the life of the community...', and this is taken to include the local, Tasmanian, Australian and international communities.

On occasions the views of some of these communities are at odds with others. An example of this is hunting, which was strongly opposed by most people commenting in the management plan review process, but is strongly supported by hunters and those favouring the retention of established practices. The challenge for the Service is to engage all levels of the community in the management of the WHA and to work through the differences in point of view to

achieve a broadly supported approach.

The key management requirement for the Service is to manage the WHA to protect, conserve and present its values. This particularly relates to the area's world heritage values but also to the other natural and cultural values for which the area has been reserved (see chapter two on values of the area). With this as an underpinning principle, the Service sees the involvement of local communities in the management of the WHA as critical to the ongoing acceptance and support for the World Heritage concept.

Note that traditional or established practice activities that take place in the WHA are required to be in accordance with the objectives and management prescriptions set out in this plan, relevant legislation and any subsidiary plans to this plan.

The objectives and prescriptions below apply to 'Established Practices' in the WHA but should also be read in association with the section on Community Engagement, see page 63.

OBJECTIVES

- To develop partnerships with local communities and interest groups in managing the WHA.
- To provide for the continuation of established recreational and/or cultural practices within parts of the WHA which are consistent with the protection, conservation and presentation of the World Heritage and other natural and cultural values of the WHA.

MANAGEMENT PRESCRIPTIONS

Continuation of Established Practices ✓ [KDO 2.2]

- Provide for established practices to continue within the WHA where they do not negatively impact on the World Heritage and other natural and cultural values of the area.
- Where established practices cause, or are likely to cause, limited impact on values the activity will be assessed by the Service in partnership with affected communities. If the impacts are considered to be within acceptable limits by the Service and the affected communities, the activity may

continue in a manner which minimises its impact on the World Heritage and other natural and cultural values of the WHA.

- Impacts of established practices will be monitored as necessary. Appropriate action, which may include cessation of the activity, will be taken in consultation with affected users should impacts approach unacceptable levels.

Community Partnerships ✓ [KDO's 7.1 to 7.3]

- The purpose of management partnerships is to co-operatively identify local management objectives (consistent with this plan), provide for the participation of (primarily) local communities in management activities, involve communities in developing the solutions to management problems and assist local communities and others in taking a stewardship role for the area.
- Within areas of community interest (see below), develop collaborative management partnerships with local communities and other communities or groups that wish to be involved in the management of these areas. Make clear at establishment the relationship of partnership groups to peak consultative groups, such as the World Heritage Area Consultative Committee, and other management related committees. Also make clear that activities of the partnership are to be in accord with this management plan and are to minimise impact on World Heritage and other natural and cultural values of the WHA.
- Tailor these partnerships to meet the needs of each particular community. Such partnerships will also provide avenues for input from other interested non-community based groups and individuals.
- The Service and the community will jointly develop partnerships. These will be locally focussed but will be integrated with other forms of community engagement undertaken by the Service, see Community Engagement, page 63. Should activities of partnership groups impact on other users of the WHA, the views of these users will be sought and considered by the partnership. Should differing views remain these will be considered by other Advisory committees of the Service, if required, including the World

Heritage Area Consultative Committee.

- Investigate mechanisms to transfer information on activities between partnership groups and others that may be interested (eg newsletters).

Areas of Community Interest ✓ [KDO 2.2]

- In association with users, map specific areas in the WHA of interest to particular communities. These 'areas of community interest' will particularly note the interests of local communities, but will also note the interests of other groups and users.
- Use this mapping to alert the Service and the various communities to the groups or users it is necessary to involve when making decisions that may affect an area.
- Once areas of community interest are identified and community consultative committees and/or partnership groups are in place, investigate mechanisms for integrating partnership group interests in a spatially specific manner. This could, if required and if it proves appropriate, involve the use of an extra overlay area in the zoning system dealing with certain established practices. (See also Zoning, page 57). This would need to be considered as part of the New Proposals and Impact Assessment Process, see page 66.

Community Communication ✓ [KDO 7.3]

- Consult with relevant communities when a major decision has to be made that may affect the community's interests.
- Establish a clear point of contact for each local community and each user community. This will usually be the senior ranger or a number of appointed rangers at the local or district office or may be through District focussed community consultation committees.
- In general, arrange contact between the community and specialist staff via the Service contact person/s. The contact person will, where possible, be present during any joint activities.
- The Service contact person/s will liaise with the community for whom they are responsible, identifying and helping to resolve issues at an early stage.

Involvement in Management Research

- Involve local and user communities in management research or monitoring that may affect their interests, including, as appropriate, discussion of research designs and the collection of data. Results will be made available and the interpretation of these results will be presented to the interested parties.

Companion Dogs

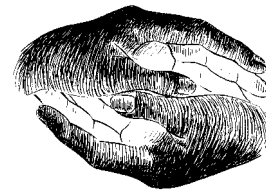
- Within the Central Plateau Conservation Area and the camps within the Macquarie Harbour Historic site, allow companion dogs to accompany owners under the following conditions:
 - a permit, issued annually by the Service, is carried by the owner and any conditions on the permit are complied with;
 - only one companion dog is allowed per person and
 - the dog is to be under effective control.
- Monitor the environmental impact of dogs and the social impact of dogs on other users. If problems arise modify permit conditions as required (this may include limits on particular areas or times).

MONITORING AND EVALUATION [KDO'S 2.2, 7.1 TO 7.3]

- In conjunction with community consultative committees and partnership groups consider, and as necessary develop, the following approaches:
 - Monitor and review the level and nature of involvement of the partnership groups in the management of the WHA.
 - Monitor the level of satisfaction of the partnership group participants and the wider community with the results of the partnerships.
 - Each partnership group is to prepare an annual report on joint planning decisions, joint works activities etc. Analyse reports to see where effort should be targeted and where processes can be improved. This could take the form of a feedback session for each group on progress made over the year.

- Monitor the number and nature of agreed resolved issues versus unresolved, and the number and nature of issues that could not be dealt with at the partnership group level that went to other bodies for resolution.
- Review the success of all partnership groups after three years and evaluate their future direction taking account of the Service's other community engagement mechanisms.

(See also Community Engagement monitoring and evaluation, page 65.)



Fire Management

BACKGROUND

As a signatory of the World Heritage Convention, the Australian government is required to protect and conserve natural and cultural values in the Tasmanian Wilderness WHA. This prime objective is tempered by Tasmanian statutes and common law. The Service is a landowner for the purposes of the *Fire Service Act 1979* and is required to prevent fires leaving lands managed by the Service.

It is the responsibility of the Service, on behalf of the Commonwealth to manage fire to meet its obligations under the World Heritage Convention, the *Fire Service Act 1979*, and common law. At some times, in some locations, these obligations are incompatible.

Fire has long been part of the environment of what is now the WHA. Lightning and Aboriginal burning practices have significantly influenced the development of plant and animal communities; some have adapted to fire, (eg buttongrass moorland), some are dependent on it for their survival, (eg eucalypt forest), and others are destroyed by it, (eg native conifer stands). Today, fire adapted communities adjoin fire sensitive communities.

Peat soils, which take thousands of years to accumulate, underlie both fire sensitive and fire

dependent communities and can be removed by high intensity fires. Burning can also remove organic litter, the source material for peat formation. Fire has caused extensive damage to soils in parts of the WHA. Conservative estimates suggest about 100,000 ha of peat has been removed from blanket bogs in the Southwest.

Today, fires in the WHA are almost invariably associated with the presence of people and most commonly start beside roads, walking tracks and landing places along the coast.

The characteristically rapid spread of moorland fires, high fuel loads, difficulties in detecting fires at an early stage, the logistics of transporting fire fighting crews into remote locations, unpredictable weather and past restrictions on both fuel reduction burning and fire suppression techniques all limit the ability of the Service to suppress fires in much of the WHA. This leaves the protection of fire sensitive communities throughout much of the WHA and neighbouring land largely dependent upon chance.

Regular burning of parts of the WHA in the past has caused long term changes in some animal and plant communities. The attempted exclusion of fire from most of the WHA over the past decade is also causing changes in some animal and plant communities thought to have been maintained by frequent fire.

The use of fire as a management tool involves risk. Management fires occasionally escape and burn non-target areas. However, this has to be weighed against the protection fuel reduction burning provides in the event of a major fire. Also note that the longer the introduction of burning is delayed, the more fuel accumulates and the greater the risk the fire will escape or burn with higher intensity than desired.

PREVIOUS MANAGEMENT

Fire management plans specifying fire history, fire weather, fire ecology, detection, access, assets for protection, areas for prescribed burning, suppression methods and equipment requirements were produced for most of the WHA in the mid to late 80's. Since the 1992 WHA management plan, fire management plans have been completed for the Bronte area, Lyell Highway, Henty-Anthony area, Central Plateau Conservation Area-Walls of Jerusalem National Park and the Melaleuca-South West Cape area.

A fire lookout on Mt King William is staffed and fire detection flights over the WHA are regularly undertaken during the summer months.

The use of fire as a management tool in the WHA has been restricted. Limited fuel reduction burning has been carried out along the Lyell Highway, at Melaleuca and in the Central Plateau Conservation Area. A habitat management burn has been carried out at Birchs Inlet. (See also Zoning, Previous Management, page 55, for a discussion of zoning-related prohibitions on fire use under the 1992 plan)

Research into fire behaviour in buttongrass moorlands has improved the ability of the Service to predict moorland fire behaviour. Research into the impacts of fire on moorland fauna species and the need for habitat management burning in montane grasslands has commenced and will take several years to complete.

'Fuel stove only areas' — areas in which the use of campfires is prohibited — have been in force since 1989 in areas of fire sensitive vegetation and high visitation including the Walls of Jerusalem National Park, Cradle Mountain-Lake St Clair National Park, the Mt Anne Range, the Arthur Ranges and the Frenchmans Cap Area. These restrictions are now largely accepted. The entire WHA was declared a fuel store only area in 1998 with exceptions detailed on page 109.

OBJECTIVES

- To protect people from fire.
- To conserve World Heritage and other natural and cultural values including:
 - geodiversity, particularly aspects that are rare or unique;
 - native plant communities and species, particularly those that are rare or threatened;
 - the habitats of native animals, particularly those that are rare or threatened;
 - wilderness quality;
 - scenic and viewfield quality;
 - Aboriginal cultural resources and
 - historic cultural resources.
- To achieve targeted fire regimes within the WHA.
- To protect buildings and facilities within the WHA from fire.

- To prevent fires burning from the WHA onto neighbouring land and from neighbouring land into the WHA.

The relative priority assigned to these objectives where they conflict can only be established in terms of the significance of the conflicting values and the location of the values in the landscape, the fire management actions proposed and the fire management techniques to be used.

MANAGEMENT PRESCRIPTIONS

Planning

- Produce strategic fire suppression plans for the whole WHA as a matter of priority using available information. These plans are to detail fire sensitive assets, protection priorities, areas where earth moving machinery may be used, existing fire breaks and low fuel areas, water sources, access routes, available fire suppression resources and contact information. They are to be regularly updated.
- Prepare fire management plans, detailing strategies for fire prevention and preparedness, including the planned use of fire, for those parts of the WHA where:
 - active fire management is physically and economically feasible, and
 - active fire management will increase the ability of the Service to meet the WHA fire management objectives.

Prioritise fire management objectives within the areas covered by each fire management plan.

- Fire management plans will, as far as is practical, ensure that:
 - fire frequencies are appropriate for the maintenance of biodiversity;
 - fire is prevented from occurring in rainforest, alpine and sub-alpine vegetation and other fire-sensitive plant or animal communities;
 - wet forests are protected from fires so as to maintain the maximum area of forests as old growth;
 - a range of fire frequencies is maintained within buttongrass moorland and scrub communities;
 - habitats for threatened species and

communities are maintained with appropriate fire regimes and

- peats and other fire sensitive soils or landforms are protected from the destructive effects of fire. [KDO 4.1]
- Maintain the co-operative arrangements for fire management developed with Forestry Tasmania and the Tasmania Fire Service as set out in the Inter-Agency Fire Management Protocol. Make arrangements with neighbouring landowners for joint fire management planning across boundaries.

Fire Suppression

- Wildfire suppression is to be given priority over all other management activities.
- In the event of a wildfire, the Incident Controller is to determine the priority assigned to each fire management objective by using the relevant strategic fire suppression plan if available.

If no suppression plan is available, priorities will be set taking into account the values and assets at risk, legal requirements (such as the requirement to prevent fires escaping from the WHA) and the resources available for their protection, subject to the following qualifications where relevant:

- first priority will always be the protection of human life;
- second priority will be the protection of rare and threatened fire sensitive species and communities and
- third priority will be the protection of substantial and valuable infrastructure
- Earth moving machinery may be used in fire suppression operations in areas with a low sensitivity to earth moving machinery to protect areas with a high sensitivity to fire.
- Commence rehabilitation of all fire breaks constructed by earthmoving machinery during fire suppression operations within 12 months of their construction unless it is specifically demonstrated that they will be useful for future fire management purposes.
- Take all practical steps to prevent the spread of *Phytophthora cinnamomi* during fire suppression operations.
- Complete a fire report for all wildfires in the WHA.

Preparedness

- Maintain a rapid response capability in cooperation with other agencies. In accordance with the Inter-Agency Fire Management Protocol, where another agency is better able to respond to a fire in the WHA, use the services of that agency for the initial attack.
- Continue to fly aerial fire detection flights over the WHA during the summer months and continue to staff the Mt King William fire lookout.
- Finalise and implement the Service Fire Training program.

Fuel Stove Only Areas

- Maintain the entire WHA as a Fuel Stove Only Area (FSOA)¹⁵, except for:
 - designated fireplaces within Visitor Service Sites and Zones;
 - two designated campfire sites on the South Coast Track.
 - designated campfire sites at specified camps around Macquarie Harbour (including Reindeer Lodge and Braddon River Camp);
 - a limited number of campfire sites in the Central Plateau Conservation Area (CPCA) (largely near vehicle access points).

All campfire sites will avoid peat soil, and minimise impact on alpine and rainforest areas.

- Continue to encourage the use of fuel stoves¹⁵ instead of campfires throughout the WHA to minimise environmental impact.
- In consultation with users, conduct an assessment of the FSOA policy in the CPCA and take appropriate action before the 1999–2000 summer.
- Monitor all sites in the WHA where campfires are allowed and if necessary rebuild, relocate or remove as appropriate.

Fires in Huts

- Assess the safety and the sustainability of fuel supply for fireplaces in active use in huts throughout the WHA in association with any users that have an interest in these huts. If unsafe, fireplaces shall either be

rebuilt to a safe standard, sealed or removed. If the wood supply is unsustainable, consideration will be given to supplying fuel; if this is not practical or appropriate the fireplaces will be sealed or removed. Depending on use levels, alternative forms of heating may be investigated.

Prescribed Burning

- Permit strategic fuel reduction burning in areas with a low sensitivity to fire where:
 - there is a threat of fire to fire sensitive assets within or adjacent to the WHA, and
 - fuel reduction burning will increase the Service's ability to protect those assets from fire.
- ✓ Determine the relative hazards to fire sensitive vegetation and other assets presented by either using or not using fuel reduction burning by climatic/fuel accumulation modelling under a range of fire scenarios. [KDO 3.1]
- Undertake fuel reduction burning only when documented in an approved fire management plan which specifies the areas to be burnt, burning season and rotation period.
- Produce individual burning plans before conducting burns.
- ✓ Undertake habitat management burning in the WHA to conserve the habitat of rare or endangered species, to maintain the biodiversity of the WHA or to maintain successional processes. Habitat management burns must be specified in a fire management plan that takes account of the effects of such burning on other values. [KDO 4.1]

Research

- Map the following assets and values throughout the WHA and assign a fire sensitivity rating, earthmoving machinery sensitivity rating and significance (importance) rating:
 - features of geoconservation significance;
 - rare plant communities and species;

¹⁵ See glossary, page 206, for definition of fuel stove and fuel stove only area.

- the habitat of rare native animals;
 - wilderness quality;
 - scenic and viewfield quality;
 - Aboriginal cultural resources;
 - historic cultural resources and
 - other assets or values as required or appropriate. [KDO 3.1]
- ✓ Assess and map the range of fire regimes under which the existing plant and animal communities in the WHA will be maintained. Place particular emphasis on examining the role of fire in the perpetuation of moorland, grassland and sclerophyllous communities. [KDO 4.1]

MONITORING AND EVALUATION

Monitor the following parameters to assess achievement of the WHA fire management objectives:

To protect people from fire.

- Evaluate the relevance of fire management decisions in incidences where people are injured or killed by fire. [KDO 9.1]

To conserve geoconservation values.

- Monitor the area of places of geoconservation significance damaged by wildfire or damaged or protected by fire management activities.
- Monitor the change in peat depth resulting from wildfire or fire management activities. [KDO 4.1]

To conserve plant and animal communities and species.

- Monitor the change in area and abundance of targeted fire sensitive communities and species. [KDO 3.2]
- Monitor the change in area and abundance of targeted fire dependent communities and species.
- Record fire regimes including causes. [KDO 4.1]

To conserve wilderness quality.

- Monitor the reduction in wilderness quality as a result of fire management activities.

To conserve scenic and viewfield quality.

- Monitor the reduction in scenic and viewfield quality as a result of wildfire or fire management activities.

To conserve Aboriginal cultural resources.

- Monitor the number of Aboriginal cultural resources damaged by wildfire or damaged or protected by fire management activities.

To conserve historic cultural resources.

- Monitor the number of historic cultural resources damaged by wildfire or damaged or protected by fire management activities.

To achieve targeted fire regimes.

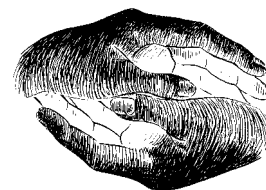
- Monitor the extent of achievement of targeted fire regimes within the WHA.

To protect buildings and facilities within the WHA from fire.

- Monitor the value of buildings and facilities in the WHA damaged by fire.

To prevent fires burning from the WHA onto neighbouring land and from neighbouring land into the WHA.

- Monitor the area of neighbouring lands burnt by fires which spread from the WHA.
- Monitor the value of assets on neighbouring lands burnt by fires which spread from the WHA.
- Monitor the area of the WHA burnt by fires which spread from neighbouring lands.
- Monitor the value of WHA assets burnt by fires which spread from neighbouring lands.



Environmental Quality (air, water and noise)

BACKGROUND

Protection of the natural quality of surface and ground waters in the WHA is an ecologically

important management objective. Surface waters in much of the area contain very low levels of solutes. Much of the vegetation and aquatic fauna are adapted to these low nutrient conditions. Changes in the quality of water, such as increased nutrient levels, altered pH, turbidity or increased biological oxygen demand, can have far-reaching effects on aquatic and terrestrial ecosystems. Abnormal levels of chemicals and faecal bacteria in water can similarly be deleterious to native biota, as well as to humans.

The quality of surface water leaving the WHA also affects the environmental health of river systems that have their origin in the WHA.

The cool climate of the WHA provides suitable conditions for the spread of water-borne pathogens such as *Giardia* that can impact on the health of visitors and native aquatic fauna utilising surface water. The water quality, even in areas of high wilderness quality, does not necessarily meet the national drinking water guidelines due to natural bacterial contamination from native animals.

Production of waste products is an inevitable consequence of human existence. With the best of intentions, visitors to the WHA pose a potential threat to the natural environment they come to admire. Management aims to control and monitor the impact of human wastes on the environment.

For many decades, acid drainage resulting from historic mining practices at the Mount Lyell copper mine has entered northern Macquarie Harbour. The circulation in the harbour has resulted in significant contamination of the sediments and at times the water column within the WHA¹⁶. The cooperative State and Commonwealth Government Mount Lyell Remediation Research and Demonstration Program is developing remediation plans which will address the issue of pollution entering the harbour, but it is unlikely that remediation of the sediments will be feasible.

Elevated levels of mercury have been detected in trout and eels in a number of western Tasmanian waterways, including the Lower Gordon River and Lake Gordon. The cause of these elevated levels is uncertain although mobilisation of naturally occurring mercury in buttongrass swamps and the deep stratified water of Lake Gordon, as well as atmospheric inputs of mercury via precipitation, are thought to be possible sources. The Department of Community and

Health Services has issued health advice concerning the consumption of large quantities of fish from the Lower Gordon River area. A CSIRO, IFC and HEC study on the issue is nearing completion at the time of writing.

The Port Davey–Bathurst Harbour embayment is the largest undisturbed estuarine ecosystem in southern Australia, with very low nutrient levels in Bathurst Harbour and Bathurst Channel (see also Identifying Values, page 74). These waters are potentially extremely vulnerable to pollution.

Boating on rivers and lakes may create problems of waste disposal and there is also the possibility of fuel spills from motorised craft.

Effluent from quarrying can pollute waterways and cause sedimentation of streams. Landslips, roads and quarries may cause changes in suspended sediment loads that may have marked effects on aquatic fauna. Mineral exploration and mining activities could also degrade environmental quality.

Air quality in the WHA is generally very high with adverse impacts usually minor and very localised, eg caused by wood or coal burning stoves and car or boat exhausts. Bushfires can have a local or widespread impact on air quality depending on their size and intensity, and can affect water quality through increased erosion on burnt slopes.

Use of mechanised transport within the WHA is the major source of noise pollution. The noise of motorised boats on enclosed waterways and low flying aircraft, particularly helicopters and floatplanes, can disturb the tranquillity of the area for visitors. The main areas where noise from recreational craft requires management are on and over the Lower Gordon River and over the Franklin River, Frenchmans Cap, Cradle Valley, Federation Peak and the Central Plateau Conservation Area (see also Aircraft Activities, page 133).

PREVIOUS MANAGEMENT

A water quality monitoring program for standard bacterial and inorganic parameters was carried out at Lake St Clair, the Walls of Jerusalem and Melaleuca in 1995 to increase understanding of possible impacts on human and environmental

16 Koehnken L., 1996 *Macquarie Harbour - King River Study*, Tasmanian Government, Hobart, Tasmania.

health in the WHA. The program helped characterise natural water quality and results demonstrated a very high level of water quality. There was no evidence of contamination of surveyed water bodies from adjacent camp grounds or developments in the areas surveyed (apart from natural bacterial contamination from native animals).

Research was carried out between 1993 and 1996 in Macquarie Harbour under the Mt Lyell Remediation Research and Demonstration Program and the Macquarie Harbour-King River Study. These studies included an assessment of base metal distribution in water and sediments in Macquarie Harbour and proposed options to reduce impacts from heavy metals on the environment in the harbour through management of the sources and sinks of heavy metals.

The history of incidence of sickness related to use of natural surface water in the WHA is low. However, as the bacterial counts in the water often exceed the Australian drinking water guidelines, it is recommended to visitors who wish to reduce the risk of infection from drinking surface water that they should adopt precautions such as boiling or chemical disinfection of water.

Rehabilitation of the Lune River (Benders) limestone quarry has reduced solute and suspended sediment input to caves linked to the quarry and eliminated a dust and noise source on the edge of the WHA.

A *Giardia* study¹⁷ supported by the Service was undertaken by an honours student from the University of Tasmania. In this study *Giardia* was confirmed to be present in a wide variety of native and domestic animal species and shown to be distributed widely across the State, including some remote areas of the WHA.

For information on aircraft noise see Aircraft Activities, page 133.

OBJECTIVES

The specific objectives for Environmental Quality given below are also parts of the Key Desired Outcome for objective 4.3 of the overarching management objectives (for objective 4.3, see Framework of Management, page 35). As they are subsets of objective 4.3 they are labelled 4.3.1 to 4.3.6 (see below). To avoid repetition these subsets are only listed here and not at objective 4.3.

- 4.3.1 To minimise human impact on environmental quality.
- 4.3.2 To maintain water quality throughout the WHA within the range of local natural background levels.
- 4.3.3 To ensure a rapid and effective response in the event of an environmental accident or polluting event.
- 4.3.4 To minimise human-caused health risks to visitors, native plants and animals.
- 4.3.5 To preserve the natural tranquillity of the WHA through avoiding or minimising noise pollution created by human activities.
- 4.3.6 To avoid or minimise air pollution created by human activities.

MANAGEMENT PRESCRIPTIONS

General ✓ [KDO 4.3.1]

- Develop and implement strategies to avert or minimise identified threats and existing impacts on environmental quality. Define management targets and/or limits of acceptable impact for environmental parameters in particular areas or systems.
- Require that the best available and practicable technology is used to protect the environmental quality of the WHA. In the event that appropriate environmental quality standards cannot be attained by using best practicable technology, manage the source of pollution, eg by limiting human usage.
- Collect and dispose of rubbish generated by visitors in Visitor Services Zones and Sites appropriately outside the WHA. Liaise with local government regarding the use of municipal tips for this purpose. In general, encourage visitors to be responsible for their own rubbish.

Waste Water ✓ [KDO 4.3.2, 4.3.3 and 4.3.4]

- Require all new effluent treatment systems to meet stringent standards in terms of specified water parameters including nutrients and faecal bacteria, in the vicinity of the point or area of effluent discharge into the environment. This is to ensure aquatic

¹⁷ Kettlewell J. S., 1995 *Giardiasis in Tasmania*, Honours thesis, University of Tasmania, Hobart.

ecosystems are not subject to environmental impact and human health is not impaired by final waste water inputs.

- Use the best available and practicable technology, in terms of reducing nutrient levels, biological oxygen demand and non-filterable residue, in treatment of waste water where effluent is to be released either directly or indirectly into the WHA.
- Formulate water quality objectives for relevant water bodies in the WHA and ensure that the standards for effluent discharged either directly or indirectly into those waters do not impact on the protected environmental values nominated by the Service for that water body.
- Evaluate existing waste water treatment methods and, as necessary, progressively upgrade existing systems to meet the standards set.
- Conduct programs of physio-chemical and biological monitoring before and after construction of major waste water treatment plants which discharge either directly or indirectly into the WHA. Budget for such monitoring and any necessary adjustments in the overall development costs.
- Conduct training for field staff in relation to the environmental effects of waste water and the recommended water treatment options under different situations in the WHA.
- Keep under review waste water treatment developments in areas of similar climate and high conservation value elsewhere.
- Establish waste disposal conditions for boats.
- Develop an action plan for dealing with a major pollution incident off the coast, on rivers or lakes or on land within the WHA in liaison with relevant authorities. [KDO 4.3.3]

Toilets ✓ [KDO 4.3.1 and 4.3.2]

- Review whether the present remote area toilets meet relevant statutory requirements including human and environmental health standards. Where toilets are not functioning adequately undertake appropriate measures to resolve the problem. Assess the need for waste disposal at high use campsites currently without toilets
- Manage toilets that are not connected to sewage treatment facilities in such a way

that adjacent water bodies are protected.

Noise ✓ [KDO 4.3.5 and 4.3.6]

- Establish noise emission standards appropriate to the WHA for different categories of air and water craft and seek the cooperation of operators in meeting them (see also Aircraft Activities, page 135 and Boating (Motorised), page 138)
- Mechanised vehicles regularly using the WHA, including air and water craft, will be encouraged to meet noise and exhaust emission standards appropriate to the WHA (see also the section on Boating (Motorised), page 138).

Research ✓ [KDO 4.3.2 and 4.3.4]

- Facilitate research into pathogen presence in natural water bodies in the WHA that may have an effect on human health. [KDO 4.3.4]
- Facilitate research into water circulation patterns and water chemistry in the Bathurst Harbour-Bathurst channel estuary to assist in predicting the fate of any pollutants. [KDO 4.3.2]
- Repeat, at least twice in the ten year timeframe of this plan, the 1995 water quality survey in its original or an expanded form. [KDO 4.3.2]

MONITORING AND EVALUATION ⚖

General

- Establish targeted environmental monitoring programs to assess and monitor changes in the nature and extent of environmental impact associated with recreation, developments and other human use of the WHA (eg water quality, polluting agents, erosion, vegetation trampling, marine debris etc). [KDO 4.3.1, 4.3.2, 4.3.4, 4.3.5 and 4.3.6]
- Continue development of a long-term aerial photographic monitoring program, initially documenting baseline information and focusing on areas of potential risk from environmental degradation and on areas that are currently degraded. [KDO 4.3.1]
- Document and monitor the number and severity of polluting events or incidents, and evaluate the adequacy of response. [KDO 4.3.3]

- Monitor the nature and level of public feedback/complaint regarding management of environmental quality. [KDO 4.3.1 to 4.3.6]

Water Quality ♀ [KDO 4.3.2 and 4.3.4]

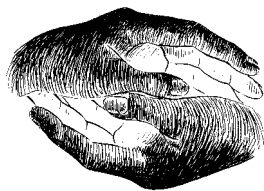
- Establish a long-term water quality monitoring program focussing on areas of potential risk from pollution and on sites/values of particular sensitivity to pollution.
- Survey water quality at strategic points in the WHA every 5 years to assess levels of physio-chemical and microbiological parameters. Maintain a program of environmental monitoring in the vicinity of park infrastructure, camping areas and facilities adjacent to the WHA but within the catchment of the WHA. Assess whether water quality has remained at natural background levels in areas where baseline background data exists.
- Carry out water quality monitoring along the Overland Track.

Visitor Health ♀ [KDO 4.3.4]

- Assess whether reports of poor visitor health, if they arise, are related or not to water consumption in the WHA.

Noise ♀ [KDO 4.3.5]

- Design and implement a long-term noise monitoring program, including establishing criteria, thresholds and noise related issues, focussing on selected popular and/or recreationally sensitive sites.
- Monitor visitor complaints concerning noise or air pollution. [KDO 4.3.5 and 4.3.6]



Rehabilitation

BACKGROUND

Rehabilitation ranks as a primary management objective in the World Heritage Convention. Some of the land within the WHA was previously used for mineral exploration, mining, hydro-electric

development, forestry, road transport, tourism, and grazing. Sites were abandoned as these activities were completed and their impact on the land still remains. Rehabilitation aims to improve the condition of degraded areas so as to restore their natural and, in some cases, cultural values.

About 180 hectares of land in the WHA has been mechanically degraded. Some of these sites continue to erode causing a variety of impacts on the environment and viewfields. Where natural revegetation is slow, rehabilitation can assist stabilisation, colonisation and establishment of a permanent cover of plants.

On the Central Plateau 11,000 ha has been affected by sheet erosion as a result of fire, rabbits and past land use practices.

Rehabilitation is an integral part of the work at new developments in Visitor Services Zones and Sites (eg carparks, visitor centres and campsites). Existing roads, vehicular tracks and walking tracks must be well maintained to minimise erosion, sedimentation and reduce the need for rehabilitation. Some of the measures outlined below are designed to avoid problems through careful planning.

Rehabilitation includes earthworks and revegetation. Earthworks can involve excavating drains to prevent erosion and sedimentation, making diversion drains, shaping the land surface, conserving and redistributing soil. Revegetation can involve broadcasting seed and fertiliser, planting seedlings, and laying protective cover.

PREVIOUS MANAGEMENT

Over the period 1992 to 1996, 38.8 km of vehicle tracks were rehabilitated, principally at Raglan Range, Joyce Creek, Adamsfield, Little Fisher Valley and Mt King William. An additional 84 hectares of degraded land was treated at Benders Quarry and the roadside verges beside the Mt McCall track, Scotts Peak Road, Mueller Road, Cradle Mountain Road, Lake Augusta Road and the Lyell Highway.

The results of treatment at Oakleigh Creek and at some sites at Adamsfield were not satisfactory. Earthworks have not commenced at some degraded sites due to other work being seen as a higher priority.

A study was initiated in 1991 to map the extent and severity of the erosion on the Central Plateau.

Detailed (1:25,000) mapping was carried out to identify areas affected by erosion. In addition four erosion monitoring sites were established to investigate rates of erosion, rates of revegetation and the impact of grazing by rabbits and marsupials. Early indications are that in some severely degraded locations erosion continues while in others revegetation by prostrate species such as *Grevillea australis* is occurring. The study also identified the Central Plateau as the most severely degraded alpine area in Australia¹⁸.

The major conclusions of the study were that:

- domestic stock grazing should not be re-introduced to the area;
- fire should be excluded from the area;
- the current program to monitor the impacts of grazing by rabbits and native fauna on the revegetation of eroded areas should be continued and used to plan any rehabilitation deemed necessary and
- disturbance of lunettes, (lake shore dunes) should be reduced and those that are severely degraded should be rehabilitated;

In 1995 the proposal to drain the present Lake Pedder (a Hydro-Electric Commission impoundment) and restore the natural lake of the same name was investigated by the House of Representatives Standing Committee on Environment, Recreation and the Arts. Their finding concluded that '... although the proposal could be implemented, it does not have either the priority nor [sic] the official support to warrant the commitment of Commonwealth Government resources for further assessment'.¹⁹

There has been effective co-operation with the Hydro-Electric Corporation, Mineral Resources Tasmania and the Department of Transport on rehabilitation projects within the WHA.

OBJECTIVE

- To re-establish natural rates and magnitudes of erosion and sedimentation and to assist

18 Cullen P., 1995 *Land Degradation on the Central Plateau*, Tasmania Occasional Paper No 34, Parks and Wildlife Service, Hobart.

19 House of Representatives Standing Committee on Environment, Recreation and the Arts, June 1995 *Inquiry into the Proposal to Drain and Restore Lake Pedder* Parliament of the Commonwealth of Australia, Canberra.

revegetation on land degraded by human activities.

MANAGEMENT PRESCRIPTIONS

Rehabilitation Planning

- Collect and store seed suitable for revegetation work.
- Prepare subsidiary rehabilitation plans for each district. These will prescribe treatments for degraded sites, and assist in programming and budgeting for rehabilitation in the district.
- ✓ Target high priority sites for rehabilitation taking account of the World Heritage and other natural and cultural values involved. These will be included in a shortlist of degraded sites which will be made publicly available and be periodically updated. [KDO 4.7]
- ✓ When rehabilitating or stabilising areas, take account of the significance of natural or cultural features, the potential impacts and the likelihood of success. Proposed rehabilitation work should not threaten other natural or cultural values or conflict with other prescriptions in this plan. Where there is a conflict, a priority assessment is required (see Resolving Conflict, page 46). [KDO 4.7]
- Scrutinise any proposed development involving land disturbance and ensure that appropriate steps are taken to minimise erosion, sedimentation and the need for rehabilitation.

Rehabilitation Methods

- Undertake rehabilitation in a manner that avoids pathogen spread to other areas of the WHA.
- Wherever possible, use local provenance plant species and local soil for revegetation work. Use only native species in rehabilitation work.
- When rehabilitating, import only soil material that is pathogen free and physically and chemically compatible with the area it will be introduced into. (see Plant Disease Management, page 84)
- Rehabilitation practices will conform to, or exceed the minimum standards for rehabilitation given in the Forest Practices Code and the Department of Primary Industries, Water and Environment

rehabilitation guidelines.

Consultation

- Consult with interested or affected parties in an appropriate manner before sites are rehabilitated.
- Carry out, where appropriate, a cultural assessment of sites before planning rehabilitation.
- Liaise with land owners bordering the WHA to focus attention on degraded lands adjacent to the WHA with a view to promoting their rehabilitation.

Research

- Trial and study rehabilitation techniques to find and improve methods suitable for use in the WHA.

Central Plateau

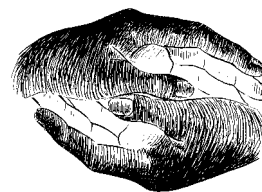
- Domestic stock grazing is not to be re-introduced in the Central Plateau.
- Exclude fire, except where specified in a fire management plan.
- Monitor the impacts of grazing by rabbits and native fauna on the revegetation of eroded areas.
- Reduce disturbance of lunettes, (lake shore dunes) and rehabilitate severely degraded areas.

MONITORING AND EVALUATION

- Develop a monitoring and evaluation program to assess the extent and effectiveness of rehabilitation efforts in the WHA. Provide annual reports on progress [KDO 4.7]
- Maintain a historic photo coverage of rehabilitated sites.
- Where feasible, monitor water quality and sediment flux both before and after rehabilitation works.
- Monitor large-scale degradation (eg Central Plateau, Southwest peatlands) through a variety of methods including trial plots, air photos and satellite photo interpretation as appropriate.

Central Plateau

- Fully re-assess the extent and severity of erosion (as mapped at 1:25,000) in 2015.
- Annually monitor erosion and revegetation at the four enclosure plots on the Central Plateau unless results suggest the monitoring program should be modified.
- Review the success of current rehabilitation work using artificial rehabilitation techniques to identify the most effective method of stabilising and rehabilitating eroded areas.



Scientific Research and Monitoring

BACKGROUND

Research within the WHA is essential to compile and update inventories of the conservation values and assets within the area as well as to understand natural processes and the impacts of management, development and use of the area on these values and processes.

Research activities may themselves cause degradation or be in conflict with other objectives of WHA management. For example, collection of samples can deplete the feature being studied or helicopter flights into wilderness areas to undertake inventory work can impact on visitor experience in these localities.

PREVIOUS MANAGEMENT

Research activities conducted by the Service have in the past been subject to approval through an internal Project Proposal process. This process allowed all relevant officers within the Service to examine proposals and alert proponents of a project if it may impact on the area's values. It also allowed conflicts between different objectives for an area to be resolved. At the time of writing this process is being revised (see New Proposals and Impact Assessment, Previous Management, page 68).

All research by individuals and organisations outside the Service has been subject to the issuing of scientific permits. Where substantive proposals were submitted these were also subject to the Project Proposal process. The permits were issued with conditions which protected against unnecessary disturbance and damage and were issued subject to the receipt of information generated by the research for use in management of the area.

Research into Aboriginal cultural heritage is subject to the provisions of the *Aboriginal Relics Act 1975*. Requirements and conditions are detailed in a Permit Application Form. A permit application is reviewed by Service staff, and by staff of the Tasmanian Aboriginal Land Council and is then subject to endorsement, or otherwise, by the committee of the Tasmanian Aboriginal Land Council on behalf of the Tasmanian Aboriginal community. A decision on the suitability of the research proposal is made by the Minister for National Parks and Wildlife.

OBJECTIVES

To undertake, support and encourage research and monitoring that:

- provides information which is relevant to understanding, interpreting and managing the WHA in relation to WHA management objectives, management prescriptions and the purposes for which the area has been set aside.
- does not threaten or put at risk the overarching objectives of the WHA Management Plan to protect, conserve, present and where necessary rehabilitate the World Heritage and other natural and cultural values of the WHA.

MANAGEMENT PRESCRIPTIONS

Prioritisation and Research Direction

- ✓ Give the highest priority to research and monitoring programs able to provide information on mitigating the impacts of human activities, developments, management practices and natural threats (in and adjacent to the WHA) on the World Heritage and other natural and cultural values of the WHA. [KDO 2.1]

- Give priority to conducting research that improves the inventory of World Heritage and other natural and cultural values of the WHA and that improves understanding of these values.
- Foster and conduct research into the inter-relationships and processes operating within ecosystems, especially processes that are relevant to management of the World Heritage and other natural and cultural values of the WHA.
- Annually review priorities for scientific research.
- Develop guidelines against which research can be assessed and prioritised.
- Monitor parameters that may reflect ecological changes, such as global warming ('the greenhouse effect') and examine possible modifications to management practices.
- ✓ Encourage, co-ordinate and facilitate cooperative research within and between agencies, institutions and individuals. [KDO 2.1]

Data Storage

- Maintain inventories of natural and cultural resources and threats on databases and update as new information is collected.
- Maintain a register of monitoring sites.

Research Constraints

- Where scientific research is likely to be in conflict with any of the plan objectives it will be subject to the New Proposals and Impact Assessment Process (page 66). See also Resolving Conflicts, page 46.
- Permit destructive research only where it makes a significant contribution to addressing timely and specific research questions and where it cannot be undertaken outside the WHA. Appropriate multi-disciplinary research must be undertaken where the broader scientific values of a site will be disturbed and provision must be made for the rehabilitation of disturbance.
- Airborne scientific investigations are to conform with the overflight prescriptions for the WHA (see Aircraft Activities, page 134);

permits may be issued for the landing of helicopters and float planes as part of approved research programs.

- Guidelines will continue to be prepared for the conduct of scientific research.
- Ethics committee approval from an approved organisation is required for research on vertebrate fauna.

Permits and Conditions

- The approval of both the Director of the Service and the Minister administering the *National Parks & Wildlife Act 1970* is required for the collection of specimens in State Reserves. The approval of the Director of the Service is required for the collection of specimens in Conservation Areas. For archaeological projects involving Aboriginal heritage, researchers must also obtain a permit under the *Aboriginal Relics Act 1975*.
- The permission of the Inland Fisheries Commission is also required for the collection of freshwater fauna.
- Permits may be issued subject to the above requirements and the following conditions:
 - Collecting material within the WHA is only permitted where it is not possible or appropriate to collect equivalent samples from outside the area and where information to be gained from the samples is relevant to management or approved scientific research. Collection of specimens of limited resources (eg rare and threatened species, cave specimens, etc) is particularly strictly controlled and minimised to protect values.
 - Provision is to be made for the appropriate conservation and curation of collected cultural material.
 - Unless otherwise directed by the Service, all collected specimens are to be lodged at a recognised institution within three years of collection and voucher specimens and at least part of each type series must be lodged at a Tasmanian institution and be available for examination and study by other scientists.
 - The Service must be notified of the institution or institutions where specimens have been lodged.

- The Service is to be provided with a report on research findings and publications arising from the research, including collections and collection localities and dates. This report will be given at a time and in a format nominated by the Service after the research has been carried out.

MONITORING AND EVALUATION

- Monitor the number of research projects within the WHA each year.
- Monitor the number of scientific collection permits issued for research work within the WHA.
- Monitor the number and quality of reports received as a requirement by collection permits within the WHA.
- Evaluate the relevance of research to management.

Chapter 6

Presentation

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BACKGROUND

Presentation is about providing information and showing people the WHA. It is one of the key requirements under the WHA convention. People need to be able to learn about, see and experience the area. The term presentation covers all aspects of visitor information, interpretation, recreation, visitor use and tourism. It's about how the WHA is made available to those who want to experience or learn about it.

The first part of this chapter looks at what is known of visitors to the WHA and how we inform, interpret and educate people about the WHA. The second part examines all the major recreational uses of the WHA and the infrastructure they use. The third part looks at integrating tourism use of the WHA.

Note that the Aboriginal community has flagged interest in a number of the recreations and activities listed in this chapter, including recreation opportunities, accommodation, aircraft activities, caving and karst management, fishing, hunting, hobbies and crafts, huts and shacks and special events. Policies and management actions for these activities will be progressed with the Aboriginal community as part of the partnership arrangement covered in the Aboriginal Management section (see page 100).

The section below covers material that spans a number of the sections that follow and that particularly aids in the achievement of the overarching objective below.

OBJECTIVE

- To assist people to appreciate and enjoy the WHA in ways that are compatible with the conservation of its natural and cultural values and that enrich visitor experience.

Note that this is also one of the overarching objectives for the WHA, objective 6. The Key Desired Outcomes for this Objective are located on page 37. These KDO's are noted against the relevant management prescriptions and monitoring and evaluation below.

MANAGEMENT PRESCRIPTIONS

- In assessing proposals for new activities or facilities, take into consideration the extent to which those proposals contribute to the

achievement of management objectives for the WHA. Give priority to proposals which further WHA management objectives and which provide recreation opportunities and facilities which are based on the special values of the WHA and which are not available elsewhere in the state.

- In general, provide for the continuation of pre-existing activities and practices within the WHA which are consistent with the achievement of management objectives for the area. Minimise the use of the WHA for activities that do not contribute to, or which are not consistent with, WHA management objectives.

Ecologically sustainable management of human use ✓ [KDO 6.1]

- Work with other relevant agencies to develop and implement a co-ordinated Recreation and Tourism Strategy for the WHA which optimises the diversity of quality opportunities for access to, and enjoyment of, the WHA for a wide range of visitors without compromising the achievement of WHA management objectives. (See Integration with Tourism, page 175 for details) [KDO 6.1 and 6.2]
- Based on best available information, and taking a precautionary approach to the management of potential adverse impacts, develop site plans, recreation plans and recreation policies for various destinations and activities within the WHA, which specify, amongst other things, appropriate visitor levels and/or limits of acceptable change for key parameters. (See also Visitor Facilities, page 169 and Recreation Opportunities, recreation policy development, page 131) [KDO 6.1]
- Monitor impacts of human use of the WHA and as necessary and in consultation with users, amend levels and/or types or areas of usage. [KDO 6.1]

Visitor Satisfaction and Quality of Experience ✓ [KDO6.2]

- Ensure that all services and arrangements for visitors to the WHA contribute to the quality of visitors' experience of the WHA. In particular, aim to ensure that Service staff, concessionaires and licensed tour and other

operators play a strong community relations role for the WHA and the Service, and assist visitors to appreciate and care for the WHA. [KDO 6.2 and 6.3]

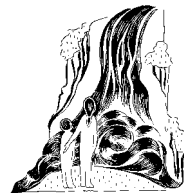
Caring for the WHA ✓ [KDO 6.3]

- Encourage and inform visitors how to minimise their environmental impact. [KDO 6.3]
- Provide enjoyable learning opportunities for visitors to enrich their experience and increase their understanding and appreciation of the WHA and its values, together with management issues. [KDO 6.3]

MONITORING AND EVALUATION ⚖️ [KDO'S 6.1 TO 6.3]

- Establish ongoing programs to record and monitor the levels of use of visitor opportunities and facilities within and/or servicing the WHA. [KDO 6.1]
- Monitor the level of satisfaction of a range of visitor types (including local community residents) with:
 - the number, type, and location of visitor opportunities and facilities within and/or servicing the WHA;
 - the quality of their experience in the WHA;
 - the operations and services provided by the Service, licensed tour operators, and concessionaires within the WHA;
 - information, interpretation and education programs, activities, brochures, signage, information etc in various settings. [KDO 6.2]
- Collate and monitor the nature and level of visitor comments and feedback at Visitor Services Sites and Zones, and other locations within the WHA. [KDO 6.2]
- Document and monitor levels and trends of visitation, recreational activity and other use to and within the WHA. [KDO 6.2]
- Monitor the level of compliance/non-compliance of visitors and other users with regulations (eg fuel stove only areas), minimal impact practices and other promoted management protocols such as *Phytophthora* washdown stations. [KDO 6.3]

VISITOR PROFILE AND COMMUNICATION



Visitor Profile and Research

BACKGROUND

The WHA is a lynchpin of the Tasmanian tourism industry. In 1995–96 the WHA was visited by two out of five interstate and overseas visitors to the State. The proportion visiting the WHA varies according to which market segment is being considered; in fact two thirds of the sightseeing and touring segment visit at least one site within the WHA. Comparable information is not available on Tasmanian visitors to the WHA since they are not covered by any routine survey equivalent to the Tasmanian Visitor Survey.

Qualitative research²⁰ conducted amongst Tasmania's top three market segments in Adelaide, Brisbane, Sydney and Melbourne identified, for those who have travelled to Tasmania, that the purity of the air, water and natural environment were important strengths which differentiated this State from other Australian States. Furthermore, these people did not expect, and were pleasantly surprised by, the extent and diversity of the beauty of Tasmania. Even for those people who had never visited the State, three of the four symbols by which they identified Tasmania were WHA-related: Cradle Mountain, the Gordon and Franklin Rivers and the rainforests. Clearly, Tasmania's special qualities are embodied by the WHA.

²⁰ *The Leading Edge*, Sydney, for the Department of Tourism, Sport and Recreation, November/December, 1994.

The number of person entries²¹ ('visits') to the WHA are likely to continue to be predominantly day-based, serial, first-time, and largely confined to those hours which allow for travel to and from accommodation centres. Requirements are likely to be for easy and direct access to points of interest in the immediate vicinity of visitor service centres.²² Thus, in catering for the majority of visitors, the emphasis will remain on the provision of day-use infrastructure in the Visitor Services Zones and Sites.

Visitor Numbers

Since 1992 there have been a little over half a million visits to the WHA annually. This does not include Lyell Highway through traffic as a substantial amount of this is commuter traffic between Hobart and the West Coast. Likewise, through traffic on the Lake Highway is not included. Considering only deliberate visits, Cradle Valley is the most popular site, followed by the Gordon River. The number of visits to a cross section of areas within the WHA are outlined below.

Cradle Valley

The number of visits to Cradle Valley, which increased from 80,000 in 1987–88 to 145,000 in 1990–91, has stabilised in the vicinity of 170,000 visits per year.

Gordon River

The number of interstate and overseas visitors estimated by the Tasmanian Visitor Survey to have visited the Gordon River has peaked in the past couple of years at just over 100,000. These visits are made either by cruise boat or float plane. The number of Tasmanians visiting the river by these means is not known, but is considered to be small in comparison.

Lake St Clair

The number of visits per year from 1993–94 to 1996–97 to this site is in the vicinity of 90–100,000. Lake St Clair was busiest in terms of numbers of visits in the late 1970s (120–130,000 visits per annum) as a response to the sealing of the Lyell Highway and the approach road to Cynthia Bay.

Southwest National Park (Maydena)

Maydena Gate is the access point to features such as the Gordon River Road, Lake Pedder, Mt Anne and the Arthur Range in the northern part of the Southwest National Park. There are approximately 40,000 visits through this gate yearly; this is approximately half of what occurred in the late 1970s. Numbers through the Gate have been stable in recent times and represent a slight recovery since 1993–94.

Lyell Highway Attractions

A series of short walks of varying grades is in place along the Lyell Highway between Queenstown and Derwent Bridge. The Donaghys Hill walk is enjoyed by 5,000–10,000 people a year, while the Franklin-Surprise nature walk, which was opened in 1994 attracts approximately 15,000 visitors a year. The most popular of these short walks is the Nelson Falls walk which lies just outside the WHA boundary and attracts 22,000 per year.

Trends

The number of visits received by the showcase WHA parks such as Cradle Mountain–Lake St Clair and Franklin–Gordon Wild Rivers is related (particularly in the late 1980s and early 1990s), to the number of interstate and overseas holiday makers arriving in the State. However, while the estimated number of visitors to the State has increased over the past few years, the numbers of visits to Cradle and the Gordon River has reached a plateau. Indeed, there have not been any significant increases in any of the larger WHA Visitor Services Zones and Sites, for which monitoring has been in place, over the past few years.

Tourism Tasmania, in association with the tourism industry, aims to double tourism expenditure over the next 10 years and achieve a minimum of 23,000 jobs for Tasmanians (see footnote ², page 25) in the tourism and related employment areas. If these targets are achieved, a substantial increase in visitors to the WHA would occur.

21 Derived from the number and occupancy of visitor vehicles entering a site as estimated from a combination of counts by fee collection staff and automatic traffic counters. A visit occurs whenever a visitor enters the WHA for any purpose (ie passes a booth, crosses a traffic counter). It follows that a visitor may make more than one visit to the area during their stay particularly if they are accommodated in an establishment on the periphery of the area.

22 This is a summarised version of material by Carlington B.G., 1988 *Franklin River Rafters and Other Western Tasmanian Wilderness Users: Their Characteristics, Experiences and Attitudes as Inputs to Management*. PhD Thesis, University of Tasmania.



The Service and Tourism Tasmania are working together to get the best available data on trends in visitor numbers. However projections more than a few years in advance need to be interpreted with caution as it is difficult to accurately forecast visitor numbers.

What is apparent, however, is that Tasmania retains its 'competitive edge' in terms of nature-based tourism and that the demand for all that the WHA can offer will not decrease. The real challenge lies in both accommodating and tailoring demand to fit with the requirement to protect and conserve the World Heritage and other natural and cultural values of the WHA.

Quality of Visitor Experience

It is an objective of this plan to assist people to appreciate and enjoy the WHA in ways that are compatible with the conservation of its natural and cultural heritage, and that enrich visitor experience. While major dissatisfaction soon becomes apparent in the form of, for example, complaints to Ranger staff, it is much harder to assess the general level of satisfaction of users.

WHA visitors cover a broad spectrum of interests and backgrounds, from car-based tourists to people on extended remote area expeditions. This can lead to some conflict of interest; factors which enhance the quality of one visitor's experience can detract from that of another. For example, the scenic flight which enables one visitor to view some of the more remote parts of the wilderness can be an intrusion into the experience of a user on the ground who has walked for three days to get there. Finding the right balance here is the task of management and data on the views of the full range of users provides an important basis for getting the balance right.

The experience of the vast majority of WHA visitors does not extend beyond Dove Lake or the Lyell Highway. It is in showpiece areas such as these that the Service has concentrated its efforts in recent years. The need is to provide enough infrastructure to enable visitors to reach the area and enjoy it but not so much that it intrudes on their experience or compromises the values of the WHA. For example, the appropriate number and standard of walking tracks and level and amount of interpretation is greatly aided by studies of visitor satisfaction.

Another major factor influencing visitor satisfaction is the number of other visitors. The number which constitutes overcrowding varies widely according to both the affected individual and the location — the numbers appropriate in a remote wilderness setting will be much lower than those in a major visitor node. The provision of additional facilities to cater for larger numbers may also detract from either the visitor experience or the values of the WHA, or both. In these cases, the Service needs accurate data on visitors' views of their experience prior to and following the introduction of measures to control overcrowding and in order to maintain the optimum visitor experience.

PREVIOUS MANAGEMENT

Visitor Numbers

Information on the number of people visiting particular park centres and using the more popular walking tracks and the Franklin River is collected on an ongoing basis. Permits required to enter selected caves and for hunting are also a means of collecting visitor information.

Since 1992, the ongoing collection of visitor numbers to major centres has been made more extensive and systematic. The major change in data collection has been the introduction of park fees. Fee collection booths have reduced reliance on automatic traffic counters at the major sites with a corresponding increase in the accuracy of the data collected.

More effort has also gone into the collection of data on bushwalker numbers, particularly in areas where environmental problems are apparent. This has involved increased provision of logbooks and increased effort in analysing the data from them. Pedestrian counters have been trialed in some places.

Most effort in terms of visitor monitoring is focussed in the Visitor Services Zones and Sites where information gathering is most cost-effective. This means that there are sites and user groups within the WHA for which numbers and characteristics are poorly known and for which the cost and impracticality of collecting that information dictates that the information base will remain incomplete.

The Tasmanian Visitor Survey (routinely conducted by Tourism Tasmania) surveys departing overseas and interstate visitors and is a major source of both qualitative and quantitative data.

User and General Population Surveys

A wide range of surveys of users and the general community relevant to WHA management have been conducted in recent years in both the road-accessible and non road-accessible areas. As well as supplying qualitative information these studies also provide more detailed quantitative information on users which is not otherwise available. These studies have included:

General

- A telephone survey of the perception of the broader Tasmanian community on their knowledge of the WHA and their perception of World Heritage significance and values. This provides baseline data for monitoring community attitudes to the WHA.
- A survey of 400 WHA users (200 'front country' and 200 'back country'), based on face to face interviews, to probe their knowledge of and opinions on the WHA. This provides baseline data for monitoring WHA user attitudes to the WHA.
- Phone and interview based surveys on the attitudes of users of the WHA (front country and back country) and the Tasmanian community to wilderness. This forms baseline data for monitoring community and user attitudes towards wilderness.

Road-Accessible Areas

- Visitor surveys undertaken as part of the preparation of Site Plans. Since 1992 these have included Melaleuca, Cockle Creek, Mt Field, Liffey Falls and the Gordon River-Sarah Island area. The surveys were used to assess visitor views and expectations so they could be taken into consideration in developing plans for proposed facilities and recreation opportunities.
- User fees survey and telephone poll, to assess opinion on the user fees system.
- Summer Ranger Program surveys. These are used to improve the quality of the summer ranger program. Some of the survey forms provide feedback to summer rangers on presentations they have given; others

examine how the interpretation needs of visitors to the WHA can be better met by the program.

Non Road-Accessible Areas

- Wild Area User Surveys. This survey was originally used to assess the effectiveness of the Minimal Impact Bushwalking campaign but has been broadened to gauge the feelings of bushwalkers and other back country users on management issues in this area.
- Focus groups conducted amongst local and interstate walkers to explore attitudes to walker regulation in the WHA. These have been used in developing the Walking Track Management Strategy.

OBJECTIVES

- To more fully understand the numbers, distribution, needs and motivations of the full range of visitors to the WHA in order to improve the quality of visitor experience.
- To monitor, evaluate and, as necessary, respond to changes in visitor demand.

MANAGEMENT PRESCRIPTIONS

Note that many of the management prescriptions that give effect to the results of the research prescribed here are included in other sections of the plan, principally Visitor Facilities (page 169); Recreation Opportunities (page 129); Walking and Walking Tracks (page 172), Information, Interpretation and Education (page 125), Commercial Tourism Operations (page 175) and Wilderness (page 91).

- ✓ Continue to develop an integrated visitor research and monitoring strategy. Integrate with research undertaken by Tourism Tasmania, Forestry Tasmania and other relevant Government agencies. [KDO 6.2]
- Continue to monitor visitor numbers at major park centres and more specific locations as required for management purposes. In particular monitor significant growth in numbers and assess the effects of this on the values of the area and the experience offered to visitors.
- Conduct targeted qualitative and quantitative research on visitors as required.

- Continue to provide information of defined precision, specificity and cost for specifically defined management problems.

MONITORING AND EVALUATION

- Evaluate the degree to which studies of visitors (both qualitative and quantitative) assist in achieving management objectives. Involve other stakeholders as appropriate.



Information, Interpretation and Education

BACKGROUND

Interpretation, education and information are the means by which the values of the WHA are presented to people, with the aim of increasing their awareness, understanding and appreciation of the area. Interpretation also helps to enrich the experience of visitors but at the same time it aims to influence visitor behaviour by presenting a conservation message.

Information is necessary to help people choose where, when and how to visit the WHA, as well as indicating what recreational and educational opportunities exist and specifying relevant regulations. Through the use of media such as television, the internet, newspapers and magazines, the existence of the WHA, its natural and cultural values and its significance, are presented and promoted to local, interstate and international audiences.

Formal educational materials, programs and campaigns are also needed to promote targeted management messages. These include the minimal impact bushwalking campaign, the 'keep wildlife wild' policy, the need to integrate WHA-related issues into school curricula and other areas of specific interest.

Interpretation is important to inspire both visitors and the local community about the values of the

WHA. Such interpretation aims to provide insight and enhance visitor understanding, appreciation and affinity with the WHA. A variety of interpretive techniques, including the use of original objects, illustrative media and first-hand experience, are used to achieve these ends.

Interpretation and education services for the WHA need to be distinctive and of high quality. In this management plan there is also an increasing emphasis on developing interpretation with local communities, including the Tasmanian Aboriginal community.

PREVIOUS MANAGEMENT

During the period of the 1992 plan there was an increase in the number of high quality displays and signs produced for the WHA. The evaluation and ongoing maintenance of these facilities is important if we are to maintain the high standard of interpretation set to date.

Some of the major projects implemented during the 1992 plan period include the completion of the Strahan visitor centre and the development of the Lake St Clair visitor centre; an Aboriginal Interpretation Strategy for the World Heritage Area (developed by the Aboriginal community); an interpretive guide for the Overland Track; continuation of the summer interpretation and track ranger program; an interpretation training course for tour operators; an audio-cassette for the Gordon River Road and interpretation at the Orange-Bellied Parrot bird hide, Melaleuca.

Interpretive signs and displays were produced for Pine Lake, King William Saddle, Franklin River, Donaghys Hill, Cockle Creek and Sarah Island. Colour brochures were produced for the Franklin-Gordon Wild Rivers National Park, Southwest National Park (via Maydena) and Sarah Island; and a number of posters highlighting the values of the World Heritage Area were produced.

A WHA world wide web site has been established on the internet (for address see page 53). This allows people to take a 'virtual visit' to the WHA. They can find out where the WHA is, learn about the area's unique features and link to other world heritage sites around the world. In the future the site will act as a jump off point for web published information produced by the Service, including this management plan.

A staff journalist was employed to liaise with the media, assist in the identification and production of

stories of interest and to present these in such a way that coverage was maximised. The WHA has since been featured in various media at State, national and international levels.

OBJECTIVES

- To inform and inspire the community at large about the significance and values of the WHA.
 - To assist visitors to obtain the greatest possible benefit and enjoyment from their visit and to help them gain an understanding and appreciation of the WHA and its natural and cultural significance.
 - To promote public understanding of management policies and programs and of the principles and benefits of conservation in general, in order to encourage careful and sensitive use of the WHA, particularly emphasising the concept of minimal impact activities.
 - To encourage appropriate use of the WHA as a teaching and learning resource.
 - To provide information and raise public awareness of WHA-related issues and to publicise upcoming events and significant happenings through promotion in various media.
 - To foster local community involvement and support for the WHA.
 - To empower Aboriginal people to achieve Aboriginal interpretation of the WHA.
 - To maintain the high standard of interpretation, education and information currently presented in the WHA.
 - To increase public awareness of safety issues in natural areas.
- maintenance schedule for existing interpretation;
 - an educational extension strategy to incorporate programs for schools, off-site interpretation, special education programs and special events and
 - an evaluation plan for targeted sites and programs. [KDO 5.2]
- Prepare interpretive action plans for Cradle Mountain, Lake St Clair, the Lyell Highway, Strahan (Macquarie Harbour), Melaleuca, Cockle Creek, Hartz, the Central Plateau, Southwest (via Maydena) and Mole Creek.
 - Investigate the development of a karst interpretation centre at Marakoopa Cave detailing the geology, geomorphology and ecology of the site.
 - Develop a publication and distribution strategy for both saleable and non-saleable items.
 - Develop educational programs for schools, off-site interpretation, special education programs and special events.
 - Develop guidelines for interpretive signs to ensure a uniformly high standard of presentation to visitors.
 - Negotiate and implement the Aboriginal interpretation strategy for the WHA. (For reference see footnote¹¹, page 95.)

Interpretive and Educational, Materials and Programs

- Emphasise the World Heritage and other natural and cultural values of the WHA, in particular the area's world heritage values, in interpretive and educational materials and programs.
- Use media and styles of interpretation appropriate to each management zone. On-site interpretation and information will not be provided in Wilderness or Self-Reliant Recreation Zones, and will be restricted to existing structures (eg huts) in Recreation Zones.
- Interpretation of cultural sites is to conform to the ICOMOS Burra Charter and site conservation plans (see Cultural Heritage, page 95).
- Design interpretive materials for each major

MANAGEMENT PRESCRIPTIONS ✓ [KDO'S 1.6, 5.1 AND 5.2]

Planning

- ✓ Update the WHA Interpretation Strategy and add an education component to provide:
 - overall direction and coordination of themes and approaches for major interpretive developments;
 - an inventory of interpretation, and a

tourist venue in the WHA to meet the pre-visit, on-site and take-home needs of visitors.

- ✓ Expand and enhance the WHA internet site to include additional information and educational material and links to databases and other material published by the Service. See also Key Focus Area 9 — Taking the WHA to the world, page 53. [KDO's 5.1 and 5.2]
- Investigate and, where appropriate, develop materials for developing new technologies, such as CD ROM and DVD.
- Monitor, evaluate and, as appropriate, change WHA interpretation at Strahan, Cradle Mountain, Lake St Clair and Geeveston visitor centres.
- Provide visitor information and orientation at all main access points to the WHA, and other strategic tourist locations, including arrival points.
- Continue to develop off-site interpretation of WHA values, in the form of displays, booklets and posters.
- Continue to produce feature articles for publications and pursue opportunities for furthering the objectives of WHA management through newspapers, radio and television coverage.
- Discourage the publication of information (eg in books, magazines and maps) which is likely to create unacceptable environmental or social impacts. See also Walking Track Management Strategy, page 172.
- Continue to employ temporary seasonal interpretation staff at major centres and on the main walking tracks during peak visitor seasons to assist in personal contact programs. Design these to complement other interpretive programs, promote world heritage values and to help solve management problems. The possibility of expanding the program will be investigated.
- Develop educational resources, such as a WHA slide kit and audiovisual for field staff, schools, summer rangers and community groups.
- ✓ Develop and implement targeted strategies to foster in the community (and in particular

in young people) a strong interest in, and growing understanding of, the principles of conservation management as they apply in the WHA. [KDO 1.6]

- Provide for, or update, interpretive material in major public use huts within the WHA (in particular those along the Overland Track).

Educational Programs

- ✓ Encourage and facilitate appropriate use of the WHA as a teaching and learning resource, and assist the development of teaching resources for schools, universities and other educational institutions. [KDO's 5.1 and 5.2]
- Develop curriculum materials relevant to the WHA in consultation with the Department of Education.
- Develop guidelines for teachers and group leaders using the WHA in collaboration with relevant educational authorities.
- Encourage student groups to visit and use the WHA, within management guidelines.
- Encourage outdoor education programs which entail minimal environmental impact.

Promotion through the media

- ✓ As far as possible, encourage and facilitate the use of the media to inform and inspire the local, national and international community about the existence, significance and values of the WHA, and in particular, to assist in fostering:
 - a sense of custodianship in the Tasmanian community for the WHA;
 - understanding and appreciation of the World Heritage and other natural and cultural values of the WHA;
 - understanding of management issues (particularly human threats and impacts) and support for appropriate management measures and
 - understanding of the principles and value of conservation, in particular World Heritage concepts and management obligations. [KDO 5.1]
- Develop a media strategy to facilitate the coordination of media coverage of the WHA.

- Maintain and expand a photo and resource library of material related to the WHA.
- Maintain a record of media coverage of the WHA.
- Produce articles and foster and coordinate television coverage relating to the WHA.
- Promote, through the media, activities and special interest features related to the WHA.

Links with Tourism and Local Communities

- Further develop links with local communities, tourism and other government agencies to enable effective coordination of resources including the distribution of pre-visit material.
- Pending implementation of the Aboriginal interpretation strategy, conduct interpretation of Aboriginal heritage in accordance with agreed mechanisms outlined in that strategy. (For reference see footnote¹¹, page 95.)
- Evaluate and if necessary update the Gordon River Tour Operator manual when appropriate. Investigate development of Tour Operator notesheets for Melaleuca, Cradle Mountain–Lake St Clair and other relevant areas.
- Develop co-operative arrangements with concessionaires and guided tour operators to deliver high quality interpretation as a standard part of their operations. (See also Concessions, page 177.)
- The Service will liaise with Tourism Tasmania, Sport and Recreation and other relevant organisations to coordinate its media strategy for WHA promotion.
- Encourage and assist organisers of community festivals, events, exhibitions etc to incorporate themes related to the World Heritage Area.
- ✓ Seek opportunities to raise community understanding of WHA management issues, scientific research projects and their results, as well as on-ground management projects through field days, displays, and media coverage targeted to local communities, stakeholders and others. [KDO 5.1]

Training

- Provide appropriate interpretive training for the Service's head office staff, field staff, information officers, cave guides and commercial operators.
- Monitor, and participate in, interpretation for the tourist industry.

Safety

- Review and if necessary improve interpretation, education and information programs on visitor safety.

MONITORING AND EVALUATION

General 🗨️ [KDO's 5.1 and 5.2]

- Periodically monitor community and visitor attitudes to determine the level of:
 - awareness of the concept of World Heritage (eg do they know why the area has been World Heritage listed?);
 - understanding of the World Heritage and other natural and cultural values of the WHA;
 - awareness of the management issues the area faces (particularly human threats and impacts);
 - support for the WHA;
 - support for the Service and its work in managing the WHA. [KDO's 1.8 and 5.1]
- Monitor the level of media coverage and nature of messages related to the WHA and its values, management issues, and the Service. [KDO 5.1]
- Evaluate the popularity and effectiveness of a range of different approaches to interpretation, education and communication across a range of audiences (both on-site and off-site) eg publications, displays, activities, special events, various media, web sites, seminars, etc. Concentrate on the further development and use of successful models. [KDO 5.2]

Specific monitoring and evaluation relevant to the Information, Interpretation and Education Objectives.

Inform and Inspire

- Monitor surveys elsewhere (eg Wet Tropics World Heritage Area management Authority and others).

- Monitor use of the WHA Web pages.

Visitor Enjoyment, Understanding and Appreciation

- Monitor visitor response cards.
- Monitor and evaluate interpretive elements at major visitor centres.
- Monitor the number of people at, and feedback from, WHA related talks, events and the summer ranger program.

Promote Management Policies and Programs

- Monitor and assess compliance with conservation based codes of practice eg minimal impact bushwalking, fuel stove only policy, keep wildlife wild.

Use of the WHA for Teaching and Learning

- Monitor the extent and effectiveness of educational programs directed towards schools.

Promotion through the Media

- Monitor the portrayal and public perception of the WHA as conveyed through the media.
- Maintain a registrar of WHA-related events for publicity through the media.

Foster Community Involvement and Support.

- Monitor levels of vandalism.
- Monitor the number of projects involving local communities.
- Monitor the effectiveness of mechanisms for community involvement, consultation and collaboration. (see also Community Engagement, monitoring and evaluation, page 65)

Maintain the Standard of Materials and Programs

- Maintain an inventory of WHA related interpretive material.
- Monitor the number of damaged, out of date interpretive materials.
- Monitor the percentage of rangers, cave guides, tour operators who have done interpretation training.

Increase Visitor Safety

- Monitor the degree to which safety issues are addressed in interpretive materials.

VISITOR ACTIVITIES AND INFRASTRUCTURE

The section below covers both visitor activities in the WHA and infrastructure supporting these activities. Apart from the first section on Recreation Opportunities it is arranged alphabetically to aid in locating particular sections quickly.

The sections which include major infrastructure components are: huts and shacks; camping; picnicking; plaques and memorials; roads and sightseeing; vehicle tracks and recreational driving; walking tracks and walking; visitor facilities and accommodation. Most other activities do not require infrastructure.



Recreation Opportunities

BACKGROUND

The WHA provides opportunities for a wide range of recreation pursuits. Although the majority of visitors to the area are on day trips undertaking activities such as sightseeing, picnicking and short walks, the region is widely recognised as a focus for remote area recreation. The extensive tracts of high quality wilderness in the region set it apart from most other natural areas. Walking, rafting, canoeing, fishing, skiing, caving, climbing, and in particular areas, boating, horse riding and hunting may all be undertaken in a natural setting. The region provides people with the chance to experience solitude, challenge, independence, tranquillity and closeness to nature.

High standard roads provide ready access to a variety of different environments. Existing tourist facilities are located at centres such as Cradle Valley and Lake St Clair and along the major roads in the region. There is ample opportunity for people to undertake a range of recreation

activities within only a short distance of vehicular access. Walking tracks which range from short, wheelchair-standard nature walks to demanding, multi-day treks provide a range of opportunities for visitors to appreciate the region's wild beauty. Scenic flights provide many people with a chance to view remote areas with minimal effort.

The major challenge in managing recreation opportunities is to maintain a spectrum of opportunities ranging from those that are more developed and in accessible locations to those that are undeveloped in remote areas. For the foreseeable future it is expected that the majority of visitors will continue to focus on recreational opportunities such as short walks, visitor centres and picnic areas. Consequently a priority for management is to provide facilities appropriate for these activities.

The ongoing demand for outdoor recreation means that there may be demand for new facilities in previously undeveloped areas. If such demands are progressively met, a time may come when wilderness quality is so diminished that this special characteristic of the WHA is no longer available for visitors. Therefore, whilst further opportunities may need to be provided for people to experience the area, these should be in keeping with the management objective to maintain and enhance wilderness quality. In some cases, the provision of facilities (such as walking tracks) may be better undertaken outside the WHA, particularly where they can be located in less fragile areas and where they provide a different recreational experience. Such opportunities will be explored in a Statewide context using mechanisms such as the Statewide Walking Track Strategy (see Walking and Walking Tracks, page 174).

PREVIOUS MANAGEMENT

Recent management has concentrated on improving the quality and range of recreation opportunities at the main visitor access points; for example, the construction of the Lake St Clair visitor centre, the completion of the Dove Lake loop track and the Franklin River nature walk. In more remote areas, work on walking tracks has been mainly for the mitigation of environmental damage. The Walking Track Management Strategy is being implemented to better coordinate all track-related management activities (see Walking and Walking Tracks, page 172).

OBJECTIVES

The following objectives apply generally to all recreation activities and infrastructure covered in the Visitor Activities and Infrastructure section.

- To maintain or provide opportunities for a range of recreation activities consistent with the management plan's objectives and in accordance with the zoning scheme.
- To maintain opportunities for self-reliant recreation and ensure that the range of recreation opportunities available in the WHA does not diminish over time (unless research shows damage to values resulting from an activity).
- To develop new recreational opportunities where appropriate, while minimising impacts on the World Heritage and other natural and cultural values of the WHA, on wilderness quality and on the experience of other users.
- To promote safe and minimal impact recreation practices.
- To separate non-compatible uses, visitor types and recreational opportunities.
- To manage visitor activities and infrastructure to provide a quality experience for users.

MANAGEMENT PRESCRIPTIONS

Provision of Recreation Opportunities

- Provide for recreation opportunities that are based on the special features of the WHA and take account of opportunities not available elsewhere in the State.
- Promote recreation opportunities which help visitors to understand and appreciate the values and management aims for the area.
- Locate recreational activities to minimise environmental damage and conflict between participants in different activities.
- Provide disabled access facilities at appropriate sites throughout the WHA. Record appropriate sites as part of the Recreation and Tourism Strategy (see page 120).

Maintaining Recreation Opportunities

- ✓ Undertake site protection measures and/or regulate visitor numbers and behaviour where World Heritage and other natural and cultural values of the WHA are threatened or in order to retain a range of recreation opportunities. [KDO 6.1]
- Direct recreational use through appropriate marketing and management.
- Use interpretation and the provision of information as the preferred methods for avoiding inappropriate recreation activities; however, enforce the provisions of the *National Parks and Reserves Regulations 1971*.
- Foster realistic visitor expectations by informing potential visitors of the recreation opportunities and experiences available in the area.

Recreation Policy Development

- Liaise with other public land managers, recreational groups, other users, tourism interests and the Office of Sport and Recreation to map the areas of interest for particular recreational opportunities in the WHA and identify their present and potential future requirements. (See also 'Areas of Community Interest' in Established practices, page 105)

Assess these requirements against their current areas of use, the zoning system and the impacts of these activities on the values of the WHA. Identify where these requirements overlap and where there are areas of recreational conflict.

- ✓ Develop and implement policies, in consultation with user and community groups, that minimise impact on the values of the WHA, minimise recreational conflict and maximise provision of appropriate recreational opportunities. Record policies in the Recreation and Tourism Strategy (see page 120). [KDO 6.1]
- Integrate recreational opportunities, where appropriate with other Statewide initiatives (such as the Statewide Walking Track Strategy).
- Consult with other agencies, as appropriate, regarding activities that occur within the WHA but also involve other tenures of land surrounding the WHA.

Working with Recreational Users of the WHA

- As far as possible develop and maintain good working relations with recreational groups, encourage their role as contributors of valuable information and as a means of encouraging self-regulation by users.
- Modify recreation management policies as necessary and in consultation with users as demands for particular recreation activities change or as additional information upon which decisions are based is obtained.
- Support the development and promotion of outdoor leadership training.

MONITORING AND EVALUATION

- 🔍 Identify and monitor indicators by which changes to recreation opportunities can be measured over time and establish standards to be maintained to protect both environmental quality and recreation opportunities. [KDO 6.1]
- 🔍 Identify, map and monitor sensitive areas vulnerable to degradation from recreational activities. [KDO 3.1]
- Ensure that impacts on the World Heritage and other natural and cultural values of the WHA caused by recreational activities do not exceed identified standards. Any standards proposed for Aboriginal values are only to be those standards supported by the Tasmanian Aboriginal community.
- Monitor the number and nature of management responses to visitor suggestions and complaints.



Accommodation

BACKGROUND

Most accommodation servicing the WHA is provided in areas adjacent to the WHA (such as at Pencil Pine on the way to Cradle Mountain) or in surrounding town centres.

Accommodation within the WHA is provided by cabins at Waldheim (Cradle Valley) and Cynthia Bay (Lake St Clair). These cabins are operated either by the Service as a business enterprise or by concessionaires licensed by the Service. The cabins vary in size and can accommodate between four and 32 people each.

A range of huts and shelters are located along popular walking tracks and provide accommodation. Management prescriptions for these are covered under the Huts and Shacks section (see page 153).

Much of the experience sought by visitors to the WHA and marketed by the tourism industry is based on the area's wilderness quality. To maintain this it is important that accommodation has minimal impact on wilderness quality and the World Heritage and other natural and cultural values of the WHA.

The 1992 plan addressed this issue by allowing for development within Visitor Services Zones and Sites only and locating these on the major access points to the WHA. This approach is continued in this plan with the preferred approach being to have accommodation on the edges of the WHA or in adjacent townships close to established infrastructure.

The specific policies and management actions for accommodation and other facilities in Visitor Services Zones and Sites are detailed in site plans. These are subsidiary plans to this management plan and are required to conform with this plan.

PREVIOUS MANAGEMENT

Since 1992, the basic cabins at Cynthia Bay have been largely replaced with two new cabin structures (comprising three accommodation units each) and the bunkhouse has been rebuilt. Ministerial Council has given approval for the construction of another four cabin structures (each comprising of three accommodation units) with the total maximum accommodation being no greater than 72 people per night (as specified by the December 1993 site plan).

A wilderness lodge development at Pump House Point, Lake St Clair has been given approval by Ministerial Council. The development as outlined in the Pump House Point Site Plan 1996 makes provision to construct up to 48 one and two bedroom accommodation units; includes the existing Pump House building; the existing HEC

substation building (re-developed into a reception, restaurant and administrative centre); a new boat house; new central services building; new manager's residence; public amenities and car park for anglers at the south eastern end of the site. It is proposed the development be constructed and operated by concessionaires who have a long-term lease to occupy the site and a long-term licence. Construction has not yet commenced.

OBJECTIVES

See also general objectives (Recreation Opportunities Objectives, page 130)

- To encourage the provision of accommodation in nearby townships and areas adjacent to the WHA.
- To provide accommodation in accordance with the zoning scheme, environmental and other management considerations within the WHA.

MANAGEMENT PRESCRIPTIONS

See also Recreation Opportunities management prescriptions, page 130, Visitor Services Zones and Sites, page 59 and New Proposals and Impact Assessment Process, Page 66.

- Encourage accommodation to service the WHA, with preference being given to locations on main access roads leading to the WHA and/or areas adjacent to the WHA.
- Within the WHA, permit park accommodation of suitable design and scale only in the Recreation Zone and Visitor Services Zones and Sites.
- Within Visitor Services Zones and Sites accommodation is to be in keeping with this management plan and the site plan for the particular location. Any new proposals for accommodation are to follow the procedures set out in the New Proposals and Impact Assessment Process (see page 66).
- Further accommodation within the WHA must be in accord with the zoning scheme (see page 54 and map 3, page 216) and follow the procedures set out in the New Proposals and Impact Assessment Process (see page 66).
- Continue to provide cabin accommodation within the WHA at Waldheim and Cynthia

Bay in line with the following conditions:

- The number of cabins at Waldheim will remain the same.
- The number and layout of cabins at Cynthia Bay will be determined in accordance with a detailed site design and will be located within the cabin accommodation and campground area as specified in the Cynthia Bay Site Plan. The detailed site design will ensure that provision is made for the equitable use of the site area (including adequate provision for the full range of accommodation including camping, caravanning, low cost cabin and high quality cabin accommodation).
- The number and layout of cabins at Pump House Point will be in accordance with the Pump House Point Site Plan.

MONITORING AND EVALUATION

- Assess the level and type of public accommodation supported by users of the WHA. Include assessment of this in the development of the Recreation and Tourism Strategy.
- Monitor the level of use and satisfaction of visitors with accommodation facilities servicing the WHA.



Aircraft Activities

BACKGROUND

Overflights

Recreational flights in fixed wing aircraft are undertaken over the WHA by both private and commercial operators. Air access provides people with an opportunity to view the WHA with virtually no physical environmental impact, apart from that of noise, and in the case of float planes, wash from their wake. It is also a way for disabled

and elderly people to view the wilderness.

Popular scenic flight attractions include Cradle Mountain, the Arthur Ranges, Mt Anne, Port Davey, the Franklin River, Frenchmans Cap and the South Coast. Recreational flights are also commonly conducted across the WHA in order to transport bushwalkers to or from Melaleuca and to transfer rafters from the Lower Gordon River to Strahan or Hobart.

The most impressive scenic flight attractions are also often the most popular destinations for on-ground visitors. This situation can lead to conflicts arising from visitors' differing expectations and requirements. Bushwalkers, anglers and rafters sometimes feel that their experience of peace and solitude in remote natural areas is compromised by the noise and sight of aircraft, especially if their solitude has been a hard-earned experience. Many visitors to Recreation and Visitor Services Zones (such as Cradle Mountain) do not expect their viewfield or tranquillity to be interrupted by low flying aircraft. Overflying aircraft also has the potential to disturb wildlife.

Landings

The use of aircraft to gain access to remote parts of the WHA is generally incompatible with the recreation experiences sought by on-ground visitors to such areas. For this reason, as well as concern to avoid vegetation disturbance, track formation and disease introduction in remote areas, helicopter landings within the WHA are strictly controlled.

Landing strips for light aircraft are located at Melaleuca, Moores Valley (south of Birchs Inlet) near Cradle Valley and at the townships of Strahan and Queenstown.

Float plane operators fly out of Strahan and are licensed by the Service to land at localities on the Gordon River and Macquarie Harbour. Permits issued by the Director under the *National Parks and Reserves Regulations 1971* to land helicopters and float planes, or licences granted by the Minister under the *National Parks and Wildlife Act 1970*, are only issued when the purpose is considered to be consistent with the management objectives for the WHA.

PREVIOUS MANAGEMENT

Surveys by the Service during the life of the previous plan have shown that there remains public concern about aircraft activity intruding on visitors' experience in the WHA.

In 1996 the Service introduced conditions into operator licenses requiring aerial operators to follow agreed flight heights and routes. There is scope within the *National Parks and Wildlife Act 1970* under the licensing provisions to draw up contracts covering aircraft flight behaviour where a proponent proposes to land on reserved land.

Monitoring of the impact of float plane landings on Gordon River banks has commenced. This together with information on bank types has been used to assist management decisions regarding float plane landings on the river.

Aircraft users at Melaleuca, including helicopter pilots, have been given advice about appropriate flight behaviour to assist the protection of orange-bellied parrots.

Scotts Peak airstrip, on HEC vested land, was closed and rehabilitation commenced by the HEC in 1998.

OBJECTIVES

- To provide for scenic flights over the WHA in accordance with the objectives for each management zone while minimising disturbance for on-ground visitors and wildlife.
- To allow aerial access for conservation management purposes and in emergency situations.

MANAGEMENT PRESCRIPTIONS

(See also Recreation Opportunities, page 129)

General

- Jointly develop with commercial aircraft operators, aviation clubs and Commonwealth Government aviation authorities, a Fly Neighbourly Agreement for all the WHA. The final Fly Neighbourly Agreement is to be approved by the Minister.
- In the interim, continue to liaise with commercial aircraft operators and aviation clubs to develop and promote appropriate voluntary flight guidelines that, where appropriate, include standard scenic flight routes and agreed height and timing

parameters for popular areas with potential for conflict between scenic flights and onground users or wildlife. Areas to be covered include Cradle Valley area, Frenchmans Cap, Franklin River, Lower Gordon River, Mt Anne, the Arthur Ranges, Central Plateau and Melaleuca.

- For aircraft that require a licence to operate in the WHA, continue to include in new (or renewed) licences, aerial procedures and practices that reduce impact on ground users but are sensitive to experiences sought by aerial visitors. These flight behaviour conditions will recognise the harsh nature of the weather over the WHA and will be worded to avoid conflict between the licence provisions and Civil Aviation Regulations.
- In applying the above strategies, recognise the cumulative impacts of overflights in the WHA when developing flight behaviour practices and assessing new licence applications.
- Encourage aircraft operators to apply noise reduction techniques over sensitive areas and utilise aircraft with best practicable technology to reduce noise.
- Carry out research into appropriate minimum flight height requirements for scenic flights over the WHA in consultation with aircraft operators.
- Aircraft may also be utilised in the WHA for:
 - search and rescue or other emergencies;
 - fire detection or control operations;
 - flights necessary to implement the management objectives of the WHA;
 - situations where flight safety necessitates overflying the area;
 - other purposes approved by the director and consistent with this plan.
- Require the approval of the Director for parachuting, hang gliding and ballooning activities where take-off points are located in the WHA.
- Continue to prohibit airdrops of food or equipment from planes throughout the WHA.

Landings

- Only permit helicopter landings for management and search and rescue

purposes or activities in keeping with the management objectives for the area and consistent with this plan. Landings other than for management or search and rescue purposes are to be approved by the Director.

- Permit helicopter landings in the Central Plateau Conservation Area only for search and rescue and management purposes or at the additional landing sites subject to investigation noted below.
- Do not permit floatplanes to land in the Central Plateau Conservation Area, except at the additional landing sites subject to investigation noted below. As necessary, controls on floatplane landings may be introduced elsewhere to protect environmental or recreational values.
- Permit floatplane or other aerial craft that land on water for recreational purposes to land on Macquarie Harbour, Port Davey, selected parts of Bathurst Harbour, Lake Pedder, Lake St Clair and selected parts of the Lower Gordon River only. Only certain sections of the Lower Gordon River will be available for landings due to the vulnerability of eroded river banks and concern for the safety and enjoyment of other river users.
- Landings on Lake St Clair will be contingent upon the results of an independent survey of visitors to the area over a trial period of landings. If complaints are significant the operation may require modification or be curtailed.
- The above management prescriptions under landings are subject to an investigation of options for providing for commercial floatplane or helicopter tourist access to additional lake (or other) sites in the WHA. Additional landing sites may be made available following this investigation, subject to the following conditions:
 - a maximum of three additional sites beyond locations mentioned previously in this section may be made available;
 - sites are to have nil or very little conflict between proposed commercial users and other users of the site;
 - landings are to have nil or minimal impact on the World Heritage and other natural and cultural values at the site;

- landing sites are to abide by the prescriptions for the underlying zone at each site, ie for the Self Reliant Recreation Zone no facilities are to be constructed and
- no landing sites are to be made available in the wilderness zone.

- Continue investigations into the impact of wash from floatplanes landing on the Lower Gordon River on bank erosion rates and, if necessary, modify management policies and relevant licence conditions.

MONITORING AND EVALUATION

- Record compliance of scenic flight operators with contractual or voluntary flight guidelines.
- Continue to survey public views on overflight impacts both in high visitor use and remote areas.
- Survey users' response to helicopter and floatplane landings within the WHA. Survey both aircraft passengers and the experience of on-ground users. Modify, relocate or curtail operations if conflict with on-ground users is significant.
- Regularly assess the on-ground impact of any aircraft landing sites established. Modify, relocate or curtail operations if impacts are significant.



Bicycle Riding (Road and Mountain Bikes)

BACKGROUND

The WHA provides limited opportunities for bicycle riding. Bicycle tourers make use of the Lyell Highway and may visit centres such as

Cradle Valley and Cynthia Bay. Cyclists' use of roads in the WHA is limited due to the steep hills and the wet climate.

Similarly, cyclists using mountainbikes on rough tracks only occasionally visit the area; tracks closer to major cities are generally more popular. The Saw Back Range recreational vehicle track and vehicle tracks on the Central Plateau both have occasional use.

For the purposes of the *National Parks and Reserves Regulations 1971*, a bicycle is defined as a vehicle. This means that bicycles are only allowed on vehicle tracks open to vehicles and are not, for example, allowed on walking tracks. Permits are required by cyclists (and other recreational vehicle users) wishing to use permit-accessible recreational vehicle tracks in the WHA, such as the Saw Back Range track.

Mountainbikes are becoming popular and some increased interest in riding in the WHA is expected.

PREVIOUS MANAGEMENT

Little management has been required for this activity during the timeframe of the 1992 plan.

OBJECTIVE

- To provide road and mountainbike riding opportunities on roads and vehicular tracks, except where this causes unacceptable damage to the World Heritage and other natural and cultural values of the WHA.

MANAGEMENT PRESCRIPTIONS

- Bicycle riding may occur on roads and vehicular tracks open for use by the public.
- Riding is not permitted on walking tracks or off-track.
- Investigate opportunities for mountain bike riding in the WHA.
- Include information on opportunities for bicycling in publications.

MONITORING AND EVALUATION

- Monitor demand for and use of mountainbike riding opportunities.

- Monitor tracks as per Vehicle Tracks and Recreational Driving, page 166.



Boating (Motorised)

BACKGROUND

Boats are used on the waterways of the WHA for a range of recreational and commercial reasons. The coastal waters of Port Davey, Macquarie Harbour and the Lower Gordon River are plied by the boats of sightseers and fishers. Sightseeing cruises on the Lower Gordon River are an important component of the west coast tourist industry carrying more than 100,000 passengers each year. If well managed, boating can provide people with a means of visiting the WHA with minimal environmental impact and without the need for significant infrastructure.

Boating on inland waterways is principally for recreational fishing, with Lakes Pedder and St Clair being popular. In the Central Plateau Conservation Area boating occurs on Lakes Augusta, Ada and Mackenzie, Double Lagoon and the lakes accessible from the Pillans-Julian vehicle track. Boating access to the WHA is also possible across Lake Burbury on the King River. For safety reasons boating is prohibited on Lake Murchison by the Hydro-Electric Corporation. Lake King William is used as a means of visiting the King William Range.

Jetties or boat ramps are located at Lake St Clair, Sarah Island, Kelly Basin in Macquarie Harbour, Heritage Landing, Sir John Falls walkway on the Lower Gordon River, Teds Beach, McPartlan Pass, Edgar Dam, Scotts Peak on Lake Pedder, in Moth Creek and Melaleuca Creek in the Melaleuca area.

Informal jetties exist at Pine Landing on the Gordon River, at the old exploration camp in Birchs Inlet, at the mouth of the Braddon River and at Forest Lag, Bathurst Harbour.

In recent years the number of vessels (both motor boats and yachts) visiting the Bathurst Harbour-Port Davey area has increased substantially. For example, the popular circumnavigation of

Tasmania event has brought up to 50 vessels to the area simultaneously. This has led to concern about the environmental impact of the large numbers of anchorages and associated landings on the area as a whole, as well as the effect of effluent release in sensitive environments such as Bathurst Channel and Bathurst Harbour. In addition, some of the benthic communities in Bathurst Channel are extremely vulnerable to mechanical damage by anchors. This has raised concerns that the values of the region may be severely impacted by the unregulated anchoring of an increasing number of boats in the region. See also Diving, page 145.

The use of motorised boats to gain access to otherwise remote areas can lead to management problems and recreational conflicts. The high use and consequent environmental impact in the Pine Valley/Labyrinth area near Lake St Clair has been partly attributed to the easy access afforded to the area by the ferry service on Lake St Clair. On the Gordon River near its confluence with the Franklin River, motorised boats conflict with the recreational experience sought by some wild river rafting trips.

The likelihood of fire, littering and ad hoc track development is increased onshore near anchorages. Noise and sewage disposal may also cause problems. The potential pollution of shallow lakes, particularly the fishing lakes in the Central Plateau Conservation Area, is also a concern.

The wash by various craft and in particular, large tourist craft, has been identified as the major cause of severe bank erosion along the Gordon River. Erosion has had a deleterious impact on the world heritage values of the area. The maximum extent of wash induced bank retreat has been estimated to be up to 10 metres in places²³.

Erosion of the river banks is now recognised as being contrary to the natural depositional processes that formerly operated in the area and its continuance is clearly incompatible with WHA management objectives.

PREVIOUS MANAGEMENT

Gordon River

Since the identification of riverbank erosion problems on the Gordon River, an extensive program of erosion monitoring and geomorphological investigation has been undertaken. The Service continues to monitor the rate of bank erosion twice annually.

In response to the erosion problem, commercial boat access upstream of Heritage Landing has not been permitted since 1989. Sections of the river bank upstream of Heritage Landing are gradually stabilising although they remain extremely vulnerable.

From 1 July 1994 all commercial cruise boats were required to travel at six knots in that part of the river still open to commercial use — the area below the upstream end of Horseshoe Bend. This has reduced the rate of erosion.

In 1994 the Bingham inquiry²⁴ was conducted into tourist operations on the Gordon River. The main finding, relevant to bank stability, was that there should be a shift from speed limits to wave height limits as the most meaningful way of regulating river craft and preventing further damage to river banks. It was also stressed that there should be a move to low wake craft. These avenues are currently being pursued by the Service in association with operators.

A subsidiary plan to this plan, the Lower Gordon River Recreation Zone plan, has been finalised. It provides detailed prescriptions on the management of bank erosion and recreation within the Gordon River area.

Bathurst Harbour–Port Davey

Monitoring of erosion problems along the banks of Melaleuca Creek commenced in 1992. Erosion here may also be wake-induced. Erosion monitoring sites were established in 1997 on the banks of rivers entering the Port Davey-Bathurst Harbour area.

A notesheet produced in 1996 for yacht and boat users of the area identifies recommended anchorages (to avoid damaging sensitive underwater sea pen communities), gives advice on speed limits, effluent disposal and other

23 Bradbury J., Cullen P., Dixon G., Pemberton M., 1995 *Streambank Erosion, Revegetation and Management of the Lower Gordon River, Tasmanian Wilderness World Heritage Area*. Environmental Management 19:259-272.

24 Bingham, M. 1994 *Gordon River Tourist Operations Report A* report to the World Heritage Area Ministerial Council, Hobart.

measures for protecting natural and cultural values. See also Diving, page 145.

OBJECTIVES

- To protect and conserve waterways and adjacent environments.
- To provide opportunities for water-based recreation consistent with protecting the World Heritage and other natural and cultural values of the WHA in accordance with the zoning scheme.

MANAGEMENT PRESCRIPTIONS

See also Ecologically Sustainable Management of Human Use, page 120 and Maintaining Recreation Opportunities, page 131.

General

- Motorised Boating Areas (see map 3, page 216) are available for use by motorised boats. These areas include Lakes Pedder, St Clair, Augusta, Ada, Pillans, Julian, Mackenzie and Double Lagoon; Port Davey; Macquarie Harbour; and under specific conditions, Bathurst Harbour and the Lower Gordon River. Motorised boating in lakes outside these areas is generally disallowed. Note that although surrounded by the WHA, Lake Gordon is not within the WHA. Note also restrictions on upriver access in the Port Davey–Bathurst Harbour area. (see Motorised Boating Area Management Prescriptions, page 60)
- In general, waters that are not readily accessible; or are relatively small and enclosed (and therefore prone to damage from pollution in the event of a motor boat accident); or that are susceptible to wake-induced bank erosion, are not available to motorised boats. The tranquillity and purity of these waters will be protected by limiting use to small craft propelled manually or by sail. In some circumstances, consideration may be given to the use of craft with electric motors.
- Specific waterways may be subject to specific conditions of use — such as length of stay, restrictions on access, effluent discharge, noise restrictions etc — designed to minimise environmental or social impacts.

- Except with the written permission of the Director, access to Pedra Branca Island and Mewstone Rock is not permitted. [This is to protect the vulnerable Pedra Branca skink and Shy Albatross (Schedule 4, *Threatened Species Act 1995*) from disturbance and the introduction of exotic animals and diseases].
- Continue to develop an education program for boat-based users in consultation with boating and fishing groups. The program will include promotion of a minimal impact code of conduct for boating that enhances awareness of the area's natural and cultural values, details appropriate activities and notes preferred mooring/landing locations.
- In special circumstances (eg for approved management purposes), permit motorised dinghies in areas not zoned for mechanised access.

Jetties, Moorings and Anchorages

- Permit permanent moorings for boats in Lake Pedder, Lake St Clair and Kelly Basin in Macquarie Harbour. Consider limited permanent moorings on the Gordon River primarily for commercial craft.
- Maintain and repair as necessary existing jetties and boat ramps at Lake St Clair, Lake Pedder, Sarah Island, Heritage Landing, Sir John Falls and Melaleuca.
- Maintain existing jetties and moorings at Braddon Camp, Kelly Basin, Lower Gordon River camps, and Birchs Inlet.

Bathurst Harbour–Port Davey

- Identify preferred anchorage sites which are the least vulnerable to mechanical damage in the Bathurst Harbour - Port Davey area. Base site selection on environmental considerations, including the mapping of the distribution of benthic communities in Bathurst Channel.
- Investigate possible controls on effluent discharge from boats in Bathurst Harbour–Bathurst Channel.
- Continue to develop and implement an information and education program for boating visitors to increase their awareness of environmental issues in the Bathurst Harbour - Port Davey area and inform them about any restrictions and conditions that may apply.

- Investigate the possible use of fixed moorings in Bathurst Channel to avoid anchor damage to benthic communities.
- The Director may introduce additional measures or conditions related to anchorages as required to protect the values of the WHA.

Gordon River

- Continue use of the Lower Gordon River under conditions specified in licence agreements for commercial craft, the code of practice for private craft (Voluntary Users Code for Motorised Craft on the Gordon River) and the provisions of the Lower Gordon Recreation Zone Plan. Revise these as required in the light of the results of monitoring of the rate of riverbank erosion and revegetation. If monitoring shows erosion to be continuing, further restrictions may be imposed, in consultation with operators, these may include closure of the river.
- Regularly consult with operators regarding monitoring results and river management.
- Finalise and implement the Lower Gordon River Recreation Zone Plan and ensure that all operations on the river are consistent with the prescriptions detailed in the plan.
- Develop opportunities for boat-based tourism on Macquarie Harbour to complement Gordon River cruises.
- Investigate any effects of private boats on bank erosion and apply restrictions if required.

MONITORING AND EVALUATION

Gordon River

- Continue to monitor river bank erosion twice a year and if required review scientific methods used for monitoring.
- Investigate the relationship between river bank erosion and wave heights with the aim of identifying waves which will not cause erosion or hinder stabilisation and implement the findings of wave height/bank stability studies as appropriate.
- Investigate any effects of river flow regulation by the HEC on bank erosion.

Bathurst Harbour–Port Davey

- Monitor erosion of banks bordering harbours and rivers in the Bathurst Harbour – Port Davey and Melaleuca Inlet areas and adjust controls on boat use to keep impacts within acceptable levels.
- Monitor the impact of boating on the environment of the Bathurst Harbour – Port Davey area. In particular, monitor the impact of anchors on the benthic community of Bathurst Channel and adjust controls on boat use to keep impacts within acceptable levels. See also Diving, page 145.



Camping

BACKGROUND

The WHA provides a range of camping opportunities from remote area camping (where no facilities are provided) to camping areas at visitor nodes (where amenities may include toilets, showers and cooking facilities).

Camping areas for vehicle-based visitors have been established inside the WHA at Lake St Clair, Edgar Dam, the Huon River near Scotts Peak and just outside the WHA at Pencil Pine near Cradle Mountain, Liffey Falls (lower), Cockle Creek, Strathgordon and Mt Field. Facilities provided at some of these sites include toilets, picnic and cooking shelters, showers and barbecues. These facilities range from old sub-standard facilities that require replacement to recently built structures which generally are more attractive and better cater for visitors' needs.

Car-based camping in areas where few if any facilities are provided is permitted at various sites both within and outside the WHA at places such as Collingwood Bridge along the Lyell Highway.

Remote area camping (beyond areas designated as 'day use only') is available throughout the WHA and ranges from camping in untracked country where no facilities are provided to formal campsites along popular walking tracks which have facilities such as toilets, shelters or huts.

PREVIOUS MANAGEMENT

The Huon River and Edgar Dam campsites have been re-developed since 1992 and initial planning has been undertaken to re-develop Lake St Clair and Cockle Creek.

The 1992 WHA plan indicated that a new camping area for anglers would be investigated in the vicinity of the ex-HEC camp on the Lake Augusta Road. Indications are that camper numbers in the area are gradually reducing and there will probably not be the anticipated demand for a new camping area.

OBJECTIVE

- To provide opportunities for camping within and adjacent to the WHA that strategically cover major WHA access points, meet users' needs, are commensurate with the zoning system and other management requirements and that aid in presentation of the WHA.

MANAGEMENT PRESCRIPTIONS

Road-Accessible Camping

- Maintain camping areas at Cynthia Bay, Huon River, Edgar Dam and Collingwood River within the WHA and, just outside the WHA, at Pencil Pine near Cradle Valley, Liffey Falls (lower), Mt Field and Cockle Creek–Recherche Bay.
- Finalise and/or implement site plans for the following camping areas: Cynthia Bay, Collingwood Bridge, Liffey Falls (lower end), Mt Field and Cockle Creek–Recherche Bay.
- Retain free range camping for anglers in the Nineteen Lagoons area. Assess the need for a camping area in the Nineteen Lagoons area as part of the Recreation and Tourism Strategy, in addition to free range camping.
- Provide for limited caravan and campervan sites at Cynthia Bay as provided for in the site plan. Apart from this site, caravan and campervan facilities will be catered for near to, but outside, the WHA, notably at Pencil Pine, Mt Field, Strathgordon and Cockle Creek–Recherche Bay.

Non Road-accessible Camping

- Establish limits of acceptable environmental and social change for remote area campsites based on zoning and track classification. Regularly monitor the condition of campsites and adjust management as necessary.
- Investigate and as necessary implement appropriate methods for hardening popular campsites.
- Construct or maintain toilets at all major campsites in the Recreation Zone. Toilets may be provided in the Self-Reliant Recreation Zone. Toilets will not be provided at campsites in the Wilderness Zone.
- As part of the Recreation and Tourism Strategy, assess demand for, and environmental suitability of, a formal low-key campsite suitable for walkers at Bird River or East Pillinger.
- Identify areas for camping outside the main chamber at the Walls of Jerusalem and subsequently prohibit camping in the main chamber. (This action is necessary to prevent further degradation of this sensitive area and to assist natural rehabilitation of already disturbed areas.)

MONITORING AND EVALUATION

- Monitor camping levels in the Nineteen Lagoons area to assess the need for a new camping area.
 - Monitor the expansion of campsites at regular intervals using aerial photographic monitoring techniques.
 - Continue to inventory campsite conditions along popular walking tracks, at popular fishing and horse-riding destinations and along the Franklin River.
- (See also Environmental Quality, page 110)



Canoeing and Rafting

BACKGROUND

The Franklin River is the prime canoeing and rafting river in the WHA. Although the river was first travelled in the 1950s, it was not until the public controversy over the proposed flooding of the lower reaches of the river in the late 1970s and early 1980s that travelling down the Franklin became popular. Numbers peaked in the early 1980s at 1,500 people per year but declined significantly once the power scheme was halted. Over the five summers from 1991–92 numbers have remained essentially static averaging approximately 320 rafters per year. During the years of the dam controversy the majority of users belonged to private parties, now approximately 70% of users are clients of commercial trips.

Trips range in duration from a few days to several weeks. The vast majority of private trips travel the full length of the river, generally taking about 14 days. Initially the commercial trips all ran the full length of the river (generally taking 11 days) but in recent times shorter trips (using the Mount McCall track for access) have increased in number. Seven day trips run from the Collingwood Bridge to Mount McCall and five day trips run from Mount McCall to the Gordon River.

By comparison with the Franklin, use of other rivers in the WHA is very low. The Jane, Denison, upper Forth, Anne, Weld, Huon, Crossing and Davey Rivers; and the Gordon River above Lake Gordon are occasionally travelled. Many of these rivers are only navigable in small rubber rafts or on airbeds in near flood conditions. The relatively low use of these rivers is largely due to the difficulty in accessing the rivers as most are remote from roads.

Canoes and kayaks are also occasionally used on the lakes of the Central Plateau. Sea kayaks are used on Port Davey and Bathurst Harbour, Macquarie Harbour and the Gordon River, Lake St Clair and as access to Maatsuyker Island.

PREVIOUS MANAGEMENT

Campsites along the Franklin River are monitored.

Maintenance work has been performed on portage structures along the Franklin River and the walkway at Kuti Kina Cave. In 1995 land title for Kuti Kina Cave was handed back to the Aboriginal community and its maintenance ceased to be the responsibility of the Service.

OBJECTIVE

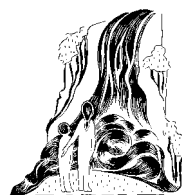
- To manage recreational use of canoes, kayaks and rafts on rivers and lakes to protect the environment and to avoid over-crowding.

MANAGEMENT PRESCRIPTIONS

- Develop and distribute material on river safety and minimal impact techniques.
- Prepare a river management plan for the Franklin River including research into the recreational carrying capacity of the river and the appropriate limits of acceptable change.
- Maintain access to the Franklin River via the Mt McCall haulageway track (see also page 168).
- Continue to maintain portage structures along the Franklin River.

MONITORING AND EVALUATION

- Continue to monitor campsites along the Franklin River.



Caving and Karst Management

BACKGROUND

The cave and karst areas of the WHA contain a variety of significant surface and underground karst features, along with unique cave fauna. Rare

and often relict plant communities are found in sheltered locations in sinkholes and near cave entrances. Some caves and rock shelters contain Aboriginal sites of great significance dating back over 30,000 years. In a number of areas, there has been interaction between ancient glaciers and cave or karst development. Some of the deepest and longest cave systems in Australia are found in the WHA. Important cave or karst areas occur at Mole Creek, Ida Bay, Mt. Anne, the Franklin–Lower Gordon Rivers area, Cracroft Valley, Precipitous Bluff and numerous other remote locations. In all there are over 60 separate karst areas within the WHA.

Karst areas generally require special management procedures because of their unique hydrology and atmospheric systems, and the often rare or endangered faunal and floral communities associated with this relatively uncommon rock type. Planning for the recreational use of caves must take account of generally low intrinsic carrying capacities. Surface management, such as track planning, fire management, water catchment management and infrastructure development must all take special precautions not generally necessary in non-karst areas.

Other than at Marakoopa Cave, the majority of caving trips are organised by members of caving clubs for recreational purposes. Caving is also undertaken by commercial tour operators, school groups, other community groups, members of the general public and researchers conducting scientific studies. All cave visits result in some form of damage — however minimal — which is often cumulative.

The WHA is unusual in the national context in that it provides cavers with opportunities for cave exploration and recreation in a true wilderness setting. Although caving groups only visit remote cave areas occasionally, they often stay for extended periods of time, and therefore the environmental impacts of these trips (both within and adjacent to caves) can be locally severe.

In order to minimise cave damage and aid in search and rescue, the Service operates a permit system which applies to certain caves in the State, including some in the WHA. Access to Exit Cave, parts of Mystery Creek Cave and Marakoopa Cave is restricted by locked gates. Permit conditions include minimal impact regulations, party size limits and requirements relating to membership of caving groups upholding suitable

codes of practice.

Marakoopa Cave, near Mole Creek, is the only cave in the WHA that has been developed for tourism. Pathways have been constructed and artificial lighting installed. Approximately 20,000 people visit Marakoopa Cave each year, making it a significant focus for interpretation. There has been limited concessionaire-operated tourist access to Mystery Creek Cave at Ida Bay. Issues associated with tourist caves include breakage of speleothems, accumulation of rubbish and alteration to natural processes in caves following changes to cave climate and air quality.

Caving clubs are a source of valuable expertise and support for management objectives; a good working relationship between the Service and caving clubs will assist in achieving effective management of karst.

PREVIOUS MANAGEMENT

Public consultation through the Cave and Karst Management Advisory Committee has revealed ongoing concerns about the appropriate use of certain caves and karst features by various educational, commercial and recreational groups. A cave classification system, based on the model provided by the Australasian Cave and Karst Management Association, has been produced, and caves at Ida Bay have been classified accordingly. A joint project with Forestry Tasmania has produced guidelines by which certain caves may be allocated for sustainable use by various groups.

The Lune River (Benders) Limestone Quarry was closed following the assessment of unacceptable environmental impacts on the Exit Cave system. Rehabilitation of the site has been completed and three years of monitoring data have been obtained. This information will form a useful baseline for management of recreational use.

A management plan has been completed for Mystery Creek Cave at Ida Bay. This will be incorporated in an overall plan of management for the Ida Bay karst area.

Gates have been installed on all major entrances to Exit Cave and other sensitive sites in the cave system. A co-operative program between the Service and caving groups has been established involving surface and in-cave trackmarking, a full survey of the cave and its contents, and a cave cleaning program. Completion of key

projects will allow the re-opening of the cave for permit-based recreational trips.

The Cave Leadership Accreditation Group, in conjunction with the Service, has produced an assessment scheme for commercial, school and community group leaders. This scheme will be adopted by the Service in assessing the suitability of tour leaders for licensing and other cave access arrangements. (See also Guided Tours, page 179)

Three caves within the WHA (Wargata Mina, Ballawinne and Kuti Kina) were returned to the Aboriginal community in 1995. These sites are now Aboriginal Land and their management will be determined by the Aboriginal Land Council of Tasmania and its nominees.

At Mole Creek, a program for upgrading pathways and lighting within Marakoopa Cave was completed.

OBJECTIVES

- To ensure sustainable management of caves and karst in the WHA for their intrinsic, ecological, recreational and World Heritage and other natural and cultural values.
- To ensure that natural rates and magnitudes of environmental change (both physical and biological) in karst ecosystems are not accelerated through inappropriate use or management.
- To ensure that the physical and biological components of surface and underground ecosystems in the WHA (which control rates of environmental change in karst areas and karst catchments) are managed primarily for their role in maintaining karst processes.
- To provide for the presentation to the public of caves and karst features according to their intrinsic capacity to withstand erosional and depositional processes and at a scale not significantly different from natural rates. If it is absolutely necessary to exceed these rates, appropriate infrastructure to ameliorate any potential damage must be previously introduced.

MANAGEMENT PRESCRIPTIONS

(See also Geodiversity and Geoconservation, page 78)

- Classify and manage all recorded caves

according to the Cave Classification System (see Geodiversity and Geoconservation, page 79 for outline of the system).

- Prepare cave and karst management plans in consultation with caving groups and, where appropriate, with the Aboriginal community, for areas identified by the Cave and Karst Management Committee.
- Cave access may be restricted or prohibited where unacceptable damage has occurred or is likely to occur.
- Grant concessions only for guided caving trips in cave systems for which a management plan has been completed and in accordance with conditions laid down in such a plan.
- Encourage caving groups and publishers to limit publication of information about 'wild caves' and 'wilderness caves' where such information may result in damage to natural features and processes.
- In consultation with caving groups, prepare and distribute material regarding minimal impact caving and cave safety.
- Undertake regular cave inspections to enforce permit conditions.
- Erect cave gates and other structures considering the advice of the Cave and Karst Management Committee.
- Erect a sign at each restricted access cave explaining the reasons for access restrictions.
- Liaise with adjacent landholders to encourage protection of cave catchments.

MONITORING AND EVALUATION

- Continue to evaluate cave users' perceptions of the suitability of caves for different uses.
- Facilitate public comment on the performance of the Service, through the Cave and Karst Management Committee.
- Develop a computerised cave permit recording system allowing usage and impacts resulting from recreational use to be monitored and evaluated.
- Initiate a cave fauna monitoring program in Exit Cave, to be operated in conjunction with the existing water quality monitoring program.

- Initiate a track erosion and fauna monitoring system in Mystery Creek Cave.
- Introduce a comprehensive hydrological and atmospheric monitoring system at Marakooa Cave.
- Introduce a self-registration system for cavers using caves and karst areas other than those operating under the present permit system.



Climbing and Abseiling

BACKGROUND

Rock climbing and abseiling are undertaken by relatively few people in the WHA. This is mainly due to the lack of vehicular access to many suitable sites and the relatively high frequency of bad weather. Frenchmans Cap, despite being one or two days walk from the nearest road, is the most popular climbing area in the WHA. Other areas occasionally visited by rock climbers include the Du Cane Range, Federation Peak, the Western Arthur Range, Cradle Mountain, Precipitous Bluff, Walls of Jerusalem, Frankland Range, Sentinel Range, Saw Back Range and Mt Anne.

Potential management problems associated with rock climbing and abseiling include visible damage to rock faces and damage to vegetation and erosion on rock faces and access routes. Of particular concern is the potential for climbers' campsites and access tracks to crags to develop all the problems associated with heavily used bushwalking tracks and campsites, especially if they are promoted in published articles or guidebooks. These problems can largely be overcome if minimal impact climbing techniques are used in conjunction with minimal impact bushwalking and the application of the prescriptions of the Walking Track Management Strategy to access routes.

Ice climbing is very occasionally undertaken on Mt Anne, Mt Geryon and Cradle Mountain; however, conditions are rarely suitable.

PREVIOUS MANAGEMENT

The limited amount of climbing activity in the WHA has meant that no active management has been necessary.

OBJECTIVE

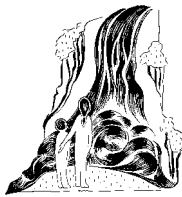
- To continue to allow climbing and abseiling within the WHA except where this causes unacceptable environmental damage.

MANAGEMENT PRESCRIPTIONS

- Generally discourage the use of bolts and other fixtures that permanently damage rock faces.
- Prepare material regarding climber safety and minimal impact climbing techniques and publicise it within the climbing community.
- Encourage authors and magazine editors to limit publication of descriptions of climbs in the WHA and their associated access routes and campsites to those in accord with the Walking Track Management Strategy. (See Walking and Walking Tracks, page 172).
(This will direct climbers, in particular those new to the State, to appropriate climbs and will assist in avoiding the rapid degradation of sensitive areas.)
- Encourage self-regulation by the climbing community.
- Evaluate the carrying capacities of climbing and abseiling sites.

MONITORING AND EVALUATION

- Prepare an inventory of the condition of popular rock climbing and abseiling sites and their associated access routes and campsites. Regularly inspect them for environmental damage and modify management requirements accordingly.



Diving

BACKGROUND

Recreational diving has not been a popular activity within the WHA largely due to the remoteness and inaccessibility of the eastern end of Macquarie Harbour and the Port Davey–Bathurst Harbour region (the only two marine areas within the WHA — note that the WHA boundary around the coast is the low water mark).

However, the publicity attached to the recent discovery of unusual benthic communities and fish within Bathurst Harbour and Bathurst Channel has led to greatly increased interest in diving in this area. Some of these benthic communities (eg the sea pens, bryozoans and gorgonians in Bathurst Channel) are extremely vulnerable to damage (accidental or deliberate) by divers and from anchors. This has raised concerns that the values of the region may be severely impacted by diving and anchorages.

PREVIOUS MANAGEMENT

The low level of interest in diving in the WHA combined with the lack of awareness (until recently) of the existence of the sensitive benthic communities in Bathurst Channel has meant that no active management has occurred.

The draft Melaleuca Site Plan recognised the potential for adverse impacts from diving and anchoring. It proposed a diving exclusion zone in part of Bathurst Channel (pending the results of further research) and identified preferred sites for boat anchorages and shore landing in the Bathurst Harbour–Port Davey area. A boating notesheet (concentrating mostly on boating activities — not diving) and information package was subsequently prepared and is being circulated amongst boating visitors. See also Boating (Motorised), page 137.

OBJECTIVE

- To allow for recreational diving within the waters of the WHA so long as the impacts of this activity remain within acceptable limits.

MANAGEMENT PRESCRIPTIONS

- As a high priority and based on mapping of the distribution of benthic communities in Bathurst Channel, identify preferred dive sites which demonstrate the community structure of the area and which are the least vulnerable to damage.
- Develop and implement an information and education program for divers to increase their awareness of diving conditions (eg cold water, low visibility and strong currents) and environmental issues in Bathurst Channel and inform them about any restrictions and conditions that may apply.
- The Director may instigate the introduction of additional measures or conditions related to diving as required to protect the values of the area, including dive-free areas.

MONITORING AND EVALUATION

- Monitor the impact of divers on the benthic community of Bathurst Channel (and elsewhere if necessary) and adjust diver education and regulation to keep impacts within acceptable levels.



Fishing

BACKGROUND

Management of the recreational trout fishery, as well as all other aquatic fauna, within the WHA is the responsibility of the Inland Fisheries Commission (IFC). Management of recreational sea fishing is the responsibility of the Department of Primary Industries, Water and Environment. The Service is responsible for land and wildlife management within the WHA.

Since the introduction of trout to Tasmania over 100 years ago, trout fishing has developed into a popular sporting and recreational pastime for many Tasmanians, as well as for visitors to the State. The remote beauty of the WHA combined with its many lakes makes it one of the best trout fishing areas in the world. The most popular trout fishing area in the WHA, with a long history and tradition predating the gazetting of the WHA, is the Western Lakes region of the Central Plateau. However, Lake St Clair, Lake Pedder, Macquarie Harbour and the Gordon River are also regularly fished. Several trout populations in the WHA are supplemented by stocking.

Although trout are a valuable recreational and economic resource for Tasmania they can also affect other values of the WHA. They have been implicated in the decline of several native freshwater fishes and their presence as an introduced species affects natural ecological processes and systems. In some parts of the WHA the trout have been established for so long it would be difficult to assess what impacts they may have had on the native wildlife. Existing trout-free waters therefore have a very high conservation value and the illegal stocking of trout-free waters is of major concern.

Anglers use a variety of fishing methods in the WHA, with the large majority favouring fly-fishing and spinning. Bait fishing is also practised by some anglers. This involves either bringing in or collecting on-site animals such as worms, cockroaches, grubs and frogs. On-site collection of bait involves some degree of habitat disturbance.

The transport of any live animals, either invertebrates or vertebrates, into the WHA for use as bait increases the risk of accidental release and establishment of harmful exotic species and diseases. The recent introduction of European carp to Tasmania, possibly through its use as live bait, gives cause for serious concern about the potential for introducing undesirable species through bait fishing.

Recreational sea fishing is undertaken in Macquarie Harbour and Port Davey. The latter area is subject to a low intensity of use, mainly from yachts visiting the area.

25 Sloane R. D. and French G. C., *Trout Fishery Management Plan Western Lakes-Central Plateau Tasmanian World Heritage Area*, Internal unpublished report, Parks and Wildlife Service, Hobart.

PREVIOUS MANAGEMENT

The IFC have managed and will continue to manage trout fishing subject to IFC regulations. In the timeframe of the 1992 plan, the IFC has not stocked waters that did not already contain trout. However there is ongoing concern over illegal stocking by individuals.

A booklet 'Tackling More than Trout' and a brochure 'Notes for Anglers, Walkers and other Visitors' have been produced that describe ways of minimising environmental impact while angling.

A draft fisheries management plan for the Central Plateau Conservation Area was to be completed during the life of the last plan. The completion of this plan has been hampered by other priorities for the IFC such as dealing with the introduction of the European carp. Preliminary research and planning by consultants²⁵ and the Service has been done and some discussions held between IFC and the Service.

Some monitoring of the impact of bait collection at campsites has occurred, however specific monitoring of the effects of bait fishing on the abundance of local species has not been conducted.

OBJECTIVES

- To manage the fisheries resources of the WHA to provide recreational fishing opportunities while minimising impacts on the World Heritage and other natural and cultural values of the WHA.
- To encourage minimal impact angling practices.
- To maintain and protect native habitats and native species, particularly those which are rare or threatened.
- To protect existing trout-free waters.

MANAGEMENT PRESCRIPTIONS

Inland Fishing

- Provide for the continuation of trout fishing subject to IFC regulations.
- Bait fishing will be allowed within the inland waters of the WHA in areas gazetted by the IFC as available for bait fishing. These are

currently Lakes Augusta and Mackenzie in the Central Plateau. Within these lakes only baits specified by the IFC may be used. Only artificial lures may be used for fishing in inland waters in the remainder of the WHA.

- Should any expansion of these areas be considered it must be clearly demonstrated that bait fishing does not threaten the World Heritage and other natural and cultural values of the WHA. Any expansion would be jointly considered by the IFC and the Service under the New Proposals and Impact Assessment process, see page 66.
- Bait collection is not permitted within the WHA, however bait may be brought into the WHA for use at lakes listed as available for bait fishing. As for all of Tasmania, no frogs are to be used for bait fishing in the WHA.
- The IFC will not stock waters that do not already contain trout as is its policy throughout the State. The practice of illegal stocking by individuals will be actively discouraged and offenders prosecuted.
- The IFC will complete a fishery management plan for the Central Plateau Conservation Area in consultation with angling clubs and the Service.
- Facilitate research into the impacts of trout and other exotic fish species on native species and habitats.

Fishing in Marine and Tidal Waters

- Provide for the continuation of non-commercial fishing in marine and tidal waters in accordance with the *Living Marine Resources Act, 1995* and associated rules and regulations.
- Allow baitfishing in estuarine waters provided no live terrestrial organisms (eg worms, frogs, etc) are used.

MONITORING AND EVALUATION

In association with the Inland Fisheries Commission:

- Monitor the level of satisfaction with the management of trout fishing in the WHA.
- Monitor the area of trout-free waters in the WHA and make this information available for management purposes only.
- Monitor impacts of exotic fish species on selected native species.

- Monitor populations of rare and threatened species, particularly those susceptible to trout predation/competition.



Hobbies and Crafts

BACKGROUND

The WHA contains various natural materials which could be considered useful for craft or hobby purposes. These include things like craftwood, gemstones and mineral specimens.

One of the main aims for conservation in the WHA is to protect and conserve features in their natural state. Collection of material has therefore only been permitted where collection will benefit the conservation of the material and then only if it is consistent with relevant criteria for approving scientific research as outlined in the Scientific Research and Monitoring section of the plan, see page 116. A permit is required for the collection of any materials from the WHA.

PREVIOUS MANAGEMENT

During the life of the 1992 management plan a number of requests from Tasmanian mineralogical societies to allow fossicking for mineral specimens at the abandoned wolfram mine at the end of Patons Road and the Adamsfield area were received. The approval of the Director to collect specimens was not given in these cases. Both these localities are listed as sites of geoconservation significance.

Both sites have been previously mined. The Adamsfield area is zoned as a Mineral Exploration Area because of the pre-existing use of the area for mining and is potentially available for mining.

The 1992 plan did not state a policy on the collection of hobby materials except for provisions allowing the collection of Huon pine driftwood in Macquarie Harbour (See Driftwood Salvage, page 188).

OBJECTIVE

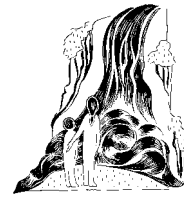
- To permit collection or removal of natural material from the WHA only where such action is considered to benefit the conservation of the material and be consistent with the objectives of this plan.
- To allow collection at a limited number of sites of pre-existing use, where collection can occur in a manner that does not impact on the World Heritage and other natural and cultural values of the WHA.

MANAGEMENT PRESCRIPTIONS

- In order to protect the natural and cultural values of the area, the collection of materials for souvenir, craft or hobby purposes will not generally be permitted except for:
 - Huon pine driftwood in the Macquarie Harbour area (see Driftwood Salvage, page 188) and
 - fossicking for specified geological material in the Adamsfield Conservation Area under permit. Such fossicking is to be conducted using unpowered hand implements in disturbed areas at specified locations and will avoid Aboriginal sites and damage to historic heritage.
- Collection for scientific and conservation purposes will be considered and will be by permit only. Note that the Aboriginal Management section, page 102 provides for the development, with the Aboriginal community, of a joint animal, plant and material use policy.

MONITORING AND EVALUATION

- Assess impacts on geodiversity, vegetation and cultural heritage in the WHA from any hobby collecting activities.



Horse Riding

BACKGROUND

Horse riding, in association with previous land uses such as grazing, has occurred in the Central Plateau Conservation Area, the adjacent Forest Reserves and some other parts of the WHA. Current areas used, as identified in the 1992 plan, include the Liffey and Meander Forest Reserves, the February Plains, Lone Gum Plain and the Central Plateau Conservation Area. The plateau is the major riding area. It provides opportunities for riding in a relatively remote environment that requires a sound knowledge of the area, an experienced horse and good preparation.

Use of the plateau by riders is presently relatively low and has been so over the period of the 1992 plan (less than 100 horse trips per year). Other areas are less than this. However, promotion of riding and/or an increase in commercial trips may result in increased use.

Riding in the Central Plateau Conservation Area presents management problems similar to those associated with walking. These include soil erosion, soil compaction, vegetation damage through trampling, pollution of waterways and damage to Aboriginal sites. Additional impacts on native vegetation caused by horses may include disturbance due to grazing and a minor increased risk of introducing weed species in horse manure.

PREVIOUS MANAGEMENT

Riding Areas

The 1992 plan required that horseriding be confined to the Central Plateau Conservation Area, Liffey and Meander Forest Reserves and possibly, following investigation with riders, three additional areas in Cradle Mountain–Lake St Clair National Park: February Plains, Lone Gum Plain and the Campbell River area.

Two of these areas, February Plains and Lone Gum Plain, have been made available for riding. A number limit, currently set at 20 horses per

riding season, applies in each area. The third area, Campbell River, has not been made available due to a lack of access, its close proximity to Cradle Mountain and because it includes a number of sensitive plant communities.

In addition to these areas riders have requested permission to use a route from the Central Plateau passing through the Walls of Jerusalem National Park to the Mersey Valley. This was disallowed under the 1992 plan.

A commercial tour operator also requested access to two kilometres of track near Adamsfield in Southwest National Park, along the alignment of the old Adamsfield pack horse track. This was also disallowed under the 1992 plan.

Riding Permits/Registration

A horseriding permit is required under Section 4-1 of the *National Parks and Reserves Regulations, 1971* to access the two riding areas in Cradle Mountain-Lake St Clair National Park. This is a requirement for riding in any National Park and is accepted by riders.

For the Central Plateau Conservation Area and the Meander and Liffey Forest Reserves (which are Conservation Areas under the *National Parks and Wildlife Act 1970*) the situation regarding permits has been less clear. While permits are required under the same regulation as for National Parks (see above), riders have seen this, in the case of the Central Plateau as an unnecessary imposition and have requested a registration system similar to walker registration instead. The 1992 plan required the introduction of a registration system but did not specifically require permits.

A compromise solution has been developed with riders which covers the Central Plateau Conservation Area and the Liffey and Meander Forest Reserves. It provides for easy (phone-based) registration by riders, delivers monitoring data for the Service and has identified instances where the Service can prosecute riders for inappropriate behaviour. This regulation based arrangement is detailed in an amendment to Regulation 4A-1 of the *National Parks and Reserves Regulations, 1971 (National Parks and Reserves Amendment Regulations, 1996)*. Its requirements are

detailed in the code of practice document 'Horseriding in the High Country'²⁶.

Research

Considerable research into horseriding impacts has occurred since 1992. Horseriding trials conducted in association with riders have allowed the identification of the most sensitive soil and vegetation types to horse trampling and the subsequent mapping of areas sensitive to riding on the Central Plateau and the February Plains.

The sensitive area mapping maps those parts of the plateau that cannot support trampling by horses, other parts that can support limited trampling (up to 10 horse passes) and yet other areas that are resistant to horse riding impacts. This allows rangers to alert riders when they may be travelling into sensitive areas.

This information has been provided to riders and has been incorporated in 'Horseriding in the High Country' and is also noted when riders register or apply for a permit.

Research on the germination of weed species from horse manure on the Central Plateau has shown that weed species can germinate for up to three years after manure is deposited. However weed invasion of the plateau is considered a minor risk as most plants do not appear to spread rapidly due to native animal grazing pressure. The code of practice includes advice on proper feeding to reduce the potential for weeds to spread via horse manure.

MANAGEMENT PRESCRIPTIONS

See also Recreational Opportunities, page 129.

Riding Areas

- Confine horse riding to the following parts of the WHA:
 - Central Plateau Conservation Area (subject to the arrangements noted above);
 - Liffey and Meander Forest Reserves (subject to the arrangements noted above);
 - February Plains and Lonegum Plain and access roads, (subject to permit and number restrictions on the plains; no number restriction on the access roads);
 - Patons Road (subject to permit, no number restrictions) and

²⁶ Horseriding groups and the Parks and Wildlife Service 1997 *Horseriding in the High Country — A Code of Practice for Riding in Tasmanian Highland Areas* (edition 2), Parks and Wildlife Service, Hobart.

- possibly, subject to an assessment of demand and the impact on values, a route along the old Adamsfield pack horse track to Adamsfield, the exact route to be agreed by the Director (subject to permit).
- Consider the above proposal and any further riding areas proposed in the future as new proposals under the new proposals assessment process, see page 66.
- Riders are to avoid areas considered sensitive or vulnerable to impact by horses including:
 - some sites of geoconservation significance (such as lunettes);
 - concentrations of endemic plant species;
 - vegetation particularly susceptible to trampling eg *Sphagnum* bogs, cushion plants, conifer communities, *Grevillea australis* and all areas above 1300 metres in altitude;
 - areas where soils have been eroded (particularly transition areas to eroded sections);
 - wet and boggy areas;
 - Aboriginal sites;
 - any areas quarantined because of disease (such as Pine Lake, see Zoning map 4, page 217) and
 - rehabilitation sites.
- Horseriders are to follow vehicle tracks where these exist. However in trackless country horseriding groups will be encouraged to spread out over the terrain to minimise vegetation disturbance, soil erosion and over-use of areas.

Riding/Use Levels

- For the February Plains and Lone Gum Plain areas, the present number limit of 20 horses will remain in force. Increases beyond this number will be considered, dependent on demand and the results of monitoring to be conducted with rider input.

Permits/Registration

- The permit system in force at the time of writing for horseriding in National Parks (section 4–1 of the *National Parks and Reserves*

Regulations, 1971) and the arrangement agreed for riding in the Central Plateau Conservation Area and the Liffey and Meander Forest Reserves (section 4A–1 of the *National Parks and Reserves Amendment Regulation 1996*) will remain until the proposed Walking Track Management Strategy quota system is developed (see page 172). The present system, will, over time and in consultation with riders, be integrated with the walking track management system.

- Inform Forestry Tasmania officers when registrations are received for riding with the WHA Forest Reserves.
- As riders receive their permit or register for riding, advice will be given by rangers on areas to avoid based on sensitive area maps produced by the Service (see Previous Management, this section and Monitoring and Evaluation below).
- Revise and update the code of conduct for horseriding as required in conjunction with horseriders.
- Monitor the impacts (see below) of horseriding and, as necessary and in consultation with users, amend the riders' code or areas open to riding.

MONITORING AND EVALUATION

- Ranger staff will monitor horse and rider numbers via the permit system or riding arrangements. This will include the number of trips that did not proceed or went ahead with less than the proposed number. The routes used and the number of trips undertaken in particular areas will be recorded on a map for each riding season.
- These routes and figures are to be compared with the acceptable use levels identified from research for these areas, bearing in mind the ability of horses to spread out and the sensitivity of the most sensitive community ridden over. Riders will be requested to travel via other routes once three quarters of the identified acceptable use figure has been reached.
- Should numbers approach or exceed acceptable use levels, or unacceptable levels of horse-related damage are observed,

management action will be taken in association with riders.

- At appropriate intervals, evaluate observable horse-related impacts above sustainable levels in the most sensitive environments along major areas traversed, in consultation with riders and modify practices as appropriate.



Hunting

BACKGROUND

Parts of the WHA have a long history and tradition of hunting pre-dating the inscription of the area on the World Heritage List. The 1992 plan provides opportunities for hunting in two broad areas — Macquarie Harbour and the Central Plateau Conservation Area (CPCA). In Macquarie Harbour duck hunting occurs within the Farm Cove Game Reserve and the Braddon River permit area. In the CPCA wallaby and rabbit hunting occurs within specified Hunting Areas (see map 3, page 216 for a general view of all Hunting Areas; for a detailed view of Central Plateau Conservation Area Hunting Areas see map 4, page 217). The Service requires hunters to have a current gun licence, a current hunting licence and a permit to hunt in the area prior to hunting. Only shotguns may be used for hunting in both areas.

At present and in the foreseeable future, hunting poses no significant risk to the conservation status of the species being hunted. Although hunting is seen by some as a traditional recreational activity, it is seen by others as an inappropriate activity in a world heritage area.

PREVIOUS MANAGEMENT

Macquarie Harbour Areas

Only ducks are hunted here. The season runs from early March to early June.

A guide booklet identifying protected species has been prepared and is issued with each permit for

duck hunting in the Farm Cove Game Reserve and Braddon River permit area.

Central Plateau Conservation Area

Only wallaby and rabbits are hunted here. The season runs from April until November.

Two minor adjustments to the CPCA hunting areas have occurred during the term of the last plan. The first adjustment was to provide better access to some hunting areas; the second was to provide a new hunting area to compensate hunters for loss of access to the hunting area at Pine Lake (due to the establishment of the high altitude dieback Quarantine Area, see map 4, page 217). These changes maintain the original size of the hunting area as required by the 1992 plan and, where possible, avoid conflicts with other user groups.

Wallaby surveys were undertaken and indicate no significant change in wallaby numbers between 1988 and 1995.

A draft hunting code has been negotiated with hunters, but has not been finalised.

OBJECTIVES

- To sustainably manage recreational hunting under permit within specified areas of the WHA.
- To minimise conflict between hunting and other recreational activities.

MANAGEMENT PRESCRIPTIONS

General

- With two minor exceptions (see next section) confine hunting within the WHA to duck shooting in the Farm Cove Game Reserve and Braddon River permit area, and the hunting of wallabies and rabbits to the hunting areas of the Central Plateau Conservation Area (see map 3, page 216).
- Only shotguns may be used.
- Publicise hunting areas and times for the information and safety of other users.
- Finalise and as necessary update a code of conduct for hunting in conjunction with hunters.
- All feral animal eradication programs will be undertaken by Service staff or other

appropriate individuals under written permit agreed to by the Director. (See also Introduced Animals, page 87).

Farm Cove Game Reserve and Braddon River Permit Area

- Duck hunting, by licensed hunters during the normal duck hunting season, will be allowed under permit in the Farm Cove Game Reserve and Braddon River Permit Area (see map 3, page 216).
- Consider a minor expansion of duck hunting to a defined area on the southern shore of the Macquarie Harbour Historic Site. Thoroughly assess demand, potential conflicts with tourism, the opinion of the general public and the impact on World Heritage and other natural and cultural values of the WHA prior to making a final decision.
- Investigate the demand for, and the suitability of, a land-based hunting site (for wallabies) in a small area adjacent to the Farm Cove Game Reserve. Assess the potential conflict with other users, the opinion of the general public and any impacts on the World Heritage and other natural and cultural values of the WHA prior to making a final decision.
- Dogs may be transported in vessels in the Macquarie Harbour Historic Site. Dogs will be permitted to the high water mark within Farm Cove Game Reserve and Braddon River Permit Area and may, if tied up, be kept at Kelly Basin and Braddon River campsites. They may also be allowed under the same conditions at the proposed camp on the eastern shore of Birchs Inlet (once constructed - see page 154).
- Allow a maximum of one dog per hunter for the purpose of retrieving ducks.
- Existing hides may be maintained using materials from outside the WHA. No new hides are to be constructed.
- Introduce a licensing system for duck hides in line with the Statewide policy for duck hides (being finalised at the time of writing).

Central Plateau Conservation Area

- Allow hunting of wallabies and rabbits by licensed hunters under permit in the areas shown in map 4, page 217. In consultation with hunting organisations and others,

boundary changes to the Hunting Area may be made, provided that the overall size of the Hunting Area remains constant and the public are made aware of these changes.

- The eight month hunting season will be from the first Saturday in April to the last Sunday in November. Note that this may differ from the season declared for those parts of the Central Plateau Protected Area located outside the WHA.
- Hunting is only permitted during daylight hours.
- Allow a maximum of 2 dogs per hunter for the purpose of tracking and flushing out game only, with a maximum of 6 dogs per party.
- Continue to undertake surveys of the wallaby population in the Central Plateau Conservation Area and, if necessary, modify permit conditions and policies according to survey results.

MONITORING AND EVALUATION

- Monitor the numbers of each hunted species for conservation purposes and to measure the viability of the hunting resource.
- Monitor the level of hunting in the WHA.
- Monitor complaints/conflicts with other users.



Huts and Shacks

BACKGROUND

This section deals with structures within the WHA constructed primarily to provide accommodation (not including commercial accommodation— for this see Accommodation, page 131, and Guided Tours, page 179). These include huts open to the public, huts leased or licenced to groups and huts leased or licenced to private individuals for their exclusive use (usually referred to as 'shacks').

There are more than 60 huts scattered throughout the WHA, ranging from crude shelters built by anglers and walkers to the huts along the Overland Track which are equipped to a reasonable standard. In most huts maintained by the Service, users can expect to find a coal or gas burning stove, bunks, table and seating. Toilets are usually provided. The majority of the huts are in the northern part of the WHA, in the Cradle Mountain-Lake St Clair National Park, the Walls of Jerusalem National Park and the Central Plateau Conservation Area. Traditionally, the Southwest National Park has been largely without walkers' huts.

People's perceptions of the value of huts in the WHA vary widely; to some they are an unwanted intrusion into the wilderness, while others value them highly for both practical and cultural reasons. Some huts may be culturally significant, while others may no longer be required.

Huts provide a degree of comfort to users and may result in a reduction in campsite proliferation. Huts also act as a social focus and as such provide an experience not available in areas without huts. Conversely, huts may be visually intrusive, reduce the wilderness value of an area and may also encourage less experienced walkers to venture into an area without a tent — posing a threat to their safety if the weather rapidly deteriorates. Use of huts may also create local site degradation due to the dumping of coal ash, rubbish and trampling.

Shacks or huts (not including commercial huts) that are licensed to or used by private individuals or groups include those located on the Lower Gordon River (Boom Camp), the shores of Macquarie Harbour (Reindeer Lodge and Braddon River camp), in Cradle Valley (Blandfordia and the Scout Hut) the Central Plateau Conservation Area (Lake Augusta, Lake Ada, Ada Lagoon, Pillans Lake, Lake Malbena, near Lake Tiddler and Lake Field) and east of Cockle Creek. These are mostly basic huts used as bases for fishing or walking. In most cases annual licences are issued by the Department of Primary Industries, Water and Environment under section 42 of the *Crown Lands Act 1976* or by the Hydro-Electric Corporation for the shacks on HEC-vested land near Lake Augusta. The lease for shacks on Hydro-Electric Corporation vested land at Lake Augusta currently requires their removal by 30 June 2000. Some of the licensed huts are in poor condition and badly sited.

PREVIOUS MANAGEMENT

The 1992 plan required that all existing huts and shelters be assessed with regard to the cultural significance, recreational significance and environmental impact of the structures on their immediate surrounds. It directed that they were to be retained, maintained or removed depending on the assessment and following public consultation.

The Service has undertaken numerous cultural assessments of huts throughout the WHA. These assessments have followed the conservation planning model provided by the Burra Charter (see Cultural Heritage, page 96). A full recreational and environmental assessment of all huts is yet to be commenced.

The Service has developed the Community Huts Partnership program, which defines a co-operative management structure between the Service and interested parties, with the aim of conserving and maintaining huts in the WHA.

Several huts have been constructed or removed since 1991. Cirque Hut on the Overland Track has been removed and effectively replaced by the new Waterfall Valley Hut. Lake Nameless Hut has been reconstructed by the Mountain Huts Preservation Society. A hut at Pillans Lake on the Central Plateau was destroyed by fire and has since been rebuilt. The following huts/shelters have been removed in accordance with the provisions of the 1992 plan and for safety reasons: Eagle Creek, Cracroft Junction, Deadmans Bay, The Narrows and Hartz Mountains.

OBJECTIVE

- To manage huts for the ongoing benefit of the public and to apply the general principle that huts will be available for public or community group use.

MANAGEMENT PRESCRIPTIONS

General

- Manage each hut and its immediate surroundings with regard for all the values of the area, but noting the particular attention needed for the cultural values of the hut.
- Manage huts within the constraints imposed by the protection and conservation of the other natural and cultural values of the area.
- Provide toilet facilities appropriate to the

venue as necessary to protect environmental values and human health.

- Encourage the active involvement of the community in the management of huts, in particular through the Community Huts Partnership.

Assessment of Huts

- Assess all existing huts (in the case of privately leased/licenced shacks, this assessment will be done in association with the shackholder) with regard to:
 - the cultural significance of the structures and their immediate surrounds;
 - recreational significance and
 - environmental impact (including effect on scenic and wilderness quality and, where relevant, the impact of fires and firewood collection).
- Huts may be retained, maintained or removed depending on this assessment and following public consultation.
- Those huts or shelters to be retained may be replaced should they be accidentally destroyed.

Location of Huts

- Retain huts along the Overland and Frenchmans Cap Tracks, in the Central Plateau, Macquarie Harbour and Lower Gordon river areas for public accommodation consistent with conservation of cultural resources and environmental protection.
- Reconstruction of two former huts is allowed at Lady Lake on the Central Plateau and on the Eastern side of Birchs Inlet, subject to the minor pathway of the New Proposals and Impact Assessment Process (see page 67) and an assessment of public interest in establishing and maintaining these structures. In the Southwest National Park development of infrastructure, including huts, is not allowed in view of the natural character of the area.
- The existing number of public huts is considered adequate and therefore additional huts are not currently envisaged. However, new huts may be considered provided that:
 - they are compatible with the zoning scheme;

- they are compatible with the natural and cultural values of the area;
- resources are available for the ongoing maintenance of the hut and
- the new proposals assessment and Impact Assessment Process is followed, see page 66.

Private and Community Group Huts

- Do not permit new private non-commercial huts.
- Maintain a register of all private huts in the WHA to ensure that their location, lease and licence details are accurately recorded.
- Review the status of the existing leases and licences following the assessment process described above, as part of the State-wide shack categorisation process. In no instance shall free-holding be an option.
- Should the Bernacchi centre be removed from the Central Plateau, the Commonwealth Government will rehabilitate the site.

Commercial Huts

See Guided Tours section, page 179.

MONITORING AND EVALUATION

- Monitor progress with the assessment of huts and shacks.
- Monitor and evaluate the sustainability of activities associated with huts and modify practices as required.
- Monitor the degree of community involvement/support in hut maintenance through the Community Huts Partnership program.



Oversnow Vehicles

BACKGROUND

Oversnow vehicles include snowmobiles and oversnow tracked vehicles. These vehicles are

currently not used in the WHA, largely due to the unreliable snow conditions in the area and the remoteness of snow-covered areas from vehicular access.

In particular circumstances, however, such vehicles may be valuable for use in search and rescue operations as they may provide a means of covering greater distances in a shorter time than people on skis or snowshoes.

The use of oversnow vehicles can impact on the experiences of visitors seeking isolation from the sights and sounds of humans. Oversnow vehicles may also damage fragile alpine vegetation.

PREVIOUS MANAGEMENT

No management has been necessary since there has been no interest expressed in the use of such vehicles within the WHA.

OBJECTIVE

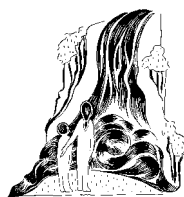
- To ensure that the off-road use of oversnow vehicles is restricted to search and rescue operations only.

MANAGEMENT PRESCRIPTIONS

- Road-registered oversnow vehicles may be used on open public roads.
- Only permit the use of oversnow vehicles off-road for search and rescue operations.

MONITORING AND EVALUATION

- In the event of oversnow vehicles being used off-road for search and rescue purposes, the effectiveness of the vehicles and the impact of their use will be evaluated.



Picnicking

BACKGROUND

The majority of WHA visitors come on day or part-day trips. Many interstate tourists visit

several WHA locations in this way while touring around the State. Local visitors frequently visit favourite locations on a day trip.

Picnic facilities are provided adjacent to the WHA at Cockle Creek, Hastings Caves, Mt Field, the Maydena toll gate, the Needles and Wedge River. Picnic facilities within the WHA are provided at Hartz Mountains, Teds Beach on the Gordon River Road, Lake St Clair, the Franklin River, at the Cradle Mountain Visitor Centre and near Waldheim, Marakoopa Cave, Liffey Valley, Meander Forest Reserve and Liawenee. Visitor facilities at these locations may also include visitor information and interpretation, tables, fireplaces, toilets, cooking shelters and nature walks. Many of the facilities are run-down or inadequate and need upgrading or replacing; others require rationalising.

PREVIOUS MANAGEMENT

During the term of the 1992 plan, visitor picnic facilities have been upgraded at Lake St Clair, Liffey Forest Reserve and Hartz Mountains. At the time of writing upgrades are in progress at Bird River, Cockle Creek and Franklin River.

MANAGEMENT PRESCRIPTIONS

- Provide picnic facilities at all Visitor Services Zones and in most Visitor Services Sites (see map 5, page 218) and in accordance with the recommendations of the Recreational and Tourism Strategy (see page 176). The level of facilities provided will take account of nearby facilities outside the WHA.
- Prepare detailed site plans for all major picnic areas to be redeveloped (these may be part of more general site plans for some areas).
- Finalise and/or implement site plans for the redevelopment of picnic areas at Cockle Creek, Wedge River, Lake St Clair, Cradle Valley, Marakoopa Cave, Liawenee and the Bird River Bridge.
- Compile a manual of designs and standards for picnic furniture suitable for Visitor Services Sites.
- Maintain picnic facilities at Hastings, Mt Field, Maydena toll gate, the Needles, Teds Beach, Franklin River and Cradle Mountain in accord with the recommendations of the Recreation and Tourism Strategy.

- Liaise with Forestry Tasmania regarding any proposed redevelopment of picnic facilities in the three WHA Forest Reserves.

MONITORING AND EVALUATION

- Regularly monitor the condition of picnic facilities and maintain as necessary.
- Monitor the level of use and satisfaction of visitors with picnic facilities.



Plaques and Memorials

BACKGROUND

A number of plaques and memorials have been erected in the WHA. Some commemorate historic events or people associated with the area, while others record the loss of life.

The best known memorial in the WHA marks the grave of Gustav Weindorfer in Cradle Valley. Nearby, at the Cradle Mountain Visitor Centre, are plaques commemorating the inscription of the area on the World Heritage list and the opening of the centre. Another example is a marked grave that exists beside the Lyell Highway near King William Saddle, at which there is also a plaque commemorating the opening of the Lyell Highway.

Some plaques and memorials may have interpretive value and assist people in understanding the history of the area. On the other hand, plaques and memorials can be visually intrusive and may detract from the natural and cultural environment. Therefore, it is important that there is not a proliferation of them and that those installed are unobtrusive in design and carefully sited.

PREVIOUS MANAGEMENT

There have been very few requests since the 1992 plan to place new memorials in the WHA. Those that have been approved have satisfied the criteria listed under management prescriptions below.

OBJECTIVE

- To acknowledge significant events and people in the WHA in ways which do not detract from the natural and cultural values of the area.

MANAGEMENT PRESCRIPTIONS

- Generally discourage the placement of memorials and plaques in the WHA and only permit them if they commemorate events or people of significance to the area.
- Approved plaques and memorials may be erected in the Visitor Services Zones, or Visitor Services Sites, in the Recreation and Self-Reliant Recreation Zones with preference being given to the more developed zones (see map 3, page 216). Memorials and plaques will not, under normal circumstances, be permitted in the Wilderness Zone, though this is at the Director's discretion and requests may be considered under exceptional circumstances.
- Where possible, site plaques and memorials in or adjacent to huts or other appropriate structures.
- Design and site plaques and memorials so that they do not intrude upon or damage the natural or cultural environment. Design plaques and memorials to require minimum maintenance, to be resistant to vandalism and to be in keeping with any interpretation at the site.
- The planting of commemorative trees or the attaching of plaques to trees is not permitted.
- Commercial sponsorship may be acknowledged on plaques associated with park infrastructure but no advertising will be permitted.
- Plaques acknowledging park structures provided from bequests may be attached to the structure.
- Pre-existing plaques and memorials may remain.
- New memorial or plaque requests are to be assessed to see that they satisfy the above plan prescriptions.

MONITORING AND EVALUATION

- Keep records of all known plaques and memorials and monitor their location and any public comment on them.



Public Safety and Risk Management

BACKGROUND

The Service is concerned to protect visitors from undue, unnecessary and unreasonable hazards. Education aimed at promoting understanding of natural hazards and the possible consequences of disregarding them is a major part of how this is achieved. Many visitors do not possess the experience or knowledge to recognise potential dangers such as hypothermia, becoming lost whilst trying to follow unmarked or snow-covered routes, sudden extreme changes in weather conditions or fire behaviour.

Responsibility for search and rescue operations in the WHA rests with the police, although they call on the Service's assistance and local knowledge and are often assisted by other specialist groups when required. The Service is also a member of the Statewide Search and Rescue Liaison Committee which has been established to co-ordinate and plan search and rescue effort. In the past, most search and rescue operations in the WHA have been associated with bushwalking, rockclimbing, water activities, vehicle accidents and fire evacuation.

PREVIOUS MANAGEMENT

Track notes, Minimal Impact Bushwalking (MIB) information and educational material distributed by the Service all contain basic safety information to alert users to potential hazards and make them aware of safety precautions such as the need to register their trip.

Following the collapse of a viewing platform in a New Zealand park, the Service undertook a

review of the compliance with statutory requirements of some elevated structures for which it was responsible, including many within the WHA. This resulted in the temporary closure of several sections of walking track while structures were upgraded.

There has been no repeat of the serious outbreaks of gastroenteritis which occurred on the Overland Track in the late 1980s. This can probably be attributed to the provision of additional toilet facilities and the success of the MIB campaign in educating visitors on the disposal of faecal waste.

OBJECTIVES

- To protect visitors from unnecessary and unreasonable exposure to hazards without detracting from visitors' quality of experience, especially their sense of challenge and adventure.
- To educate and encourage visitors to adopt safe practices and to provide them with sufficient and appropriate information about potential hazards to enable them to make responsible decisions.
- To minimise health risks to visitors.
- To facilitate the provision of rapid and capable assistance in the event of an emergency.
- To minimise the occurrence of destructive and/or dangerous human behaviour (including vandalism, arson etc).

MANAGEMENT PRESCRIPTIONS

Visitor Assistance And Advice ✓ [KDO 9.1]

- Provide information, interpretation and educational material that raises visitors' awareness of their individual responsibility for their own safety and focuses on ensuring they understand potential hazards and are sufficiently well prepared.
- Provide targeted information and guidelines for potential participants in high-risk activities (eg rock climbing, rafting, bushwalking).
- Make available advice to visitors on how to avoid human health problems such as parasites, disease, water contamination etc. (see also Environmental Quality, page 110)

- Encourage users of remote areas to leave details of a trip with a reliable friend or relative who will alert police if they are overdue. In addition encourage users to register with police, rangers or other Service officers, giving relevant details of their trip.

Public Risk ✓ [KDO's 9.1 and 9.2]

- ✓ Establish a risk management system that provides for regular identification, inspection, reporting and amelioration of existing and potential risks to public safety. [KDO 9.1]
- Develop and implement an asset management program to manage, maintain and replace, as required, Service facilities and infrastructure to minimise the risk to public safety.
- Where a remote area facility is to be removed or replaced, all reasonable steps are to be taken to inform users of its removal or when it will be replaced.
- ✓ Take appropriate action to warn the public of potential hazards to visitor safety within the WHA, and of appropriate ways of avoiding or minimising risks. [KDO 9.1]
- Take reasonable steps to ensure that permitted events and activities within the WHA are compatible with public safety requirements.
- Encourage the development of guidelines and/or codes of practice to ensure high standards of safety for commercial tours and recreation activities (see also Accreditation, page 181).
- ✓ Develop and implement strategies to address environment-related human health issues such as parasites, disease, water contamination, etc. (See also Environmental Quality, page 110). [KDO 9.1]
- Ruins and other abandoned structures of cultural value will not be demolished. Rather, necessary precautions will be taken and the public advised of any known danger and how to minimise risk.
- ✓ Develop preventive strategies to target and minimise dangerous or destructive human behaviours or practices (including arson, vandalism etc). [KDO 9.2]

Emergencies and Search and Rescue ✓ [KDO's 9.3, see also KDO 4.3.3]

- Put in place the capacity to respond efficiently and effectively to identified hazards to public safety and emergency situations.
- Equip and staff field centres sufficiently to provide a reasonable response to emergency situations.
- Formulate and regularly review search and rescue operational procedures in consultation with Tasmania Police.
- Continue to provide opportunities within the WHA for training in search and rescue and survival skills.
- Co-operate with other authorities in relation to search and rescue and protection from fire (see also Fire Management, page 108).

MONITORING AND EVALUATION ⚖

- ⚖ Monitor information related to risk management, visitor safety and health (eg incidence of death, injury or environment-related illness). [KDO 9.1]
- ⚖ Monitor incidence and extent of loss or damage to buildings, facilities and other assets within the WHA (and also to neighbouring property in the event of fires spreading from the WHA). Note causes and recommend future actions to decrease risk. [KDO 9.2]
- ⚖ Periodically review the efficiency and adequacy of the Service's search and rescue and safety measures, particularly after major exercises. [KDO 9.3]



Roads and Sightseeing

BACKGROUND

Vehicle-based sightseeing is one of the most popular activities undertaken in the WHA. This

form of recreation is often combined with activities such as short walks and picnicking. Facilities required by sightseers include roadside directional and interpretive signs, roadside viewing bays, short walks, picnic and barbecue facilities, toilets and visitor centres. The most suitable roads for sightseeing are the Lyell Highway, Lake Highway, Anthony Road and Gordon River Road. These offer the potential to gain a good appreciation of the WHA on, or close to, a major touring route of reasonable standard linking tourist destinations.

There are approximately 455 kilometres of roads and tracks in the WHA. (See Vehicle Tracks and Recreational Driving section for details on vehicle tracks, page 166). 15 roads provide access for conventional vehicles to or within the WHA.

Several major roads provide access to the WHA including: the Lyell Highway, the Lake Highway, Scotts Peak Road and Gordon River Roads. The Scotts Peak and Gordon River Roads are private roads controlled by the HEC. The HEC would like to divest itself of responsibility for these roads and this is presently being considered at a State level.

Other principal roads provide access to Cradle Valley, Cynthia Bay, Lake Augusta, Lake Mackenzie (HEC private road) and Nora River. Forestry roads give access to Hartz Mountains, Meander and Liffey Forest Reserves, Farmhouse Creek (Picton Valley), west of the Derwent River at Wayatinah, the upper Mersey, upper Forth and Little Fisher Valleys.

The Service is responsible for maintenance of the Kelly Basin Road south of the Darwin Dam, the road within the Hartz Mountains National Park, the Lake Augusta Road and the former forestry roads within the Little Fisher Valley.

PREVIOUS MANAGEMENT

Only minor changes have occurred in relation to roads and road-based sightseeing in the WHA since 1992.

The Hartz Road has been upgraded and a turning circle established at the end of the road. Road-side sites have been upgraded at Franklin River and Nelson Falls Visitor Services Sites. A new lookout was constructed near the Lyell Highway at Donaghys Hill. An audio-tape was produced for visitors travelling along the Gordon River Road.

The Department of Transport commenced a planning study to address environmental issues associated with the existing gravel section of the Cradle Mountain Tourist Road between Pencil Pine and Dove Lake.

The State Government has conducted a preliminary investigation on a variety of route options for constructing a link road between the Derwent and Huon valleys. At this stage, none are being progressed. The State Government wishes to retain the option of constructing a link road between the Derwent and Huon valleys through a small part of the WHA. The nature of the route would be subject to agreement between the Tasmanian and Commonwealth governments.

OBJECTIVES

- To maintain adequate access for conventional vehicles to the designated Visitor Service Zones and Sites in and adjacent to the WHA in keeping with the scale of the facilities provided and levels and types of use intended.
- To maintain, develop and promote appropriate opportunities for vehicle-based sightseeing that provide ready public access to a wide variety of WHA environments.

MANAGEMENT PRESCRIPTIONS

See also Recreation Opportunities, page 129 and Department of Infrastructure, Energy and Resources, Transport Division, page 193.

General

- Promote the Lyell Highway, Gordon River Road, Lake Highway and the Anthony Road as major WHA sightseeing routes.
- Promote the adoption by relevant agencies of appropriate standards for road access to Visitor Service Zones and Sites in and adjacent to the WHA in keeping with the scale of facilities provided and levels and types of use intended.
- Provide suitable roadside facilities for visitors (see also Picnicking, page 155 and Visitor Facilities, pages 169).
- Proposals for new roads in the WHA will be subject to a thorough assessment through an Environmental Impact Assessment process.

This will include an examination of all route options, environmental, social and economic factors and will be available for public comment. Approval of any new road requires the agreement of Ministerial Council and amendment of this management plan. Should a new road be proposed these matters will be dealt with through the New Proposals and Impact Assessment Process, see page 66.

Maintenance

- Liaise with relevant agencies or organisations to maintain roads to allow for conventional vehicle and, where appropriate, coach access to the following locations:
 - the Cradle Mountain Visitor Centre and Dove Lake;
 - Marakoopa Cave;
 - Liffey Falls State Reserve (lower section);
 - Meander Forest Reserve;
 - Liawenee;
 - Visitor Services Sites along the Lyell Highway;
 - Cynthia Bay;
 - Strathgordon;
 - Scotts Peak area;
 - Mt. Field;
 - Hartz Mountains National Park;
 - Hastings Caves and
 - Cockle Creek.
- The Service is responsible for maintaining the following as gravel roads to Class 2 standard (as defined by the Forest Practices Code):
 - Lake Augusta Road;
 - Hartz Road from the park boundary to the carpark and
 - the Kelly Basin Road south of the Darwin Dam to the Nora River junction.
- Maintenance and roadside clearing is to be sensitively undertaken by relevant agencies in accordance with Service guidelines or in accordance with other agency guidelines acceptable to the Service.

- Carry out maintenance on the gravel road beyond Lake Augusta to the Lake Ada carpark and maintain as a minor road of a standard to allow safe two-way traffic. Continue to close for the duration of the wet season.
- Forestry Tasmania is responsible for maintaining the Riversdale Road within the Liffey Forest Reserve.
- Prepare a register of Service-owned road and track assets in the WHA and review the maintenance of those roads and tracks in relation to structural issues, environmental management and financial input to upkeep.

Cradle Mountain

- Retain the Cradle Mountain Road from the Visitor Centre to Cradle Valley carpark as a narrow, winding tree-lined road to protect the character of the park. Undertake minor upgrading of the road from Pencil Pine to the Waldheim turnoff in Cradle Valley. Maintain the final section of the Dove Lake Road from the Waldheim turnoff to Lake Dove to a similar standard to that existing. Mute the road surface to reduce visual impact from the day walk area. The road may be sealed to reduce environmental damage to the roadside vegetation.
- Landscape and mute the Dove Lake carpark.
- When circumstances require, following public discussion and subject to further detailed planning and feasibility considerations being satisfactory, introduce a public transport system from Pencil Pine Creek into Cradle Valley in accordance with the Pencil Pine-Cradle Valley Visitor Services Zone Site Plan. At times of peak traffic use, implement parking and traffic control measures as necessary.

Other Areas

- Extend the existing road nearer to the shore of Double Lagoon (Central Plateau) to prevent further damage from off-road vehicle use.
- The developer is responsible for maintaining the access road to Pump House Point from the Lake St Clair turnoff to the standard specified in the Pump House Point Site Plan.

Research

- Assess the current provision of conventional vehicle access to the variety of WHA environments and use this research to help guide development of Visitor Service Zones and Sites.

MONITORING AND EVALUATION

- Survey visitors regarding their satisfaction with vehicle-based sightseeing and Visitor Service Site facilities.



Signs

BACKGROUND

Signs are management tools which can be used to orientate visitors (directional), inform them about their surroundings (interpretive), or influence their behaviour (managerial). They may function individually or form part of an overall sign system.

Managerial and directional signs in the WHA are usually routed timber, with both board and lettering specifications varying depending on location and function. Interpretive signs are either routed timber or enamel-coated aluminium of varying size and design.

The improper, inconsistent or excessive use of signs may weaken their value as a means of communication. Uniform sign design, including appearance, construction and placement, is important in contributing to a recognisable identity for the Service. However, sign design must be in keeping with the type of environment in which a sign is located. Any sign, regardless of design, is likely to be obtrusive in a remote, untracked environment. Similarly, a roadside sign would appear out of place along a walking route. Signs, like all other management input, must comply with the management objectives for each particular zone.

PREVIOUS MANAGEMENT

The Service's 'Departmental Signs Manual' sets out the principles and procedures for signs on lands managed by the Service, including the WHA.

OBJECTIVES

- To provide a system of indoor and outdoor signs for managerial, interpretive and directional purposes which clearly and effectively communicate messages to visitors within the WHA.
- To ensure that sign design, including appearance, construction and placement, is appropriate for the environment in which signs are located.
- To ensure that visitors are able to easily find their way to the WHA.
- To use the World Heritage logo as appropriate and with regard to the requirements of the Operational Guidelines of the World Heritage Convention.

MANAGEMENT PRESCRIPTIONS

- Design, construct, site and maintain all Service signs in accordance with the guidelines contained in the Service's Signs Manual.
- Encourage sign design and construction that is tailored to the requirements of the surrounding area and/or values being interpreted.
- Restrict the use of signs to those situations where other means of communicating messages to visitors are either impractical or less effective.
- Minimise the use of signs in remote areas.
- The appropriateness of various sign types in each management zone is generally as follows:

	MAN	INT	DIR
Wilderness	Yes *	No	No
Self-Reliant Recreation	Yes **	No	No
Recreation	Yes	Yes†	Yes
Visitor Services	Yes	Yes	Yes

[MAN = Management, INT = Interpretive, DIR = Directional]

- * Strictly for management and environmental protection purposes only. Unobtrusive.
 - ** Signs to be kept to a minimum. Generally for important management and environmental protection purposes only. Unobtrusive.
 - † Only in highly serviced areas eg Overland Track and only where other facilities are provided (eg interpretive boards in huts). Not in relatively natural areas eg South Coast Track.
- Signs are to be in accordance with the Walking Track Management Strategy. The strategy may override the general zoning-based sign prescription (see table above) for specific areas.
 - Develop specific criteria for signs in each management zone and include in the Signs Manual.
 - Construct or replace signs so as to conform with the Signs Manual, the appropriate zoning criteria and/or the track classification.
 - Consult with the Department of Infrastructure, Energy and Resources, Transport Division regarding the provision of distance and directional signs to the WHA.
 - Consult with Forestry Tasmania regarding signs to, and within, the WHA Forest Reserves.

MONITORING AND EVALUATION

- As part of ongoing maintenance programs assess signs annually and carry out maintenance and replacement as required.



Skiing

BACKGROUND

Skiing in Tasmania is severely limited by unreliable snow conditions. Downhill skiing in the State is confined to the skifields at Mt Field and Ben

Lomond National Parks, both of which are located outside the WHA. Proposals have occasionally been made to develop skifields on the Snowy Range and at Mt Rufus.

Despite the growing popularity of cross country skiing, relatively few people undertake the activity in the WHA. This is largely due to the remoteness of skiing areas from vehicular access and the infrequency of suitable skiing conditions.

Of possible cross country skiing activities, only cross country touring is generally undertaken in the WHA. Touring opportunities range from day or part-day trips to extended trips of a week or more in duration. Ski touring is undertaken on Mt Rufus, the Labyrinth, the Cradle Plateau, the Snowy Range, the Eliza Plateau (Mt Anne), at the Walls of Jerusalem and occasionally at Hartz Mountains. With the exception of Hartz Mountains, none of these skiing areas are directly accessible by road.

Facilities provided in the WHA for ski touring are limited. Snow poles mark various walking tracks in the WHA and are used by both walkers and ski tourers. Although snow poles aid navigation in poor visibility, they may also provide skiers with a false sense of security and may encourage inexperienced skiers to undertake trips for which they are not fully prepared. Ski trails have not been developed in the WHA.

PREVIOUS MANAGEMENT

The limited use of the WHA for any type of skiing has meant that no active management has been necessary.

OBJECTIVES

- To provide for the continued use of appropriate areas of the WHA for undeveloped cross country skiing subject to the impact of this activity remaining minimal.

MANAGEMENT PRESCRIPTIONS

- Downhill skiing facilities will not be developed because of the unreliable snow conditions and the need to protect sensitive alpine environments.
- Maintain existing snow pole lines in Visitor Services and Recreation Zones in accordance with the Walking Track Management Strategy.

No new snow pole lines are to be erected in the Wilderness and Self-Reliant recreation Zones.

MONITORING AND EVALUATION

- Regularly inspect popular skiing areas for environmental damage and modify management requirements accordingly.



Special Events

BACKGROUND

From time to time there are requests by private or commercial groups to use the WHA for annual or one-off special events. These events are often competitive in nature, occur usually over one or two days and can potentially involve large numbers of people. Because of this they can have a significant impact on the WHA and other users.

At the time of writing the only regular competitive events are the 'Cradle to Coast' endurance event, the Overland Track run (both take place along the Overland Track) and the 'alpineO' orienteering event on the Central Plateau. It is not possible to draw up a comprehensive policy for all possible special events but the objectives and prescriptions below give broad guidance.

PREVIOUS MANAGEMENT

Permits for special events have been granted on a case-by-case basis in the past. In some, but not all cases, a special event form has been filled out.

An alpine orienteering event has been held on the Central Plateau most years since 1992. Service staff have assisted organisers by identifying sensitive areas to be avoided, by giving advice on minimising impacts and alerting other users to the event.

OBJECTIVES

- To ensure that special events are carried out in a way that has minimal impact on the World Heritage and other natural and cultural values of the WHA.
- To ensure that special events do not adversely impact on other users' experience of the area.
- To ensure that steps are taken by special event organisers to address safety issues.

MANAGEMENT PRESCRIPTIONS

Permits

- A special event permit must be obtained from the Service's relevant regional manager prior to the staging of any special event. Should the proposal have potential for significant impact, the New Proposals and Impact Assessment process (page 66) will be used to assess the application. If the application is successful, the regional manager will sign the form and note any requirements of the organiser. A signed application then becomes the permit.
- In considering an application for a special event the regional manager will take into account the following factors:
 - availability of suitable alternative venues outside the WHA;
 - environmental impacts;
 - impacts on other visitors;
 - safety of competitors and spectators and
 - cost-benefit for the management of the area.
- Permits will not normally be issued when the proposed special event involves a breach of otherwise widely enforced guidelines (for example, party size limits under the Walking Track Management Strategy).

General

- Events will normally only be permitted in the Visitor Services or Recreation Zones. The Self-Reliant Recreation Zone may be used if number limits from the track strategy are abided by and the rationale for use of the zone is agreed. The Wilderness Zone is not available for special events.
- The Service will recommend to applicants for special events who also access tenures

adjacent to the WHA to consult the relevant land manager.

- Structures will not normally be permitted to be erected in association with special events. A pre-condition for erecting any temporary structure is that it be removed promptly upon completion of the event and the site be rehabilitated. A bond may be held against appropriate reinstatement.
- The provisions of the Walking Track Management Strategy will apply to special events. Variations from the provisions may only be granted by permission in writing from the Director.
- The Service takes no responsibility for the safety of competitors in special events.
- Where possible, rangers are to alert other users of the area to the event so they can avoid the area if they so desire.

Orienteering Special Events

- Orienteering or rogaining events may occur within the Recreation and Self-Reliant Recreation Zones of the Central Plateau Conservation Area provided:
 - use of identified trampling-sensitive areas is minimised;
 - proposed campsites, areas used for competition and checkpoint locations are assessed with Service representatives to minimise environmental impact, with final locations being approved by the district manager;
 - toilet waste is removed from campsites where possible, or treated on-site in a manner approved by the district manager and
 - numbers are within the carrying capacity of camping areas (this may require a number limit being set on the event prior to it being advertised).
- Any additional areas requested for orienteering or rogaining will be considered using the special event permit system and bearing in mind the above conditions.

MONITORING AND EVALUATION

- File all copies of special event permit requests, including those that were not approved.

- Note any additional impacts following the event and record on file any additional conditions that should be applied to such events in future. Forward copies of these reports to organisers of the event.
- Record and file any complaints or compliments from other users, spectators or competitors regarding the event.



Surfing

BACKGROUND

Since at least the mid seventies surfers have been visiting breaks along the WHA coastline. Quality surf breaks are found from Fishers Point to the north of Nye Bay, but South Cape Bay with approximately five recognised breaks, attracts the most use.

Surfers access both Fishers Point and South Cape Bay for short day trips on foot. They also walk to and camp at South Cape Bay, along the South Coast track, and occasionally along the South West Cape track. Other parts of the coast are sometimes accessed for surfing by fishing boat.

The majority of surfers who use the WHA place high value on the quality of waves available, the pristine surroundings, remote location, lack of crowding, quality of water, and the commitment required to surf these areas. Publicity and exposure for the area that may lead to an increase in visitor numbers would detract from these values. Consequently, commercial guided surfing tours, surfing competitions, or other activities that would promote the area are not sought.

PREVIOUS MANAGEMENT

The greatest use of the area is at Lion Rock in South Cape Bay. At this site impacts from camping and general trampling of the foredunes have occurred.

In 1997 a project to prevent further degradation and stabilise the area was initiated by the Service and the Surfrider Foundation Tasmania. This was

successful though further monitoring and follow-up work may be required.

The area is a Fuel Stove Only Area, and the surfing community largely supports this. Given the prevailing weather conditions and its frequent unsuitability for surfing, surfers make up only a small percentage of the walkers and campers that visit this site.

OBJECTIVES

- To sustainably manage surfing in the WHA and, subject to monitoring results, to allow for the present low level of surfing to continue.
- To consult with surfers and involve them, as appropriate, in the management of the area.
- To manage any recreational conflicts between surfers and other users of the area.

MANAGEMENT PRESCRIPTIONS

- Consult with and, as appropriate, involve surfers in aspects of management that affect surfing, including campsite management, access tracks, toilets and impact problems.
- Discourage surfing competitions, commercial surfing tours and promotional activities. [Due to the limited camping facilities, remote access and the experience desired by surfers]. Should competitions be proposed they will be assessed as Special Events (see page 163).
- Monitor publicity of the area (in association with surfers) via articles in magazines and journals, and, as appropriate, develop media and promotional guidelines similar to those for sensitive walking areas.

MONITORING AND EVALUATION

- Monitor campsite impacts and in association with riders take appropriate management action.



Training Exercises

BACKGROUND

Personnel from local and interstate defence force units periodically undertake training exercises involving overflying and on-ground manoeuvres within the WHA. The Central Plateau Conservation Area has been used most often because of the opportunities for practicing cold weather survival techniques and specialised helicopter flying. Exercises are usually held in winter.

The RAAF undertakes occasional low altitude jet flights through WHA valleys. These have the potential to disturb wildlife and may be alarming for people on the ground. Use of the WHA as a defence force training ground is not compatible with the overarching objectives of management.

The Tasmania Police conduct training exercises for search and rescue and cold weather survival techniques (eg on the Gordon and Franklin Rivers).

PREVIOUS MANAGEMENT

To date, use of the WHA as a defence force training ground has been relatively low and innocuous. During the life of the 1992 plan a request to the RAAF to cease low altitude flights through the WHA was made.

The Bernacchi Training centre at Lake Augusta on the Central Plateau was built on Hydro-Electric Corporation land as a training base for the Australian Antarctic Division. The Division no longer uses the base and its removal is currently scheduled.

OBJECTIVES

- To allow for adequate opportunities for training in search and rescue, minimal impact bushcraft and survival skills where no suitable venues exist outside the WHA.
- To minimise use of the WHA for inappropriate defence exercises.

MANAGEMENT PRESCRIPTIONS

- Discourage the holding of inappropriate training exercises in the WHA.
- Do not permit training exercises in highly sensitive areas.
- Official permission must be sought for the holding of on-ground training exercises in the WHA. The granting of permission will be subject to adherence to the minimal impact code and to conducting activities other than at times of high visitor numbers.
- Encourage relevant branches of the defence forces to seek alternative venues outside the WHA for military training exercises. Explore avenues for co-operation between defence forces outdoor skills training and reserve management programs.
- Liaise with Tasmania Police regarding the adoption of minimal impact techniques in training exercises and limiting access to fragile or vulnerable areas such as the Gordon River levee banks.
- Seek commitments from the RAAF to avoid low-level training flights over the WHA.

MONITORING AND EVALUATION

- Continue to monitor the number of training activities conducted within the WHA and the impact of those that do occur.



Vehicle Tracks and Recreational Driving

BACKGROUND

Although there is only a limited number of recreational vehicle tracks in the WHA, they provide enthusiasts with opportunities to visit otherwise remote locations. Generally, people use recreational vehicles to reach destinations where they undertake other recreational activities such as fishing, camping or sightseeing. However, for

some users the more important attraction of several of the tracks in the area is the challenge of driving them.

The majority of vehicle tracks in the area were constructed for mineral exploration or power scheme investigations work. A few have been developed in order to provide access to popular fishing destinations. The longer tracks in the WHA are Mt McCall, Saw Back Range, Bird River, Pillans-Julian, Low Rocky Point track and Patons Road. The Mt McCall, Bird River and Western Lakes tracks are used by commercial four wheel drive tour companies. The Service is responsible for the management of all vehicle tracks within the WHA.

The Central Plateau tracks (Pillans-Julian and Christies Creek) are mainly used by anglers and in places are eroded, braided and boggy following wet weather, and are subject to seasonal closure. The Saw Back Range track is maintained by the Service, in association with recreational vehicle users, to high clearance 4WD standard. The Mt McCall track has some eroded areas where the surface is down to bedrock. The condition of the Bird River track is relatively stable. The level of use of most of these tracks is relatively low.

Some tracks follow historic routes and may incorporate historic structures and formations. Some tracks also lead to important cultural sites (such as Adamsfield and Bird River) and the management of these tracks therefore has implications for the management of the cultural sites.

Sampling for the fungal dieback disease *Phytophthora cinnamomi* has shown that the Mt McCall and Low Rocky Point tracks are extensively infected. Patons Road, Bird River and the Saw Back tracks are largely in vegetation with a low susceptibility to *Phytophthora* and there are no records of the fungus on these roads. The Central Plateau tracks are at sufficient altitude that *Phytophthora* will not establish. However, a similar disease problem (high altitude dieback) has been recognised at Pine Lake and a related pathogen is suspected. Should this disease be similarly spread with soil, access to the Central Plateau tracks may require review.

Many four wheel drive tracks in the WHA significantly impinge on wilderness values. The vehicle tracks with the greatest impact are Mt McCall, Patons Road and Pillans-Julian (on the

Central Plateau). The Mt McCall track has the greatest impact on viewfields. Apart from the increased risk of fire and spread of *Phytophthora* associated with increased accessibility and use of machinery for maintenance, use of these tracks for four wheel driving has resulted in localised environmental impact. The noise of recreational vehicles and trail bikes may also detract from the experience of participants in other forms of recreation.

One of the management objectives for the WHA is to maintain or enhance wilderness quality. The closure and rehabilitation of low use vehicle tracks in otherwise remote areas of the WHA provides a significant means of furthering that objective. However, it does so at the cost of reducing recreational vehicle opportunities. 4WD users state that few opportunities remain for remote area driving in Tasmania and they believe that present access should remain.

PREVIOUS MANAGEMENT

Recreational vehicle use on public land has been formalised across all Government land management agencies with the adoption of the 'Policy for the Use of Recreational Vehicles on State Owned Lands in Tasmania' in 1995. This policy was publicised by the notesheet '*Cruisin' without Bruisin'*'. Both these documents were produced in association with the Tasmanian Recreational Vehicle Association.

Listed below are the major recreational vehicle tracks in the WHA and progress (to March 1998) in implementing the 1992 plan:

Saw Back Range:	A permit system has been implemented. Major drainage work was completed in 1994. The track is maintained to 4WD high clearance standard. 4WD clubs are involved in maintenance.
Bird River:	4WD access has been maintained to the Bird River Bridge, but turnaround and parking area are still to be developed.
Western Lakes (Central Plateau):	Existing tracks to Pillans and Julian Lakes are retained to 4WD high clearance vehicle

standard. Use of the vehicle track to Christies Creek from Ada Lagoon is allowed only in the driest months. A 4WD track monitoring system is in place on tracks in the area.

The Lake Ina track is closed near the WHA boundary. The vehicle track to Olive Lagoon is retained, with no vehicular access permitted beyond Olive Lagoon.

Low Rocky Point:	Mineral exploration and private use continue. A permit system is in place. Some concern has arisen regarding the impact of 4WD motorbikes on Aboriginal sites in the area.
Patons Road:	The track ends at the Oakleigh Creek crossing. A permit system has not been implemented as yet. The only maintenance has been clearing of windfalls.
Raglan Range:	The track has been closed and rehabilitated.
Jane River:	Track closure has been maintained and an assessment of rehabilitation needs has been completed.
Mt McCall:	A permit system is in place. Disturbed areas beside the track have been rehabilitated. The track itself was not closed or rehabilitated as provided for in the 1992 plan. (See page 44 for details).

OBJECTIVES

- To provide for responsible recreational vehicle use within the WHA.
- To retain vehicle tracks for recreational use except where this causes unacceptable environmental impact or significantly impinges on wilderness quality or cultural values.
- To minimise conflict with participants of other recreational activities.

- To encourage the involvement of recreational vehicle clubs in the ongoing maintenance of tracks for recreational vehicle use.

MANAGEMENT PRESCRIPTIONS

General

- Promote compliance with the 'Policy for the Use of Recreational Vehicles on State Owned Lands in Tasmania'.
- In accordance with the 'Policy for the Use of Recreational Vehicles on State Owned Lands in Tasmania', consult with the Tasmanian Recreational Vehicle Association (TRVA) and/or other appropriate organisations prior to the implementation of relevant actions prescribed in this plan and regularly review the need for and suitability of vehicular access.
- Facilitate regular contact between land managers and the TRVA and/or other appropriate organisations to discuss issues related to recreational vehicle tracks and to promote the adoption of the policy on recreational vehicle use.
- The overall issue of recreational driving and the possible impacts upon Aboriginal cultural heritage will be considered when issuing permits and allowing access to areas that are not being regularly monitored.
- Carry out maintenance and/or rehabilitation works where tracks are subject to degradation.
- Develop rehabilitation programs as necessary where tracks are closed.
- Upgrade, distribute and promote a minimal impact code for recreational driving as required.

Adamsfield Conservation Area

- Maintain the Saw Back Range Track in reasonable repair and allow access via a permit system.
- Maintain the section of the Adamsfield Track between the Clear Hill Road and the Saw Back Range Track in reasonable repair.

Southwest National Park

- Close and rehabilitate the short tracks south of Farmhouse Creek; remove the Farmhouse Creek bridge and rehabilitate the site.

Wild Rivers National Park

- Maintain the Mt McCall track as a 4WD track providing access to the haulage way to the Franklin river. To achieve this undertake the following actions:
 - Develop a quarry, if necessary, along the track for track maintenance materials.
 - Carry out rehabilitation work to reduce viewfield and environmental impacts.
 - Provide handholds and other safety measures on the haulageway track to the Franklin River.
 - Establish a locked gate at the commencement of the track near the Nora River Bridge.
 - Take appropriate measures to keep vehicles clean to avoid the introduction of weeds and pathogens.
 - Maintain a permit system and record the use of the track.
- Maintain in reasonable repair the Bird River track as four wheel drive access to the Bird River bridge. A turnaround and parking area will be developed on the northern bank of the river.
- Retain Alma River track as access to the commercial beekeeping site. Close beyond this point, maintain gate near highway and rehabilitate closed section.
- Maintain in reasonable condition the track to the lower slopes of Mt King William I for management purposes only (access to the fire tower).
- Allow recreational vehicle use of the Low Rocky Point Track while it is retained for mineral exploration. Continue to use a permit system and provide visitor information at the start of the track regarding values of the area, permits and how to minimise impacts. Take appropriate steps to limit damage to Aboriginal sites and other values in the area. [This issue will also be addressed by the management plan proposed for the Southwest Conservation Area - South of Macquarie Harbour (see pages 203–204)]

Cradle Mountain–Lake St Clair National Park

- Clear a small turning area on Patons Road and terminate the track just before the

washout at approximately grid reference 55GDP203762. Introduce a permit system for recreational vehicle use of Patons Road. The Service will undertake occasional patrols of the road and clear windfalls but no road maintenance will be undertaken.

Central Plateau

- Maintain to 4WD high clearance vehicle standard the existing vehicle track to Pillans and Julian Lakes on the Central Plateau to enable vehicle access for anglers to Lake Field and Pillans Lake. Introduce an access permit system. Undertake works to minimise environmental damage. When necessary, close the track to avoid environmental damage.
- Retain the vehicle track to Olive Lagoon to an appropriate point near the southern end of the lagoon and closely monitor vehicle use in this area. No vehicular access will be permitted beyond Olive Lagoon.
- Subject to the continuing permission of the landholder, maintain summer access for vehicles to Lake Fergus. Rehabilitate damage near the lake.
- Investigate use levels and the present impact of the track past Ada Lagoon. Discuss future options with users with a view to reducing impacts. The track will not be extended beyond its current end point.
- Liaise with Forestry Tasmania regarding access through State Forest to the existing car park near Clarence Lagoon. Maintain 4WD vehicle access to the lagoon.

MONITORING AND EVALUATION

- Introduce an appropriate system to monitor the level of use, the impact of use and the maintenance requirements of each recreational vehicle track in the WHA. Within this monitoring system, and in consultation with the Tasmanian Recreational Vehicle Association and other appropriate recreational groups, set limits of acceptable change for each track such that if these limits are exceeded, management actions such as track work or seasonal opening are used to limit environmental damage from the track.

- Monitor impacts on other recreational users by means of appropriate surveys.



Visitor Facilities

BACKGROUND

Visitor facilities provided by the Service or Forestry Tasmania within or near the WHA are located at Pencil Pine, Cradle Valley, Marakoopa Cave, Devils Gullet, Meander Forest Reserve, Liffey Valley Lookout and Liffey Falls, Liawenee, Lake St Clair; along the Lyell Highway at Donaghys Hill, Franklin and Collingwood Rivers and Nelson Falls; Strahan, Kelly Basin, Bird River, Sarah Island, Heritage Landing on the Gordon River, Mt Field National Park, the Needles, Wedge River and Teds Beach along the Gordon River Road, Junction Hill and Scotts Peak area on the Scotts Peak Road, Hartz Mountains, Hastings Caves, Cockle Creek and Melaleuca. With the exception of Melaleuca, Sarah Island, Heritage Landing, Kelly Basin and Bird River, all of these sites are readily accessible by conventional vehicle using sealed or gravel roads.

The facilities at these locations include a combination of walking tracks, picnic tables, shelters, boardwalks, viewing platforms, visitor centres, barbecues, toilets, huts, cabins, jetties, boat ramps and campgrounds. A significant upgrading and redevelopment program is underway to ensure that these sites provide an integrated network to enable visitors to appreciate and enjoy the WHA.

Because of the convenient and accessible locations of existing sites, emphasis has been placed on rationalising, refurbishing or replacing facilities rather than on developing new areas.

In addition, there are numerous villages and towns close to the WHA that provide more developed accommodation, meals, refreshments and other services (these are labelled as visitor Services Centres, see maps 3, 4 and 5 [pages 216–218]). Notable amongst these are Pencil Pine, Cethana junction, Gowrie Park, Sheffield, Mole

Creek, Deloraine, Miena, Bronte Park, Derwent Bridge, Queenstown, Strahan, Strathgordon, National Park, Port Huon, Geeveston and Dover.

PREVIOUS MANAGEMENT

Since 1992 the major change in facility provision has been at Cynthia Bay, Lake St Clair where a new visitor centre and concessionaire facility has been established. This parallels the major facilities available for visitors at Cradle Mountain and Strahan. Ministerial Council has also given approval for the construction of a lodge facility within the Lake St Clair Visitor Services Zone at Pump House Point. A site plan has been produced, but the development itself is yet to proceed. (See Accommodation, page 132).

Works have continued at Cradle Valley in accord with the site plan, and more detailed site designs have been drawn up for the Waldheim, Dove Lake and Ronny Creek areas. A process has been put in place to examine the option of sealing the road from Pencil Pine to Dove Lake.

At Mount Field, the Tall Trees Walk has been developed, to assist in presenting the significance of Tasmania's tall eucalypt forests to visitors.

Following discovery of a plant dieback disease at the Pine Lake Visitor Service Site in the Central Plateau, a recently completed interpreted walkway had to be closed and the area quarantined (see Vegetation, page 83 and map 4, page 217). At the time of writing the walkway has been closed indefinitely.

Site plans have been completed for Cradle Mountain (the *Pencil Pine-Cradle Valley Visitor Services Zone Plan*, 1993), Lake St Clair (*Site Plan for Cynthia Bay, Lake St Clair*, 1993), Kelly Basin (*Kelly Basin-Bird River Area Site Plan*, 1993), and Liffey (*Liffey Falls Site Plan*, 1996). Small scale site plans have been prepared for Huon Campground, Franklin River, Hartz Mountains and the Wedge River Picnic Site.

Draft site plans have been released for public comment for Melaleuca, Liffey Falls and Cockle Creek – Recherche Bay. Site plans covering Liawenee, Mt Field, Nelson Falls and Sarah Island are also in preparation.

Two areas foreshadowed for Visitor Services Sites in the 1992 plan have not been developed. These are Wayatinah — which did not proceed because of the emphasis on tall trees interpretation at Mt

Field — and Humboldt Divide, which currently has a limited number of potential visitors.

A design manual for furniture in Visitor Services Zones and Sites is in preparation.

OBJECTIVES

- To provide facilities that assist presentation of the WHA and that foster environmentally sustainable tourism and recreational use of the WHA.
- To direct visitor use into the most suitable locations in ways that minimise impacts on the World Heritage and other natural and cultural values of the WHA.
- To protect visitor experience and environmental quality through the appropriate location, nature, scale and design of visitor facilities.
- To provide facilities that are functional, aesthetically pleasing and in keeping with the environment.

MANAGEMENT PRESCRIPTIONS

General

- Locate facilities in accordance with the zoning scheme (see map 3, page 216) and with minimal environmental disturbance.
- Concentrate facilities in Visitor Services Zones and Sites within and adjacent to the WHA to provide access to a representative selection of WHA values for a wide range of visitors (see Visitor Services Zones and Sites, page 59).
- Assess, via market research, the needs of visitors at Visitor Services Zones and Sites as part of the development of the Recreation and Tourism Strategy (see Integration with Tourism, page 175).
- Encourage further development of supporting tourist facilities at villages and towns close to and on the way to the WHA.
- Design and engineer facilities to be durable, low maintenance, cost appropriate and cost effective (that is, so that capital and running costs are commensurate with anticipated use levels and environmental sensitivity).

- Design and engineer facilities to be unobtrusive and, as far as practicable, clad with natural materials whose texture and colour complement or match the surrounding environment.
- Design and engineer facilities with a consistent or integrated design for each Visitor Services Zone or Site. However, allow for different styles and types of facility to be developed between Zones and Sites to complement the special qualities of individual sites and to avoid duplication of recreation settings.
- Finalise a design manual for furniture in Visitor Services Zones and Sites.
- Prepare site plans for all Visitor Services Zones and major Visitor Services Sites. These are to include details of the style, scale, siting and standard of all visitor facilities. Site plans for Visitor Services Zones and major Visitor Services Sites are to be available for public comment prior to being finalised and implemented.
- Site plans and other subsidiary plans of this management plan are to be consistent with the provisions of this plan and are to take account of advice from the WHA Consultative Committee and any WHA Ministerial Council decisions.
- Minor subsidiary plans (for smaller Visitor Services Sites where no major changes are proposed from current use) will be formally approved by the Director or the Minister. Major plans (for larger Visitor Services Sites or Zones, where changes to current use are planned and/or where commercial development occurs) will be approved by Ministerial Council.
- Consult with Forestry Tasmania regarding the provision of visitor facilities within the three WHA Forest Reserves.

Visitor Services Zones [KDO 6.2]

- Implement the site plans for the Cradle Mountain and Lake St Clair Visitor Services Zones.
- Finalise and implement a site plan for Mount Field (base of the mountain), providing for:
 - use of the park as an entry and contact point for visitors to the Southwest National Park;
 - site rationalisation to remove intrusive management facilities from the prime day use area;
 - a new visitor centre;
 - upgraded and expanded picnic and camping facilities and
 - easy access nature trails.
- Finalise and implement a site plan for Liawenee, providing for an expanded visitor centre and picnic area.

Visitor Services Sites [KDO 6.2]

- Assess the need for additional Visitor Services Sites and review the adequacy of facilities and their maintenance at existing sites as part of the Recreation and Tourism Strategy (see Integration with Tourism, page 175). As appropriate following this review, enact the management prescriptions below.
- Develop a new Visitor Services Site at Humboldt Divide on the Gordon River Road (subject to an assessment of demand).
- Finalise and/or implement site plans for the following Visitor Services Sites within or adjacent to the WHA:
 - Hartz Mountains;
 - Marakoopa Cave;
 - Melaleuca;
 - Wedge River on the Gordon River Road;
 - Huon campground on the Scotts Peak Road;
 - sites along the Lyell Highway in the Wild Rivers National Park;
 - Cockle Creek–Recherche Bay;
 - The Bird River–East Pillinger area at Macquarie Harbour (subject to a cultural resource conservation plan) and
 - Sarah Island.
- Maintain and/or upgrade the following Visitor Services Sites: Heritage Landing on the Lower Gordon River, the Liffey Valley lookout on the Lake Highway, Devils Gullet lookout and, (subject to a needs assessment), the Needles picnic area on the Gordon River Road.
- In consultation with Forestry Tasmania, prepare and implement a site plan for the

upgrading of visitor facilities in the Meander Forest Reserve.

- Re-opening of the interpreted walkway at the Pine Lake Visitor Services Site in the Central Plateau may be considered if it can be done safely without the potential for spreading the dieback disease further. At the time of writing the walkway has been closed indefinitely.

MONITORING AND EVALUATION

- Monitor completion of site plans and progress with works on a regular basis.
- Monitor visitor satisfaction with the level of service and facilities on a regular basis. [KDO 6.2]
- Implement monitoring provisions required by specific site plans.



Walking and Walking Tracks

BACKGROUND

The main means of accessing the WHA since time immemorial has been on foot. The remoteness of the area from other forms of access and the appeal of its dramatic scenery has drawn generations of bushwalkers to the area.

The WHA is one of the most highly regarded bushwalking areas in Australia and offers opportunities for recreational experiences ranging from short, high-grade nature walks to extended expeditions in remote and rugged trackless country.

There are more than 1,000 kilometres of tracks in the WHA including the internationally renowned Overland and South Coast Tracks, and an extensive network of daywalks on the fringes of the WHA. While substantial works have been undertaken on the high-use trails, most of the tracks in the WHA remain in an unimproved condition and many are poorly sited having

evolved in an unplanned way from walkers' pads.

In recent years monitoring of major walking areas in the WHA has shown escalating biophysical and social impacts throughout much of the region. Impacts of greatest concern include the deterioration of existing walking tracks and the development of new tracks in formerly trackless areas. Campsite deterioration, crowding, pollution and broadscale trampling damage have also become serious problems in some areas, while the spread of the plant dieback disease *Phytophthora cinnamomi* by walkers remains a major threat to ecosystems throughout much of the WHA.

PREVIOUS MANAGEMENT

In line with the requirements of the 1992 plan to develop a comprehensive track management program, the Service undertook an inventory of tracks and track conditions throughout the WHA as well as an extensive literature review. Based on this research, the Service developed a track management strategy for the WHA. The primary objective of the strategy is to achieve the sustainable management of walking tracks and walkers throughout the WHA.

The first draft of the Walking Track Management Strategy was published in 1992. A second draft was published in 1994 following a period of public consultation. The final version of the strategy was published in March 1998.

Management actions prescribed in the Strategy include the introduction of a seven-tiered track classification scheme, an expanded walker education program, the introduction of a walker permit system and a prioritised 20-year track works program.

Since 1993 the WHA track works program has been implemented in accordance with the priorities and guidelines listed in the (draft) Walking Track Management Strategy. Most works undertaken in this period have been 'priority erosion control' works whose primary objective is to control erosion on highly susceptible sites.

This has been carried out in accordance with the track classification system. This classifies tracks into walks (W1 and W2), tracks (T1 to T4), routes and rivers (R1, R2 and river route). In this system the lower numbers (W1, T1, R1) indicate a higher level of track infrastructure; these classifications

are used where use is high. Higher numbers (T4, route etc) indicate less facilities and lower levels of use.

The walker education program, which formerly focused on minimal impact bushwalking principles, has been expanded to promote the Walking Track Management Strategy. The production of the 'Walking the Fine Line' brochure and video have been key elements of this campaign.

The publicity policy listed in the 1992 WHA Plan, which encourages authors and magazine editors to limit their publicity of the WHA to high-use and resilient areas, has met with only limited success. Articles and photographs of remote areas continue to appear in magazines, on the internet and in other media. Monitoring suggests that such publicity has in some cases led to higher use of the areas concerned.

Systems have been developed to monitor walking track and campsite impacts, impacts in 'fan-out' areas, unplanned track development and use levels on both high-use and low-use tracks. Over four hundred permanent track monitoring sites have been established in the WHA, and a high-resolution aerial photographic monitoring program has been initiated to monitor unplanned track development and campsite impacts.

By far the most controversial of all the Walking Track Management Strategy recommendations has been the proposal to implement a permit system for overnight walkers. This is seen by the Service as a necessary step to address the problems noted above.

A research program was undertaken in 1996 to assess walker permit systems elsewhere in Australia and overseas and to outline a proposed structure for a permit system in the WHA. Following a period of public consultation, a report detailing the proposed permit system was released. Further public consultation followed and a final version of the system is currently being prepared.

The Service has discussed with Forestry Tasmania policies for the management of walking tracks that cross the WHA boundary or are located in parts of the WHA managed by Forestry Tasmania or in non-WHA areas immediately adjacent to the WHA. In addition a joint project between Tourism Tasmania, Forestry Tasmania and the Service to develop a Statewide Walking Track Strategy has been completed and is being implemented. This

strategy builds on the data in the WHA tracks inventory and develops a whole of government approach to both the sustainable management and marketing of walking opportunities in Tasmania.

OBJECTIVES

- The overall objective is to achieve the sustainable management of walking tracks and walkers throughout the WHA.
- To minimise the environmental impact and the impact on wilderness values of recreational walking throughout the WHA.
- To prevent further unplanned track and campsite development throughout the WHA.
- To prevent the deterioration of existing tracks and campsites in accordance with the management prescriptions of the Walking Track Management Strategy.
- To maintain and where possible enhance recreational walking opportunities in the WHA.

MANAGEMENT PRESCRIPTIONS

- ✓ Manage walking tracks to achieve the following specific outcomes [KDO 6.1]:
 - ensure impacts on tracks are within the limits outlined in the track classification system;
 - encourage appropriate levels of publicity and promotion;
 - ensure track infrastructure is appropriate for the track classification;
 - implement party size restrictions to deal with social impacts;
 - implement use restrictions to limit environmental impacts and prevent unplanned track formation and
 - ensure commercial use is appropriate.

The Walking Track Management Strategy is designed to achieve these outcomes.

- Manage walking tracks and walkers in accordance with the management actions and guidelines listed in the strategy and in particular the track classification scheme (including any future modifications to the scheme).

- ✓ Continue to encourage and develop a statewide approach to walking track management. Central to this will be a Statewide Walking Track Strategy to be developed by the Service, Forestry Tasmania and Tourism Tasmania in an integrated manner with the WHA track strategy. [KDO 7.4]
- Continue liaison and a co-operative management approach with Forestry Tasmania on jointly managed tracks and tracks which enter the WHA from State Forest.
- Consult with users regarding the implementation of the Walking Track Management Strategy.
- Examine opportunities for a hut-based circuit walking route in the Frenchmans Cap area. Consider the impact on the natural and cultural values of the WHA using the New Proposals and Impact Assessment process (see page 66).
- Prepare a recreation zone plan for the Overland Track. (For details see Zoning page 59).

Quotas and Permits

- Divide the WHA into walking areas, each area having a quota specifying usage limits on a daily, weekly or monthly basis as appropriate.
- Set quotas and modify as necessary to ensure that the resulting biophysical and social impacts comply with the specifications listed in the track classification scheme.
- Enhance the monitoring of usage of the walking areas to monitor compliance with quotas.
- Finalise the development of the system with the active involvement of key stakeholders. Final approval for the system will be given by the Minister.
- Introduce the system in an educational form for one summer prior to the full system becoming operational the following summer.

Education

- ✓ Continue to develop and implement a walker education campaign with emphasis on minimal impact bushwalking principles and the need for the management actions proposed in the Walking Track Management Strategy. [KDO 6.3]
- ✓ Continue to provide a mechanism for face-to-face education of walkers and other back country users in popular areas as a means of educating users. [KDO 6.3]
- Discourage the publicity of tracks classified in the track classification scheme as T4 or 'route', and the publicity of areas accessible only by T4 tracks and 'routes'. See also Zoning, page 58.

Works

- Implement the track and campsite works program according to the priorities outlined in the Walking Track Management Strategy and detailed in track management plans.
- Maintain existing track and campsite infrastructure in accordance with the guidelines listed in the track classification scheme and the Track Management Manual.
- Give preference to methods of track construction that incorporate local materials and blend with the natural environment.
- Continue to develop new techniques for stabilising tracks and campsites, with emphasis on the use of local materials.
- Remove unauthorised track markers and close unauthorised marked and/or cut tracks after consultation with relevant groups and individuals.
- Where necessary, actively rehabilitate closed track sections and campsites.
- Encourage the involvement, where appropriate, of volunteers and partnership groups in implementing track and other works in accordance with the Walking Track Management Strategy.

MONITORING AND EVALUATION [KDO 6.1]

Objectives of monitoring

The primary objective of the WHA track and walker monitoring program will be to ascertain the extent to which the biophysical and social impacts associated with recreational walking in the WHA comply with the Walking Track Management Strategy and the standards specified in the track classification scheme.

Monitoring Actions

- Continue to implement and develop programs for monitoring walking track and campsite impacts, unplanned track development and impacts in 'fan out' zones and trackless areas.
- Continue the high-resolution aerial photographic program to monitor unplanned track and campsite development, particularly in low-use alpine areas.
- Monitor walker numbers, use trends and walker attitudes and characteristics throughout the WHA by means of walker log books, surveys and pedestrian counters as appropriate.
- Continue the walker trampling trial program to ascertain the relationship between use levels and impacts in a range of environments.
- Develop indicators for assessing, and programs for monitoring, social conditions on walking tracks throughout the WHA.
- Compile a database of proposed and completed track and campsite works throughout the WHA.
- Modify management prescriptions (including permit quotas and track works) as necessary to ensure that environmental and social impacts throughout the WHA remain within the specifications listed in the track classification scheme.

COMMERCIAL TOURISM OPERATIONS



Integration with Tourism

BACKGROUND

The WHA is recognised as a major plank of Tasmania's tourism industry and a key focus of the marketing of that industry (Visitor Profile and Research, page 121). Destination marketing by the tourism industry has a major influence on where people wish to visit, and this can have major consequences for parts of the WHA.

There is an obvious need to balance the protection and presentation aspects of managing the WHA while ensuring that the demand for visitor experiences is appropriately matched to supply.

To achieve this, the Service has adopted a number of broad approaches in this management plan. These include: locating major accommodation and facilities outside the WHA or near its periphery; the use of current road access to key attractions and the development of recreational opportunities from this access; the use of the zoning system; site and recreation zone planning; and a clear requirement for developments to meet strict environmental conditions.

A number of locations are considered as WHA gateway areas. These are well situated for general tourism development associated with, but outside the WHA. They include the following locations: Dover, Geeveston, Port Huon, Hobart, National Park, Maydena, Strathgordon, Bronte, Derwent Bridge, Queenstown, Strahan, Pencil Pine, Mole Creek, Gowrie Park, Deloraine, Miena and Recherche Bay/Cockle Creek.

Over the 10 year period of the plan it is likely that further development of tourism facilities will be proposed, either adjacent to or within the WHA. A set of criteria have been developed, based on WHA management considerations, to

assist in siting new tourism developments associated with the WHA (see management prescriptions, this section).

PREVIOUS MANAGEMENT

During the period of the 1992 plan there has been continuing interest in the use of the WHA for tourism (Visitor Profile and Research, page 121). In 1994, an inter-agency committee looked at potential additional sites for tourism development associated with the WHA. This led to proposals for a lodge at Pump House Point (see also New Proposals, page 66 and Accommodation, page 131) and the identification of the potential for further development just outside the WHA at Cradle Mountain. At the time of writing a further review of appropriate sites is being undertaken by a joint industry and Government committee — the Tourism Development in Natural Areas Group (TDINAG).

TDINAG forms part of the Tasmanian Government's 'whole of government' approach to tourism. The group includes high level representation from land management agencies as well as Tourism Tasmania and the Tourism Council of Australia (Tasmanian branch). This approach is designed to ensure the development of an integrated strategic approach to tourism across government agencies and the tourism industry in Tasmania.

At the time of writing the sites proposed by the group include an additional development at Cradle Mountain (outside the park near the campground) and the Pump House Point development at Lake St Clair.

As part of this 'whole of government' approach, an agreement between the Government of Tasmania and the Tourism Council of Australia for the sustainable growth and development of Tasmania's tourism industry was finalised in 1996. Following this, in June 1997 the report Tourism 21 was produced (for reference see footnote², page 25). This report looks at the direction of the industry and sets out a vision, 10 year targets to be achieved, and strategic direction to the year 2,000.

OBJECTIVE

- To manage tourism and recreational use of the WHA in a sustainable manner so as not to compromise the World Heritage and other natural and cultural values of the WHA or the quality of visitor experience.
- To manage tourism and recreational use of the WHA in a manner which is responsive to market demands and furthers presentation of the WHA.

MANAGEMENT PRESCRIPTION

Recreation and Tourism Strategy

- ✓ Develop a Recreation and Tourism Strategy to plan and coordinate the key thrusts of presentation of the WHA. [KDO's 6.1 & 6.2]
- The strategy will be developed in partnership with Tourism Tasmania and the Office of Sport and Recreation, with the active involvement of the Tourism Council of Australia (Tasmanian branch), and other relevant stakeholders (such as operators, recreational, community and conservation groups, etc) as a part of the whole of government approach to tourism management.

The strategy will:

- assess the needs and concerns of visitors through quantitative and qualitative research techniques and recommend on how to meet these;
- assess the current offer of activities and facilities both inside the WHA and those servicing the WHA from the outside;
- develop with recreational groups a mapping system of the areas of interest to them (to be used in conjunction with the Areas of Community Interest mapping, see the Established Practices section, see page 105) and examine the activities they wish to pursue in the WHA over the next five years in relation to the requirements of the management plan;
- recommend where the Service should put emphasis in facility maintenance and development to meet demand, taking account of the World Heritage and other natural and cultural values of the WHA;

- involve consultation with all relevant stakeholders and offer opportunities for input from the general public with the final strategy being a publicly available document;
- develop a marketing strategy that will recommend how the WHA should be marketed to minimise environmental impact and meet other WHA management objectives while still meeting tourism and recreation requirements and
- co-develop the strategy with the planned revision of the WHA Interpretation Strategy, the Service's General Visitor Strategy, a review of signage to and within the Visitor Services Zones and Sites and a review of the information needs of users.
- The Recreation and Tourism Strategy will in general focus on consolidation of established visitor nodes rather than developing new nodes in other areas.
- Notwithstanding the above, an area that will be considered for further expansion as part of the strategy is the Mt Field–Gordon River Road–Strathgordon area. The current upgrading of facilities at Mt Field, its relative proximity to Hobart and its high standard of road access suggests this as a potential area of expansion.
- The strategy will also integrate with other State-wide tourism and recreation initiatives such as the Service's State-wide Tourism and Recreation Strategy, Tourism 21, the State-wide track strategy etc.
- The strategy will be completed within 12 months of plan approval.

New facility development for tourism associated with the WHA

- Locations for proposed tourism developments associated with the WHA are generally to meet the following criteria:
 - relatively undisturbed location out of sight or sound of settlement or industry (however, sites which have been disturbed in the past, such as Pump House Point will be favoured compared to undisturbed sites);
 - close to existing park infrastructure (eg walking tracks, ranger stations etc) — to take advantage of in-place recreation facilities rather than require new constructions;
 - if outside the WHA, minimal effect on wilderness values within the WHA, if inside the WHA, no significant impact on wilderness values;
 - in accord with the zoning system;
 - in accord with the track strategy;
 - existing vehicle access to or near the location for road accessible sites and
 - low or manageable fire risk.
- Developments outside the WHA but within its catchment are to be subject to the same standards for effluent disposal as apply within the WHA (see also Environmental Quality section, page 110).
- Developments outside the WHA are preferred to those located within the area.

MONITORING AND EVALUATION

- Assess the effectiveness of the Recreation and Tourism Strategy after five years in conjunction with major stakeholders. As required, revise using a similar planning process.



Concessions

BACKGROUND

Various concessions have been granted to commercial operators to provide services and facilities for visitors in the WHA. The concessions relate to: refreshment facilities, accommodation facilities, boat cruises, walking, rafting and camping tours.

Concessionaires pay a fee to the Service as a return to Government for the use of a public asset for commercial gain. The fee is based on the number of clients or a proportion of takings. The

operation of concessions can provide visitors with additional services and opportunities to access and enjoy the WHA. In some cases the operation of concessionaires can replace the need for Government to provide these services.

Walking, rafting and camping tours are covered by the general objective and prescriptions below. However more specific prescriptions relating to these activities are also contained in the Guided Tours section, see page 179.

OBJECTIVES

- To enhance presentation of the WHA.
- To extend the range of services and recreational experiences available to visitors through the involvement of private enterprise.
- To ensure that concession activities provide a high standard of service for visitors to the WHA.
- To ensure concession activities are compatible with other management objectives.
- To gain a fair, positive and equitable financial return for the State from the commercial use of a Crown asset.

MANAGEMENT PRESCRIPTIONS

Leases/Licences

- Require all providers of commercial visitor services to obtain a lease or licence from the Minister under the provisions of section 25B or 26 of the *National Parks and Wildlife Act 1970* for all land covered by that act. The payment of a fee is required.
- The term of a lease or licence will depend on the nature of the concession and the level of capital investment involved. Guided tours will usually be issued on a five year basis; minor facilities and services on a 3-5 year basis, while major facilities and services may have leases running for 5 years or more. Longer lease terms may be negotiated depending on the level of infrastructure and investment.
- All concession rights will be subject to conditions that will include specification of the requirements and standards of the

services and goods to be provided.

New Facilities

- If adequate facilities or services exist or can be developed outside the WHA that meet visitor needs, such facilities and services will not be provided as concessions within the WHA.
- Private capital investment in concession facilities in suitable Visitor Services Zones and Sites may be permitted. Requirements prior to private capital investment include:
 - the facilities are to meet a market need;
 - the proposal is in accord with the site plan for the area and
 - the proposal is assessed and approved under the New Proposals and Impact Assessment Process, see page 66.
- In the event of private investment in the WHA, all administrative costs and fees for use of Crown Land are to result in a nett return to the State except in the case of transparent subsidisation.
- Concession activities will only be allowed if consistent with the protection of the World Heritage and other natural and cultural values of the WHA.
- Facilities or services provided by a concession are to enhance the sustainable use and enjoyment of the WHA by visitors and are to be consistent with the objectives of WHA management, particularly presentation.

Interpretation

- Require concessionaires and guided tour operators to deliver high quality interpretation that is relevant to the WHA as a standard part of their operations.

General Conditions

- The Director may impose restrictions on the sale of litter-generating goods from concession outlets.
- Maximum rates charged by a concessionaire for the use of facilities and/or sale of goods and services may be subject to approval by the Director, for example where a monopoly exists by virtue of a concession lease or licence.

- Any advertising or promotion of a concession will be required to be in keeping with the values of the area.
- Concessionaires will be expected to comply with all appropriate statutory and industrial requirements in relation to the operation of the concession and to possess any relevant industry qualifications.

MONITORING AND EVALUATION

- ✓ Periodically review arrangements for commercial operations within the WHA to ensure that they provide high standards of visitor service, environmental care and interpretation, and provide an appropriate financial contribution to WHA management, in line with the objective on page 37. [KDO 6.2]
- Concession operations will be subject to monitoring and regular inspections. Failure to operate appropriately will render the concessionaire liable to a financial penalty and/or cancellation of rights.
- Evaluate performance of concessionaires on an annual basis and take appropriate action to address unsatisfactory performance.
- Copies of any visitor feedback related to a concessionaire's operation or service to the Service will be passed on to the concessionaire.
- Monitor the nature and level of feedback from visitors about a concessionaire's performance.



Guided Tours

BACKGROUND

The majority of concessions to provide visitor services in the WHA are granted for nature-based walking and camping guided tours. Overnight tours are conducted mainly on the Overland, Frenchmans Cap and South Coast Tracks and in the

Walls of Jerusalem. Approximately two thirds of all people rafting the Franklin River are now on commercial trips. A number of guided trout fishing tours operate in the Central Plateau Conservation Area. Several four wheel drive companies take day trips into the WHA. Increasingly, guided day walks are also being offered.

The main permanent infrastructure associated with guided tours are cabins sited along the Overland Track which are operated and maintained by Cradle Huts Pty Ltd for the use of their clients on walking trips.

There are possibilities for commercial hut development both within and outside the WHA. A number of locations outside the WHA provide different recreational opportunities to the WHA in less environmentally sensitive areas.

Opportunities for commercial hut development in areas outside the WHA will be considered as part of the Statewide Walking track strategy with a view to complementing rather than duplicating the existing Overland Track huts operation and to extend the season of operation.

Temporary structures are in place at Forest Lag near Melaleuca at a standing camp operated by Aerotechnology Pty Ltd (trading as Par Avion) for use of their clients who are mostly boat-based.

A temporary standing camp is a demountable structure comprising tent-based accommodation. It is not a permanent part of the landscape and is demounted when not in use. The level of facility construction for a temporary standing camp is described in the Service's Temporary Standing Camp Policy.

Guided tours provide opportunities for people to visit and learn about wild, natural places that they would not otherwise see. In many respects guided tours are an excellent form of eco-tourism since they give people a direct experience of the values of the area but do not usually require permanent infrastructure and, through licence conditions, generally result in higher environmental standards being met compared with non-commercial groups. It is important, however, that high standards of safety, environmental care and interpretation are set and maintained.

Under the 1992 plan guided tours were allowed to operate in all zones but restrictions were placed on numbers and client-to-guide ratios, making operating in the more remote Self Reliant Recreation and Wilderness Zones more expensive.

The marketing and image of the Overland Track and the other major bushwalking destinations means that these will continue to be the focus for most overnight guided tours. This is appropriate as these tracks allow relatively easy access to some of the best known and scenic parts of the WHA where there are facilities to cater for higher numbers of visitors. Future problems may however arise with the sheer number, frequency and location of guided tours.

PREVIOUS MANAGEMENT

Since 1992 the licencing system for guided tour operators (licenced under section 25B or 26 of the *National Parks and Wildlife Act 1970*) has been expanded to include commercial daywalks and users of Conservation Areas as well as National Parks. A licence fee and licence conditions now apply to the commercial use of these areas.

A Crown Land Licencing system is currently being developed to provide a uniform licencing system for all Crown Land in the State. This will provide a one-stop-shop for commercial operators and ensure the same basic set of conditions apply across all Crown Land tenures.

In 1997 the Ministerial Council agreed to enter into a process to amend the 1992 plan to allow a fifth commercial hut to be constructed on the Overland Track at Kia Ora. The 1992 plan only approved the operation of four huts. The plan was amended on 4th September 1997 in accordance with the requirements of the *National Parks and Wildlife Act 1970*.

Structures at the temporary standing camp at Forest Lag have been upgraded by the operator since 1992.

'Guidelines for Licenced Tourist Vessel Operations Southwest National Park' have been prepared by the Service in consultation with the Melaleuca Advisory Committee. These guidelines will be used in the development of commercial boat licences in the Bathurst Harbour-Port Davey area.

Annual meetings have been held with guided tour operators to discuss issues.

OBJECTIVES

- To support the operation of a range of guided tours to enhance presentation of the WHA and to provide a range of quality

opportunities for visitors to access and enjoy the WHA.

- To establish and maintain high standards of environmental care, safety and interpretation in guided tour operations.

MANAGEMENT PRESCRIPTIONS

Licences

- With satisfactory performance during an initial one year trial period, all guided tours will ordinarily be subject to a five year licence covering general conditions of operation. Licences will be reviewed annually and renewal will be subject to previous satisfactory compliance with licence conditions.

Zoning

- Professional guides may conduct tours throughout all zones in the WHA subject to the conditions noted in their licences and the requirements of the Walking Track Management Strategy.
- Approval to operate in the Self-Reliant Recreation or Wilderness Zones is subject to any licence conditions imposed and the requirements of the Walking Track Management Strategy's track classification system. Approval is also dependent on the demonstrated ability of the operator to meet these conditions.

Party Sizes

- The maximum party size for walking tour groups will be consistent with that specified for particular tracks in the Walking Track Management Strategy.

Commercial Huts

- Proposals for permanent structures or huts associated with guided tours may be approved if consistent with the zoning, other policies of this management plan and if the New Proposals and Impact Assessment Process is followed (see page 66).
- Assess demand for commercial huts, interest from the commercial sector and, if required, identify potential locations as part of the Recreation and Tourism Strategy (see page 120).

- If new commercial huts are proposed, they are to be:
 - located within a Visitor Services Zone, a Visitor Services Site or a Recreation Zone;
 - outside Southwest National Park, which is to be retained as an area providing natural camping opportunities;
 - outside the central major use area of the Walls of Jerusalem national park and away from the major road-accessible fishing areas in the Central Plateau Conservation Area;
 - in accordance with the Walking Track Management Strategy and
 - are to be considered by the New Proposals and Impacts Assessment Process as a major project (see page 66) with the full social and recreational impacts of any proposal fully assessed.
- The five existing commercial huts sited along the Overland Track will continue to be permitted to operate.

Temporary Standing Camps

- Temporary Standing camps (as defined in the Service's Temporary Standing Camp policy) may be considered in the areas noted above as being available for commercial hut accommodation, under the same conditions.
- The camp at Forest Lag in Southwest National Park has been in existence for some time prior to WHA listing and is used year round as a lunch stop for day tours and for camping. Its facilities include a landing, walkways, a cooking shelter, toilet, shower and accommodation tents. The site is to be generally operated in accordance with the Service's Temporary Standing Camp Policy, however the above noted facilities may remain year round.

Faecal waste

- In some sensitive areas, tours may be required to remove their faecal waste completely.

Cave Tours

- Licenced guided cave tours will be considered in cave systems where this is in keeping with the management plan for the

system. Because of the sensitivity of cave environments, approval for such operations will only be given where it can be shown that their impact is likely to be within the cave's natural range of rates and magnitudes of change. Continuing operation will be conditional upon ongoing monitoring showing that impacts remain within acceptable levels. (See also Caving and Karst Management, page 141)

Accreditation

- In co-operation with the Eco-Tourism Association of Australia, the Tasmanian Outdoor Leadership Council, the Tasmanian Outdoor Recreation Council and in consultation with industry, encourage the development of an accreditation system for guided tour operations.

Liaison

- Liaise with guided tour companies in order to co-ordinate itineraries to minimise congestion; to provide Minimal Impact Bushwalking and interpretive information for tour leaders and to exchange relevant management information.

MONITORING AND EVALUATION

- Monitor guided tour operations and the condition of frequently used campsites, standing camps and huts. Modify conditions of operation as necessary.
- Monitor the nature and level of feedback from visitors about guided tour operators' performance.
- Copies of any visitor feedback to the Service will be passed on to the guided tour operator.



Film Production

BACKGROUND

The Service frequently receives requests for commercial filming within the WHA. Such filming can play a major role in presentation of the WHA to the broader community. It is important to ensure that the resulting films correctly present information and show appropriate activities. There is also a need to ensure that the activities of film crews do not impact on the environment or detract from the enjoyment of other users.

PREVIOUS MANAGEMENT

Commercial Filming Guidelines were introduced by the Service in 1995. A fee is charged for certain types of commercial filming in the WHA in accordance with Section 25B(1) of the *National Parks and Wildlife Act 1970*.

OBJECTIVE

- To ensure that commercial filming in the WHA assists, where possible, in promoting community awareness, understanding and support for WHA values and management.
- To ensure that filming is carried out in a way that has minimal impact on the World Heritage and other natural and cultural values of the WHA or other users.
- To achieve an appropriate commercial return to the Service from commercial filming activities.

MANAGEMENT PRESCRIPTIONS

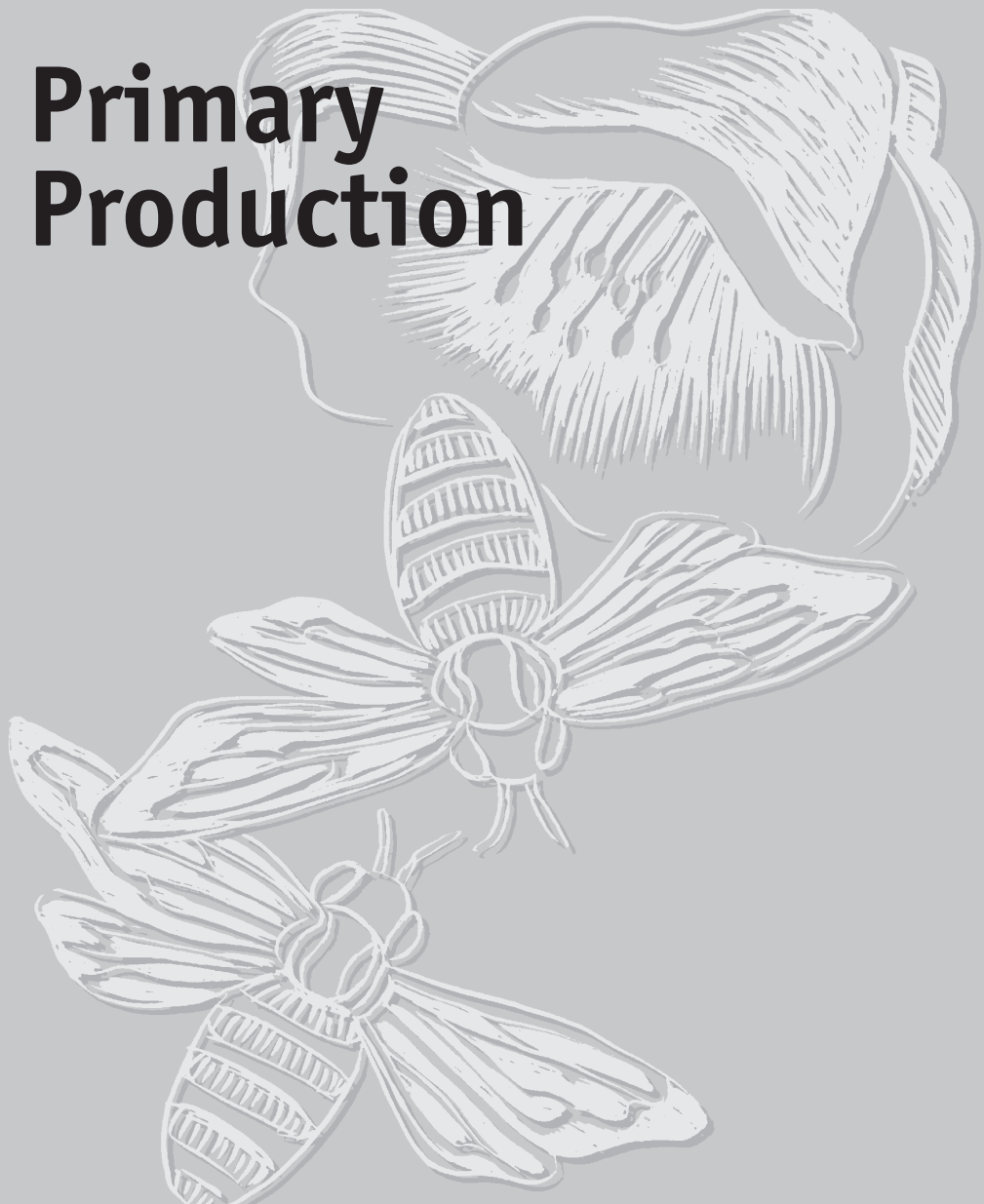
- Ensure that all commercial filming in the WHA complies with the latest Service Commercial Filming Guidelines. [Note that these guidelines do not apply to filming for news and current affairs purposes and that for filming officially supported by Tourism Tasmania filming fees are waived).

MONITORING AND EVALUATION

- Keep a record of all commercial filming which depicts any aspect of the WHA. This record is to include any environmental conditions applied and the commercial filming fee paid.
- Review the finished product of commercial filming with a view to improving the manner in which WHA values and issues are presented in such material in future.
- Monitor any complaints about commercial film use of the WHA.
- As required, review the Commercial Filming Guidelines.

Chapter 7

Primary Production



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Because of the area's world heritage significance and reservation status, only limited primary production is allowed within the WHA. Where primary production is allowed, it is because that activity has been a pre-existing use of the area and the risks to the WHA's values can be minimised.



Beekeeping

BACKGROUND

The distinctively flavoured honey produced from the endemic rainforest tree, leatherwood (*Eucryphia lucida*), is the basis for Tasmania's honey industry. In recent years leatherwood has formed about 70% of Tasmania's total honey production.

Leatherwood is confined to areas of high rainfall and low fire frequency and is widespread in the WHA. This leatherwood resource constitutes a secure long term source of nectar.

In 1996 there were 45 apiary sites present in the WHA, concentrated along the Lyell Highway, Gordon River, Scotts Peak and Mueller Roads, Kelly Basin, Mt McCall and Alma River tracks and south of Farmhouse Creek.

There is concern about the possible ecological impacts of beekeeping in natural areas. To date little research on this issue has been carried out in Tasmania. A one season study of native insects on leatherwood trees indicated that honey bees did not exhibit aggressive behaviour towards other insects²⁷.

A 1996 review²⁸ of the interactions between honey bees and natural areas in Australia recommends a precautionary approach to commercial honey bee management in national parks. The issue will remain contentious while there is insufficient information about interactions between honeybees and the Tasmanian biota.

PREVIOUS MANAGEMENT

Applications for new licences for apiary sites have been processed where localities by roads or tracks have become available or apiarists have sought licences over sites they had trialed in previous years.

Beekeepers sought approval to place their hives in remote areas and waterways by barge or helicopter. In accordance with the 1992 plan, no licences were issued which relied on these means of access.

No apiary sites were lost to beekeepers during the life of the 1992 plan. However, initial steps were taken to find alternative sites to replace three sites along the Mt McCall track that was prescribed for closure under the 1992 management plan. Closure did not proceed. (See page 44)

OBJECTIVES

- To improve understanding of the effects of commercial honey bees on natural processes and biota in the WHA and take appropriate management action should damage to values be proven to occur as a result of beekeeping.
- To provide for continued access of commercial beekeepers to available apiary sites.

MANAGEMENT PRESCRIPTIONS

Apiary Sites

- Each apiary site will be subject to a one year licence agreement that specifies conditions under which the site is to be managed and operations conducted.
- As far as practicable, apiary sites are to be screened from passing traffic.
- With approval and under the supervision of the Service, machinery may be used to maintain the surface of sites where this is necessary.

27 Ettershank, G. and Ettershank, J. A., 1993 *Tasmanian leatherwoods (Eucryphia spp): Floral phenology and insects associated with flowers* Tasmanian NRCP Technical Report No. 11, Forestry Commission, Tasmania and Department of the Arts, Sport, the Environment and Territories, Canberra.

28 Paton D.C., 1996 *Overview of the Impacts of Feral and Managed Honeybees in Australia* Australian Nature Conservation Agency, Canberra.

- Where closure of a vehicle track or apiary site for management purposes would involve loss of an apiary site, a replacement site will be provided (if available) on Service administered Crown Land.
- Apply research results to management of beekeeping in and adjacent to the WHA.

New Sites

- In keeping with the precautionary principle, until further research indicates that apiary activities do not pose a significant threat to the natural processes and biota of the WHA, apiary sites within the WHA will be limited to those already in use.
- Should further research indicate that apiary activities do not pose a significant threat to the natural processes and biota of the WHA consideration may be given to the establishment of additional apiary sites. Additional sites will only be considered where the following conditions are met: there is an available nectar source, road access exists, the siting and operation of the hives does not compromise WHA management objectives and the New Proposals and Impact Assessment Process (see page 66) is followed.

Research

- Encourage further research into the interaction between honey bees and native flora and fauna.
- Collect and collate field data on the distribution of feral bees in the WHA, especially in remote or high country areas.

MONITORING AND EVALUATION

- Monitor the distribution of apiary sites. Update maps of all licensed sites to aid monitoring.
- Refer to relevant research data and assess the likely effect, if any, of commercial honeybees at licenced sites on natural processes and biota in the WHA.



Mineral Exploration

BACKGROUND

Gold and osmiridium are found in the Adamsfield area in the WHA. Adamsfield is within a Conservation Area, hence mineral exploration may be approved and if successful, could result in mining under specified environmental conditions. Adamsfield is the only area within the WHA where exploration and mining can occur.

PREVIOUS MANAGEMENT

Since 1992 the exploration licences 4/85 and 1/88 at Adamsfield and the eastern WHA (a prior right) respectively have not been renewed. The 6 ha mining lease at Adamsfield has also not been renewed. There has been no mineral exploration at Adamsfield since commencement of the 1992 plan.

OBJECTIVE

- To ensure that any mineral exploration or mining that is permitted by law in the WHA at Adamsfield is undertaken in such a way as to avoid or minimise impacts on the values of the WHA.

MANAGEMENT PRESCRIPTIONS

- Exploration and/or mining within the WHA will only be permitted in the Adamsfield Conservation Area, subject to appropriate conditions.
- Any proposed exploration or mining applications will be reviewed by representatives of Mineral Resources Tasmania and the Service via the New Proposals and Impact Assessment process, see page 66. New exploration applications and mining proposals will require the approval of the Ministerial Council as part of this process.

- Any proposed exploration program is to be subject to an environmental impact assessment and appropriate environmental and rehabilitation conditions.
- Any proposed exploration program is to be conducted according to the Mineral Exploration Code of Practice and each work program will be considered by the Mineral Exploration Working Group (MEWG) which will recommend appropriate conditions to the Director of Mines. Site inspections will be carried out by MEWG representatives, before, during and after exploration activity.
- Any mining proposal will be subject to this plan, the *Mineral Resources Development Act 1995* and the *Environmental Management and Pollution Control Act 1994* and will require preparation of an environmental management plan.
- The environmental impact assessment (for exploration) and the environmental management plan (for mining) will assess environmental impacts and detail procedures that will be undertaken to avoid or mitigate them, put in place an environmental monitoring program and detail requirements to rehabilitate the site on completion of works to the satisfaction of the Director of Mines and the Director the Service.
- Mining activities will not be permitted if they have an adverse impact on World Heritage values.
- Require all personnel of mining companies authorised to operate mining leases in the WHA to undergo an appropriate induction course endorsed by the Service prior to entry, which covers the World Heritage and other natural and cultural values of the WHA and how they are to be protected.
- A bond commensurate with the scale of the program will be required to be deposited with Mineral Resources Tasmania to ensure performance and rehabilitation are to the required standard as required under the *Mineral Resources Development Act 1995*.
- Use of the Low Rocky Point track will be permitted for exploration programs in the South West Conservation Area if approved by the Service and the Mineral Exploration

Working Group. Upgrading and/or realignment of the track to allow passage of exploration, mining and track maintenance equipment is permissible subject to the new proposals process, see page 66.

- As far as possible helicopters, light planes or boats should be used to access prospective ground south of Macquarie Harbour. If vehicle access is necessary, low impact vehicles are the preferred form of transport. (See also Jetties, Moorings and Anchorages, page 138).

MONITORING AND EVALUATION

- Any exploration or mining program will be subject to regular (at least annual) monitoring for environmental compliance. This will include monitoring of the environmental parameters outlined in an environmental management plan.



Grazing

BACKGROUND

The Central Plateau was an important summer grazing area for stock during last century and the early part of this century. With the development of improved pastures in lowland areas this practice dwindled.

However a number of graziers are keen to re-introduce the practice.

Recent research has indicated that a combination of fire, rabbits and grazing has resulted in the development of widespread soil erosion on the Plateau.

PREVIOUS MANAGEMENT

The 1992 management plan placed a moratorium on grazing on the Plateau for the life of the plan, while research and monitoring into the impacts of past practices was carried out.

A study was initiated in 1991 to map the extent and severity of erosion in the area. For details of the study see Rehabilitation, pages 114–115. The major conclusion of importance to grazing is that domestic stock grazing should not be re-introduced to the Plateau.

OBJECTIVE

- To maximise revegetation rates and minimise erosion rates on degraded areas of the Central Plateau.

MANAGEMENT PRESCRIPTIONS

- Domestic stock grazing will not be re-introduced to the Central Plateau Conservation Area.
- Liaise with graziers affected by this decision. Where appropriate, and in consultation with community partnership groups, use graziers' local knowledge of the area to improve management practices.
- Investigate options to record the history of the practice of grazing on the Central Plateau.



Aquaculture

BACKGROUND

Aquaculture practices may cause impacts that affect both onshore and aquatic environments. Onshore disturbances may include construction of storage, accommodation, processing and packaging facilities and roads. Impacts related to the aquatic environment may include restrictions on public access to waterways, visual pollution, eutrophication (abnormally high levels of nutrients in local waters), significant change and/or death of benthic communities, escape of introduced species and the killing of indigenous animals (such as seals) to protect farms from predation.

It is considered that aquaculture is incompatible with conservation of the natural and recreational values of WHA waterways.

PREVIOUS MANAGEMENT

As a result of a plan developed in co-operation with the inter-agency Marine Farm Management Committee, aquaculture is currently permitted at sites in Macquarie Harbour outside the WHA but not within the WHA because of conflicts with recreation and conservation values. (The south-eastern end of Macquarie Harbour, within the WHA, is important for tourism and recreation as a natural setting for visits to the Gordon River, Sarah Island and the many small coves around its shores. Birchs Inlet is part of the breeding area of the endangered orange-bellied parrot.)

The future of fish farming in Macquarie Harbour may be partly dependent on the adoption of proposals to manage heavy metal distribution in the harbour (see Environmental Quality section, page 110).

MANAGEMENT PRESCRIPTION

- No farming of marine or freshwater species will be permitted within the WHA.



Commercial Fishing

BACKGROUND

Port Davey is important as a resting place and refuge in bad weather for commercial fishers operating off the south-west coast. Some commercial fishing occurs within the harbour, mainly for rock lobster and abalone, as well as low intensity gill netting, which is indiscriminate in its take of species. The Marine Resources Division within the Department of Primary Industries, Water and Environment is responsible for the granting of licences for commercial fishing (see Statutory Powers in State Reserves, page 195).

Plastic and other waste generated by commercial fishers and other users pollute the WHA coastline and can be hazardous to marine animals and birds.

PREVIOUS MANAGEMENT

Over the life of the 1992 plan, commercial fishing has continued in the Port Davey area.

As noted previously, (see Identifying Values, page 74) it is government policy to create (in consultation with stakeholders) a marine reserve in the Port Davey–Bathurst Harbour area.

At the time of writing the area is part of Southwest National Park; this conservation status protects the habitat of the area but not its marine life. Declaring a marine reserve will assist in providing protection of marine life as well as the habitat in the area.

OBJECTIVE

- To protect the unique species and habitat of the Port Davey–Bathurst Harbour area.
- To create a marine reserve in the Port Davey–Bathurst Harbour area.

MANAGEMENT PRESCRIPTIONS

Fishing

- Develop a proposal for a marine reserve to be established in and around the Port Davey and Bathurst Harbour area in collaboration with the Marine Resources Division of the Department of Primary Industries, Water and Environment .
- The final boundaries of the marine reserve and any management arrangements will be determined after consultation has occurred with major stakeholders and the public.
- Other restrictions on sea fishing (commercial or recreational) within parts of the WHA not included in the marine reserve will be determined by a specific fishery management plan which will be required to undergo public consultation.
- Commercial fishing of freshwater eels, whitebait, lamprey or other freshwater or estuarine species will not be permitted.

Other

- In consultation with the Marine Resources Division and commercial fishing organisations, continue to develop the Minimal Impact Boating program to educate fishers about appropriate practices to protect the marine and coastal environment.
- Continue and expand liaison with professional fishing organisations and processors to minimise the use of plastics and their disposal at sea.

MONITORING AND EVALUATION

- Monitor marine debris via surveys.
- Monitor impacts on selected biological communities, from commercial and recreational diving.



Huon Pine Driftwood Salvage

BACKGROUND

Prior to WHA listing, an agreement between the Service and Forestry Tasmania was reached regarding salvage of Huon pine from the shores of Macquarie Harbour as a basis for reducing pressures on standing Huon pine elsewhere. The arrangement allowed for Forestry Tasmania to issue commercial licences and non-commercial permits for the collection of driftwood from specified parts of the shore up to high tide mark. Huon pine logs cut in the past continue to break free from the Gordon River banks and most commonly wash up on the beach west of the river mouth.

Forestry Tasmania agreed to, and the Commonwealth accepted, World Heritage nomination of this area on the understanding that the existing arrangements for salvage would continue. Subsequently, the area was included in the Macquarie Harbour Historic Site. Although removal of beached Huon pine is contrary to

standard management policy in Historic Sites, it is recognised that, under existing controls and levels, continuation of the practice has minimal environmental impact and is assessed by Forestry Tasmania as being desirable to meet demand.

PREVIOUS MANAGEMENT

Commercial salvaging of Huon pine has taken place up to four times each year from 1992. Between January 1992 and December 1996, 300 cubic metres of craftwood was collected from Macquarie Harbour from areas near the Gordon River mouth. Up to 20 permits for amateur craftwood gathering have been issued each year. Between January 1994 and January 1997, nine cubic metres was collected under non-commercial permits.

In 1995 the Service and Forestry Tasmania agreed to the continued issue of non-commercial permits and commercial licences for Huon pine craftwood collection until late 1997.

A revised agreement for Huon pine driftwood salvage has been developed based on the prescriptions of the plan. The objective and management prescriptions below reflect the major points of the agreement.

OBJECTIVE

- To continue to provide for the salvage of Huon pine driftwood from selected areas on Macquarie Harbour for commercial and amateur use subject to availability of driftwood, acceptable environmental impact from collecting activities and public opinion on this practice.

MANAGEMENT PRESCRIPTIONS

- Provide for the salvage of Huon pine along selected parts of the shores of Macquarie Harbour (excluding Sarah and Grummet Islands and the Gordon River and its banks).
- Conduct salvage operations in a manner that minimises environmental and viewfield impacts.
- Locate and time operations to avoid impacting on the recreational and tourism experience of other visitors to the area.

- Salvage of Huon pine driftwood will be in accordance with an agreement signed by the heads of agency of the Parks and Wildlife Service and Forestry Tasmania.
- Salvage is to be provided for through the issue of permits and or licences by Forestry Tasmania staff in accordance with the heads of agency agreement.
- Continuation of the heads of agency agreement is subject to the continued availability of driftwood, the impact of salvage activities on the environment and public opinion.
- Re-evaluate the salvage of Huon pine driftwood as part of future management plan reviews of this plan or more frequently if required.
- In co-operation with Forestry Tasmania oversee salvage activities and monitor any impacts.

MONITORING AND EVALUATION

- Monitor and evaluate the impact of driftwood salvage on the World Heritage and other natural and cultural values of the WHA in the following manner.
 - Assess the sustainability of the driftwood supply (noting current and past volumes salvaged and the number of licences and permits issued).
 - Regularly monitor the environmental impact in salvage areas and work with licencees to minimise impacts.
 - Assess the attitude of the public to driftwood salvage through public participation in the management plan review process and other mechanisms, if required.



Chapter 8

Statutory Powers and Private Rights



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STATUTORY POWERS IN STATE RESERVES

Section 24(1) of the *National Parks and Wildlife Act 1970* provides that certain statutory powers may not be exercised in a State Reserve or Game Reserve unless authorised by a management plan. The *National Parks and Wildlife Act 1970* defines a statutory power as:

- (a) a power under an enactment, other than an enactment in this Act, for the reservation or dedication of Crown Land for any purpose, or for the alienation of, or the grant of private rights in or over, any such land, or for the carrying out of any works or other operations on any such land; or
- (b) a power that, under an enactment, other than an enactment in this Act, may be exercised by a public authority in relation to land vested in it.

A provision in a management plan which authorises the exercise of any such statutory power (in effect, for the purpose of permitting the use or development of a State Reserve otherwise than under the powers conferred by the *National Parks and Wildlife Act 1970*) will not take effect unless it has the approval of both Houses of Parliament.

This section is an account of statutory powers within the meaning of the *National Parks and Wildlife Act 1970* that are permitted to be exercised in the State Reserves of the WHA provided Parliament approves. Any conditions on the exercise of these powers are included. In addition, for some agencies, specific undertakings have been given in relation to their operations within the WHA. These undertakings are not a restriction on the use of a statutory power but rather a commitment by these agencies that the agency will carry out actions in the WHA in accordance with these undertakings.

Electricity Entities

Section 52 of the *Electricity Supply Industry Act 1995* provides electricity entities with the power to carry out certain works on public land, being works associated with the generation, transmission, distribution and supply of electricity, and with the installation, operation, maintenance, repair, modification, supplementation and replacement of electricity infrastructure. Other than in the case of works declared by regulations under that Act to be works of minor environmental impact, the

agreement of the authority responsible for managing the public land is first required. Agreement can be given subject to conditions which the managing authority considers appropriate in the public interest.

An electricity entity is authorised to carry out works under section 52 in accordance with the following provisions. Where those works require the agreement of the managing authority, the following provisions are to be taken into account in giving that agreement.

DEFINITIONS

Management of installations designed to produce and distribute electricity includes three types of activity: replacement, renewal and redevelopment which are defined below.

1. Replacement typically applies to a component which wears out eg a tower, turbine, lining of a canal. Replacement of such items forms part of normal maintenance work.
2. Renewal applies to larger components. In renewal the locations and general appearance are similar to that existing but the electricity entity needs to take account of new technology, design standards and safety. Examples of renewal include:
 - raising the crest level of a dam without increasing the full supply level of the storage; alternatively increasing the size of a spillway;
 - widening roads and canals;
 - increasing the height of transmission towers;
 - enlarging a switchyard by up to 50%;
 - changing the number of penstocks whilst adhering to the original alignment;
 - minor deviations to the route of a road or canal or transmission line eg a few metres shift over 3 - 5 kilometres;
 - a large deviation in a localised area, eg realigning a road or canal over a gully, not around it.
3. Redevelopment is where substantial change to the layout and appearance is involved. A significant deviation to the route of a transmission line, the raising of lake levels outside of agreed operational plans or significant widening or realignment of a canal.

CONDITIONS

The following conditions apply to works of minor environmental impact within the meaning of section 52 of the *Electricity Supply Industry Act 1995*, and should be taken into account by the managing authority when agreeing to works and operations under that section.

- The electricity entity must operate, maintain, repair, renew its existing installations in accordance with the HEC Operations Plan for the WHA or any other mutually agreed document that replaces it.
- For the purpose of transmitting electrical energy, the electricity entity may only utilise:
 - those strips of land extending through the Cradle Mountain–Lake St Clair National Park at its southern end where power lines now run and
 - the strip of land 60 metres wide extending through the Southwest National Park, such land being 30 metres on either side of the centre line of the 220 kV transmission line generally following the route of the Gordon River Road and the Mueller Road

provided that on the reserves the electricity entity:

- takes all reasonable care to do as little damage as possible, and
- does not, except in the case of an emergency, cut or construct any new access without the prior approval of the Minister for National Parks and Wildlife and upon such conditions as the Minister may see fit to impose.
- The waters in Lake St Clair must be managed in accordance with the Water Management Strategy for Lake St Clair. This aims to prevent or minimise shoreline erosion, maximise revegetation and enhance the aesthetics of the lakeshore environment (see Lake St Clair Erosion, page 80).

In particular the electricity entity is to modify its operating rules for Lake St Clair to achieve the following targets:

- the lake level will be maintained above 736.0 metres less than 2.0% of the time and
- the lake level will be maintained above 735.6 metres less than 6.0% of the time.

[The above targets are subject to the limitations, qualifications and management prescriptions noted on page 80].

- Where renewal projects potentially impact on the World Heritage and other natural and cultural values of the WHA, the electricity entity must liaise with the Service to ensure appropriate environmental impact assessment and mitigation strategies are followed. The procedure for assessment of the impact on natural or cultural values of any significant renewal of electricity entity installations will be developed jointly between the electricity entity and the Service and will be based on the procedures used by the Service for its minor activities in the WHA (see minor pathway, New Proposals and Impact Assessment Process, page 67).
- An electricity entity may not redevelop or alter the configuration of existing schemes, or undertake the substantial enlargement of the size of visible components or undertake new developments within the WHA. Such actions require amendment of this management plan, Environmental Impact Assessment and the approval of the Ministerial Council. If such actions are proposed they are to be considered via the New Proposals and Impact Assessment Process, see page 66.
- No new facilities may be established in the Wilderness Zone. Small scale, non-permanent facilities may be considered in other zones provided that they do not involve earthworks or clearing. These may be permitted subject to the approval of the Director.
- An electricity entity must manage areas vested in it, as far as practical, in a manner that is compatible with the surrounding National Park or Conservation Area.
- Installations no longer required by an electricity entity must be assessed for cultural significance and public safety. If not of significance, they must either be removed, in consultation with the Service and at the expense of the electricity entity, or allowed to decay. The electricity entity must remove unsafe installations.

Department of Infrastructure, Energy and Resources, Transport Division (TD)
STATUTORY POWERS AND CONDITIONS

- Subject to the following conditions the Minister administering the *Roads and Jetties Act 1935* is authorised to carry out his statutory powers under that Act in relation to all State highways and subsidiary roads constructed and maintained by the Transport Division (TD) within National Parks (including the Lyell Highway, the Gordon River Road and roads at Cradle Valley and Lake St Clair).
 - Any reconstruction or realignment of roads must take place only after consultation and agreement between the Secretary TD and the Director.
 - In discharging obligations under the *Roads and Jetties Act 1935*, the Secretary TD and that Department's contractors shall endeavour to minimise disturbance to the natural environment.
 - In consultation with the Service, the TD and that Division's contractors may remove vegetation from outside the road reserve if this obscures road sightlines. Any clearing will be carried out with utmost care because of the need to retain attractive and natural views from the highway. Fallen material will be removed from the reserve or dealt with so as not to create a fire hazard. Particular care will be taken in karst catchments in the Mt Arrowsmith and Bubs Hill areas along the Lyell Highway.
 - For the purposes of maintenance and upgrading of the roads within the WHA, the Secretary TD may, following consultation with the Director, authorise contractors to extract material from quarries along the Lyell Highway. Such extraction of material may only occur from existing quarries and is conditional upon assessment and conservation of significant natural and cultural values and appropriate rehabilitation.
 - No new quarries will be opened except after consultation between the Secretary TD and the Director and the issuing of the necessary licence by the Department of Primary Industries, Water and Environment.

- No existing quarries within the Cradle Mountain–Lake St Clair National Park will be used nor new quarries opened.
- No gravel or other resources from within a WHA State Reserve may be used outside the State Reserve.

UNDERTAKINGS

- The Secretary TD will liaise with the Service with a view to the permanent closure of the old quarry north of Bubs Hill that has broken into a limestone cave system.
- When economical and practicable, the Secretary TD will rehabilitate disused pits and quarries that TD is responsible for in association with roadworks, in liaison with the Service and in accordance with the provisions of the Rehabilitation section, page 114.

Surveyor-General
STATUTORY POWERS AND CONDITIONS

- In consultation with the Director, the Surveyor-General is authorised to continue to exercise all statutory powers under the *Survey Co-ordination Act 1944* in relation to the establishment and maintenance of existing permanent survey marks located within the State Reserves provided that:
 - The establishment of new permanent survey marks and associated beacons will be minimised and is subject to the specific approval of the Director.
 - Access for surveying and maintenance purposes is in accordance with the zoning scheme (see Zoning, page 54 and map three). Helicopter access for these purposes is permitted in the Recreation, Self-Reliant Recreation and Wilderness Zones. No new vehicle tracks may be constructed to Geodetic Survey Stations.
 - Care will be taken to ensure that environmental damage (such as vegetation clearance) is minimal, and that appropriate measures are taken to avoid the spread of plant pathogens.

UNDERTAKING

- When the Surveyor-General is satisfied that specific beacons or cairns of no historical value are no longer required, the Surveyor-General will, after consultation with the

Director, take the appropriate action to have such beacons or cairns removed. Priority will be given to removal of surplus structures situated within the Wilderness and Self-Reliant Recreational Zones.

Inland Fisheries Commission

- The Inland Fisheries Commission is authorised to exercise all of its relevant powers under the *Inland Fisheries Act 1995* provided that, where works or activities are involved, it shall require the written approval of the Director, and provided that exotic fish are not released into any water body within the WHA that is not currently inhabited by them. Further releases of trout into previously stocked lakes (including Lake Pedder) may occur.

Marine Resources Division of the Department of Primary Industries, Water and Environment

- The Minister administering the *Living Marine Resources Management Act 1995* is authorised to exercise all of the Minister's powers under that Act in relation to the granting of licences to take fish, provided such taking does not involve physical disturbance of the sea floor and provided that no licence, permit or other authority shall be issued for marine farming within the WHA. This does not preclude commercial diving for shellfish and other organisms, rock lobster fishing, gill and seine netting, trap fishing or line fishing.

Marine and Safety Authority of Tasmania

- The Marine and Safety Authority of Tasmania is authorised to exercise all of its powers under the *Marine and Safety Authority Act 1997* provided that, where it is proposed to install any new navigational aid or create any new structure, the works first have the approval of the Director.
- The Marine and Safety Authority of Tasmania is authorised to continue to operate and maintain the navigation light at Whalers Head, Port Davey.

Forestry Tasmania

- Forestry Tasmania is authorised to exercise its statutory powers under the *Forestry Act 1920* in relation to the use and maintenance of the following roads for forestry activities:

Clear Hill Road, Holley Road, Harbacks Road, Rufus Canal Road and South Lune Road.

- Forestry Tasmania is authorised to use roads through the Liffey State Reserve and the Liffey Forest Reserve for access to adjacent State Forest.

STATUTORY POWERS IN CONSERVATION AREAS

Under the *National Parks and Wildlife Act 1970*, statutory bodies may exercise powers in Conservation Areas without need for these to be provided for in a management plan and approved by both Houses of Parliament. However, section 21(4) provides that a management plan may prohibit or restrict the exercise of statutory powers in Conservation Areas. The following sections detail the ways in which the exercise of statutory powers are prohibited or restricted in the Conservation Areas of the WHA.

Electricity Entities

Any works carried out by an electricity entity under section 52 of the *Electricity Supply Industry Act 1995* in Conservation Areas must be done in accordance with the relevant conditions in the previous section of this management plan concerning the exercise by the electricity entity of the electricity entity's statutory powers. An electricity entity is also required to:

- operate its facilities within the Central Plateau Conservation Area only as specified in the Operations Plan;
- operate its facilities at St Clair Lagoon as specified in the Operations Plan.

Department of Infrastructure, Energy and Resources, Transport Division (TD)

Any works carried out by the Minister administering the *Roads and Jetties Act 1935* in Conservation Areas must be done in accordance with the relevant conditions in the previous section of this management plan concerning the exercise by the Minister of the Minister's statutory powers. The Minister is also required to:

- liaise with the Service over works in the Pine Lake area;
- take particular care to minimise runoff and any other disturbance to the Liffey River catchment. (The Lake Highway passes

through the Liffey Forest Reserve and there is a gravel pit below the highway within the reserve)

Inland Fisheries Commission

Any works or activities carried out by the IFC in administering the *Inland Fisheries Act 1995* in Conservation Areas must be done in accordance with the terms of the previous section of this management plan concerning the exercise by the IFC of the IFC's statutory powers. The IFC is also required to manage the trout fishery in accordance with a Trout Fishery Management Plan approved by the IFC and prepared in consultation with the Service and anglers.

OTHER STATUTORY AUTHORITIES

This section covers activities by statutory authorities which are not affected by section 21 and section 24 of the *National Parks and Wildlife Act 1970*.

Forestry Tasmania

- The *Forestry Act 1920* and Regulations will continue to apply to WHA Forest Reserves.
- Forestry Tasmania is required to liaise with the Service regarding the reviewing of non-statutory plans for the WHA Forest Reserves and significant actions that result from such plans.

Resources Management Division of the Department of Primary Industries, Water and Environment

- The Service may authorise the use and maintenance, but not expansion, of the existing gauging station on the Davey River downstream of the Crossing River.

Australian Maritime Safety Authority

- It has been agreed with the Australian Maritime Safety Authority that where aids to navigation for vessels or any new structures are involved such works shall:
 - meet a demonstrated essential safety need;
 - be subject to the satisfactory completion of the New Proposals and Impacts Assessment Process (see page 66);
 - be subject to any written conditions imposed by the Director.

PRIVATE LANDHOLDERS

(See section on Huts and Shacks for huts licenced to specific people, and commercial huts, page 154).

Background

Several small freehold blocks are included in the WHA in the Vale of Rasselas and the southeastern part of the Central Plateau Conservation Area. Because they are not reserved under the *National Parks and Wildlife Act 1970* this plan cannot apply to them. There is also an enclave of freehold blocks surrounded or partly surrounded by the WHA (but not included in the WHA) in the upper Mersey Valley at Lees Paddocks and Pine Hut Plains. Access through the WHA by landholders to freehold blocks is protected by an easement of necessity.

Previous Management

As funds have not been available, no offers by the Service have been made for any of the private land referred to above. No approaches have yet been made to the owners regarding management agreements or the possibility of the lands being given private reserve status.

Objective

- To acquire, or seek management agreements for, freehold blocks that are surrounded or partly surrounded by WHA.

Management Prescription

- As funds permit, approach owners of land within or surrounded by the WHA regarding purchase of the blocks for inclusion in reserves, or alternatively seek proclamation as private reserves under the *National Parks and Wildlife Act 1970*.

Chapter 9

Administrative Matters



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Management Bases

BACKGROUND

The WHA is located in both the northern and southern management regions of the Service. The principal management centre for the WHA is Hobart. This is where the majority of specialist and senior management staff are located. A smaller centre in Launceston contains management and some specialist staff for the northern area.

Field centres that manage parts of the WHA are currently located at Cradle Valley, Mole Creek, Trevallyn and Liawenee in the northern area and Strahan, Queenstown, Lake St Clair, Mt Field and Dover in the south.

Devonport is Forestry Tasmania's management centre for the WHA Forest Reserves.

OBJECTIVE

- To decentralise management functions and delegate management decisions and responsibility to field bases as appropriate to increase efficiency and effectiveness.

MANAGEMENT PRESCRIPTIONS

- The role of field centres in dealing with management matters will be broadened over the life of the plan and the delegation of many decisions will be moved from head office to senior officers in the field.
- The decentralisation of management tasks to Management Areas and field centres will continue. Overall planning and most specialist functions will continue to be based in Hobart and to a lesser extent, Launceston.



Staffing

BACKGROUND

Day to day management of the WHA is primarily the responsibility of the Service. At the time of writing 112 permanent employees are involved in WHA planning and management, with 59% of these based in the field.

Additional temporary staff (such as project officers, summer interpretive rangers, track rangers and walking track construction workers) are regularly employed.

In addition to on-the-job training needed to undertake the normal management of the WHA, specialist training for staff is provided in law enforcement, fire management, education and interpretation, search and rescue, first aid, planning and administration.

OBJECTIVES

- To ensure that adequate staff levels and capacity are maintained in the long term to carry out the provisions of this management plan.
- To progressively develop staff expertise in WHA management.

MANAGEMENT PRESCRIPTIONS

- Forward plan, develop and maintain the management capacity to implement this plan. Where necessary, provide training, recruit and/or contract personnel to provide the requisite skills and support.
- Progressively develop staff expertise in WHA management through staff development and training programs appropriate to their areas of responsibility. [KDO 10.3]
- Review the effectiveness of training in appropriate key areas to the achievement of WHA management objectives.

MONITORING AND EVALUATION

- Regularly review the adequacy of staffing arrangements to capably implement this plan.
- Monitor changes in staffing levels and in the qualifications and training of Service staff.



Law Enforcement

BACKGROUND

The Service is responsible for enforcing the provisions of the *National Parks and Wildlife Act 1970* and Regulations thereunder, the *Aboriginal Relics Act 1975*, relevant parts of the *Fire Service Act 1979* and the *Crown Lands Act 1976* and its Regulations.

The Division of Environment and Planning within the Department of Primary Industries, Water and Environment is responsible for the environmental assessment of level 2 and other activities in accordance with the *Environmental Management and Pollution Control Act 1994*.

The Inland Fisheries Commission is responsible for ensuring that the provisions of the *Inland Fisheries Act 1995* and its regulations are observed.

Forestry Tasmania is responsible for enforcement of the *Forestry Act 1920* and Regulations and parts of the *Fire Service Act 1979* in Forest Reserves.

Responsibility for normal law enforcement within the WHA lies with the Tasmanian Police.

OBJECTIVE

- To utilise legislation, enforcement arrangements and land tenure that are appropriate to the achievement of WHA management objectives.

MANAGEMENT PRESCRIPTIONS

- ✓ As far as possible, utilise legislation, enforcement arrangements and land tenure that are appropriate to achieving WHA

management objectives, and which do not compromise effectiveness and efficiency of management. [KDO 1.4]

- ✓ Ensure that Service staff and agents are aware of, and where necessary act on, current legal obligations and responsibilities. [KDO 1.5]
- ✓ Inform and/or make available to the public and special interest groups information related to the legislative requirements related to their activities or interests in the WHA. [KDO 1.5]
- ✓ Alert relevant authorities concerning any perceived needs for changes to legislation, enforcement arrangements, that would specifically enhance WHA management objectives.

MONITORING AND EVALUATION

- Document and regularly collate changes in the powers of protection of the WHA or its resources. (eg changes in legislation, land tenure, conservation status, regulations, permitted activities etc) [KDO 1.4]
- Regularly document the level of compliance/non-compliance with regulations and statutory provisions that relate to the WHA, and the extent to which obligations of legal and other mandates pertaining to the WHA have been met. Monitor changes in the number and nature of prosecutable incidents in the WHA. [KDO 1.5]



Aircraft Use for Management Purposes

BACKGROUND

Fixed wing aircraft and helicopters are invaluable for management operations such as track repair in remote locations. However, as with scenic flights, management flights can disturb visitors.

OBJECTIVE

- To use aircraft for management purposes in ways that minimise disturbance to visitors.

MANAGEMENT PRESCRIPTIONS

- As far as practical, management flights are to adhere to the flight guidelines for scenic flights (see Aircraft Activities section p 134).
- Management flights are, as far as possible, to be scheduled at times and on routes that minimise disturbance to visitors.
- Helicopter and fixed-wing access to the WHA by research expeditions will be subject to adherence to environmental guidelines. (See also pages 117–118)



Use of Natural Materials for Management Purposes

BACKGROUND

Management practices make use of natural materials such as split hardwood for track cording, split shingles or shakes for hut reconstruction, gravel and rock for track surfaces and dressed timbers in structures such as visitor centres or cooking shelters.

On a small scale some of these materials can be selectively obtained from within the WHA without causing major damage. The acceptability of such practices, their extent and the appropriateness of using materials that are rare or threatened for reserve management purposes all require careful consideration.

OBJECTIVES

- To provide facilities for visitors that match or complement the environment.
- To use materials whose production can be sustained and that are in keeping with good land management practice.

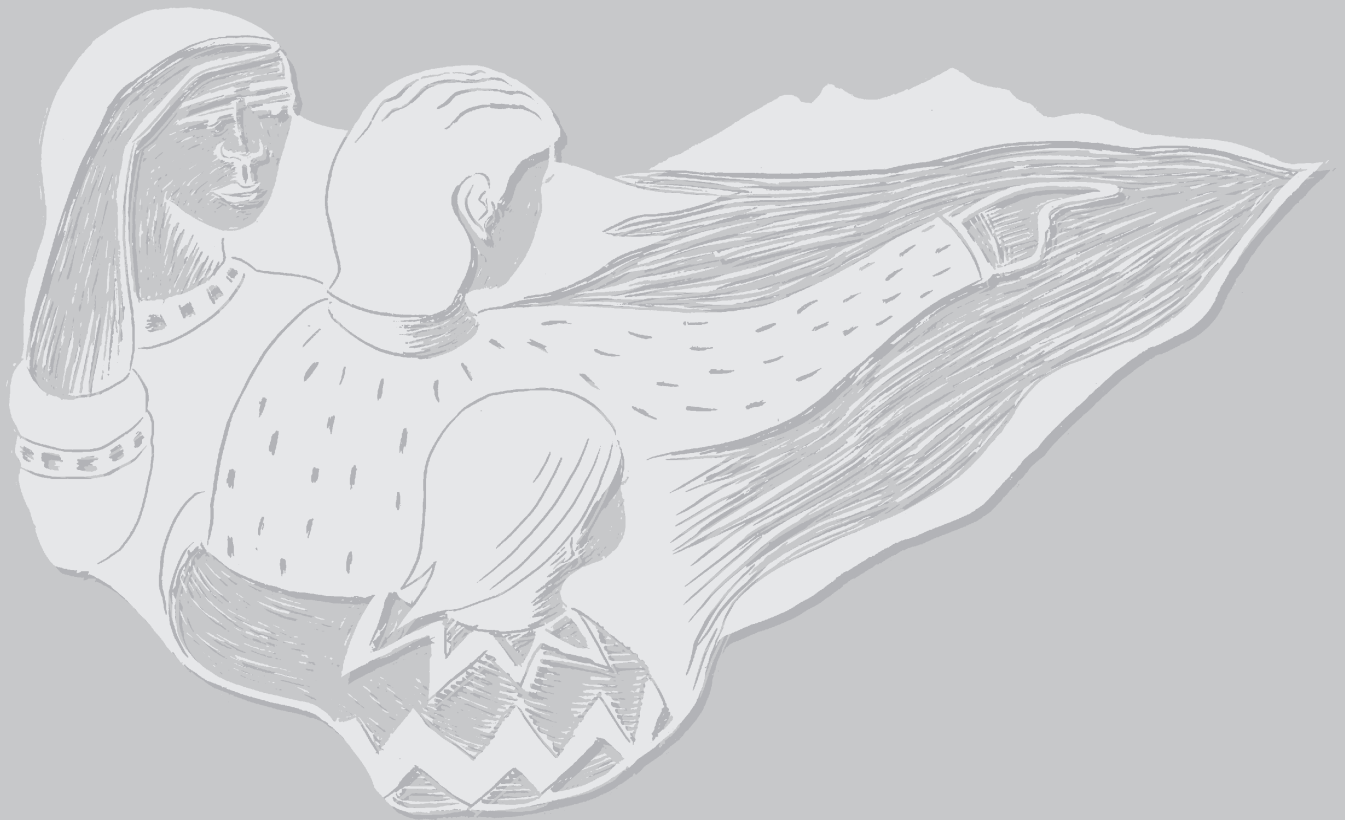
MANAGEMENT PRESCRIPTIONS

- Subject to prior assessment of the significance of features, small scale use of natural resources from within the WHA may occur for approved management purposes.
- Species from within the WHA defined by Kirkpatrick and Gilfedder (1988)²⁹ as endangered, vulnerable or rare may not be used.
- Dead King Billy pine, pencil pine or Huon pine may be used if the roots are left *in situ* for site stabilisation.
- The use of rare timber species (obtained from outside the WHA) for reserve management will be restricted to situations where there are no suitable alternatives (eg use of King Billy shakes in restoration of a historic hut).
- Develop guidelines for the use of WHA resources for reserve management purposes.

29 Kirkpatrick, J.B.P. and Gilfedder, L. 1987 *The Botanical Status of the Lemnathyme and Southern Forests* Unpublished report to the Lemnathyme and Southern Forests Commission of Inquiry, Hobart.

Chapter 10

Management of Adjacent Areas



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Background and Clarification of the Meaning of 'Adjacent Area'

This chapter is not part of the legal management plan for the WHA, however it should be read in conjunction with that document. It provides general policy advice for management of adjacent areas and some specific policy guidance for adjacent areas managed by the Service.

There are a number of areas that are adjacent to the WHA whose management is influenced to varying degrees by the WHA. Some adjacent areas (eg the area south of Cockle Creek, the 'Hartz hole', and the Navarre Plains) were proclaimed State Reserve after the most recent WHA listing, are managed by the Service and have national park status. Such areas are covered by this management plan (see page 15 for a full list) and are not dealt with further here.

Other areas such as the Southwest Conservation Area, Granite Tor Conservation Area and Lake Beatrice Conservation Area are adjacent to the WHA, are managed by the Service and will be covered by other management plans in the future. These are noted below.

There are still other areas that are under the jurisdiction of other agencies where the Service's role is one of liaison. General policy guidance for these is given below.

There are a number of facets of management of the WHA which need to be considered in their regional context. For example, it is preferable for a variety of reasons, such as access and strategic location, that some management facilities and visitor accommodation not be provided within the WHA itself. Similarly, the wilderness quality of the area can only be retained by ensuring that natural viewfields from major vantage points are maintained. The principles of management therefore recognise that adjoining lands should, as far as possible, be managed in ways that are

sympathetic to the objectives of management for the WHA.

The attractions of the World Heritage Area have the potential to create demand for development on adjacent land and in gateway communities. Local Government and regional planning can play an important role in guiding the nature and extent of development in these important entrances to the WHA. For example, development plans for gateway areas can outline the principles and requirements for planning approval by designating appropriate precincts for development, outlining appropriate facilities and services that may be provided, presenting guidelines for the siting and design of buildings, and requirements for environmental and landscape management.



Previous Management

LAND STATUS

There have been several changes in the status of land adjoining the WHA during the life of the 1992 management plan, as detailed below.

- An area of 1.148 ha was added to Marakoopa Cave State Reserve on 4 July 1995. This area is covered by this management plan.
- The Mole Creek Karst National Park was proclaimed on 13 November 1996. This includes the former Marakoopa Cave State Reserve within the WHA and several other former reserves outside the WHA. The only part of the Mole Creek Karst National Park which lies within the WHA is the former Marakoopa Cave State Reserve (boundary as at December 1989).
- The Conservation Area status of the Southwest Conservation Area adjoining the western boundary of the WHA north of Macquarie Harbour was revoked on 23 December 1992.

- The Granite Tor Conservation Area (formerly part of Southwest Conservation Area) was proclaimed on 25 December 1996.
- The Lake Beatrice Conservation Area (formerly part of Southwest Conservation Area) was proclaimed on 25 December 1996.

LAND MANAGEMENT

During the life of the 1992 plan the following management actions have been undertaken in adjacent areas to the WHA in accordance with the corresponding section of the 1992 plan.

- Draft site plans for the Cockle Creek and Melaleuca areas have been prepared and made available for public comment. These cover the management of these areas in detail. Both still require finalisation.
- Surveys for Aboriginal sites have been conducted on the coast south of Macquarie Harbour.
- A Conservation Plan has been prepared for the Macquarie Heads Pilot and Signal Station.
- Fire management plans have been produced for the Melaleuca area and the Lake Beatrice Conservation Area.



Objectives

- To foster management practices in lands adjacent to the WHA that are sympathetic to the objectives of management of the WHA.
- To assist nearby communities servicing the WHA to manage gateway areas in a manner compatible with presentation of the WHA.



Management Prescriptions

✓ GENERAL ADJACENT AREA POLICY GUIDANCE [KDO 1.7]

- Liaise with all agencies with management responsibility to seek to ensure that any plans, policies or operations in adjacent areas are, as far as possible, sympathetic to the values and presentation of the WHA.
- Liaise with local, regional and State planning and management agencies and community interests to foster a co-operative and integrated approach to the provision and development of recreation and tourism opportunities, facilities and services in adjacent areas.
- Encourage the establishment of appropriate accommodation and commercial facilities in suitable locations in adjacent areas.
- Liaise with relevant agencies in the planning, upgrading and maintenance of walking tracks in adjacent areas that provide access to the WHA. (See also Walking and Walking Tracks, page 172)
- Encourage and provide guidance regarding complementary management of areas and activities outside the WHA to protect the WHA's natural and cultural values.

AREAS MANAGED BY THE SERVICE BUT NOT COVERED BY THIS PLAN

- Ensure that management plans for reserves adjacent to the WHA managed by the Service are developed and implemented in sympathy with the aims of WHA management while taking into account the needs of other land uses in these areas.
- Prepare management plans for:
 - the Southwest Conservation Area south of Macquarie Harbour;

- the Southwest Conservation Area in the Melaleuca–Cox Bight area;
- the Granite Tor Conservation Area;
- the Lake Beatrice Conservation Area;
- Mt Field National Park;
- Hastings Cave State Reserve and
- Mole Creek Karst National Park.

As an interim measure, the management prescriptions below will guide Service management of the areas listed.

South of Macquarie Harbour

The following management prescriptions will apply to the Southwest Conservation Area south of Macquarie Harbour.

Conservation and Protection of Natural and Cultural Values

- Continue to monitor the status of the orange-bellied parrot in the area and protect its habitat in accordance with the Recovery Plan and the protection of other natural and cultural values.
- Continue to investigate the spread of *Phytophthora cinnamomi* from this region into the WHA with particular reference to the movement of aircraft and prescribe appropriate precautions.
- Continue to undertake identification surveys for Aboriginal and historic cultural resources, to identify the nature and scope of the resource and the condition of, and impacts affecting, the resources (for example, survey for inland Aboriginal resources, survey for mining sites, survey for convict sites). Implement protection, conservation and presentation measures as appropriate for the identified resource.
- Take appropriate steps (including education and regulation, if required, of recreational vehicle users of the Low Rocky Point Track) to limit damage to Aboriginal sites and other values in the area.
- Map marram grass infestations and make recommendations on eradication and management (infestations in this area threaten the WHA to the south).

Fire Management

- As far as practicable and appropriate, make provision for the protection of the WHA

from the spread of fires initiated outside its western boundary.

Rehabilitation

- Initiate erosion control and rehabilitation measures as appropriate in consultation with Mineral Resources Tasmania.

Access

- Monitor recreational vehicle use in the area and take appropriate management action.

Melaleuca – Cox Bight

- Finalise and implement the draft Melaleuca site plan.

Conservation and Protection of Natural and Cultural Values

- Survey the natural and cultural resources of the area.
- Interpret local natural and cultural features.
- Liaise with commercial and private aircraft operators to ensure that their operations cause minimal disturbance to orange-bellied parrots.
- Control feral cats and starlings which predate on orange-bellied parrots, or compete with them for nest sites.
- Investigate the factors affecting cultural sites and implement appropriate protection measures.

Fire Management

- Conduct fuel reduction and habitat management burns in accordance with the fire management plan.

Rehabilitation

- Encourage rehabilitation of exposed gravel areas resulting from past mining activity.

Visitor and Park Management Facilities

- Undertake minor upgrading and rationalisation of camping areas at Cox Bight to minimise environmental degradation.
- Maintain the existing overnight walkers' huts at essentially their present spartan standard in conjunction with the lessee and continuing voluntary assistance from groups such as the Launceston Walking Club. If appropriate, undertake minor improvements.

Mineral Exploration and Mining

- Seek to ensure that the current consolidated mining lease at Melaleuca is cancelled once the existing lessee ceases mining. [It is noted that compensation may be payable under Section 94(4) of the *Mineral Resources Development Act 1995*.]

Access

- Allow the extension of the existing airstrip, providing that it does not intrude to within 30 metres of Moth or Melaleuca creeks and maintains the same alignment as the present airstrip. [This decision is based on safety grounds to allow the safe operation of aircraft that currently use the strip, not to allow faster or larger aircraft.]



Monitoring and Evaluation KDO 1.7

- Monitor the extent to which plans for areas adjacent to the WHA take account of the WHA and propose management in accordance with protection of the WHA's values.
- Monitor the extent to which developments or activities in areas adjacent to the WHA have enhanced or detracted from the heritage values of the WHA and/or the presentation of those values.

GLOSSARY OF TERMS

The following definitions and explanatory notes aim to clarify the meaning of key words and phrases used in the plan.

DEFINITION OF TERMS

✓, ♻ Symbols

Used to identify major management (✓) and major monitoring (♻) and evaluation prescriptions respectively. See Objectives and Key Desired Outcomes — how they will be Achieved and Evaluated, page 31 for further explanation.

Aboriginal Land

Land where title has been handed back to the Aboriginal community under the *Aboriginal Lands Act 1995*. This includes three areas in the WHA, see table 1 page 14 and map 2 page 215.

Biodiversity

The variety of life forms: the different plants, animals and microorganisms, the genes they contain and the ecosystems they form. It is usually considered at four levels: genetic diversity, species diversity, ecosystem diversity and community diversity. (*Australian Natural Heritage Charter*)

Community

Refers to the public in general or in some cases to a particular group of people that have interests in common, eg the local community, Aboriginal community, the bushwalking community etc.

Conserve

In general, to keep in a sound or unimpaired state, especially in the long term; to set aside from uses that could cause damage or degradation. More specifically, to look after a place by all the processes and actions needed so as to retain its natural and cultural significance. This includes such processes and actions as protection, maintenance, monitoring, restoration etc (Specific definition based on *Australian Natural Heritage Charter* and *Burra Charter*).

Cultural

Everything that is socially learned and shared by members of a society; of or relating to the cultivation of the mind or manners especially through artistic or intellectual activity; of or

pertaining to the sum total ways of living built up by a group of humans which is transmitted from one generation to another.

Cultural Landscape

Cultural Landscapes: these represent the combined works of nature and man. They are illustrative of the evolution of human society and settlement over time under the influence of environmental, social, economic and cultural forces. They often reflect specific techniques of sustainable land use, considering the characteristics and limits of the natural environment they are established in, and a specific spiritual relation to nature. *Operational Guidelines for the Implementation of the World Heritage Convention, UNESCO, Feb 1995.*

Earth Processes

The interactions, changes and evolutionary development of geodiversity over time. (*Australian Natural Heritage Charter*)

Ecological Processes

All those processes that occur between organisms, and within and between populations and communities, including interactions with the non-living environment, that result in existing ecosystems and bring about changes in ecosystems over time. (*Australian Natural Heritage Charter*)

Established Practices (Traditional Practices)

The term 'established practices' is used throughout this plan in relation to non-Aboriginal traditional practices. This removes confusion with Aboriginal traditional practices and is in accordance with terminology used in other States. Established practices include a range of activities undertaken in the area prior to it becoming a reserve. These may include, but are not limited to, hunting, horseriding, fishing (live bait fishing), hut and track construction and maintenance, grazing, taking dogs into the area, four wheel drive use, patch burning and use of campfires.

Evolutionary Processes

Genetically-based processes by which life forms are believed to change and develop over generations. (*Australian Natural Heritage Charter*)

Fuel Stove

A fuel stove is a device for cooking that:

- does not, during normal operation, affect the soil or vegetation surface it is used on (eg no coals that can burn into peat soil or hot material that may harm vegetation);
- does not use fuel from the local environment (eg may run on shellite, methylated spirits and other fuels, but not using twigs, sticks or wood from the local environment) and
- does not leave any residue in the local environment.

Examples of fuel stoves include liquid fuel stoves made by Trangia, MSR and Optimus and gas-fuelled stoves.

Fuel Stove Only Area (FSOA)

A FSOA is an area where only fuel stoves may be used for cooking or warmth and where open campfires are not allowed. The only exceptions to this are:

- in emergencies where a fire needed for survival reasons and
- in designated fire sites (usually located in Visitor Services Zones or Sites with supplied fireplaces).

Geodiversity

The range of earth features including geological, geomorphological, palaeontological, soil hydrological and atmospheric features, systems and earth processes. (*Australian Natural Heritage Charter*)

Key Desired Outcomes (KDO's)

The main results, products or end-points which management of the WHA is focused on achieving. See page 31.

Natural

Existing in, or formed by, nature; existing in a wild condition; existing independently of people's activities or with minimal levels of human interference. In Australia, it is recognised that Aboriginal practices dating back thousands of years have shaped present-day plant and animal communities. It is sometimes argued that prehistoric indigenous people who lived a subsistence existence without the aid of modern technology formed a part of the 'natural' ecology.

Natural Diversity

The variety of life forms, natural features, landscapes, formations etc. Natural diversity

includes biodiversity and geodiversity.

Natural and Cultural Heritage

Natural and cultural values which are considered of sufficient natural or cultural significance to ensure their conservation and transmission to future generations. The phrase extends the meaning of heritage beyond 'world heritage' to include other values of, for example, global, national or regional significance.

Natural significance means the importance of ecosystems, biological diversity and geodiversity for their existence value, or for present or future generations in terms of their scientific, social, aesthetic and life-support value. (*Australian Natural Heritage Charter*)

Cultural significance means aesthetic, historic, scientific or social value for past, present or future generations. (*The Burra Charter*)

Natural Processes

Ecological, evolutionary and earth processes.

Natural and Cultural Values

The phrase 'natural and cultural values' is used throughout this plan to refer to the full spectrum of natural and cultural attributes or resources, ie it extends meaning beyond 'heritage' to include resources of a common nature and resources of limited or local significance.

Overarching Management Objectives

The highest level of objectives of this plan; the main aims which guide management of the WHA; the 'big picture' of what management of the WHA is trying to achieve.

Present

To introduce, show, exhibit, reveal quality to, or bring before the mind of a person, audience or the public.

Protect

In general, to keep safe from damage or degradation. More specifically, to take care of a place by maintenance and by managing impacts to ensure that natural and cultural significance is retained. (Specific definition based on *Australian Natural Heritage Charter*)

Rehabilitate

To improve the condition of degraded values so as to restore their natural and cultural

significance. In relation to disturbed or degraded land: to restore to a former or proper condition or state, for example through reshaping the land surface, stabilising soil, and re-establishing vegetation.

Restore

In general, to bring back or attempt to bring back to a former, original or normal state. More specifically:

In relation to natural values:

To return existing habitats to a known past state or to an approximation of the natural condition by repairing degradation, by removing introduced species, or by reinstating species or elements of habitat or geodiversity that existed there naturally at a previous time. (*Australian Natural Heritage Charter*)

In relation to cultural values:

To return the existing fabric of a place to a known earlier state by reassembling existing components without the introduction of new material. (*Burra Charter*).

Wilderness

(For more detail on this definition and further qualifications on its use, see Wilderness, page 91).

In general, an uncultivated, wild region in which the natural ecology is undisturbed.

More specifically, an area that is, or can be restored to be:

- of sufficient size to enable the long-term protection of its natural systems and biological diversity; and
- substantially undisturbed by colonial and modern technological society; and
- remote at its core from points of mechanised access and other evidence of colonial and modern technological society. (*Wilderness in Australia: Robertson et al*)

Wilderness Quality

(for more detail on this definition and further qualifications on its use, see Wilderness, page 91)

Refers in general terms to the remote and natural characteristics of an area. More specifically, wilderness quality refers to a measured determination which recognises a continuum of wilderness quality from high to low, and which is based on the characteristics of:

- remoteness from settlement,
- remoteness from access,
- apparent naturalness,
- biophysical naturalness.

World Heritage Values

World Heritage values are natural and cultural heritage that is of outstanding universal value and which enables an area to meet the requirements, under the guidelines, for listing as a World Heritage site.

Article 1 of the World Heritage Convention defines 'cultural [world] heritage' as:

- Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science;
- Groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;
- Sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value for the historical, aesthetic, ethnological or anthropological points of view.

Article 2 of the World Heritage Convention defines 'natural [world] heritage' as:

- Natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;
- Geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;
- Natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty.

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