

INTERIM MANAGEMENT GUIDELINES

GOLDFIELDS WOODLANDS NATIONAL PARK AND SURROUNDING CONSERVATION RESERVES

2006 - 2011

Department of Conservation and Land Management

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1. PURPOSE OF INTERIM MANAGEMENT GUIDELINES (IMGs)

Interim Management Guidelines (IMGs) are required for planning purposes so that certain operations can be carried out in an orderly fashion in the absence of an approved management plan. The operational activities described in the guidelines are defined as those actions necessary for the preservation or protection of persons, property, land, flora and fauna.

This IMG has been prepared in accordance with Departmental policy (Administrative Instruction No. 23) and to fulfil the requirements of Environment Australia under the National Reserve System project.

1.1 Principal Management Directions

These guidelines cover the major management issues including:

- The conservation of biological, physical, cultural and landscape resources;
- The facilitation of recreation in a safe and appropriate form in relation to the physical and climatic conditions of the area and the conservation objectives; and
- To seek a better understanding of the natural and cultural environment and the impacts of a range of management activities.

Corporate Mission and Visions

The Department of Conservation and Land Management (CALM) manages National Parks, Nature Reserves, Conservation Parks and other reserves according to the statutory requirements of the relevant sections of the CALM Act, and the policies of CALM and the Conservation Commission of WA. CALM's decision making and subsequent management is further guided by the principles included in CALM Corporate Plan (2002-2005) in which the following mission statement is found:

"In partnership with the community, to conserve Western Australia's biodiversity, and manage the lands and waters entrusted to us, for their intrinsic values and for the appreciation and benefit of present and future generations."

The Department's primary objective in management of national parks, as defined in Section 56 of the act is to:

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

1.2 Area Description

These Interim Management Guidelines (IMGs) provide direction for the management of the Goldfields Woodlands National Park (GWNP), Boorabbin National Park (BNP), Goldfields Woodlands Conservation Park (GWCP), Victoria Rock Nature Reserve (VRNR) the adjacent Section 33(2) conservation area surrounding proposed reserves, until an area management plan is prepared or these guidelines are amended. In the absence of an area management plan these guidelines provide the basis for management of necessary operations for the purpose of annual works programs and for the preservation and protection of persons, property, land, flora and fauna. It should be noted that for ease of use throughout this document the entire conservation area will be referred to as GWNP and surrounding Conservation Reserves.

The GWNP and surrounding Conservation Reserves cover an area of approximately 294 638ha and is comprised of:

- Goldfields Woodlands National Park (No. 46126) (64 612ha) was declared in April 2000 and is located along the Great Eastern Highway;
- Goldfields Woodlands Conservation Park (No. 46127) (33 112ha) was declared in April 2000 and is spread over two areas east of GWNP and south of Coolgardie;
- Proposed extensions are located to the south of GWNP and cover 142 141ha ;
- Boorabbin National Park (No. 35004) (26 000ha) was declared in November 1977 and is located to the west of GWNP along the Great Eastern Highway;
- Section 33(2) Conservation Area is located within the GWNP and covers 28 514ha; and
- Victoria Rock Nature Reserve (No. 8480) (259ha) was declared in September 1990 and is located to the south east of GWNP.

The GWNP and surrounding Conservation Reserves are surrounded by Unallocated Crown Land on all sides except for a portion of the north eastern boundary which adjoins Bullabulling Station.

2. MANAGING FOR NATURE CONSERVATION

2.1 Geology and Geomorphology

The areas subject to this IMG contains representative areas of various landforms including small areas of greenstone, extensive areas of sand plain surfaces with quaternary broad valleys dissecting them and a chain of low-lying salt lake systems extend to the south along the western boundary of the GWNP.

Larger granite rocks such as Woolgangie, Yerdanie, Victoria, Thursday, Diamond, Nalarine and Nargalgerrie Rocks occur at the margins of the low lying broad valleys and higher sand plain landforms. Scattered throughout the reserves and proposed reserves are a large number of unnamed rocky outcrops. Extensive sand plain areas occur north of Pigeon Hole to Victoria Rock and Yerdanie Rock, west of the salt lakes into the Boorabbin National Park, north of Thursday Rock and south of Diamond Rock on the GWNP southern boundary.

2.2 Flora

The GWNP and surrounding Conservation Reserves include a variety of landforms, vegetation types and ecosystems. There are granite outcrops, natural salt lakes, freshwater swamps, sand plains and the unique and diverse eucalypt woodlands.

The GWNP and surrounding Conservation Reserves are situated within the Coolgardie Biogeographic Region which is characterised by eucalypt woodland. The conservation reserves form part of the States comprehensive, adequate and representative (CAR) conservation reserve system. The minimum recommended level of reservation for each bioregion to create a CAR reserve system using the nationally recognised standards is generally acknowledged as 15%. There is currently 11.3% of the Coolgardie Bioregion reserved through conservation areas (McKenzie *et al* 2003).

Herbarium records show that more than 500 plant species have been documented from the area although it is likely that this number will be considerably higher after detailed botanical survey of the

reserves has been undertaken. At least nine of these are declared rare or are priority species including *Gastrolobium graniticum*, *Eremophila virens*, *Stylidium choreanthum* and *Banksia lullfitzii*.

The Goldfields woodlands contain a particularly diverse range of eucalypt species, many of which are endemic. Around 80 Eucalypt species grow in the woodlands area subject to this planning document. Common species include the salmon gum (*E. salmonophloia*), gimlet (*E. salubris*), redwood (*E. transcontinentalis*) and yorrell (*E. gracilis*).

The eucalypt woodlands are broken up by undulating yellow sand plains supporting a vegetation of low lying heaths comprised of *Allocasuarina*, *Acacia*, *Callitris*, and *Banksia* species. Mallee eucalypt species on these sand plains include tall sand mallee (*E. eremophila*) and tammin mallee (*E. leptopoda*).

Granite rock complexes throughout the woodland areas support distinctive vegetation with rocks often surrounded by thickets of rock sheoak (*Allocasuarina huegeliana*), jam (*Acacia acuminata*), silver wattle (*Acacia lasiocalyx*), sandalwood and quandong (*Santalum* spp.). The declared rare flora granite poison (*Gastrolobium graniticum*) is restricted to several granite rock complexes in the area.

2.3 Fauna

The Eastern Goldfields Biological Surveys of the 1970s and 80s documented the majority of what is currently known of the fauna within the planning area. This work, in conjunction with Museum records, show that for the planning area and the immediate surrounds there are 61 species of reptile, 5 amphibians, 19 species of mammal including 6 bats, 5 dasyurids, 2 macropods and 4 rodents along with over 100 species of bird.

The most common of the native mammals are the western grey kangaroo (*Macropus fuliginosus*) and echidna (*Tachyglossus aculeatus*). Many of the dasyurid marsupials such as the southern Ningau (*Ningau yvonneae*), fat-tailed dunnart (*Smithopsis crassicaudata*) and hairy-footed dunnart (*S. hirtipes*) are also quite common although less frequently sighted. Native rodents are represented by Mitchell's hopping-mouse (*Notomys mitchellii*), Bolam's mouse (*Pseudomys bolami*), sandy inland mouse (*P. hermannsburgensis*) and the ash-grey mouse (*P. albocinereus*).

The reptile and amphibian diversity for the area is quite high with 12 dragon species, 13 snakes, 20 skinks, 10 geckos, 4 legless lizards, 2 monitors and 5 frogs. A number of these species are close to the limits or on the edge of their ranges such as the dragons *Ctenophorus isolepis citrinus*, *C. fordi*, *C. maculatus* and *C. reticulatus*, the skink *Ctenopus pantherinus* and the gecko species *Nephrurus stellatus*. The skink *Ctenopus xenopleura* is a Coolgardie Bioregion endemic and its distribution is restricted to the sand plain heaths, some of which occur within this reserve system.

More than 100 bird species are known to occur in and around the planning area. Nine of the resident passerines only recorded in natural vegetation in wheatbelt reserves to the west (Kitchener *et al.*, 1982), are present in the planning area. Species such as the shy hylacola (*Sericornis cautus*), blue-breasted fairy-wren (*Malurus pulcherimus*) and the rufous tree-creeper (*Climacteris rufa*) are habitat specific, requiring the semi-arid thickets and woodlands that are present. The area contains excellent habitats for other passerines such as Gilbert's whistler (*Pachycephala inornata*).

2.4 Environmental Weeds

Unwanted plant species growing in natural ecosystems can displace native plants where there is competition for light, nutrients and water. On some of the disturbed sites in the GWNP and surrounding Conservation Reserves this is the case. Weeds can have a significant adverse impact on conservation values by altering fauna habitats, harbouring pests and diseases and in some cases creating a potential fire hazard.

Some of the declared and environmental weeds present, which continue to be monitored and controlled, are Bathurst Burr, Saffron and Afgan Thistle, Mint Weed, Calthrop, Doublegee and Onion weed. They occur along the Great Eastern Highway, pipeline and abandoned railway and disturbed sites such as Boondi, Boorabbin and Woolgangie, the existing recreation site at Victoria Rock and along some sections of the Holland Track and internal access roads.

An integrated approach to weed management was developed in the Environmental Weed Strategy for WA (CALM 1999). Since the inter-relationship between soil disturbance, weed invasion and native plants is complex, weed control will be carried out in an integrated and strategic manner.

2.5 Introduced and other Problem Animals

Problem animals have the potential to adversely impact on natural systems and conservation values. Adverse impacts can be through predation of native animals, habitat destruction, competition for food and territory and accelerating erosion. Problem animals can be either native species that impact on natural and agricultural values or feral animals (introduced species that have become established as wild or naturalised).

The problem species present in the GWNP and surrounding Conservation Reserves include the feral cat, fox, wild dog, goats, rabbits and European honey bees. Although there are records of a number of different species of feral animal occurring in the general area, most are either in very low numbers or are so infrequently seen that no specific management action would be required or could be implemented. This is probably the case in relation to all the herbivorous feral animals including goats and rabbits. Foxes, cats and possibly wild dogs on the other hand are the exception. Critical weight range mammals have been impacted upon through predation by these species and mammals such as the Western Quoll and Numbat have long been absent from this general area as a result.

Domestic Animals

Domestic animals are not permitted in national parks or conservation parks, except in specifically identified areas or where dogs are required for use by the disabled or for emergency (search and rescue) purposes. Dogs on a lead may be allowed on other categories of reserve according to a management plan for that reserve. Domestic animals are not permitted on nature reserves. Impact from domestic animals can include interference with wildlife, fouling of visitor areas, unpredictable behaviour and the associated safety risks to visitors and environmental impacts.

2.6 Fire

Historically fire has been and continues to be a major ecological factor in the GWNP and surrounding Conservation Reserves. It influences the vegetation structure especially the interface between the eucalypt woodland and surrounding vegetation and also creates a mosaic of habitats. The area is often subject to large, uncontrolled wildfires in the sand plain, usually started by lightning. These fires,

particularly those that start in the sand plain heath, can burn uncontrolled for weeks at a time and are only extinguished when they burn into an area of low fuel created by recent fire activity or vegetation change. This occurred during the major fire of January 2001 in which 140 000ha was burned, predominately in the sand plain heath.

The eucalypt woodland is less fire prone due to the open woodland vegetation structure which contains less fuel. Woodland areas can act as natural fire buffers and can restrict the spread of uncontrolled fires. Areas of woodland may burn under extreme or unusual conditions such as when periods of high rainfall allow development of a grassy understorey or in drought. Fire has a devastating effect on the Goldfields woodland vegetation species as they are generally poorly adapted to fire and are killed.

In the event of a fire in these reserves, values at risk include the following public utilities and infrastructure:

- The Great Eastern Highway managed by Main Roads of WA (MRWA);
- The Mundaring to Kalgoorlie water pipeline including the pump stations managed by the Water Corporation;
- The microwave communication towers and optic fibre lines managed by telecommunication companies; and
- The main 220kva power line and feed lines to the pumping stations managed by Western Power.

There have been impacts on these utilities in the past by wildfires. To assist in planning for and managing fire, FESA and CALM undertook a wildfire threat analysis and developed a fire management plan for the area including mapping, planning, firebreaks, prescribed burning and other stakeholder involvement.

As inappropriate fire regimes can alter ecosystem processes, fire management programs must be planned, with activities and operations directed to protection of assets and maintenance of flora and fauna species diversity

2.7 Mining, Erosion, and Rehabilitation

Mining includes exploration, fossicking, prospecting and mining operations. Mining on land managed by CALM is in accordance with the *Mining Act 1978*, *Petroleum Act 1967*, *Petroleum Pipelines Act 1969* and *Petroleum (Submerged Lands) Act 1982*. In national parks and nature reserves, current Government policy indicates that they are not available for new mining and petroleum tenements, except in the case of applications lodged before February 2001. The granting of a mining lease (or general purpose lease associated with mining operations) within a national park or nature reserve requires the consent of both Houses of Parliament. Where given, Parliamentary approval may involve the imposition of conditions.

The exploration and subsequent mining of minerals in Western Australia is primarily administered by the Department of Industry and Resources (DOIR) through the granting of various tenements including prospecting licences, exploration licences and mining leases. Active mining exploration does occur within sections of the GWNP and surrounding Conservation Reserves.

3. MANAGING OUR CULTURAL HERITAGE

3.1 Indigenous Heritage

CALM recognises the traditional link Aboriginal people have with these lands. In 2002 CALM signed a Memorandum of Understanding with the Goldfields Land and Sea Council (GLSC) to establish the framework for discussions and agreements relating to Aboriginal culture, liaison, cooperative and joint management and native title claims over land managed by CALM in sections of the Goldfields Region.

As part of management and future planning for the GWNP and surrounding Conservation Reserves, discussions, field visits and site clearances have occurred with members of Aboriginal native title claimant groups. There is currently one recognised native title claim (WC99_029) over the reserves area. A number of other claims exist but are not registered and represented by the Goldfields Land and Sea Council. There is also one registered site with the Department of Indigenous Affairs. Under the *Aboriginal Heritage Act 1972* (Aboriginal Heritage Act) it is an offence to damage alter or destroy any Aboriginal site unless written consent has been obtained from the relevant Minister.

3.2 Non-Indigenous Heritage

The GWNP and surrounding Conservation Reserves are rich in European history. The first explorer was Charles Cooke Hunt who in 1864-66 surveyed a track through the areas east from Southern Cross and established wells at Wargangering and Gnarlbine Rock to provide water for travellers heading into the interior. Next were Alfred Giles and McPherson in 1888 followed by Arthur Bayley and William Ford, who in 1892 discovered gold leading to the Coolgardie and Goldfields gold rush.

The Holland Track was cut by John Holland in 1893 as an alternative route from Broomehill to the Coolgardie Goldfields and it crosses through the proposed GWNP southern extension. On Hollands journey he named Victoria Rock on 13 June 1893 after Queen Victoria and also named Thursday Rock. Holland and his crew cut the 500km track in just two months (Westate 2002).

The construction of the railway from Southern Cross to Coolgardie was the next major event to impact on the woodlands. Completed in 1896, the steam trains, settlements and sidings associated with the rail development all required water. Rock catchment dams were established to store rainwater runoff from the granite outcrops. Construction involved a series of rock walls and rock-lined channels constructed from slabs of granite prised from the catchment rock. Boondi and Woolgangie, within the GWNP, are good examples of these.

There are remnants of the historic Kalgoorlie woodlines in the eastern part of the reserves. These woodlines were narrow gauge railway lines used to haul timber into Kalgoorlie-Boulder for the mines and fuel for industry. They developed around 1900 following the discovery of gold in Coolgardie in 1892 and in Kalgoorlie the following year and operated in the area until 1937.

Timber cut from the arid inland forests and woodlands was also used as fuel in the pumping stations along the Goldfields water pipeline between Mundaring and Kalgoorlie, which was completed in 1903. The last of the wood-fired boilers and pumping stations converted to diesel in 1960. Along the pipeline is evidence of the early railway and pipeline settlements such as Boondi, Woolgangie and Boorabbin.

4. MANAGING FOR PARKS AND VISITOR SERVICES

4.1 Visitor Access

The major access through the Boorabbin NP, GWNP and GWCP is the Great Eastern Highway, with approximately 1 000 vehicles a day (MRWA data) on the highway. There is the potential to provide a range of nature based recreation opportunities for visitors to experience the conservation areas along the Highway.

Other access is the Victoria Rock Road south of Coolgardie, to the current recreation site at Victoria Rock Nature Reserve, and the increasingly popular Holland Track, which is now a 4WD track linking Coolgardie and Hyden, through the proposed GWNP southern extension.

There is limited access south of the Great Eastern Highway into the GWNP, apart from old firewood cutter tracks from the 1950s and 60s and some mining cut lines.

On the western boundary of the GWNP and eastern boundary of Boorabbin NP is a private road, Mt Walton Road (also known as the Health Road) which joins the Great Eastern Highway and travels north to the Mt Walton Intractable Waste Management Disposal Facility. This road provides access north through the national parks to the Westnet rail line and the CALM managed Proposed Jaurdi Conservation Park.

4.2 Recreation Use and Opportunities

Recreation opportunities are already provided within the GWNP and surrounding Conservation Reserves. Visitors to the area are able to relax and appreciate the natural beauty of the area while also learning the history of the pipeline, woodlines and historic access tracks that serviced the Goldfields. The GWNP and surrounding Conservation Reserves contain developed and managed visitor, recreation and camping sites at Victoria Rock Nature Reserve and Boondi within Boorabbin NP.

Victoria Rock Nature Reserve, located 43km south of Coolgardie, provides visitors with the opportunity to enjoy one of the Goldfield's most spectacular granite outcrops. Visitors are able to climb the rock to view the surrounding woodland. The facilities provided at VRNR include an information shelter, barbecues, toilets and a camping area.

Within Boorabbin NP is a freshwater dam located at Boondi. This site provides visitors with an information shelter, tables, toilets and camping sites. Also within the GWNP and surrounding Conservation Reserves is the famous Holland Track which runs from Broomehill to Coolgardie crosses the park from Diamond Rock through to Thursday Rock and Victoria Rock through to Coolgardie. This is a popular outback four-wheel drive track and will continue to be promoted for this purpose.

The National Trust Golden Pipeline Trail has developed visitor sites at Woolgangie and the Number 8 Pumping Station at Dedari. These sites have established access, signs, carparks and interpretation panels. The MRWA has a roadside stop and lookout facility on a granite rock off the highway within the GWNP.

Although the GWNP and surrounding Conservation Reserve have limited facilities at present, there will be increasing use and demand requiring planning to identify, assess and manage potential visitor and recreation sites within the planning area. There is also the potential to develop alternative access

routes incorporating different natural and historic features within the planning area, especially along the Great Eastern Highway and the Holland Track.

With any future proposed developments, CALM will need to refer to other stakeholder groups plans such as the Coolgardie Shire plans to promote the John Holland Way along the Victoria Rock Road to attract visitors, resulting in higher visitation and impacts on the reserves.

4.3 Information, Education and Interpretation

The GWNP and surrounding Conservation Reserves provide an opportunity for improving community awareness of biodiversity, conservation issues and reserves, knowledge of and support for CALM activities, services and policies. An effective information, education, and interpretation program is essential to achieve the goals and objectives for the management of these reserves. It informs the public of the attractions and opportunities available, and assists the community to appreciate and understand the natural and cultural environments. The aim of such programs should foster a sense of community ownership, engage support for its management and encourage appropriate behaviours that minimise adverse impacts on the environment.

Information regarding the GWNP and surrounding Conservation Reserves can be obtained through contacting CALM Regional Office in Kalgoorlie. Printed information is through the interpretation signage on site and through the CALM Goldfields Magazine. This Magazine is a free publication which describes the environment and all the recreation areas within the Goldfields Region.

Also providing information on the Holland Track is the booklet “Explore the Holland Track and Cave Hill Woodlines” which was published in 2002. There are also three radio trail sites along the Holland Track which provide information on the history and ecology of the area.

4.5 Working with the Community

Community involvement is an integral part of CALM operations. The community is encouraged, through the public participation process, to be involved in both the planning and management for many CALM activities, including volunteer programs. Individual volunteers along with organised volunteer groups such as Conservation Volunteers Australia have worked on different projects through the GWNP and surrounding Conservation Reserves to promote sustainable management of these areas.

Prior to the development of a management plan an assessment will be made to determine the feasibility of establishing a community advisory committee for the GWNP and surrounding Conservation Reserves.

5. RESEARCH AND MONITORING

5.1 Nature Conservation

Effective conservation management requires adequate knowledge of flora, fauna and natural processes within the landscape including baseline condition and changes associated with management, natural events and climate. Survey, research and monitoring provide long term information on trends.

5.2 Visitor Monitoring

Visitor numbers to the GWNP and surrounding Conservation Reserves are expected to increase in coming years as more people explore the Holland Track and the Goldfields Region.

To assist in the development of interpretive information and other facilities, regional staff collate information about the number of visitors, their expectations and reasons for travelling in this area. Visitor surveys provide information about patterns of use and the need for the provisions of facilities and information. Two vehicle counters are installed within the GWNP and the surrounding Conservation Reserves at Boondi and on the Holland Track within the proposed extension to GWNP. Visitor surveys are currently conducted on an ad hoc basis.

6. IMPLEMENTATION AND WORKS PROGRAM

CALM will conduct assessments of the effectiveness of the IMG using an internal audit process that assesses the success in achieving the relevant strategies against the IMG and the CALM Corporate Plan.

Strategies outlined in the IMG will be built into the annual works program of the CALM Goldfields Region, which is responsible for the daily management of the GWNP and surrounding Conservation Reserves. Implementation activities will also be subject to broader regional priorities and will depend on the availability of staff and other resources. This IMG is current for a period of 5 years from the date of approval or until amended or replaced by a management plan.

Measuring Performance

The CALM Corporate Plan 2002-2005 outlines the responsibilities of the Department and details strategic direction, objectives and strategies for fulfilling these responsibilities. The success of these IMGs will be determined by measuring progress against relevant aspects of the following strategies included in the Corporate Plan:

- Protect biodiversity from threatening processes, agents and activities, including feral animals, weeds, dieback and other exotic diseases, salinity and inappropriate fire regimes.
- Plan, develop and manage all parks, recreation areas, facilities and services so as to maintain in perpetuity the values of natural areas managed by CALM.
- Provide and sustain a range of safe nature-based recreation opportunities, facilities and visitor services that are compatible with conservation and recreation requirements.
- Improve community knowledge of biodiversity conservation issues and awareness, understanding and support for CALM activities, services and policies.
- Recover threatened flora, fauna, and ecological communities.
- Assist in reducing the threat of wildfire to human life and property.
- Provide opportunities for joint management, employment and other meaningful involvement of indigenous people in the management of natural areas and wildlife and in the protection of areas and features of cultural value.

In assessing the success of the IMGs, Key Performance Indicators (KPI) will be used to gauge the extent to which the IMGs have contributed to fulfilling the Departments responsibilities, and at a lower level, the extent to which specific objectives of the IMGs have been achieved. Measuring success in this way enables managers to assess and modify their management approach if required.

7. REFERENCES

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Goldfields Woodlands National Park and surrounding Conservation Reserves
Management Summary

Objective	Key Points	Strategies	Key Performance Indicators
Land Classification and Regional Context			
To prepare interim management guidelines for a range of conservation reserves in the Coolgardie Shire.	<p>* The planning area consists of a number of tenures including the Goldfields Woodland National Park (GWNP), and Conservation Park, adjoining Boorabbin National Park and Victoria Rock Nature Reserve. Vast areas of Unallocated Crown Land adjoin all these reserves.</p> <p>* The planning area is located within the Coolgardie Biogeographical Region and adds to the Comprehensive, Adequate, and Representative (CAR) network of conservation reserves.</p>	<p>1. Liaise with local stakeholders to encourage co-operative management, for the protection, and conservation of the planning area.</p> <p>2. Continue to pursue the proposed tenure changes for Victoria Rock Nature Reserve to Conservation Park vested in the Conservation Commission. The proposed park and national park areas of GWNP become national park and conservation parks.</p> <p>3. Plan all recreation activities and facilities to minimise their impact on nature conservation and aesthetic landscape values.</p>	<p>- Number of public participation planning meetings with various stakeholders.</p> <p>- Confirmation of tenure changes.</p> <p>- Number of recreation master, and site plans completed prior to approval of works.</p>

Objective	Key Points	Strategies	Key Performance Indicators
Geology and Geomorphology			
To protect and reserve the regions geological features and soils.	<p>* The GWNP and surrounding Conservation Reserves are gently undulating with various landforms including greenstone belts, sand plain, chains of low lying salt systems and rocky granite outcrops.</p> <p>* Some soils are susceptible to erosion following disturbance, particularly around granite outcrops and near salt lake systems.</p> <p>* Historical use of internal tracks inside the reserves has created areas of erosion and interfered with natural drainage systems.</p>	<ol style="list-style-type: none"> 1. Identify geological features and soil types susceptible to environmental damage. 2. Rehabilitate areas of erosion and disturbance, particularly tracks. 3. Restrict access to tracks/roads which are sensitive to disturbance. 4. Provide interpretive material on the geology, landforms and soils of the area for visitors. 	<p>- <i>No loss of geomorphologic and geological complexity, over the planning area due to human activity.</i></p> <p>- <i>Monitor recovery of rehabilitated areas.</i></p> <p><u>Instead</u> <u>No increase in erosion in the GWNP and surrounding Conservation Reserves??</u></p>

Objective	Key Points	Strategies	Key Performance Indicators
Managing the Natural Environment Flora			
To conserve and protect native plant species and communities (particularly threatened or priority species), and minimise the impacts of introduced plants on the reserve's values.	<ul style="list-style-type: none"> * The GWNP and surrounding Conservation Reserves include a diverse range of Eucalypt species (approx 80 species). * Situated in the Coolgardie Biogeographical Region and contains representative vegetation complexes. * A number of Priority and declared rare Flora occur in the area. 	<ol style="list-style-type: none"> 1. Identify and protect vegetation communities, that are rare, unique, or in need of special consideration. 2. Prepare and implement recovery plans for declared rare flora, particularly <i>Gastrolobium graniticum</i>. 3. Conduct surveys to record the distribution, abundance of the GWNP and surrounding Conservation Reserves vegetation, and identify management requirements. 4. Provide interpretive information to visitors, regarding the areas vegetation and potential human impacts. 	<ul style="list-style-type: none"> - <i>Rate of recovery of threatened species, covered by recovery plans. (Is this relevant for this area)</i> - No loss of diversity of native vegetation or plant species due to human impact over the life of IMG.

Objective	Key Points	Strategies	Key Performance Indicators
Managing the Natural Environment Fauna			
To conserve and protect native fauna and habitats in the reserves, specifically threatened or priority fauna.	<ul style="list-style-type: none"> * The GWNP and surrounding reserves conserve a diverse range of animals, particularly reptiles. * The last biological survey in this area was conducted in the early 1980's. * Many species of mammal fauna have disappeared. * Feral predators continue to impact on fauna populations. 	<ol style="list-style-type: none"> 1. Identify fauna populations that are rare, unique or in need of special consideration, through biological surveys. 2. Protect native fauna from introduced predators, through appropriate control regimes if/as required. 3. If required support the implementation of recovery plans, for threatened fauna species that occur in the planning area. 4. Maintain and manage habitats for fauna species where appropriate/ necessary. 	<ul style="list-style-type: none"> - No loss of native fauna diversity throughout the GWNP and surrounding Conservation Reserves. Some assessment of this may be made through future planned biological surveys within 5 - 10 years.

Objective	Key Points	Strategies	Key Performance Indicators
Environmental Weeds			
To minimise the impact of environmental weeds on the conservation values of the GWNP and surrounding Conservation Reserves.	<p>* Environmental weeds take advantage of disturbance, such as inappropriate fire regimes, earthworks, human activities. Most of these weed infestations have occurred along the Great Eastern Highway, disturbed sites at Boondi, Woolgangie and existing recreation sites at Victoria Rock.</p> <p>* Minimal recent weed control undertaken (<i>do we really want to say this???</i>)</p>	<p>1. <i>Establish a monitoring program for weed invasion and loss of native vegetation.</i></p> <p>2. Implement a suitable weed control program in accordance to environmental weed strategy for WA.</p> <p>3. Control access in and out of weed infested areas.</p> <p>4. Rehabilitate tracks which are not required.</p>	<p>- No increase in the number of weed infestations.</p> <p>- No new weed species established in the planning area.</p>

Objective	Key Points	Strategies	Key Performance Indicators
Introduced and Problem Animals			
Prevent and where necessary, minimise the impact of introduced and problem animals in the GWNP and surrounding Conservation Reserves.	<p>* Introduced and problem animals have been recorded in the area, including cats, wild dogs, rabbits and foxes.</p> <p>* Introduced animals potentially threaten the ecological values of the reserves by threatening wildlife, promoting the spread of weeds and introducing diseases.</p>	<p>1. <i>Monitor for the presence of introduced fauna on the reserves and, where impacts on ecological values are known or found to be negative, implement measures to eradicate introduced species from the reserves.</i></p> <p>2. <i>Monitor the efficiency of control programs on target species and make changes to procedures if required.</i></p> <p>3. <i>Provide information concerning introduced fauna control, particularly baiting programs.</i></p> <p><u>Instead</u> <i>Monitor feral animal populations and initiate control programs as necessary.</i></p>	<p>- No increase in the number and distribution of introduced animal species from previous surveys.</p>

Objective	Key Points	Strategies	Key Performance Indicators
Fire			
To protect people, public utilities and conservation values in or near the planning area, and protect biodiversity from threatening processes such as inappropriate fire regimes.	<p>* Fire has had a major influence in determining the structure and patterns, for the woodlands and surrounding vegetation.</p> <p>* Records indicate that vast areas of the GWNP and surrounding Conservation Reserves have been subject to wildfires. Generally these are the result of lightning strikes.</p> <p>* Some fire protection measures have been developed to protect community and environmental values in the planning area as outlined in the Wildfire Threat Analysis.</p>	<p>1. Develop a fire management plan in conjunction with the Wildfire Threat Analysis for the planning area and in consultation with other Government Departments and stakeholders.</p> <p>2. Implement components of the fire management plan including:</p> <ul style="list-style-type: none"> - Maintenance of strategic access tracks within GWNP and the surrounding Conservation Reserves. - Prescribed burning operations or other methods to protect people, public utilities, and conservation values from wildfires. - Liaise with community groups and stakeholders to encourage a multi agency approach to fire suppression. - Visitor protection and safety for those recreating on Departmental estate in the planning area. <p>3. Document the occurrence and effects of fires that do occur in the GWNP and surrounding Conservation Reserves.</p>	<ul style="list-style-type: none"> - No increase in the wildfire area and intensity. Minimal disruption to public utilities and visitors to the GWNP and surrounding Conservation Reserves

Objective	Key Points	Strategies	Key Performance Indicators
Mining, Erosion and Rehabilitation			
To protect the planning area from the impact of mining and mineral exploration activity whilst being consistent with Government policy. To minimise soil erosion in the planning area.	<ul style="list-style-type: none"> * Active mining exploration is occurring within sections of the GWNP and surrounding Conservation Reserves. * * 	<ol style="list-style-type: none"> 1. Any future mining tenements will be granted in accordance with conditions agreed between CALM and the Department of Industry and Resources. Prior to any ground disturbance activity a detailed program will be prepared by the proponent and referred to CALM. This program will also address rehabilitation requirements. 2. 	-

Objective	Key Points	Strategies	Key Performance Indicators
Indigenous Cultural Heritage			
Develop a framework for discussions and agreements with the Goldfields Land and Sea Council (GLSC) relating to indigenous culture which provide meaningful opportunities for involvement of indigenous people in the management of natural areas and wildlife and in the protection of areas and features of cultural value.	<ul style="list-style-type: none"> * The planning area is located in the Central West Aboriginal claimant group. * Site clearances have been undertaken at several sites within the planning area. * Other native title claims exist. 	<ol style="list-style-type: none"> 1. Continue consultation with Central West claimant group and GLSC over the future management of the GWNP and surrounding Conservation Reserves. 2. Create employment opportunities for Aboriginal groups with traditional links through community groups such as Community Development Employment Projects (CDEP), or direct employment. 3. Protect registered sites, under the Aboriginal Heritage Act. 4. Explore joint management opportunities with the GLSC & Central West claimant group. 	<ul style="list-style-type: none"> - Joint management occurring between the Department and Aboriginal groups. - Registered sites remain protected. - Employment of Aboriginal people to assist with park / reserve management.

Objective	Key Points	Strategies	Key Performance Indicators
Managing Recreation			
Plan, develop and manage the parks and reserves in the planning area. To provide and sustain a range of safe nature based recreation opportunities, facilities and visitor services that are compatible with conservation and recreation requirements.	<p>* Developed recreation facilities at Boondi Rock and Victoria Rock include camping and day use areas. The "Holland Track four-wheel drive track, extends through the southern portion of the GWNP.</p> <p>* Interpretive sites occur in GWNP along the Golden Pipeline Project (National Trust).</p> <p>* Main Roads Western Australia (MRWA) have established rest sites in vehicle pull off areas with a lookout facility along the Great Eastern Highway adjacent to the GWNP and Boorabbin N.P.</p> <p>* Uncontrolled bush camping occurs along the Great Eastern Highway adjoining the GWNP and Boorabbin N.P.</p>	<p>1. Continue to maintain, redevelop, and actively manage existing recreation areas. Ensure that guidelines and standards for high quality facilities and services are maintained.</p> <p>2. Identify recreational opportunities inside the planning area and if applicable develop recreational sites with adequate camping and day use areas to meet user requirements, while minimising their impacts on nature conservation and aesthetic landscape values. Develop approved recreation facility plans for all new sites in consultation with the Department's Recreation and Landscape Unit.</p> <p>3. <u>Involve the local community and other organisations in assessing, planning and managing development to ensure the local history and cultural aspects are considered.</u> Encourage and engage the community in volunteer and public consultation.</p> <p>4. Ensure standards and guidelines for signage, interpretive information is produced to a high standard.</p> <p>5. Ensure risks to visitors are reduced by regular risk assessment of all current and future recreation areas.</p> <p>6. Monitor visitor use, enjoyment and satisfaction of the area and the facilities provided.</p>	<p>- <i>If appropriate</i> Increase the number of managed recreation sites, settings, experiences, and recreation groups catered for.</p> <p>- Existing key strategic sites, maintained, developed or improved.</p> <p>- No increase in the number of accidents and injuries to visitors accessing CALM managed areas.</p> <p>- Level of visitation to and use of CALM managed recreation areas.</p> <p>- Number of registered volunteers and level of volunteer hours worked.</p>