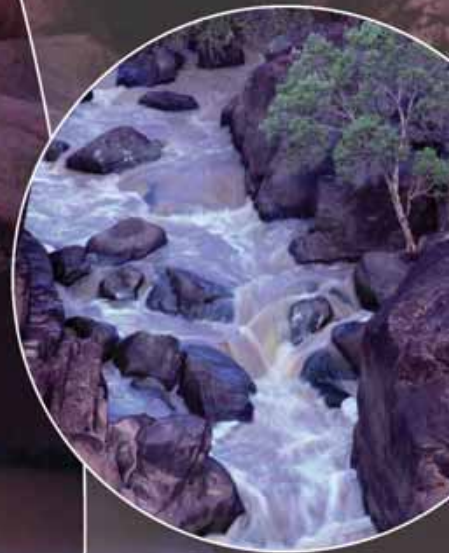


Queensland Parks
and Wildlife Service
Department of Environment
and Resource Management

Auburn River National Park

Management Plan

2011



Brigalow Belt South Bioregion

Prepared by:

Planning Services Unit

Department of Environment and Resource Management

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Front cover photograph: Interesting rock formations in the Auburn River bed. Photo: DERM.

Top right photograph: Inundation of riverine vegetation after heavy rain. Photo: DERM.

Centre right photograph: The Auburn River cascades. Photo: DERM.

Bottom right photograph: Auburn River in heavy flow. Photo: DERM.

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Vision statement

Auburn River National Park will be managed to protect the distinctive geological formations of the Auburn River and associated ecological values, including the diverse range of plants and animals found on the park. Access to the outstanding visual amenity of the park will be retained and improved, while a balance between meeting visitor expectations and protecting the natural integrity of native species will be maintained. The park's value as an important recreational destination for locals and tourists will be protected and opportunities for commercial tourism activities that are in keeping with management outcomes will be supported.

The section of the park north of the Auburn River will continue to provide an easily accessible, mostly natural environment, with basic infrastructure for day-use and camping. Visitors will be able to access views of the river and the unique rock formations along the river bed from several formed walking tracks and viewing points.

The section of the park south of the river will be managed to retain its existing natural state. Visitors to this part of the park will be self-reliant and seeking a more remote recreational experience.



Auburn River in heavy flow. Photo: DERM.

Contents

1. Management intent	1
2. Basis for management	1
3. Location and regional context	1
4. Protecting and presenting the park's values	2
4.1 Landscape	2
4.2 Native plants and animals	3
4.3 Indigenous culture	4
4.4 Shared-history culture	5
4.5 Tourism and visitor opportunities	5
4.6 Education and science	6
4.7 Partnerships	7
5. Other key issues and responses	7
5.1 Climate change	7
5.2 Pest management	8
5.3 Fire management	9
6. References	10
7. Hyperlinks	10
8. Appendixes	11
Appendix A – Maps	12
Appendix B – Definitions	14
Appendix C – Tables	14
Appendix D – Zones and special management areas	14

1. Management intent

Auburn River National Park will be managed with the aim of:

- preserving scenic amenity and landscape values
- conserving regional ecosystems and plant and animal species of conservation significance
- ensuring current and comprehensive ecological and species information is readily available for management needs
- identifying and protecting cultural heritage sites and values on the park, and presenting them where appropriate
- managing the section south of the Auburn River to retain its natural setting, while providing a very remote nature-based experience for self-sufficient visitors
- engaging stakeholders in both formal and informal consultative forums to effectively manage the park's natural values.

2. Basis for management

Queensland Parks and Wildlife Service (QPWS) is responsible for the day-to-day management of Auburn River National Park in accordance with the *Nature Conservation Act 1992* and regulations. Section 17 of the Nature Conservation Act specifies the management principles for national parks.

The provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and regulations apply to the national park.

Endangered and of concern regional ecosystems are described under the Department of Environment and Resource Management (DERM) biodiversity status. Endangered, vulnerable and near threatened species are listed under the Nature Conservation (Wildlife) Regulation 2006. QPWS has a responsibility under the *Land Protection (Pest and Stock Route Management) Act 2002* to control declared pest plants and animals in protected areas.

Cultural heritage places in the park are legislatively managed under the *Aboriginal Cultural Heritage Act 2003* and the *Queensland Heritage Act 1992*.

The Djaku-nde and Jangerie Jangerie people have an active Native Title claim over an area that includes the Auburn River National Park (QC00/010 Djaku-nde and Jangerie Jangerie) and involving Traditional Owners in park management is important. This plan does not affect this claim.

3. Location and regional context

Auburn River National Park was first gazetted in 1964 and protects 405 hectares of dry eucalypt forest and softwood scrub. The park is approximately 260 kilometres north-west of Brisbane and 28 kilometres west-south-west of the nearest town, Munduberra (Appendix A, Map 1). The park is surrounded by leasehold and freehold land, with Delembra, Auburn, Dykehead and Allies Creek State forests lying within a 10-kilometre radius of the park (Appendix A Map 2). Nour Nour National Park lies approximately 50 kilometres to the north-east and has very low visitor levels due to its remoteness and lack of infrastructure.

The park is an important recreational destination for locals and tourists, and offers opportunities for commercial tourism operators. The Auburn River dissects the park, with infrastructure in the northern section supporting camping, walking and viewing of the spectacular landscapes. The section south of the river has no facilities and caters for visitors seeking a more natural, self-reliant bushwalking and camping experience.

Auburn River National Park provides a protective haven for native plants and animals in an area heavily cleared for grazing and cropping. The river lies within the Burnett River Basin and is an important part of the Burnett River catchment. The park protects a riparian corridor of approximately 5 kilometres along the Auburn River and Cadarga Creek, providing a critical refuge for diverse wildlife. The park contains important Indigenous and significant shared-history cultural heritage, with physical evidence of both Indigenous culture and early European settlement.

4. Protecting and presenting the park's values

4.1 Landscape

4.1.1 Geology and landscape

The Auburn River flows through the park from west to east forming a gorge framed by distinct, light pink, coarse-grained granite boulders. The park is located in part of the Auburn Arch Structural Element, which is comprised of carboniferous volcanic and intrusives. The Auburn Arch is covered by igneous rocks containing granite, monzogranite, granodiorite and minor diorite. The Auburn River flows over the Cardaga Creek granodiorite formation and the sandstones of the Evergreen formation. It is part of the Burnett River catchment and contains an interesting variety of rock shapes and formations, ledges, terraces and sheer cliffs formed by tumbling, erosion, weathering and deposition processes.

The section of the park south of the river contains a prominent rock feature known by many as the Giant's Chair. Close by are two rounded stones of solid granite known variously as the Giant's Eggs or dinosaur eggs; one is shaped like a marble and the other is shaped like an egg. Hairy Man's Cave is another well known feature on this side of the river and it has significant shared history cultural value. Unfortunately it has been vandalised in the past and its protection is a high priority for park managers.

Changed drainage patterns from track and viewing platform construction present ongoing challenges for managing erosion. Significant hydrological changes downstream, such as construction of water storage infrastructure on the river, would threaten to change flow characteristics in the gorge were they to occur.

4.1.2 Scenic amenity

The upper and lower cascades in the river gorge form a special attraction for visitors, especially after rainfall in the catchment. Tumbling stones in the riverbed have produced circular basins in the granite. Most of these basins are shallow but one is around 5.7 metres deep and usually full of water. These rounded stones are a distinguishing feature of the park.

The northern bank of the Auburn River provides spectacular views of the gorge and, along with the wild, undisturbed Auburn River cascades, contributes to an interesting visitor experience.

A rocky feature known by locals as the Perch is located near the Giant's Chair and provides good views of the cascades and the dense dry vine scrub situated on the northern escarpment of the gorge.

The section south of the river presents a more natural setting due to access limitations.

Many visitors are attracted to the park by its spectacular views and unusual rock formations, and also like to examine these formations closely. Responses to increasing visitor demands may change the recreational setting and unique visitor experience if not managed well (see Appendix D). Visual amenity will be influenced by the type and placement of any future additions to facilities (see section 4.5).

Desired outcomes 2021	Actions and guidelines
Natural erosion and river flow patterns are not changed by inappropriate park management processes.	<p>A1. Ensure infrastructure development and park management activities are undertaken with minimal disruption to natural water flows and drainage.</p> <p>A2. Maintain effective inter-agency liaison with organisations managing land and hydrological processes associated with the Auburn River above and below the cascades.</p>
The scenic amenity of the park is protected and natural bushland areas maintained to preserve their current landscape values.	<p>A3. Apply the principles outlined in Appendix D (Zones and special management areas) to ensure minimal interference with scenic amenity, particularly when upgrading or extending tracks, building facilities and installing signs.</p> <p>A4. Match the provision of infrastructure to meet the demands of anticipated low to moderate visitor use to the recreation zone north of Auburn River.</p> <p>A5. Manage the section south of the river to retain a remote, very natural landscape. This will include:</p> <ul style="list-style-type: none"> • no construction of formed walking tracks • no formal camping facilities and no camp fires

Desired outcomes 2021	Actions and guidelines
	<ul style="list-style-type: none"> no provision of water or toilet facilities regular monitoring of visitor impacts.

4.2 Native plants and animals

4.2.1 Native plants

The steep, rocky slopes of the northern bank of the Auburn River National Park conserve an area of vine scrub, which is a type of dry rainforest with a thick understorey of shrubs and vines.

Auburn River and Cadarga Creek are fringed by open blue gum forest, which is a regional ecosystem that has a DERM biodiversity status 'of concern'. Similarly of concern and dominating the landscape in the section south of the river away from these streams, is open ironbark woodland with an understorey of grasstrees and native grasses on the higher ridges.

The swollen trunks of Queensland bottle trees *Brachychiton rupestris* and broad-leaved bottle trees *Brachychiton australis* are features on the northern bank of the river near the camping area.

Plant species records and regional ecosystem mapping and descriptions for the park require updating and refinement. There is no threatened plant species listed for the Auburn River National Park but because resource data is incomplete or fragmented, knowledge gaps have increased the risk of inappropriate vegetation management practices being used.

Extensive recent track and viewing point upgrades will likely result in increased visitor numbers. Foot traffic away from the hardened tracks has the potential to cause damage to native plant habitat from trampling, destruction, soil compaction, erosion, pollution and weed dispersal. The challenge for management is to control these impacts effectively while maintaining the pleasant visitor experience.

Desired outcomes 2021	Actions and guidelines
Ecological information is consolidated and accessible to management and decision-makers, and knowledge gaps are eliminated.	<p>A6. Update the identification and mapping of regional ecosystems.</p> <p>A7. Implement a plant survey and update records.</p> <p>A8. Map the distribution and locations of plants of conservation significance.</p> <p>A9. Develop a monitoring program for threatened plant communities.</p> <p>A10. Implement measures to improve access to existing databases to ensure management decisions are based on the best information available.</p>
Integrity of ecosystems and plant species is protected from disturbance due to recreational activities, management activities and fire.	<p>A11. Continue to consolidate, upgrade and maintain visitor infrastructure in the northern section to effectively manage visitor impacts.</p> <p>A12. Monitor impacts of visitor and park management activities, and undertake corrective actions, where necessary.</p> <p>A13. Ensure management strategies are consistent with the known ecology of vegetation communities, particularly for fire and pest management (see section 5).</p>

4.2.2 Native animals

The riparian and open forest vegetation of the Auburn River National Park provides diverse habitat for numerous birds, reptiles and mammals, several of which are threatened. These include one endangered species and four vulnerable species as well as four species that have been assessed as near threatened (Table 2, Appendix C). Conservation of their habitat is a critical part of protecting these species. The brush-tailed rock-wallaby *Petrogale penicillata*, assessed as a vulnerable species under the Nature Conservation Act, is an endangered species in some other states and visits the park.

The riverine environment of Auburn River provides habitat for freshwater turtles, frogs and fish, and the associated rock and cave-like environments support a diverse range of species. The iconic peregrine falcon *Falco peregrinus* is a seasonal resident. While not a species of conservation concern in Queensland, it provides interest to visitors with its aerial displays, particularly when hunting. The rocky outcrops of the Auburn River are an example of their preferred habitat.

Although animal species surveys have been completed in the past, knowledge gaps concerning species distribution and abundance are evident, and a new survey is needed to ensure management actions are responsive to current circumstances.

Disturbance to wildlife and their feeding, roosting, nesting and breeding behaviours is often a direct consequence of visitor activity, such as camping, collecting firewood, exploring on foot and vehicle movements. Construction and maintenance of campgrounds, walking tracks and general recreational infrastructure may also cause changes to habitat. Along with the effects of fire and pest invasion, these impacts must be managed effectively to prevent serious habitat depletion.

Desired outcomes 2021	Actions and guidelines
Current and comprehensive information on animal species is available to staff and management decision makers, particularly about significant species and special management needs.	<p>A14. Conduct an animal survey to identify all native and introduced species present on the park to provide baseline data for future management actions.</p> <p>A15. Monitor population levels and distribution of threatened and significant species.</p>
Populations of rare and threatened animals are conserved, and habitat diversity is protected and maintained.	<p>A16. Monitor habitat condition, particularly that which supports threatened and significant species.</p> <p>A17. Monitor the activity of introduced predatory animal species and undertake corrective actions, where necessary.</p> <p>A18. Ensure management strategies are consistent with the known ecology of the park's animal species, particularly for fire, pest and visitor management (see sections 4.5 and 5).</p> <p>A19. Develop and implement recovery or conservation plans for current threatened species as well as any additional significant species identified in future surveys.</p>

4.3 Indigenous culture

The Traditional Owners of Auburn River National Park are the Djaku-nde and Jangerie Jangerie people. Both groups have historical connections to land where prominent local pastoral stations were established. The Djaku-nde people originate from land where Auburn Station was built, and the Jangerie Jangerie people have similar connections to the land where Hawkwood Station was established. Goong is the traditional name given to the river by the Djaku-nde people. The broader vicinity of the river, but not necessarily the park itself, contains burial sites and places of cultural significance, such as birthing trees, groove stones and caves. The park itself contains hand stencils in caves and a scar tree that may have been used to make a canoe. Oral history is passed by elders to succeeding generations through visits to many sites in the area, and storylines tell of first contact with non-Indigenous settlers. Other Traditional Owners also have a cultural and spiritual connection to the park. Local Traditional Owners tell of the area adjacent to the park serving as a meeting place for Indigenous tribes before European settlement. They believe it is likely that the cascades in the park were very significant to their cultural heritage.

Further assessment of the Indigenous cultural heritage of the park is necessary given the limited nature of available knowledge and the likelihood that the broader Auburn River area is culturally very significant. It is essential that park management strategies respond appropriately to these cultural sensitivities to prevent any loss or damage to cultural sites and artefacts, and engage Traditional Owners in the preservation and presentation of the park's cultural heritage values.

Desired outcomes 2021	Actions and guidelines
Values, sites and remnants of cultural significance are identified and protected from unnatural degradation, visitor impacts and management actions.	<p>A20. Encourage and support a cultural heritage survey of the park in consultation with Traditional Owners.</p> <p>A21. Regularly monitor the condition of identified sites and artefacts.</p> <p>A22. Consult with Traditional Owners in the development of park management strategies to ensure Indigenous cultural heritage values are protected.</p> <p>A23. Develop strategies to protect cultural heritage values from damage caused by unauthorised visitor and off-park activities that impinge on their condition.</p>

Desired outcomes 2021	Actions and guidelines
Indigenous cultural heritage is interpreted and presented in consultation with Traditional Owners to ensure cultural sensitivities are respected and appreciated.	<p>A24. Train staff in managing and presenting cultural heritage values, sites and objects.</p> <p>A25. Consult regularly with Traditional Owners about managing and presenting the cultural heritage values of the park, and encourage their involvement.</p>

4.4 Shared-history culture

Gold was mined in the area from 1884 until around 1917. Mine shafts were sunk on the land the park now occupies and a good example is situated in the section south of the river. Copper was extracted upstream from the river and settlement of the area is closely linked to these mining operations. Grazing also drew settlers to the region with sheep, and then cattle, becoming the major driver of the local economy in the late nineteenth century. The region is now known for fruit growing as well as cattle grazing.

The river was once also known as 'Dykehead' by the locals and the falls were a popular picnic destination.

Little is known about the extent of shared-history cultural heritage values of the park itself; therefore, little interpretive information is available to inform visitors of the context of the park within the history of local European settlement. The disused mineshaft in the southern section is fenced off to prevent unauthorised access. It is under continuing threat of use as a rubbish disposal site, and such action degrades the site and damages any archaeological evidence of past use.

Desired outcomes 2021	Actions and guidelines
Detailed information about the shared cultural history of the park and surrounds is collected and presented to visitors, and sites are protected.	<p>A26. Encourage local cultural heritage interest groups to collect, collate and contribute to presenting information to park visitors.</p> <p>A27. Consult with cultural heritage interest groups to develop management processes to preserve and protect shared cultural heritage sites and objects.</p> <p>A28. Monitor unauthorised access to the mineshaft and other visitor activity that could degrade the cultural heritage values of the park.</p>

4.5 Tourism and visitor opportunities

Northern section

The northern bank of the Auburn River contains a campground and associated infrastructure, which caters for low to moderate visitor numbers in mostly natural surroundings. This section of the park is popular with independent campers, day-use visitors and short-stop users. The park is on the itinerary of several commercial tour operators and is used by community groups and schools. Visitors are attracted by the opportunity to view the spectacular cascades and unusual geological formations on the river. Walking tracks and viewing points have recently been extended and upgraded. This has improved both their safety and usefulness for visitors and the ability to view the spectacular scenery along the river and beyond. Visitors are able to enjoy short walks, explore the unusual geology of the riverbed when water flows allow, and see significant cultural heritage places.

Access to this part of the park is along a well-formed, unsealed road suitable for small to medium-sized vehicles and coaches. The campground accommodates tents and caravans and, along with the day-use area, is the focal point for independent visitors. Campsites are well-defined and have room for off-road parking, and there is also separate parking for tour operators. Facilities include a rainwater tank (for non-drinking uses only), a shelter, picnic tables, a toilet and an interpretive display.

Park staff regularly monitor the condition of park facilities and maintain them as necessary. Drainage patterns along the walking tracks are closely monitored for erosion issues that might impact on public safety and natural integrity.

Other visitor impacts, such as pollution from rubbish, habitat destruction, ground compaction, and disturbance to wildlife, are also monitored. Fire escaping from camp fires is a constant threat.

Southern section

The section south of the river offers a more remote nature-based camping and hiking experience catering for very low visitor numbers. Spectacular views of the Auburn River and surrounding landscape are possible from several elevated points. Access is either by vehicle along an unsealed road through private property, requiring permission from the owner, or on foot across the river bed when water flows permit.

Wet weather access is restricted to four-wheel drive vehicles only. There is no visitor infrastructure in this section and visitors need to be self-reliant.

Potential threats to natural values come from vehicles driving through the vegetation, the destruction of trees for firewood, escape of fire from camp fires and latrine placement.

Visitor safety

There are several safety issues. Walking tracks in the northern section are steep in places and do not cater for wheelchair access. Viewing points are not fenced. Tracks may become unsafe after severe weather, and natural features, such as the riverbed and rock formations, present hazards when being explored and climbed by visitors.

The lack of visitor infrastructure and restricted wet weather access in the southern section requires visitors to be self-reliant. There is no drinking water provided in the park.

Desired outcomes 2021	Actions and guidelines
Visitors are able to enjoy the opportunities presented in the northern section of the park in a safe manner with minimal damage to park values.	A29. Construct tracks and facilities according to the guidelines of the recreational zoning plan. A30. Maintain walking tracks in good and safe condition to meet current standards. A31. Manage the campground to ensure that: <ul style="list-style-type: none"> • vehicle traffic is confined to formed roads and tracks • campers bring their own manufactured fuel, such as milled timber, for campfires • facilities, including interpretive displays, are maintained in good condition • tank water quality is regularly monitored • camping areas are managed to prevent damage from overuse.
The southern section is retained in its natural state for the use of self-reliant visitors and campers.	A32. Adhere to the zoning plan when considering any new visitor infrastructure, including signs. A33. Regularly monitor visitor use and impacts.
Commercial tourism operators use the park in a safe and responsible manner.	A34. Monitor the operations of permit holders to ensure that these activities are conducted in a safe manner and with minimal disturbance to park values.
All park facilities and infrastructure are maintained in a good and safe condition.	A35. Continue to implement the current maintenance program to ensure infrastructure is kept in a good and safe condition. This will include regular monitoring of infrastructure condition to ensure repairs and upgrades are made in a timely manner.
Visitors are able to enjoy the values of the park in safety.	A36. Undertake regular risk assessments to ensure safety management by QPWS adapts to changing circumstances and conditions. A37. Ensure an incident response procedure is in place and all park staff are trained to implement it. A38. Monitor the mine shaft regularly for signs of inappropriate and dangerous use. A39. Ensure safety signs meets DERM standards for placement and language, and are in place at all times to inform visitors about possible hazards and necessary precautions.

4.6 Education and science

The natural bush setting of the park provides valuable opportunities for benchmark studies and environmental education activities for schools and other groups. The unusual rock formations along the gorge are a scarce resource for geological studies and there are opportunities for scientific research into the significant species and threatened regional ecosystems of the park. The Indigenous and shared-history cultural heritage of the park is also important for research and education.

Accurate and reliable information is required to make informed decisions about how to conserve the natural and cultural values of Auburn River National Park and manage the impacts of increasing visitor use. While some information of Indigenous and shared-history culture is available, there are uncertainties and gaps. The accuracy of species records for the park is generally unreliable and out of date.

Desired outcomes 2021	Actions and guidelines
Research and monitoring provides comprehensive, up-to-date information to staff and park management decision makers to conserve natural and cultural values.	A40. Encourage and support researchers, universities, and conservation and cultural heritage groups to identify the important natural and cultural heritage values of the park and related management issues.
The community, visitors and schools are aware of the special natural and cultural heritage values of the park, along with the safety issues associated with visitor use.	A41. Provide interpretative signs in keeping with the landscape classifications for the park. Main messages are to include park values and cultural heritage, safety issues and appropriate visitor behaviour to minimise environmental degradation. A42. Promote and encourage use of the park within the local community as a valuable resource for education purposes.

4.7 Partnerships

Strong partnerships with other stakeholders in the community are important to the effective management of Auburn River National Park. Local interest in the welfare of the park is keen because it is a popular recreation destination and a potentially significant commercial tourism resource for the local economy. The North Burnett Regional Council's recent contribution towards upgrading walking tracks and viewing points on the northern bank of the river is an example of the community commitment to partnering QPWS in managing the park.

The Djaku-nde and Jangerie Jangerie people have strong spiritual connections with the park and they use it as an educational tool to pass on their oral history. Partnerships between QPWS and Traditional Owners are an important component of park management.

Cooperation with neighbours on shared issues is essential to the effective management of the park. Of particular importance is the establishment of collective approaches to fire and pest management. Control measures put in place by either party will be ineffective if implemented in isolation.

Consultation with other natural resource management organisations ensures effective use of resources and improves the effectiveness of park management actions. It is important that park managers keep up to date with projects and strategies that may impact on the Auburn River and the broader catchment.

Desired outcomes 2021	Actions and guidelines
Effective park management is achieved through broad consultation with stakeholders in a sensitive and timely manner.	A43. QPWS engages in consultation about park management with neighbours, Traditional Owners, shared-history interest groups, local tourism and development representatives, commercial operators, local government and other land and water management bodies, and fire management authorities.

5. Other key issues and responses

5.1 Climate change

Climate change presents the threats of increasing temperatures and reduced rainfall that will harm the type of rainforest system present on the park, and may also affect flowering and fruiting patterns. Less moisture will increase threats from fire and weeds.

Climate change is expected to favour invasive plants over native vegetation. Pest plant species currently restricted to lowlands can also be expected to move into higher altitude areas (McFadyen 2007). The condition of the vegetation and habitat within and between reserves is an important factor in resilience to climate change (Mansergh and Cheal, 2007).

Reducing stresses on the park's natural systems will make them more resistant to climatic change. Climate refugia allow species to persist in the face of climatic stress. Additional protection should be given to these areas, where possible (Dunlop and Brown 2008).

Desired outcomes 2021	Actions and guidelines
The impacts of threatening processes, such as invasive species, will be managed to maintain or restore habitat condition and increase resilience to climate change.	A44. Implement the fire management actions in section 5.2, which target protecting significant species and communities that may be susceptible to altered fire regimes. A45. Monitor and manage invasive species, especially invasions associated with climate change.
Climate refugia are identified and protected from the impacts of climate change, such as changed fire regimes and invasive species.	A46. Identify and provide additional protection for climate refuges, where possible.
Potential impacts from climate change, particularly on species of conservation significance, are understood.	A47. Encourage research projects to improve knowledge of plant and animal ecology in relation to climate change; and, monitor species and populations as indicators of change to habitat condition and natural integrity due to climate change. A48. Identify and protect critical linkages that allow for species to move in response to climate change.
Suitable habitats are linked to help native species move through the landscape and adapt to climate change impacts.	A49. Seek opportunities to add to areas of conservation value to the park. Priority would be given to securing linking areas of native vegetation with existing protected area estate. A50. Consult with adjacent landholders who have areas of high conservation value regarding the establishment of possible nature refuge agreements.

5.2 Pest management

A Level 2 Pest Management Strategy is in place to control the spread of pest plants. Pest plant species known to be present include mother of millions *Bryophyllum delagoense*, tree pear or prickly pear *Opuntia* spp, creeping lantana *Lantana montevidensis* and African love grass *Eragrostis curvula*. The riverine environment in the park presents particular problems for pest control due to its sensitive ecological values. Chemical measures are often unsuitable because of the risk of contamination to the water. Control methods being used, apart from spraying, include burning and physical removal. Visitor activity results in pest plant seed dispersal into and throughout the park. Actions on neighbouring properties also impact on pest plant introduction, dispersal and growth.

Cattle are entering the park through the unfenced eastern side. They are being removed through mustering and progressive exclusion by completing perimeter fencing. Pigs, wild dogs, foxes and cats are a serious threat to native wildlife if allowed unfettered access to the park. Control measures being used where these species are present include shooting and trapping.

While every effort is made to identify the presence of pest plants and animals through close monitoring, surveys planned for the park as actions in this plan will improve awareness of pest species that are present and active.

Desired outcomes 2021	Actions and guidelines
Comprehensive information on introduced species and related ecological issues is made available to park management decision makers.	A51. Identify active pest plant and animal species as part of plant and animal identification surveys planned for the park.
An effective pest control program is implemented to contain or reduce impacts to manageable levels.	A52. Implement the Level 2 Pest Management Strategy with careful application of the most effective and environmentally safe control options available. A53. Monitor pest plant and animal populations and activities. A54. Inform visitors of the harmful impacts of introduced pest species and poor environmental practices on the park, and encourage responsible practices. A55. Consult with neighbours and other land management agencies to develop complementary control strategies.
Cattle are excluded from the park.	A56. Complete fencing of the park, and continue mustering and removing cattle in the interim.

5.3 Fire management

Fire plays an important role in protecting the natural values of the Auburn River National Park and the fire regime is managed to give the best results for people, plants and animals. Rangers carry out planned burns to create a mosaic of burnt and unburnt areas. The dry eucalypt forest in the southern section is adapted to fire and recovers quickly, but the softwood scrub on the northern bank is very fire-sensitive. Surrounding vegetation in this area is deliberately burnt to minimise the risk of the softwood scrub burning.

A Statement of Fire Management Intent is being developed. Wildfire last impacted on the park in 2006 and planned burns have been used to reduce fuel loads. The southern section is most at threat from wildfire as it is poorly serviced by management roads, limiting access for fire management. Campfires are permitted in the northern section increasing the risk of fire escaping into the fire-sensitive bushland. This threat is mitigated by the controlled camping conditions and on-site infrastructure. The park is surrounded by farmland cleared for cropping and grazing.

Desired outcomes 2021	Actions and guidelines
Fire is managed to conserve the natural and cultural integrity of the park, and life, property and neighbours are protected from impacts of on-park fire management processes.	<p>A57. Complete the Statement of Fire Management Intent that:</p> <ul style="list-style-type: none"> • responds to known plant and animal ecology • protects cultural heritage sites and values • defines timing, frequency and intensity of planned burns to maintain species composition and preserve ecological integrity • defines fuel load management • defines firebreak management. <p>A58. Continue cooperative partnerships with Traditional Owners and other land managers in developing mitigation and control measures.</p>

6. References

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7. Hyperlinks

- Burra Charter <www.derm.qld.gov.au>
- Charter for the Protection and Management of the Archaeological Heritage <www.environment.gov.au>
- DERM website <www.derm.qld.gov.au>
- Environment Protection and Biodiversity Conservation Act 1999* and Regulations 2000 <www.environment.gov.au>
- Environmental Protection Act 1994* <www.legislation.qld.gov.au>
- Key threatening process <www.environment.gov.au>
- Landscape Classification System for Visitor Management <www.derm.qld.gov.au>
- Nature Conservation Act 1992* <www.legislation.qld.gov.au>
- Nature Conservation (Protected Areas) Regulation 1994 <www.legislation.qld.gov.au>
- Nature Conservation (Wildlife Management) Regulation 2006 <www.legislation.qld.gov.au>
- Nature Conservation (Wildlife) Regulation 2006 <www.legislation.qld.gov.au>
- QPWS Pest Management Plan: Areas managed by the Queensland Parks and Wildlife Service 2003–2008 <www.derm.qld.gov.au>
- Queensland Heritage Act 1992* <www.legislation.qld.gov.au>
- Regional ecosystems <www.derm.qld.gov.au>

8. Appendixes

Appendix A – Maps

Appendix B – Definitions

Appendix C – Tables

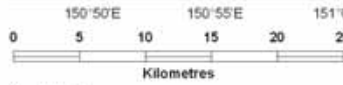
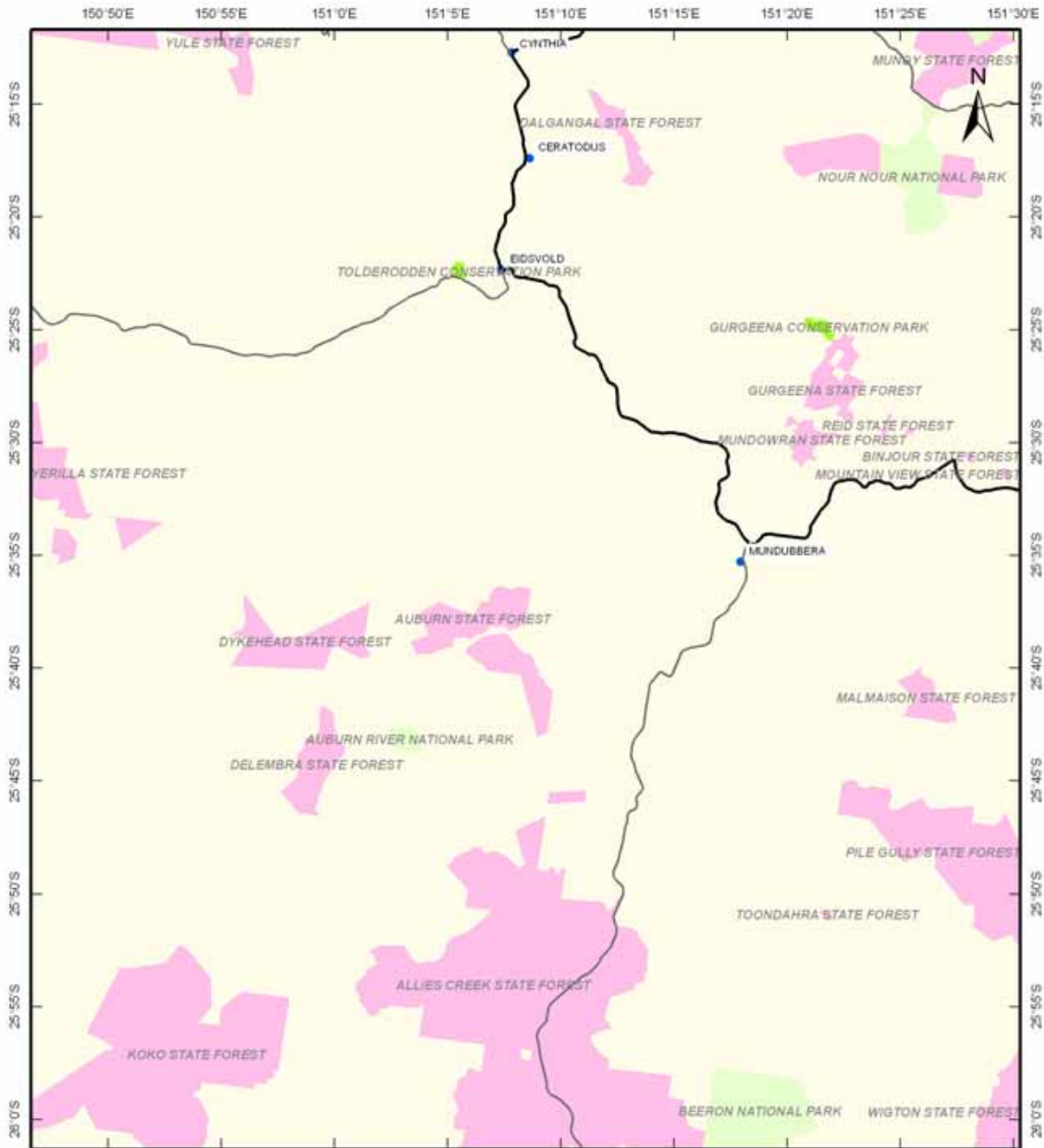
Appendix D – Zones and special management areas

Appendix A – Maps

Map 1 Locality

Map 2 Management zones

Map 1 – Locality



Map Projection:
 Universal Transverse Mercator (MGA) zone 56
 Horizontal Datum:
 Geocentric Datum of Australia 1994 (GDA94)

Map Production:
 Spatial Services,
 Queensland Parks and Wildlife Service,
 Department of Environment and Resource Management,
 29th November 2010

Disclaimer:
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 basis of this map.

Accuracy statement:
 Due to varying source, accuracy or currency
 of data layers used in this map, the spatial
 locations of features may not coincide when overlaid.

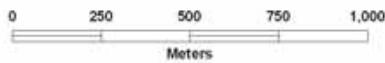
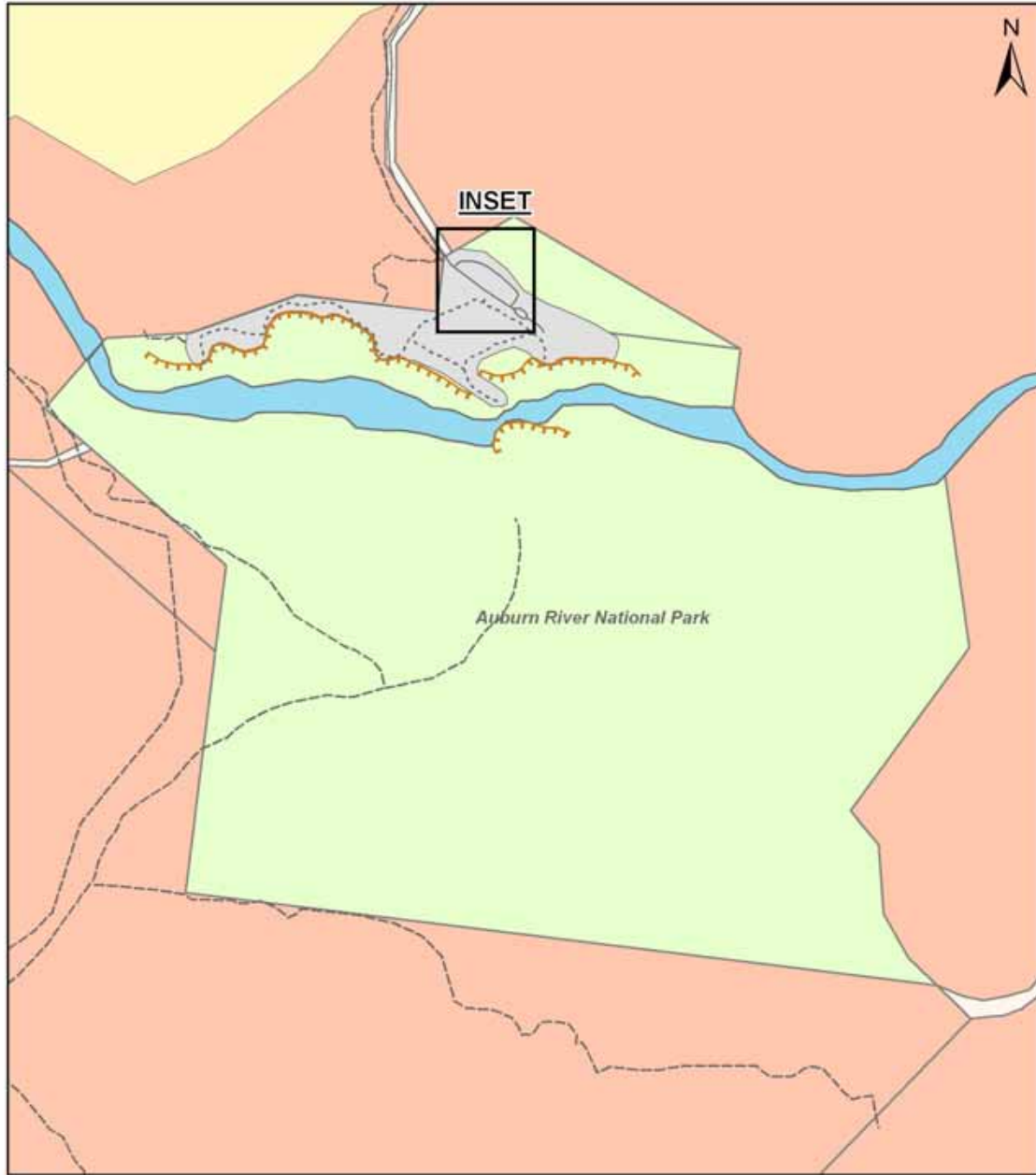
Legend

- Major Road
- Minor Road
- Towns (gazetteer)
- National Park
- Conservation Park
- State Forest
- Other Lands

Source Material:
 Towns - DERM, November 2008
 SDRN Roads - Pitney Bowes MapInfo, September 2010
 Protected Areas of Queensland - DERM, 30th June 2010
 Coastal Features of Queensland - DERM, Date Unknown



Map 2 – Management zones



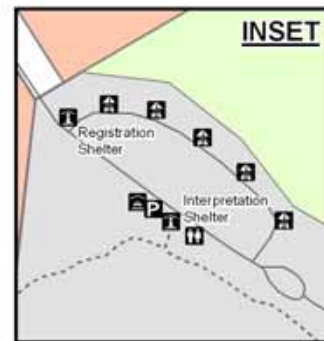
Map Projection:
 Universal Transverse Mercator (MGA) zone 56
Horizontal Datum:
 Geocentric Datum of Australia 1994 (GDA94)
Map Production:
 Spatial Services,
 Queensland Parks and Wildlife Service,
 Department of Environment and Resource Management,
 8th December 2010

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Accuracy statement:
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Source Material:
 SDRM Roads - Pitney Bowes MapInfo, September 2010
 QPWS Roads - DERM, June 2010
 Protected Areas of Queensland - DERM, 30th June 2010



Department of Environment and Resource Management 2010

Appendix B – Definitions

Biodiversity status (regional ecosystems)

The biodiversity status is based on an assessment of the condition of remnant vegetation in addition to the pre-clearing and remnant extent of a regional ecosystem. The current biodiversity status of regional ecosystems is given on the Regional Ecosystem Description Database on DERM's website along with information on the criteria used to assess each status.

Biological diversity

Biological diversity is:

- 1) the natural diversity of native wildlife, together with the environmental conditions necessary for their survival, and includes:
 - (a) regional diversity – the diversity of the landscape components of a region, and the functional relationships that affect environmental conditions in ecosystems
 - (b) ecosystem diversity – the diversity of the different types of communities formed by living organisms and the relations between them
 - (c) species diversity – the diversity of species
 - (d) genetic diversity – the diversity of genes in each species.
- 2) landscape components, including landforms, soils, water, climate, wildlife and land uses.

Climate change

Change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (United Nations Framework Convention on Climate Change Article 1).

Climate refugia

Climate refugia allow species to persist in the face of climatic stress. It is an area in which certain types or suites of organisms are able to persist during a period in which most of the original geographic range becomes uninhabitable because of climatic change.

They are micro-habitats that retain the species' necessary niche and habitat requirements during periods of climate change (Mackay et al 2007).

Cultural heritage significance

Cultural heritage significance is defined by the *Queensland Heritage Act 1992* as the values that people place on the landscape and their experience of it. It includes their knowledge and traditions, stories, songs, dances and relationships as well as places, structure and objects.

Ecosystem

A dynamic complex of plant, animal, fungal and micro-organism communities and the associated non-living environment interacting as an ecological unit.

Endangered (species)

At the state level, endangered species are those species listed as endangered under schedule 2 of Queensland's Nature Conservation (Wildlife) Regulation 2006. At the national level, endangered species are those species listed as endangered under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

Fire Management System

The Fire Management System (Edition 3) is the standard fire management system adopted by QPWS that provides processes, guidelines and templates to facilitate the planning and implementation of fire management on QPWS managed areas in a professional, accountable, coordinated and ecologically sound manner.

Indigenous cultural heritage

Aboriginal cultural heritage is defined by the *Aboriginal Cultural Heritage Act 2003*. Torres Strait Islander cultural heritage is defined by the *Torres Strait Islander Cultural Heritage Act 2003*.

Landscape Classification System

The Landscape Classification System (LCS) is a standard classification system for characterising the biophysical, social and management attributes of sites and areas within QPWS-managed areas, from a visitor management perspective.

The LCS framework for assessing a site or area systematically describes settings on the basis of biophysical, social and managerial features.

The LCS is a tool for assessing the naturalness of landscape settings from a visitor use and management perspective. Naturalness is expressed on a range from completely untouched, wild, natural or remote to completely modified, built or developed depending on the proportion of natural and human-modified elements (post-1788) in the landscape. However, naturalness is not an absolute condition. The naturalness of a particular site or area can vary over time and natural events do not change the degree of naturalness although they may change the natural look of an area.

See QPWS operational policy – Landscape Classification System for Visitor Management.

Management principles for national parks

These are specified in Section 17 of the *Nature Conservation Act 1992*:

- (1) A national park is to be managed to—
 - (a) provide, to the greatest possible extent, for the permanent preservation of the area's natural condition and the protection of the area's cultural resources and values
 - (b) present the area's cultural and natural resources and their values
 - (c) ensure that the only use of the area is nature-based and ecologically sustainable.
- (2) The management principle mentioned in subsection (1)(a) is the cardinal principle for the management of national parks.

Near threatened (species)

Near threatened species are those species listed as near threatened under schedule 5 of Queensland's Nature Conservation (Wildlife) Regulation 2006.

Of concern (regional ecosystems)

A regional ecosystem is listed as of concern under *Vegetation Management Act 1999* if remnant vegetation is 10–30 per cent of its pre-clearing extent across the bioregion or more than 30 per cent of its pre-clearing extent remains and the remnant extent is less than 10 000 hectares.

In addition, for biodiversity planning purposes, regional ecosystems are assigned a DERM biodiversity status of concern if 10–30 per cent of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss. Moderate degradation and/or biodiversity loss is defined as floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 20 years even with the removal of threatening processes; or soil surface is moderately degraded.

QPWS Pest Management System

The QPWS Pest Management System has been adopted as the QPWS statewide standard the system is a collection of two types of documents allowing QPWS to meet legislative obligations and achieve conservation outcomes:

- planning documents to facilitate pest management planning
- operational documents to guide on-ground pest management.

Pest plants and animals

Any species, strain or biotype of plant, animal or pathogenic agent injurious to endemic biota or ecosystems.

Protected area

An area of land or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.

Regional ecosystems

Regional ecosystems were defined by Sattler and Williams (1999) as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. Readers should refer to this publication for background information about regional ecosystems and the bioregional planning framework used in Queensland.

Compilation of the information about regional ecosystems presented in Sattler and Williams (1999) was derived from a broad range of existing information sources, including land system, vegetation and geology mapping and reports. However, the framework is dynamic and is regularly reviewed as new information becomes available. During the past few years the Queensland Herbarium has developed a program for explicitly mapping regional ecosystems across Queensland. This has resulted, and will continue to result, in updates to the descriptions and status of regional ecosystems. Therefore, updated regional ecosystem descriptions in the format of Sattler and Williams (1999) are maintained in the Regional Ecosystem Description Database.

Species of conservation significance

Species of conservation significance are those plant and animal species listed:

- (a) as near threatened, vulnerable or endangered under schedules 5, 3 and 2 of the Nature Conservation (Wildlife) Regulation
- (b) as endangered or vulnerable under the Environmental Protection and Biodiversity Conservation Act
- (c) under the Bonn Convention, China–Australia Migratory Bird Agreement, Japan–Australia Migratory Bird Agreement or Republic of Korea–Australia Migratory Bird Agreement.

Threatened species

Threatened species generally refers to those species that are endangered or vulnerable species. The term may also refer to other species of conservation significance that are subject to substantial threats at a regional or local level.

Vulnerable (species)

At the state level, vulnerable species are those species listed as vulnerable under schedule 3 of Queensland's Nature Conservation (Wildlife) Regulation 2006. At the national level, vulnerable species are those species listed as vulnerable under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

Zones

Zones are smaller units within the national park, established in order to prescribe individual management regimes to each based on the conservation of natural and cultural values, on presentation values, or managing hazards and visitor safety in the area. For the purposes of this plan, zones are described in Appendix D and outlined in Map 2.

Appendix C – Tables

Table 1: Of concern or endangered regional ecosystem for Auburn River National Park.

Regional ecosystem number	Regional ecosystem name	DERM biodiversity status	Reason for status and the threats to ongoing sustainability
11.3.25	<i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines on alluvial soils.	Of concern	Extensively cleared for pasture, and impacted by weeds. Threatened by modification to stream flows, such as weirs and dams.
11.12.3	<i>Eucalyptus crebra</i> and <i>E. tereticornis</i> , woodland on igneous rocks especially granite.	Of concern	Extensively cleared for cropping and pasture.

Table 2: Animal species of conservation significance under the Nature Conservation (Wildlife) Regulation 1994 on Auburn River National Park.

Family	Scientific name	Common name	Status under the <i>Nature Conservation Act 1992</i>	Status under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>
Accipitridae	<i>Erythrotriorchis radiatus</i>	red goshawk	Endangered	Vulnerable
Columbidae	<i>Geophaps scripta scripta</i>	squatter pigeon (southern subspecies)	Vulnerable	Vulnerable
Meliphagidae	<i>Grantiella picta</i>	painted honeyeater	Vulnerable	-
Strigidae	<i>Ninox strenua</i>	powerful owl	Vulnerable	-
Macropodidae	<i>Petrogale penicillata</i>	brush-tailed rock-wallaby	Vulnerable	Vulnerable
Meliphagidae	<i>Melithreptus gularis</i>	black-chinned honeyeater	Near threatened	-
Meliphagidae	<i>Melithreptus gularis gularis</i>	black-chinned honeyeater (eastern)	Near threatened	-
Gekkonidae	<i>Strophurus taenicauda</i>	golden-tailed gecko	Near threatened	-
Psittacidae	<i>Neophema pulchella</i>	turquoise parrot	Near threatened	-

Appendix D – Zones and special management areas

The stated management characteristics and guiding principles below provide guidance; however, activities and structures remain subject to the provisions of the managing legislation and the management principles for national parks. Therefore, the conservation of nature and the protection of cultural values remains the cardinal principle for the use of a national park. The presentation of an area’s values is subject to these being protected, and any use of a national park must be nature-based and ecologically sustainable.

Table 1: Management zone characteristics and principles.

- Note:
1. Map 2 in Appendix A shows the location of the zones on the park.
 2. Park management will aim to achieve the stated zone characteristics.
 3. Traditional use, emergency situations and management strategies may override the zone characteristics and will be assessed on a case-by-case basis.
- * DERM staff should refer to the Facilities Manual for further guidance on facilities appropriate to each landscape classification setting (LCS) class.

ZONE 1 – Natural zone					
General description					
The conservation of natural values is the dominant purpose of this zone. Visitors perceive the area as a natural environment and may experience the perception of remoteness in some areas. There are no walking tracks or other forms of infrastructure and visitors are required to be self-sufficient and, if travelling any distance, be experienced at navigation and bushwalking. Overnight bush camping is permitted but numbers are limited to preserve the experience of remoteness and limit environmental damage. Restrictions apply to the location of camping sites and larger groups are directed to preferred areas.					
Management characteristics	Management aims Manage almost exclusively for conservation. Provide for very low levels of visitation. No facilities.	LCS settings * (indicative only) Class 1–2	Expected levels of visitation Very low	Public vehicle access Wet weather access by four-wheel drive only. Access through private property – landowner’s permission required. No public access road on the park.	Pedestrian access / walking tracks Walk in, natural foot trails. No formed tracks.
	Day visitor facilities None <ul style="list-style-type: none">• no tables or shelters• no toilets	Signs and interpretation None in zone. Mainly offsite or near boundaries, where essential.	Campsites No defined sites. Remote camping is allowed.	Visitor self-reliance Very high	Maximum group size Very low level of visitation and difficulty of access negates the need for mandatory limits at present.

ZONE 3					
<p>General description</p> <p>This zone maintains a recreational setting where visitors can experience nature-based activities in an environment dominated by natural elements, but modified to accommodate visitor needs. Visitors can expect a medium level of recreation and social interaction. On-site education and interpretation of the area's values is available, as well as promotion of responsible use and safety. Walking tracks may be hardened to cater for relatively high levels of visitor use and basic infrastructure, such as a shelter shed, barbeque facilities, water tank, formed and defined camp sites and hardened road access, will be provided. This zone caters for day and short-stop visitors and walking or nature-based activities.</p>					
<p>Management characteristics</p>	<p>Management aims</p> <p>Manage for conservation and low-moderate levels of visitation. Medium level facilities concentrated at visitor nodes within predominantly natural environment.</p>	<p>LCS settings * (indicative only) Class 4–6</p>	<p>Expected levels of visitation</p> <p>Low to moderate</p>	<p>Public vehicle access</p> <p>Formed, unsealed roads. Off-road car parks at camp sites and day-use areas.</p>	<p>Pedestrian access / walking tracks</p> <p>Formed trails which may be hardened in places for viewing.</p>
	<p>Day visitor amenities</p> <p>Well developed sites with shelter, tables, toilet, barbeque and water tank (not suitable for drinking).</p>	<p>Signs and interpretation</p> <p>Large interpretive board and signs on tracks and at major features.</p>	<p>Campsites</p> <p>Some developed sites bordered by hardwood sleepers and some defined sites used for overflow. Camp fires permitted.</p>	<p>Visitor self-reliance</p> <p>Moderate</p>	<p>Maximum group size</p> <p>12–25 depending on sites</p>

