Moorrinya National Park

Management Plan 2011

Desert Uplands, Einasleigh Uplands and Mitchell Grass Downs Bioregions

The Department of Environment and Science acknowledges Aboriginal peoples and Torres Strait Islander peoples as the Traditional Owners and custodians of the land. We recognise their connection to land, sea and community, and pay our respects to Elders past, present and emerging.

The department is committed to respecting, protecting and promoting human rights, and our obligations under the Human Rights Act 2019.

This management plan does not intend to affect, diminish or extinguish native title or associated rights.

Disclaimer

This document has been prepared with all due diligence and care, based on the best available information at the time of publication. The department holds no responsibility for any errors or omissions within this document. Any decisions made by other parties based on this document are solely the responsibility of those parties.

The Moorrinya National Park Management Plan 2011 has been extended in 2023 in line with the Queensland *Nature Conservation Act 1992* (s120G). Minor amendments have been made. There has been no change to the plan's original management intent and direction.

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Front cover photograph: Blackwood on Moorrinya National Park. Photo: DES.

Top right photograph: Dancing brolga. Photo: DES.

Centre right photograph: Shearing shed from the old Shirley Station. Photo: DES.

Bottom right photograph: Shared-history heritage attracts visitors to Moorrinya National Park. Photo: DES.

Vision statement

Moorrinya National Park will be managed to protect the unique ecological and shared-history values for the enjoyment of visitors to the park. Historic homesteads, shearing sheds and old machinery will present the area's pastoral legacy to a growing number of visitors.

The park will continue to protect iconic Australian species, such as kangaroos, koalas, emus and dingoes, as well as ironbark eucalypts, known as 'moorrinya' to the area's Yirendali Traditional Owners. Threatened species, such as the square-tailed kite, squatter pigeon and Julia Creek dunnart will thrive in the park.

Contents

1. Management intent

The purposes of management will be to:

- conserve the natural ecosystems in the park, including regional ecosystems and plant and animal species of conservation significance
- reduce and eradicate pests, where possible, with control methods that have no, or minimal, adverse impacts on the ecosystem
- use local provenance species that may occur in the park in rehabilitation and restoration programs
- identify, protect and present Indigenous cultural heritage places, where appropriate, and encourage Indigenous involvement in park management
- identify, protect and present shared-history cultural heritage places, where appropriate
- ensure visitor information is available about the park's natural and cultural values
- encourage and undertake research and monitoring programs that assist in managing the park
- undertake an adaptive and cooperative approach between stakeholders to manage the park
- work proactively with neighbours on the management of pests and fire and to minimise intrusions by domestic stock.

2. Basis for management

The Queensland Parks and Wildlife Service (QPWS) is responsible for the on-ground, day-to-day management of Moorrinya National Park. These parks are primarily managed in accordance with the *Nature Conservation Act 1992* and associated regulations to protect land, wildlife and cultural values. The Nature Conservation Act, in particular section 17, sets the management principles for national parks (Appendix B).

Indigenous people have affiliations with these parks and involving Traditional Owner groups is important to the park's management. It is acknowledged that Indigenous cultural heritage places are a custodial responsibility of the respective Traditional Owners and management will be consistent with traditional lore and traditional knowledge. Moorrinya National Park is included in an area subject to a native title claim at the time of writing (Yirendali People Core Country QC06/020). This plan does not affect this claim.

Cultural heritage places in Queensland are managed under the *Queensland Heritage Act 1992* and the *Aboriginal Cultural Heritage Act 2003*. The Charter for the Protection and Management of the Archaeological Heritage and the Burra Charter provide detailed guidelines for managing cultural heritage places. The Queensland Heritage Strategy of 2009 provides direction for managing Queensland's heritage and establishes a policy framework for heritage conservation and responsibilities.

Endangered and of concern regional ecosystems are described under the Department of Science's (DES) biodiversity status. Endangered and vulnerable species are listed under the Nature Conservation (Wildlife) Regulation 2006 (Queensland). The *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) provides for the listing of nationally threatened native species and ecological communities, native migratory species and marine species or those of conservation significance. The parks support migratory species listed under the Commonwealth Environment Protection and Biodiversity Conservation Act (that is, those species listed under the Bonn Convention, the China–Australia Migratory Bird Agreement, Japan–Australia Migratory Bird Agreement and Republic of Korea–Australia Migratory Bird Agreement).

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.

3. Location and regional context

Maps 1 and 2 (Appendix A) show the location of Moorrinya National Park relative to Hughenden and QPWS assets and surrounding tenures.

Hughenden is the closest major town to the park. It has an annual mean minimum temperature of 16.6 °C, annual mean maximum temperature of 31.6 °C and an annual mean rainfall of 492.4 mm (Bureau of Meteorology 2007). Moorrinya National Park is located 85 km south of Torrens Creek (386 km south-west of Townsville) on the Torrens Creek – Aramac Road in the Flinders Shire (maps 1 and 2, Appendix A). The park is 175 km from Hughenden. It was dedicated in 1993 to conserve its natural, cultural and historic values.

The park covers 32 607 ha of flat grassy plains and open eucalypt, and acacia woodlands with a network of shallow creeks, in the heart of the Desert Uplands. Moorrinya National Park protects 18 land types in the Lake Eyre Basin, one of Australia's most important catchments.

Cultural heritage values include the stories and places of the Yirendali people who have a native title claim in the region and historic memorabilia of the old Shirley Station.

The surrounding landscape is intact and is an important part of the park's aesthetics.

4. Protecting and presenting the park's values

4.1 Landscape

4.1.1 Geology

Geology in Moorrinya National Park is mostly Quaternary silt, clay, sand and rubble that have been deposited in creeks and lakes. Rises of tertiary conglomerate provide the park's only relief and variation from the flat plains. A laterite outcrop is associated with Bullock Creek.

The flat nature of Moorrinya National Park results in sheet run-off during wet weather, and formed tracks may cause erosion when not properly designed and maintained. There are the remains of areas scalded by livestock grazing around Bullock Creek.

4.1.2 Water bodies

Moorrinya National Park has two significant natural water courses—Bullock Creek and Prairie Creek, which are part of the Lake Eyre basin. These creeks do not flow continuously throughout the year. The landscape of the park is dry but the creeks flood across the plains during heavy rains.

There are 13 artificial waters on Moorrinya National Park. QPWS has undertaken an assessment of these artificial waters and will remove those that are not critical to biodiversity conservation on the park. The purpose of removing artificial waters, such as dams, is to provide at least some areas of the park that are relatively 'remote from water' (within a broader region where little land remains that is remote from water)—thereby assisting 'decreaser' species, whose populations have been shown to decline with proximity to water. The aim is to conserve biodiversity within the park and region, not simply to attract species that gather around water sources.

A number of honeyeaters, such as the black-chinned honeyeater *Melithreptus gularis gularis* and pied honeyeater *Certhionyx variegatus* as well as the squatter pigeon (southern subspecies) *Geophaps scripta scripta* have been shown to be a 'decreaser species' due to the provision of artificial waters and previous increased total grazing pressure on Moorrinya National Park (James et al 1999; Landsberg et al 1997).

Desired outcomes 2021	Actions and guidelines
Prevent erosion and preserve natural water flows when undertaking development and maintenance works on the park. Eroded areas are stabilised and revegetated using local provenance species, where appropriate.	A1. Focus management actions on minimising erosion by limiting development and managing water flows when undertaking road maintenance, in particular the main access roads to homesteads and shearing sheds. A2. Revegetate eroded areas with local provenance species, including grasses and ground covers. A3. Repair damaged areas and install drainage and gully-head protection measures where required, particularly on fence lines.
Artificial water points are decommissioned, where appropriate, to ensure biodiversity conservation is improved on the park.	A4. Remove artificial waters in relation to the QPWS operational policy – Management of Artificial Waters, and maintain those deemed necessary to preserve biodiversity values. (Refer also to A50)

4.2 Native plants and animals

4.2.1 Native plants

Moorrinya National Park's vegetation is dominated by grassland plains and eucalypt and acacia woodlands, and represents a substantial area of these habitats protected in the Desert Uplands bioregion. More than 400 plant species have been identified in the park. One plant species, blue grass *Dichanthium setosum*, is classified as near threatened under the Nature Conservation (Wildlife) Regulation.

Twelve of the 18 regional ecosystems found in the Prairie –Torrens Creek Alluvial Province of the Desert Uplands occur in Moorrinya National Park. Of these, seven ecosystems are listed as of concern under the DES biodiversity status (Appendix C).

Desired outcomes 2021	Actions and guidelines
The range of plant communities and their requirements is understood and protected through active management. Threatened regional ecosystems and species are protected.	A5. Use local provenance species in rehabilitation projects. A6. Refine vegetation mapping for use in management strategies, particularly old growth spinifex, blue grass and mitchell grass. A7. Consider fauna requirements, such as breeding, nesting and feeding, in relation to managing plant communities.

4.2.2 Native animals

Moorrinya National Park protects a wide range of native animals. It has a documented list of 165 bird, 40 reptile, 17 mammal, nine frog and seven fish species. Detailed fauna information for Moorrinya National Park is available as a result of monitoring and research projects between QPWS and James Cook University.

The survival of the animals of conservation significance relies on protecting their habitat and corridor areas outside the park, especially in dry times. Species composition has been altered by artificial waters in the park. Animals of conservation significance include square-tailed kite *Lophoictinia isura*, black-chinned honeyeater and grey falcon *Falco hypoleucos*, all of which are classified as near threatened under the Nature Conservation (Wildlife) Regulation 2006; painted honeyeater *Grantiella picta* and squatter pigeon (southern subspecies), which are classified as vulnerable under the Nature Conservation (Wildlife) Regulation; and Julia Creek dunnart *Sminthopsis douglasi*, which is endangered under the Nature Conservation (Wildlife) Regulation and the *Environment Protection and Biodiversity Conservation Act 1999*.

Desired outcomes 2021	Actions and guidelines
The range of species and their habitats requirements are protected through active management. There are no impacts on native animals from artificial waters in the parks.	A8. Continue to develop fauna lists and undertake surveys to increase knowledge of the associated habitat requirements of animals on the park so that active management can protect ecological integrity on the park, especially Julia Creek dunnarts, spectacled hare-wallabies and rufous bettongs. A9. Implement recovery plans for species of conservation significance, such as for the Julia Creek dunnart. A10. Incorporate new information about species of conservation significance into fire and pest management strategies. A11. Maintain or restore habitat through appropriate management activities, such as managing fire and controlling stock incursions and pest plants. See also A4.

4.3 Indigenous culture

Moorrinya National Park is subject to a native title claim on behalf of the Yirendali People Core Country (QC06/020). This plan does not affect these claims.

Evidence of artefact scatters has been identified along limited parts of Bullock Creek in Moorrinya National Park, indicating that occupation or camping may have occurred there.

Desired outcomes 2021	Actions and guidelines
Indigenous people with traditional affiliations in the area are involved in managing cultural heritage values on the park.	A12. Manage Indigenous cultural heritage places and implement protection measures in consultation with Traditional Owners. A13. Encourage Traditional Owners to help identify, document and protect Indigenous cultural heritage places in the parks and advise on other cultural interests and concerns. A14. Recognise Traditional Owners through appropriate interpretive materials, such as signs for welcome to country, and on the DES website.

4.4 Shared-history culture

In Moorrinya National Park, shared-history cultural heritage places are extensive. Moorrinya National Park was formerly known as Shirley Station and the homestead in the park continues to bear this name. In the late 1970s cattle replaced sheep management and continued until the park was established in 1993.

Outstations, dams, windmills, tanks, horse yards and steam machinery were strategically located to support the industry. Much of the sheep station infrastructure, dating back to the late 1940s, remains in place.

Shirley homestead, the shearing shed and associated outbuildings have been restored. Bell's outstation, machinery and yards remain as heritage ruins. Old rubbish dumps have been removed. Some sections of the park's infrastructure are contained within an unfenced stock route that has not been used for years.

Desired outcomes 2021	Actions and guidelines
Shared-history cultural values are captured, with appropriate examples of historic buildings and artefacts, and protected in ways that do not endanger park visitors.	A15. Ensure cultural heritage infrastructure is adequately recorded before removing it and maintain examples of this infrastructure where it benefits continuing management of the park. A16. Maintain appropriate examples of historic buildings, such as the shearing shed and homestead complexes and infrastructure, in accordance with the Burra Charter. A17. Close Bell's outstation to the public, as the buildings are in disrepair and unsafe and allow it to naturally degrade, except for managing asbestos according to the state standards. A18. Create a historic catalogue of Bell's outstation, including internal and external site plans and descriptions and photographs of the facilities, and document historical information from park neighbours. A19. Rehabilitate old rubbish dumps as outlined in the QPWS operational policy – Management of Disused Dumps.

4.5 Tourism and visitor opportunities

A sub-regional nature-based tourism strategy has been developed for protected areas and council reserves in Dalrymple and Flinders shires (Dalrymple Shire Council et al. 2005). This strategy, developed by Flinders Shire Council, Dalrymple Shire Council, DES and Tourism Queensland, provides a systematic and coordinated approach to developing tourism infrastructure and managing visitors to the national parks and council reserves of the region.

Moorrinya National Park is remote and undeveloped and visitors must be well prepared and self-sufficient. There is a basic campground with a toilet near the shearing shed, and fires and generators are not permitted. Several short tracks link key features, such as Shirley homestead and shearing shed but there are no other formal walking tracks in this remote park. Signs, including interpretative signs, are limited. The park is closed during the wet season to limit erosion and improve safety for visitors.

Desired outcomes 2021	Actions and guidelines
Opportunities for nature-based recreation are provided.	A20. Continue to cater for self-reliant, vehicle-based camping at the shearing shed camping area.

Desired outcomes 2021	Actions and guidelines
	A21. Formalise the walking track from the shearing shed to the nearby waterhole on Bullock Creek. A22. Investigate developing a loop road for vehicles so visitors can view the diverse ecosystems in the park. A23. Restrict access to tracks that are used only for management purposes through signage and infrastructure, such as gates, where appropriate.
Park visitors are provided with appropriate information to enable them to understand the natural and cultural values of the parks, visitor obligations and potential hazards.	A24. Develop a Statement of Interpretative Intent for the park. A25. Provide interpretative information at the shearing shed that does not reduce the integrity of the shearing shed structure. A26. Continue to advertise the seasonal closure and other alerts for the park on the DES website and inform accredited tourist information centres in the region.

4.6 Education and science

James Cook University has been bringing field trips to Moorrinya National Park since 1995.

The shearing shed may be a valuable place for students in School of the Air educational programs, graziers and the public to use for public and educational events.

Research projects are undertaken by James Cook University and other organisations, such as the Townsville Region Bird Observers Club. Practical land management programs, including small research projects, could be undertaken, benefiting conservation and land management in the Einasleigh Uplands biogeographic region.

Vegetation monitoring plots have been established in Moorrinya National Park and monitoring is conducted primarily to quantify changes since its gazettal as a national park.

Desired outcomes 2021	Actions and guidelines
Research and specialist observation increases knowledge of the park's ecology and helps to refine management techniques.	A27. Continue vegetation monitoring to evaluate the effects of management actions on plant populations and diversity, such as the impact of prescribed burns and wildfire on grasslands. A28. Encourage research projects that contribute to management directions, such as managing buffel grass by using fire and chemicals. A29. Monitor the impact of fires to determine: • the adverse effects of fire and fire suppression methods on species and habitats • appropriate fire regimes to conserve native plants and animals • the effects of fire frequency, season and intensity on regional ecosystems. A30. Ensure a summary of research findings is provided to QPWS staff through the permitting system so that relevant information can be incorporated into management practices. A31. Encourage park visitors who record plant and animal observations to report their findings to appropriate QPWS staff through the DES website.

4.7 Partnerships

Due to the remote nature of Moorrinya National Park, relationships between neighbouring properties are essential to the safety and security of the people who live there but also to the maintenance of ecological integrity.

Moorrinya National Park contains an airstrip that was once used by the Royal Flying Doctor Service for monthly clinic services. Lack of demand has closed the clinic but the airstrip is maintained by QPWS for emergency purposes.

An unfenced stock route of 2890 ha exists on the park but it has not been used for stock movement for years.

Desired outcomes 2021	Actions and guidelines
Good working partnerships with community groups and neighbours are promoted. The airstrip on Moorrinya National Park is maintained to Royal Flying Doctor Service standards and equipment required for emergencies to aid the Royal Flying Doctor Service is provided and maintained. Habitat corridors to adjacent natural areas are maintained or restored, in cooperation with neighbours. The stock route on Moorrinya National Park is incorporated into the protected area estate.	A32. Encourage and support the active participation of community groups, neighbours and individuals in projects that help protect and enhance the park and surrounding area. A33. Liaise with neighbours, Landcare groups and government agencies to protect critical habitat corridors adjoining the park. A34. Maintain the airstrip to the standard required by the Royal Flying Doctor Service and keep it open for emergency services. A35. Implement the QPWS Good Neighbour Policy in case of an emergency to access emergency equipment, water and power facilities. A36. Build a shed on the park to hold emergency lighting equipment for night-time aircraft landing and ensure that equipment is regularly maintained. A37. Investigate adding the stock route that is no longer used for livestock grazing purposes to the national park.

5. Other key issues and responses

5.1 Pest management

Moorrinya National Park's major pest plants are buffel grass *Cenchrus ciliaris*, a non-declared pest plant, and parkinsonia *Parkinsonia aculeata*, a declared Class 2 pest plant. Other Class 2 pest plants present in low numbers include rubber vine *Cryptostegia grandiflora* and chinee apple *Ziziphus mauritiana*. Non-declared weeds of concern to the park include stinking passion flower *Passiflora foetida*, noogoora burr *Xanthium occidentale* and stylos *Stylosanthes hamata*, *S. humilis* and *S. scabra*. Rubber vine is almost eradicated in the park, with no expansion for several years in known areas. Parthenium *Parthenium hysterophorus* is present in the region, but has not been found in the park.

Pest animals found in the park include Class 2 declared pests, such as feral pigs, wild dogs, foxes and rabbits, and non-declared pests, such as cats and cane toads.

Desired outcomes 2021	Actions and guidelines
The integrity of native plant and animal communities is maintained and the impacts of pest plants and animals on natural and cultural values is minimised through strategic, sustained management.	A38. Develop and implement a Level Two Pest Management Strategy that: • manages pests in accordance with the QPWS operational policy – Management of Pests on QPWS-managed Areas, and prioritises long-term pest management measures to protect threatened vegetation communities and critical species habitat • uses the QPWS Pest Management System and ParkInfo to plan, manage, record and monitor all pests and pest management • prioritises long-term control measures for threatened vegetation communities and critical species habitat • establishes preventative hygiene measures for minimising pest introductions and outbreaks. • participates cooperatively in pest management planning and implementation across the landscape with other land managers, government departments, local governments and utility providers to ensure successful pest management at a landscape-level • does not adversely affect the natural integrity of the park and uses the best available scientific and technical knowledge. A39. Continue monitoring and recording rubber vine areas to understand the best methodology that leads to its eradication, and monitor parthenium to watch for weed-spread and to reduce the risk of it entering the park. A40. Develop specific management action plans for buffel grass and parkinsonia that includes determining species' distribution across the park. A41. Actively manage the park to ensure no new declared pest plants become established.

	A42. Maintain dingo populations to reduce impacts of feral cats and pigs on small mammals and to maintain macropod numbers. A43. Continue to manage wild dog populations with park neighbours, land protection staff, Flinders Shire Council and the Wild Dog Committee when significant stock damage or loss has been reported in the area, in accordance with the QPWS operational policy – Wild Dog Management. See also A4.

5.2 Fire management

QPWS has developed a Level One Fire Management Strategy for Moorrinya National Park to:

- protect life and property, in the park and on neighbouring properties
- protect acacia scrubs, such as lancewood and boree, from unplanned, intense fires
- maintain eucalypt woodland communities, including spinifex communities
- maintain open mitchell grass plains, which support populations of the Julia Creek dunnart, and blue grass plains using fire to maintain the current balance between the open grassland and the encroaching blackwood, gidgee and boree (an ecosystem of concern)
- preserve significant cultural sites represented at the Shirley homestead and the shearing shed
- maintain a proactive burning program to reduce the likelihood of unplanned, intense fires.

Desired outcomes 2021	Actions and guidelines
Fire is used to manage fuel loads, protect life and property and to maintain ecological processes on the park. Neighbouring landholders are encouraged to assist in cooperative management of fire to enhance and extend the outcomes of management programs.	A44. Review the Level One Fire Management Strategy for Moorrinya National Park in accordance with QPWS procedures every five years. A45. Work with other agencies, Traditional Owners and neighbours to coordinate fire management activities across the landscape, for example to maintain existing boundaries of the regional ecosystems, such as grasslands being encroached by Acacia species. A46. Undertake low intensity planned burns in the areas surrounding old growth spinifex, lancewood, boree, false boree and bendee ecosystems to reduce the risk of damage to these ecosystems as a result of wildfires. A47. Avoid moderate or high-intensity planned burns for gidgee or river red gum ecosystems on the park. A48. Maintain fire breaks on the park: • along the park boundary by grading and/or slashing • around the camping area for visitor safety • around cultural heritage places that have been identified for protection to reduce risk of damage from wildfires. A49. Prohibit camp fires in the park. A50. Maintain dams that provide water supplies that have value for fire-fighting purposes.

5.3 Climate change

Higher temperatures, drought and a consequent change in fire regimes are likely effects of a changed climate that would impact on the area's natural values. Although these impacts are hard to manage and are largely outside the scope of the plan, reducing stresses on the environment could make it more resilient to climate change.

Desired outcomes 2021	Actions and guidelines
Understand potential impacts from climate change, particularly on the threatened species and ecosystems.	A51. Encourage research that is associated with climate change impacts and that supports and informs management decisions. A52. Promote linking important habitats for climate change-affected species by establishing and maintaining corridors and connections.

Desired outcomes 2021	Actions and guidelines
Impacts of invasive species as a result of climate change are minimised.	A53. Monitor the impacts of invasive species as a result of climate change and, where necessary, include actions in pest management and fire programs to minimise identified impacts. A54. Reduce unnecessary stresses on ecosystems by: • controlling pest plants that impact on their structure and composition • minimising risk of widespread damaging wildfires • undertaking planned burns for ecological purposes under conditions that promote ecosystem health and the retention of critical flora and fauna habitat values.

6. References

Bureau of Meteorology 2007, Commonwealth of Australia, <www.bom.gov.au>.

Dalrymple Shire Council, Flinders Shire Council, Tourism Queensland and Queensland Parks and Wildlife. 2005. Sub-regional Nature-based Tourism Strategy: Protected areas and council reserves in Dalrymple and Flinders shire councils.

James, CD, Landsberg, J and Morton, SR (1999) *Provision of watering points in the Australian arid zone: a review of effects on biota*. Journal of Arid Environments 41(1): 87–121.

Landsberg, J, James, CD, Morton, SR, Hobbs, TJ, Stol, J, Drew, A and Tongway, H (1997) *The effects of artificial sources of water on rangeland biodiversity*, Final report to the Biodiversity Convention and Strategy Section of the Biodiversity Group, Environment Australia.

Sattler, P and Williams, R (eds) 1999, *The conservation status of Queensland's bioregional ecosystems*. Environmental Protection Agency, Queensland Government, Brisbane.

7. Hyperlinks

Aboriginal Cultural Heritage Act 2003 <www.legislation.qld.gov.au>

DES website <www.des.qld.gov.au>

Environment Protection and Biodiversity Conservation Act 1999 and Regulations 2000 <www.environment.gov.au>

Land Protection (Pest and Stock Route Management) Act 2002 <www.legislation.qld.gov.au>

Nature Conservation Act 1992 <www.legislation.qld.gov.au>

Nature Conservation (Wildlife) Regulation 2006 <www.legislation.qld.gov.au>

Queensland Heritage Act 1992 <www.legislation.qld.gov.au>

Regional ecosystems <www.des.qld.gov.au>

The Charter for the Protection and Management of the Archaeological Heritage <www.icomos.org>

8. Appendixes

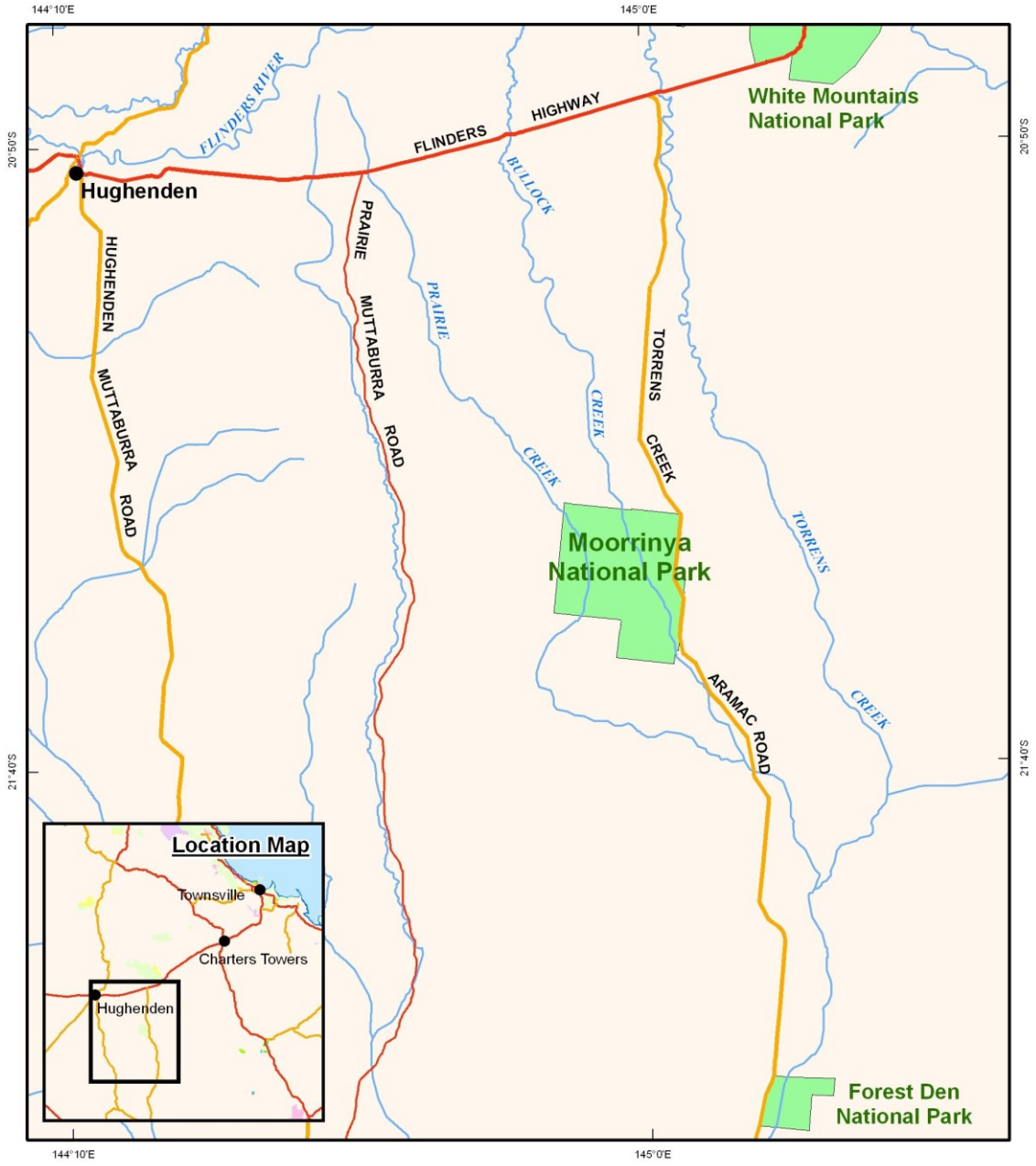
Appendix A – Maps

Appendix B – Definitions

Appendix C – Regional ecosystems

Appendix A – Maps

Map 1 Location



Map Projection:
Universal Transverse Mercator (MGA) zone 55
Horizontal Datum:
Geocentric Datum of Australia 1994 (GDA94)

Map Production:
Spatial Services - Brisbane,
Queensland Parks and Wildlife Service,
Department of Environment and Resource Management.
9 December 2010

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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.

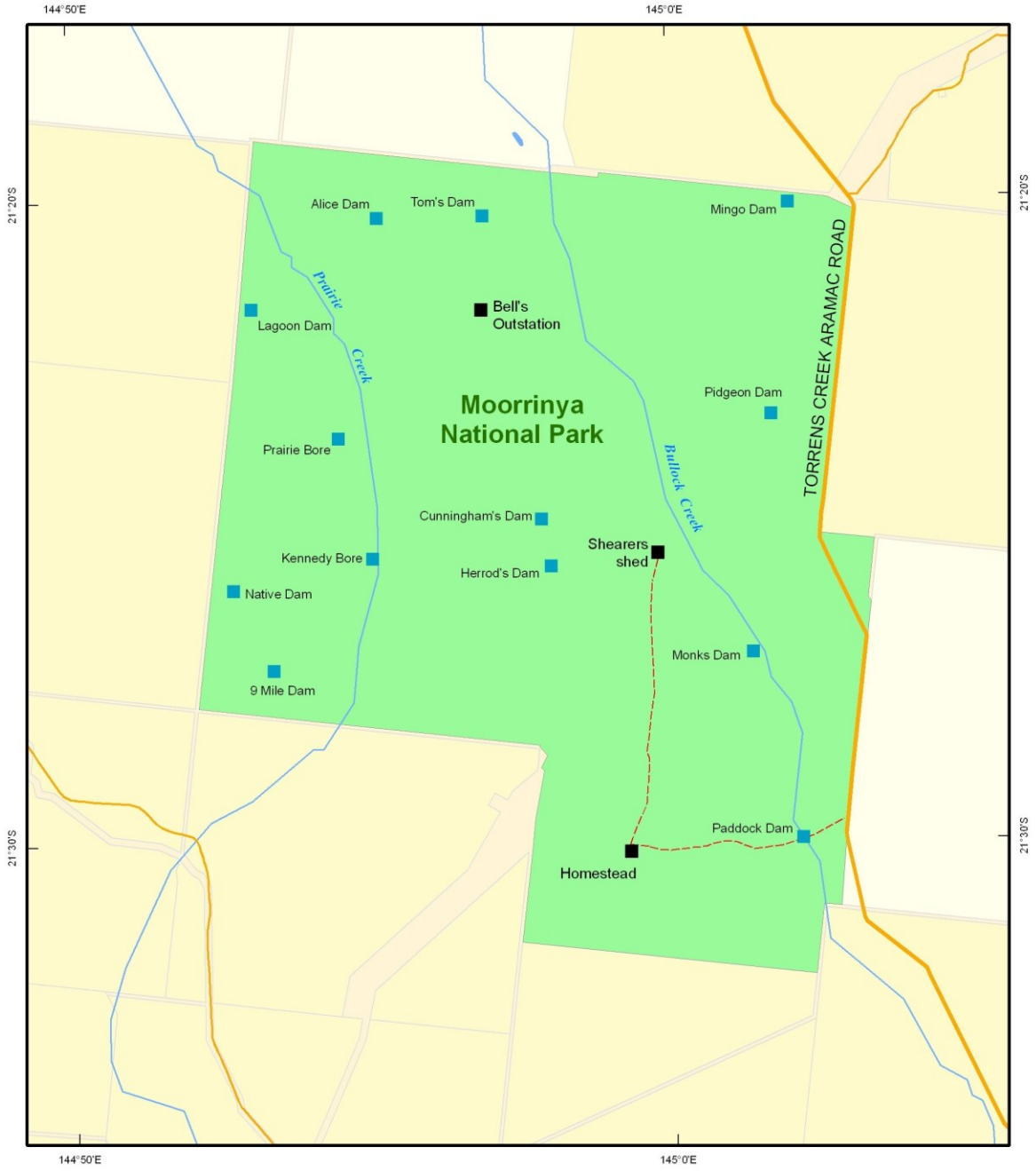
N

Scale
0 5 10 20 30 40
Kilometres

Source Material:
•Protected Areas of Queensland, DERM; 2010
•Drainage Network - Rivers QLD; 2010
© Pitney Bowes Business Insight 2010
•State Digital Road Network (SDRN); September 2010
© Pitney Bowes Business Insight 2010
•Major Towns of Queensland - NRM, 2008

Legend
Tenure
National Park
Rivers & Creeks
Road Network
Highway
Secondary road
Local connector road
Major Centre
Town

Map 2 Assets and adjoining tenure



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Scale
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Kilometres

Source Material:
- Cadastral Boundaries - DCDB, DERM, 2010
- Protected Areas of Queensland, DERM; 2010
- State Digital Road Network (SDRN); September 2010
  © Pitney Bowes Business Insight 2010
- Drainage Network - Rivers QLD; 2010
  © Pitney Bowes Business Insight 2010

Legend
- Buildings

Tenure
- National Park
- Freehold
- Lands Lease
- Dam

Drainage Network
- Lake
- River

Road Network
- Secondary road
- Street
- 4wd seasonal access

Appendix B – Definitions

Decreaser species

With any environmental change, there will naturally be some species of plants and animals that benefit, and others that suffer. Galahs *Cacatua roseicapilla*, for instance, have greatly increased their distribution and abundance with the proliferation of artificial water points at which to have a daily drink. However, 'increase in some conspicuous species is not necessarily the desired outcome' (Woinarski and Fisher 2003). Biograze (2000) noted that 10–15 per cent of all species are 'increasers', and a similar percentage are 'decreasers'. The remaining species either show no change or are too uncommon to confidently demonstrate a trend.

Endangered and vulnerable (species)

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

Management principles for national parks

Under Section 17, *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.

Of concern (regional ecosystems)

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

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 DES's Regional Ecosystem Description Database.

Species of conservation significance

Species of conservation significance refers to those species that are threatened (that is, endangered, vulnerable or near threatened species), and may also refer to other species that are subject to threats at a regional or local level.

Vulnerable (species)

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

Appendix C – Regional ecosystems

Table 1: Of concern regional ecosystems for Moorrinya National Park.

Regional ecosystem number	Regional ecosystem name	DES biodiversity status	Reason for status and the threats to ongoing sustainability
10.3.1	Blackwood woodland with false sandalwood	Of concern	Pasture degradation and scalding. Cracking clay soils with significant loss of ground cover.
10.3.4	Gidgee woodland on heavy clays	Of concern	Pasture degradation and scalding, with significant loss of ground cover.
10.3.14	River red gum *Eucalyptus camaldulensis* and/or coolibah *Eucalyptus coolabah* woodlands and open woodlands on channels, levees and floodplains	Of concern	Large-scale soil, pasture degradation and pest plant infestation (such as parkinsonia).
10.3.15	Coolibah	Of concern	Soil and pasture degradation and potential for pest plant invasion.
10.4.1	Blackwood and mitchell grass woodland	Of concern	Pasture degradation and buffel grass invasion.
10.7.4	Grey box woodland	Of concern	>70 per cent moderately to severely degraded, highly susceptible to erosion.
10.7.5	Napunyah woodland	Of concern	Scalding, pasture degradation and high salinity.