

Mount Scoria Conservation Park

Management Plan

2011



Mount Scoria Conservation Park Management Plan
Brigalow Belt Bioregion

Prepared by:

Planning Services Unit, Department of Environment and Science (DES)

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The Mount Scoria Conservation 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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Vision statement

In an undeveloped landscape, Mount Scoria Conservation Park will preserve habitat and species of state, national and international conservation significance.

The park is managed with an increased understanding of the diversity of natural environments, ensuring significant species and communities are protected and impacts are minimised.

The visitor experiences and recreation opportunities are in keeping with the undeveloped natural environment of the management area, in the greater Banana region.

Partnerships with the Traditional Owners, local community, neighbours and research institutes and conservation groups are firmly established and make a considerable contribution to the area's ongoing management.

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1. Management intent

The management intent for Mount Scoria Conservation Park will be to preserve the natural, cultural and scenic values in a manner that will maintain both geological and ecological integrity. The proposed management directions outlined in this plan are intended to preserve and present these values. The purpose of management for Mount Scoria Conservation Park will be to:

- conserve the quality and integrity of the mountain and address any threats.
- protect the park from wildfire by implementing approved DES fire strategies and planned burns
- identify plant and animal species of conservation significance and address any threats
- improve the long-term health of specific communities through planned burns, where appropriate
- identify cultural, historical and archaeological sites of significance and address any threats
- promote and interpret Traditional Owner's knowledge in accordance with their views
- monitor and manage visitor use areas to protect the park's values
- develop and integrate the park's natural and cultural values with the Callide Valley Regional Tourism Strategy
- foster an adaptive, cooperative, productive and collaborative approach between stakeholders to manage the park issues such as pests, fire and stock.

2. Basis for management

Queensland Parks and Wildlife Service (QPWS) is responsible for the day-to-day management of Mount Scoria Conservation Park. The park is primarily managed in accordance with the *Nature Conservation Act 1992* and associated regulations to protect land, wildlife and cultural values.

The provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) and regulations apply to the conservation park. The semi-evergreen vine thicket vegetation community and the listing of Mount Scoria Conservation Park as a registered place on the register of the National Estate are both matters of National Environmental Significance under the Environment Protection and Biodiversity Conservation Act.

Endangered and of concern regional ecosystems are described under the Department of Environment and Science's (DES) biodiversity status and Endangered, Vulnerable and Near Threatened species are listed under the Nature Conservation (Wildlife) Regulation 2006. QPWS is responsible under the *Land Protection (Pest and Stock Route Management) Act 2002* for controlling declared pest plants and animals on protected areas.

Gangulu people have a native title claim application over the park (QC97/036). Involving Traditional Owner groups is an important part of all park management. This plan is not intended to erode or extinguish any native title rights. Indigenous cultural heritage places are a custodial responsibility of Traditional Owners. Cultural heritage places in the park are legislatively managed under the *Aboriginal Cultural Heritage Act 2003* and the *Queensland Heritage Act 1992*.

3. Location and regional context

Mount Scoria Conservation Park covers 21.7 hectares. Located 6 km south-east of Thangool and approximately 20 km south-east of Biloela, the park is in Banana Shire.

The park is in the Brigalow Belt Bioregion and supports the endangered regional ecosystem of semi-evergreen vine thicket.

Land surrounding the park is used predominately by agricultural industries, including crop production and stock grazing.

From Mount Scoria Conservation Park, visitors can explore other natural places in the region, including: Kroombit Tops National Park and Carnarvon Gorge National Park.

4. Protecting and presenting the park's values

4.1 Landscape

4.1.1 Geological processes

Mount Scoria is a basalt plug that was intruded about 25 million years ago into the vent of a small volcano (Willmott 2006). Its hardened lava, now a mountain of resistant rock, was left standing after soil and softer rock weathered to the level of the surrounding plain. The name 'scoria' is slightly misleading because most of the rock is not scoria (or vesicular) but columnar basalt formed from slow cooling lava. The basalt has formed into distinct columns or pillars with five to eight sides. The number of sides indicates the speed and evenness of cooling. The six-sided columns formed from slow, regular cooling process while the five, seven, or eight-sided columns were formed by irregular shrinkage caused by relatively quick and uneven cooling. Although there are other sites in the region where this columnar basalt can be found, the formation at Mount Scoria is unusual as it is a striking interruption on an otherwise flat plain, and these isotropic pillars, while not being unique regionally, have a reputation for resonating when struck.

The alluvial plain around the base of the mountain contains a seasonal wetland, which has remained dry in recent years. Vehicles traversing off the designated entrance road have caused soil compaction, limiting percolation and plant growth. Parts of the boundary are not fenced and there is evidence that cattle intrusion on the park is also contributing to compaction and degradation.

Desired outcomes 2021	Actions and guidelines
The natural geological processes associated with Mount Scoria are maintained and promoted.	A1. Ensure park management actions do not accelerate or impact upon the natural geological processes of erosion associated with Mount Scoria, with the exception of managing visitor safety.

4.1.2 Scenic amenity

Mount Scoria Conservation Park is a prominent volcanic mount containing a range of vegetation communities in a relatively flat agricultural landscape. Visitors approaching the park find an open forest environment leading to dry rainforest communities circling the mount, providing an impressive outlook. The mountain has significance to both the Traditional Owners and the local community and has been a focal point for many activities. There is no formal lookout at the summit.

The park's landscape values are largely intact. However, there is potential for these values to be compromised by internal and external impacts, such as inappropriate fire management practices and developing inappropriate infrastructure on the park.

Desired outcomes 2021	Actions and guidelines
There are no adverse impacts on the scenic amenity of Mount Scoria Conservation Park.	A2. Ensure new or improved infrastructure is consistent with the management zones as outlined in Appendix A, Map 2 and Appendix D.
The landscape is protected, particularly areas of high scenic quality or traditional or cultural significance, while allowing natural processes to continue.	A3. Monitor the impacts from natural processes, pests, fire and recreation. Use this information to guide management decisions. Where necessary findings will be used to amend inappropriate management actions and rehabilitate where necessary any degraded areas in the park.

4.1.3 Land tenure

Mount Scoria Conservation Park is an isolated natural area in a highly modified landscape. An adjoining unallocated State land parcel adjoins the park. It is desirable for this parcel to be incorporated into the conservation park in recognition of its significant regional ecosystems.

Desired outcomes 2021	Actions and guidelines
Land with high natural, cultural and or landscape value is gazetted as part of the protected area estate.	A4. Investigate the suitability of Lot 0108 on plan PM403 to be added to the protected area estate.

4.2 Native plants and animals

4.2.1 Native plants

Thirteen species of vascular plants have been recorded for Mount Scoria Conservation Park. The biodiversity status for the park records two regional ecosystems as endangered.

The northern and eastern sections of the park contain woodland dominated by poplar box *Eucalyptus populnea*, silver-leaved ironbark *Eucalyptus melanophloia*, Moreton Bay ash *Corymbia tessellaris*, and Queensland blue gum *Eucalyptus tereticornis*. There are also small areas of Brigalow *Acacia harpophylla*, associated with Queensland ebony *Lysiphyllum hookeri* and *Carissa ovata* on the slopes. Four hectares of an open semi-evergreen vine thicket grows on the rocky slopes of the mountain and around its base. The open structure of the thicket is unusual for central-eastern Queensland. The vine thicket closely resembles deciduous vine thickets occurring about 200 km north, and is a relic of semi-evergreen vine thickets that were once in the Thangool area and now largely destroyed. On the slopes, Queensland bottle tree *Brachychiton rupestris* is a dominant landscape element.

The site is declared under the National Estate Register, for the most southern limit of distribution of the vine *Cissus reniformis*. This species is now recorded as far south as the Mary River catchment. Pest plants and recreation impacts from walking off defined tracks, especially accessing the summit, pose the greatest threat to these communities. Wildfires, unregulated grazing and driving off designated areas also impact on the natural processes that limit regeneration of vegetation communities on the alluvial plains and slopes of the mountain.

Desired outcomes 2021	Actions and guidelines
Fire is managed to meet the ecological requirements of fire dependant and fire sensitive communities.	A5. Regulate the frequency and intensity of fire to maintain the plant species composition, structure and ecological dynamics of all vegetation communities.

4.2.2 Native animals

Thirty-three bird species, one mammal and one reptile have been recorded on the park. The golden-tailed gecko *Strophurus taenicauda* is listed as near threatened.

The alluvial plain on the east side of the mountain is subject to flooding and the low-lying area becomes a seasonal wetland. During heavy rains, the wetlands retain water and an influx of birds to the park can be observed.

A dam is located on the park near the southern boundary. Dams on protected areas are not encouraged as artificial waters are known to support pest animals and increase native animal populations beyond natural population limits to unsustainable levels. In accordance with the QPWS Operational policy – Management of artificial waters, dams are to be decommissioned on the park.

Desired outcomes 2021	Actions and guidelines
Golden-tailed gecko continues to exist on the park.	A6. Monitor populations of the golden-tailed gecko to protect from known and potential impacts.
No artificial water sources are located on the park.	A7. Decommission and revegetate any artificial water sources located on the park.

4.3 Indigenous culture

The Gangulu people have a strong and on-going connection with Mount Scoria Conservation Park. The Gangulu considered Lake Victoria, north-west of Biloela, and mountains in the area, including Mount Scoria, to be significant. Currently, no significant Indigenous cultural sites have been identified other than the Mount Scoria columns. Gangulu people have a native title claim application over the park (QC97/036). The Traditional Owners have an interest in the cultural places on the park and in reducing any visitor impacts upon these sites.

A cultural interpretive walk around the base of the mountain provides a great opportunity for visitors to gain an insight into Indigenous connection to the park and surrounding lands. This was developed in cooperation with the Gangulu people.

Desired outcomes 2021	Actions and guidelines
Aboriginal people with traditional links to the area are involved in park management.	A8. Encourage Traditional Owner involvement in planning and management activities.

4.4 Shared-history culture

Mount Scoria Conservation Park was gazetted as an Environmental Park in 1977 with the Banana Shire Council as Trustees. Recreation facilities were initially developed by the Banana Shire Council and the Thangool Progress Association (Thangool and District Advancement Sporting and Recreation Association Incorporation or Thangool Inc.) with help from QPWS. In 1992, Mount Scoria Environmental Park was gazetted as a conservation park under the Nature Conservation Act.

As a prominent feature in the landscape, this mountain has been a focus for social and community events. The park hosted a wide range of activities when it was an environmental park, from town cricket events, to festivals and concerts. Over the years, these activities declined and today nature-based recreation activities dominate the park's use.

No relics relating to shared-history cultural heritage are known to exist on the park.

4.5 Tourism and visitor opportunities

Mount Scoria Conservation Park is a prominent feature of the Thangool landscape and is visited by locals and a small number of tourists on route to Kroombit Tops National Park and the Gladstone area. Visitor facilities provided include a day-use area and a short interpretive walk along the base of the mountain.

Located ten kilometres from Thangool, the park is not on a major tourist or transport route, but is regionally promoted in tourist brochures as a worthy visitor destination. The park is managed as a day-use site and visitor numbers are relatively low. Access is via a sealed, single-lane bitumen road from the Burnett Highway, marked with a direction sign.

A range of recreation settings has been established for the management area (Appendix A, Map 2 and Appendix D). Future development must ensure that the recreation development and opportunities offered are compatible with these settings. The day-use area consists of picnic tables, gas barbeque, toilet, water tank and picnic shelter. Visitors are encouraged not to drink the water as the water is provided to manage the toilet facilities. Infrastructure has at times been subject to vandalism. The day-use area has been assessed as a recreation setting 4-6 using the QPWS landscape classification system.

A cultural interpretive walking track exists from the day-use area, and has been assessed in accordance with the Australian Standards as a Class three (3) walking track. The well defined track takes visitors along a gentle slope with slight inclines or steps.

The peak is the only mountainous feature on the plain and makes an ideal vantage point. However, the unstable nature of the slopes makes access dangerous. Visitor access to the summit has caused visible disturbance to the loose rocks and minor land slips. Furthermore, the act of striking rocks to create a resonating effect is impacting on the rocks where they have been fractured and broken. This activity also presents a danger to visitors where rock fragments may become dislodged and enter people's eyes. This activity is not encouraged due to the cultural significance to Traditional Owners, the terrain, safety concerns to walkers and to protect the columns from further impacts from visitors. To conserve the geological values of the site and protect public safety, visitors will be encouraged to remain on the designated walking track. Amendments to existing on-site information signs would help convey these messages.

Interpretive information is located at the day-use area and along the walking track.

There are no current commercial activity permits.

Desired outcomes 2021	Actions and guidelines
Recreation facilities are adequate, safe and complement the park's setting. Visitor use of the park is directed to the formal public road and track network.	A9. Design, construct, and maintain facilities according to the QPWS facilities manual, landscape classification settings and management zones (Appendix A, Map 2 and Appendix D). A10. The park is provided as a day-use site only. A11. Prohibit wood fires and encourage the use of portable gas stoves as an alternative through interpretive material.

4.6 Education and science

4.6.1 Education

The park offers the chance to study unique geology and significant vegetation communities with relative ease, catering for primary, secondary and tertiary programs.

Public education increases community awareness of the park's values, conservation principles and practices, and promotes access to, and appropriate behaviour at, specific park sites. Specific program may be developed to increase awareness of species of interest, to improve the public's understanding of these species.

Desired outcomes 2021	Actions and guidelines
Education opportunities are available to park visitors and the local community.	A12. Provide nature-based education opportunities in the park. A13. Promote public awareness through off-park channels such as the DES website, schools and local community and stakeholder groups.

4.6.2 Science

There is a lack of on-site information at most of the management area's visitor nodes, particularly at camp grounds, day-use areas, walking tracks and lookouts. This information gap must be addressed to ensure responsible visitor behaviour is reinforced at appropriate sites, as well as to inform visitors of potential safety risks. Contemporary interpretive material consistent with the area's iconic status and management settings requires development.

Desired outcomes 2021	Actions and guidelines
Research provides a greater understanding of the values of the area and the impacts of recreation and commercial uses on these values.	A14. Encourage collaborative arrangements with research organisations and scientific research on the park which targets priority species and information gaps and which will contribute to improved park management. A15. Ensure permit conditions promote minimal-impact research and include rehabilitation of any areas subject to environmental disturbance.

4.7 Partnerships

While QPWS is directly responsible for managing the park, other agencies are also responsible for planning and managing aspects of the park. QPWS works with these agencies to jointly deliver programs such as pest, fire and road management.

Several properties share a common boundary with Mount Scoria Conservation Park, and cooperation with these landholders is vital for effective and efficient management of the park in areas such as controlling fires and pests and maintaining boundaries.

Traditional Owners also have a responsibility under the Aboriginal Cultural Heritage Act. A strong working relationship with the Traditional Owners is essential to ensure the views and aspirations of the Traditional Owners of the land can be included in planning and management.

Desired outcomes 2021	Actions and guidelines
Government agencies and the community work collaboratively to resolve common issues. Adjoining landholders are aware of, and help achieve the desired management outcomes.	A16. Liaise with neighbours to develop and implement cooperative stock, pest plants and animal, and fire programs. A17. Continue to liaise with park neighbours about cooperative arrangements for park management issues including fire, pest management and boundary fences.

5. Other key issues and responses

5.1 Climate change

Scientific research indicates that human use of resources will have an impact on the global climate. Changes could include a rise in global mean sea level, higher average air and sea temperatures, and increased climate variability, the implications of which are being assessed by scientists around the world. Impacts upon the management area may include a reduction in habitats due to changed rainfall events, and increased fire intensity.

5.2 Pest management

There are pest plant species found on the park that impact on its natural integrity. Identified pest plant species include creeping lantana *Lantana montevidensis*, *Pennisetum ciliare* and *Xanthium occidentale*.

Pest plants are problematic in areas where soils are disturbed by infrastructure development, vegetation is cleared and soils are exposed by inappropriate visitor use of the park.

Although pest plants are at a low level, visitors can easily introduce and spread pest species.

While there is no QPWS pest strategy prepared for the park; however, a Brigalow Belt Bioregion pest strategy exists, which includes Mount Scoria Conservation Park.

Based on incidental sightings, it is evident that pest and domestic animals, such as cattle, foxes and cats use the park, but exact numbers are not known and their specific ecological impact on the native plants and animals is also unknown. Domestic stock are known to enter the park, and stock grazing can limit the available food source for native animals, spread pest plants and, if in large numbers, compact soils, reducing the ability for native plant species to regenerate.

Desired outcomes 2021	Actions and guidelines
Pest plants and animals posing a threat to the park's natural values are controlled and, where possible, eradicated.	A18. Implement actions from the Brigalow Belt Bioregion pest strategy.
Cooperative and integrated pest management techniques are practiced.	A19. Develop a cooperative approach to pest management in consultation with park neighbours to extend good pest management practices across the landscape, including the movement of stock and feral animals in the landscape.

5.3 Fire management

Fire is a natural and important part of many landscapes, particularly in maintaining biodiversity in and between vegetation communities. Inappropriate fire regimes could threaten the long-term integrity of some vegetation communities in the park. Fire has implications for the ecological values of the park, human safety and protecting property and infrastructure on-park and on neighbouring properties. Planned burns are used to manage conservation values, to maintain suitable habits and meet the ecological requirements of fire-dependent species.

Timing, intensity, frequency and extent are all significant for managing fires, along with vegetation types, wind speed, moisture content of vegetation, soil and air. Fires have entered the park from adjoining properties, and generally burn around the foot of the mount.

No QPWS fire management strategy or wildfire response procedure exists for the park. A fire management strategy needs to be prepared in consultation with the community, neighbours and the local Queensland Fire and Rescue Service (Rural).

Fires have been recorded on Mount Scoria Conservation Park every year since 2001. In 2009, an intense wildfire occurred. This fire occurred during a prolonged dry period, when there was minimal to no soil moisture to reduce the intensity of the wildfire. High intensity burns impact on the natural values of the park. The first moisture events after fire generally promote pest plants to invade scoured and exposed areas, creating competition for native plant species.

Desired outcomes 2021	Actions and guidelines
Fire management protects native plants and animal species. Fire management is coordinated with neighbours and the local Queensland Fire and Rescue Service (Rural).	A20. Prepare and implement a QPWS Level 2 Fire Management Strategy. A21. Ensure fire management regimes meet the ecological requirements for significant conservation species. A22. Maintain liaison with the local Queensland Fire and Rescue Service (Rural), Traditional Owners and neighbours about the timing and extent of planned burns and wildfire management.

6. References

Department of Environment and Science (2009). *Park Profiles*. Located at: parkinfo.des.qld.gov.au/parkprofiles.

State of Queensland (1992), *Nature Conservation Act 1992*, Office of the Queensland Parliamentary Counsel, Brisbane.

State of Queensland, Environmental Protection Agency (EPA) (2001), *Master Plan for Queensland's Parks System*, State of Queensland, Brisbane, Queensland

Willmott, W. (2006). *Rocks and Landscapes of the National Parks of Central Queensland*. Geological Society of Australia.

7. Hyperlinks

Environmental Protection Act 1994 <www.legislation.qld.gov.au>

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

Landscape Classification System for Visitor Management <www.des.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.des.qld.gov.au>

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

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

8. Appendixes

Appendix A – Maps

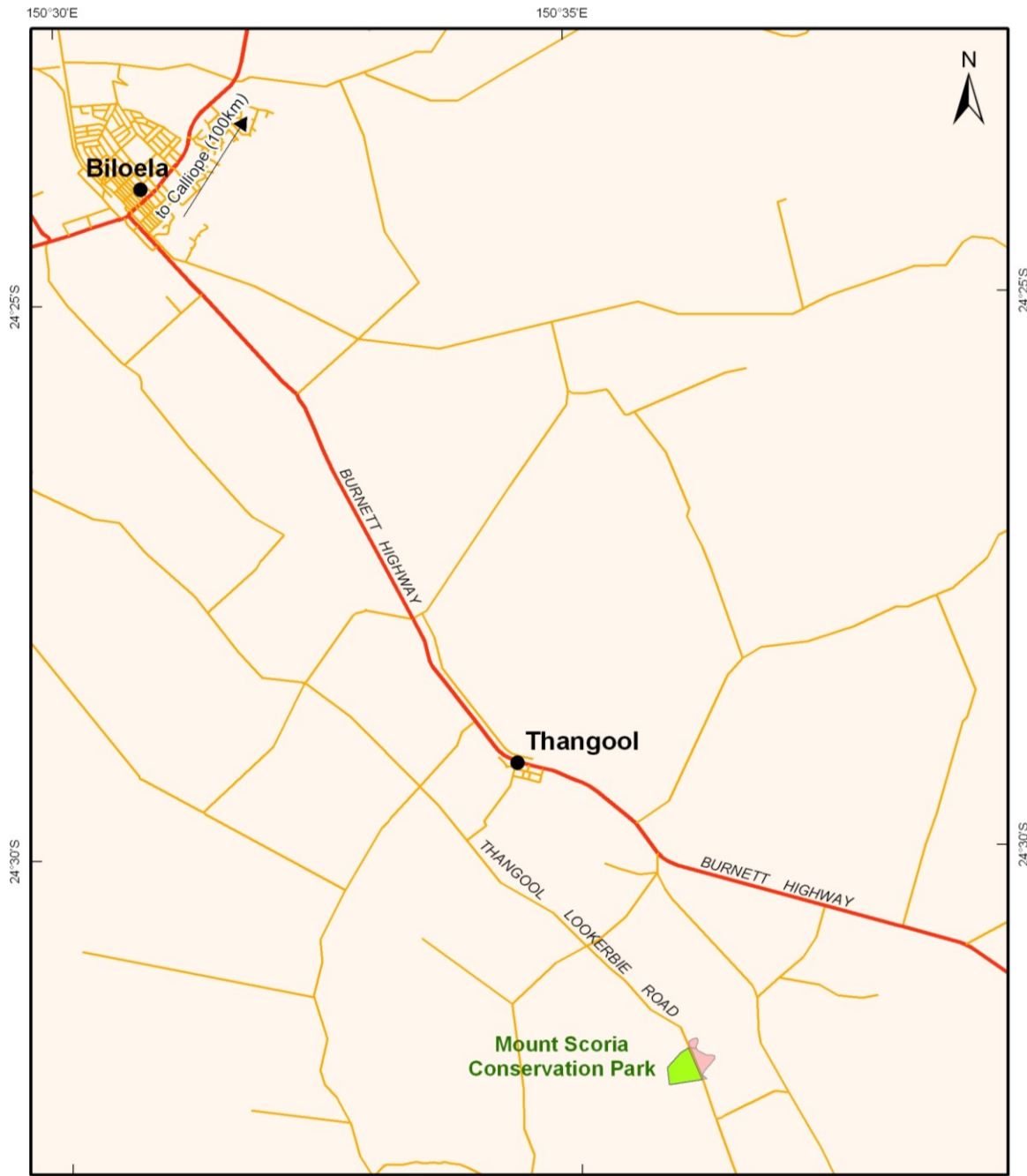
Appendix B – Definitions

Appendix C – Regional ecosystems

Appendix D – Zones and special management areas

Appendix A – Maps

Map 1 Location



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

Map Production:
 Spatial Services, Brisbane
 Queensland Parks and Wildlife Service,
 Department of Environment and Resource Management,
 4 April 2011

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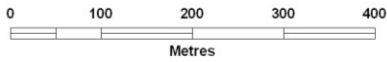
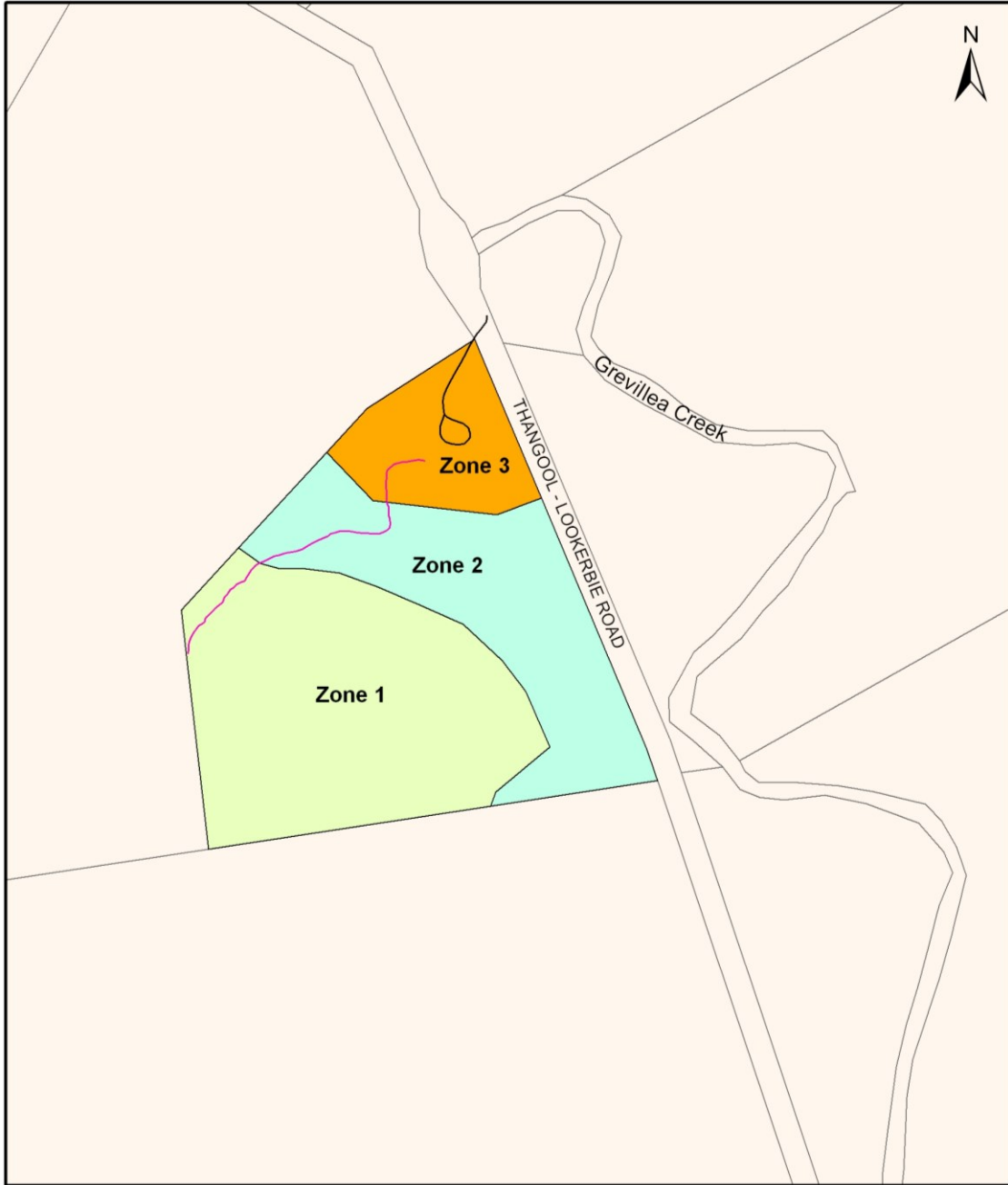
- Legend**
- Towns
 - Road Network**
 - Highways
 - Local access
 - Tenure**
 - Conservation Park
 - Reserve

Source Material:
 ● Protected Areas of Queensland, DERM; September 2010
 ● DCDB Reserves, DERM; October 2010
 ● State Digital Road Network (SDRN); December 2010
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Map 2 Park management zones



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

Map Production:
 Spatial Services, Brisbane
 Queensland Parks and Wildlife Service,
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Legend

- Infrastructure**
- Park entrance road
 - Walking track
- Management zone**
- Zone 1 - Remote natural
 - Zone 2 - Natural
 - Zone 3 - Recreation
 - Cadastral Boundaries

Source Material:
 •Infrastructure, QPWS;
 •Digital Cadastre, DERM; March 2011
 •State Digital Road Network (SDRN); December 2010
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Appendix B – Definitions

Cultural heritage significance

Cultural heritage significance is defined by the *Queensland Heritage Act 1992*

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 Strategies

The Fire Strategy (Level 1) is the major component of a fire plan and provides the overall framework and direction for fire management. It details the values of the reserve, the long-term fire management aims and how these relate to on-ground fire management.

The Fire Strategy (Level 2) or Statements of Fire Management Intent – (SFMI) provides a lower level of guidance pending the completion of the more detailed Level 1 Fire Strategy, where required. These documents strategically guide preventative and emergency response decisions in relation to fire management activities.

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 the DES Operational Policy *Landscape Classification System for Visitor Management*.

Level 1 Pest Management Strategy

An optional (at the region's discretion) planning document that provides an overview and strategic direction at the bioregional or other sub-regional level. They are not equivalent to a Level 1 Fire Strategy and are not to be written for a single pest species or as separate documents for pest plants and animals

Level 2 Pest Management Strategy

The main system planning document that outlines what pests are present and guides on-ground pest management priorities and actions mostly within a single management unit. Although Level 2 strategies will typically be written to cover all reserves in a single management unit they may also be written for any other sub-management unit aggregation of reserves including, if appropriate, a single large and complex reserve. Level 2 pest management strategies are not to be written for a single pest species or as separate documents for pest plants and pest animals.

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.

QPWS Pest Management System

Adopted as the QPWS state-wide 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 and operational documents to guide on-ground pest management.

Zones

Zones are smaller units in 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 C and outlined in Map 4.

Appendix C – Regional ecosystems

Table 1: Of concern or Endangered regional ecosystems for Mount Scoria Conservation Park.

Regional ecosystem number	Regional ecosystem name	DES biodiversity status	Reason for status and the threats to ongoing sustainability
11.8.13	Semi-evergreen vine thicket and microphyll vine forest on Cautozoic igneous rocks.	Endangered	In September 2003, remnant extent was less than 10 000 hectares and 10 to 30 per cent of extent of the pre clearing area remains.
11.9.4a	Semi-evergreen vine thicket on fine grained sedimentary rocks.	Endangered	Extensively cleared for cropping and pastures for grazing.

Appendix D – Zones and special management areas for Mount Scoria Conservation Park

The stated management characteristics and guiding principles below provide guidance; however, activities and structures remain subject to the provisions of the management principles for park. Conserving nature and protecting cultural values therefore remains the cardinal principle for the use of the park. The presentation of an area's values is subject to these being protected, and any use of the park must be nature-based and ecologically sustainable. Map 2 in Appendix A shows the location of the zones on the park. Traditional use, emergency situations and management strategies may override the zone characteristics and will be assessed on a case-by-case basis.

ZONE 1 – Remote Natural					
General description This zone covers the vast majority of the pristine natural areas in the management area. It has the dual purpose of providing a remote experience for visitors and protecting the area's natural and cultural values. To achieve this balance, public access is only walking. Vehicle access is limited to management and other authorised personnel (for example, emergencies and research) where there is no other feasible option.					
Management characteristics	Management aims	LCS settings	Expected levels of visitation	Public vehicle access	Pedestrian access / walking tracks
	Manage almost exclusively for conservation. Provide for very low levels of visitation. No facilities to be provided.	May generally be 1–2.	Very low	None; except the minimum required for special protection purposes	Walk in, natural foot trails No formed tracks other than those already in existence Class 5 and 6 trails permitted and managed to ensure minimal disturbance
	Day visitor facilities	Signs and interpretation	Campsites	Visitor self-reliance	Maximum group size
	None	None	Nil No vehicle access	Very high	Up to 8 depending on site.
Guiding principles - Conservation with very low level recreation.					

ZONE 2 - Natural

General description Natural vegetation and landscape dominate and are essentially unmodified. There is only inconspicuous evidence of modern human activity in small limited areas. The principal purpose of this zone is the conservation of natural and cultural values with the provision of low level nature-based recreation opportunities.

Management characteristics	Management aims	LCS settings	Expected levels of visitation	Public vehicle access	Pedestrian access / walking tracks
	Manage predominantly for conservation Natural environments with minimal hardening Provide for low levels of visitation Co-ordinate fire management, bushwalking access	Settings 3 – 4	Low	Unformed roads Some restrictions may apply	Walk in, natural foot trails, some formed trails where necessary Class 4 and 5 tracks
	Day visitor facilities	Signs and interpretation	Campsites	Visitor self-reliance	Maximum group size
	None	Limited, preferably near boundaries	Nil No vehicle access	High	8 –12 depending on site

Guiding principles – Conservation, low – moderate levels of recreation.

ZONE 3 – Recreation

General description This zone maintains a recreation setting where visitors can experience nature-based activities in an environment dominated by natural vegetation and landscape, with some modifications to accommodate sustainable visitor use. The recreation zone encourages and provides for the protection, appropriate use, appreciation, education and enjoyment of the area’s natural and cultural values. Visitors can generally expect a moderate level of recreation and social interaction. Some sites may need to be hardened to ensure the continued protection of the park’s values. Visitor facilities may include toilets, picnic areas, lookouts and car parks.

Management Characteristics	Management aims	LCS settings *	Expected levels of visitation	Public vehicle access	Pedestrian access / walking tracks
	Manage for conservation and low to moderate levels of visitation. Medium level facilities concentrated at visitor nodes in predominantly natural environment.	4 – 6	Medium	Formed or unformed roads, sealed or unsealed roads. Car parks at nodes where necessary	Formed trails. Some well built tracks and boardwalks where necessary Class 3, 4 and 5 tracks
	Day visitor amenities	Signs and interpretation	Campsites	Visitor self-reliance	Maximum group size
	Basic and unobtrusive facilities and structures may be provided	Some onsite if needed	Nil	Moderate	13–25 depending on sites

Guiding principles – A high degree of onsite management including using physical barriers to constrain movement of pedestrians and vehicles. Well-developed structures and interpretative signage present.

