

# Bukkulla/Marlborough Area

**Management Statement**

2013



Prepared by: **Queensland Parks & Wildlife Service (QPWS), Department of Environment and Science**

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*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 and present.*

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

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The Bukkulla/Marlborough Area Management Statement 2013 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 statement's original management intent and direction.

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|                                    |  |            |
|------------------------------------|--|------------|
| Management area size:              | Alligator Creek State Forest   | 6,460ha    |
|                                    | Aricia State Forest  | 1,780ha    |
|                                    | Bukkulla Conservation Park   | 1,813ha    |
|                                    | Canal Creek State Forest   | 1,320.31ha |
|                                    | Eugene State Forest  | 6,530ha    |
|                                    | Glencoe State Forest   | 2,054ha    |
|                                    | Glencoe Forest Reserve   | 776ha      |
|                                    | Lake Learmouth State Forest  | 4,295ha    |
|                                    | Marlborough State Forest   | 1,035ha    |
|                                    | Morinish State Forest  | 830ha      |
|                                    | Mount Buffalo State Forest   | 2,073ha    |
|                                    | Mount Buffalo State Forest   | 2,073ha    |
|                                    | Mount O'Connell National Park  | 757ha      |
|                                    | Newport Conservation Park  | 118ha      |
|                                    | North Pointer Conservation Park  | 240ha      |
|                                    | Princhester Conservation Park  | 721.76ha   |
|                                    | Stuart Creek State Forest  | 1,200ha    |
| Tooloombah Creek Conservation Park | 260.60ha   |            |
| Werribee Creek State Forest        | 1856.77ha  |            |
| Bioregion:                         | Brigalow Belt North Bioregion  |            |
| QPWS region:                       | Central  |            |
| Local government estate/area:      | Rockhampton Regional Council<br>Central Highlands Regional Council<br>Isaac Regional Council |            |
| State electorate:                  | Mirani<br>Rockhampton  |            |

### Legislative framework

|   |  |
|---|--|
| ✓ | <i>Aboriginal Cultural Heritage Act 2003</i>                                 |
| ✓ | <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i> |
| ✓ | <i>Native Title Act 1993 (Cwlth)</i>   |
| ✓ | <i>Nature Conservation Act 1992</i>  |
| ✓ | <i>Queensland Heritage Act 1992</i>  |

### Plans and agreements

|   |   |
|---|---|
| ✓ | Bonn Convention   |
| ✓ | China-Australia Migratory Bird Agreement  |
| ✓ | Japan–Australia Migratory Bird Agreement  |
| ✓ | National multi-species recovery plan for the cycads                                   |
| ✓ | National recovery plan for the black-breasted button-quail <i>Turnix melanogaster</i> |
| ✓ | Republic of Korea-Australia Migratory Bird Agreement                                  |

### Thematic strategies

|   |                                       |
|---|---------------------------------------|
| ✓ | A1. Level 2 Fire Management Statement |
| ✓ | A2. Level 2 Pest Management Strategy  |

## Vision

The natural ecosystems, plant and animal populations within Bukkulla/Marlborough management area are conserved. The management area is managed with an increased understanding of the diversity of natural environments, ensuring significant species and communities are protected and impacts are minimised.

Establish partnerships with Traditional Owners, Department of Defence, Wildlife Land Fund Limited, Wildlife Preservation Society Queensland, local community, neighbours, lessees, research institutes, conservation groups, Queensland Fire and Rescue Service and local councils that contribute to the area's ongoing management.

## Conservation purpose

The objectives of management for the Bukkulla/Marlborough management area are to:

- protect regional ecosystems and species of conservation significance and their habitats
- conserve and protect the management area's natural, cultural and scenic values
- minimise the impact of pests and inappropriate fire regimes on the natural environment
- incorporate the interests and rights of the Traditional Owners and their affiliations to the area by cooperatively protecting and managing areas of cultural heritage significance
- provide and maintain visitor opportunities that are in keeping with the area's natural values
- provide direction and actions to protect the natural, cultural and social values of the area, through appropriate research and monitoring
- foster cooperative relationships with interested parties and the sole trustee of Bukkulla Conservation Park, Wildlife Land Fund Limited to build stronger partnerships to assist management.

## Protecting and presenting the area's values

### Landscape

The Bukkulla/Marlborough management area provides a scenic and unique landscape for visitors to explore. It is the largest area of serpentinite in Queensland (Forster and Baker 1995, 2005). Serpentinite soils support unique vegetation and plants, including threatened species that are only found on these soils in the Marlborough–Rockhampton area (Batianoff et al. 1990, 1991, 2000; Sprecht et al. 2005).

Compression during the Permian period resulted in a slice of old oceanic crust thrust up from the east at a low angle into younger rocks. These rocks metamorphosed into serpentinite, a dark green rock high in elements such as nickel, chromium, cobalt and magnesium. They are exposed in Princhester and Bukkulla conservation parks (Willmott 2006).

In a fragmented landscape, the protected area estate provides connectivity for increased protection of natural values. For example, Mount Buffalo State Forest is connected to Burwood Nature Refuge and Bukkulla Conservation Park links to Marlborough State Forest. Werribee and Alligator Creek State forests border the Shoalwater Bay Military Training Area (Department of Defence) which further provides landscape connection and species protection.

### Regional ecosystems

There are 48 regional ecosystems in the management area consisting of 36 in the Brigalow Belt Bioregion and 12 in the Central Queensland Coast Bioregion. Fifteen are listed as of concern and 10 listed as endangered (Table 1) and 35 have low representation in protected area estate. The significant ecosystems derived from serpentinite soils include the endangered semi evergreen vine thicket, the endangered riparian woodlands dominated by blue gum *Eucalyptus tereticornis*, broad-leaved paperbark *Melaleuca viridiflora*, Moreton-bay ash *Corymbia tessellaris* and blue-leaved ironbark *Eucalyptus fibrosa*. The of concern riverine woodlands dominated by blue gum and red gum *Eucalyptus camaldulensis* and *Eucalyptus fibrosa* subsp. and bloodwood *Corymbia xanthope* all occur in the area. Some of the regional ecosystems present in the management area are fire sensitive and require specific fire management regimes to protect the vegetation communities and the animals reliant on these habitats. Other threats to the species of significance found in the area are fragmentation, inappropriate grazing, invasion by pest plants, competition from and predation by pest animals. Mining poses the greatest long-term threat to the biodiversity values in the serpentinite ecosystems (Cook 2005).

## Plants and animals

There have been seven animal species of conservation significance recorded in the management area (Table 2), and a further 15 are identified as having habitat occurring or potentially occurring in the management area.

There are 11 bird species listed in international agreements that occur or are likely to occur in the management area (Table 3).

The Bukkulla/Marlborough management area supports a range of vegetation communities including those that are adapted to serpentinite soils and contain a large number of endemic species. The area is known to provide habitat for 15 significant plant species (Table 2), listed under state legislation. A further 10 species may be present as suitable habitat occurs in the management area.

The endangered *Macrozamia serpentina* is found in Bukkulla Conservation Park, and Werribee, Aricia and Alligator Creek State forests. It occurs in the low eucalypt woodland with mixed grass understorey. The serpentinite soils support a large number of endemic plant species, many of which are rare and threatened. These include *Pimelea leptospermoides*, *Pultenaea setulose*, *Hakea trineura*, *Neoroepera buxifolia* and the endangered *Olearia macdonnellensis*.

The endangered Marlborough blue cycad *Cycas ophilolitica* is found in Alligator Creek and Canal State forests and the endangered *Cycas megacarpa* is found in Morinish State Forest. The cycads are identified as critical priorities for conservation management.

Glencoe State Forest is a large catchment that was converted from timber reserve to protect the headwaters of St Lawrence Creek. *Eucalyptus drepanophylla*, *Eucalyptus playtphylla* and *Corymbia clarksoniana* open woodlands dominate the forest. There are small patches of endangered microphyll vine forest and grasslands on drainage channels.

Mount O'Connell National Park is a scenic mountain with semi-evergreen vine thicket and emergent hoop pine *Araucaria cunninghamii* on the slopes. Remnant brigalow *Acacia harpophylla* communities exist on the flats. The national park provides habitat for the near threatened rainforest tree cudgerie *Hernandia bivalvis* and *Actephila sessilifolia*.

Marlborough State Forest is a mountainous landscape containing some serpentinite soils dominated by eucalypt woodland, vine thicket and forest ecosystems with emergent hoop pine. The State forest includes several endangered and of concern ecosystems. The habitat is known to support two vulnerable birds, black-breasted button quail *Turnix melanogaster* and the squatter pigeon *Geophaps scripta scripta*.

Narrow-leaved ironbark *Eucalyptus crebra* and rosewood *Acacia rhodoxylon* woodlands are represented in Eugene State Forest. Hollows in the eucalypt woodlands are habitat for the nocturnal southern boobook *Ninox boobook* and little broad-nosed bats *Scotorepens greyii*.

Morinish State Forest consists of lemon-scented gum *Corymbia citriodora* and narrow-leaved ironbark open forests and provides habitat for the vulnerable brigalow scaly foot *Paradelma orientalis*. The vulnerable powerful owl *Ninox strenua* has been known to nest in the area and prey on the squirrel gliders *Petaurus norfolcensis*. The vulnerable tusked frog *Adelotus brevis* is found in the creek line dominated by *Melaleuca* sp. The threats to the tusked frog are disease (chytridiomycosis), pollution of waterways and impacts from feral pigs *Sus scrofa*, cattle *Bos taurus* and/or *Bos indicus* and horses *Equus caballus*.

Newport Conservation Park is infringed by mangroves with small patches of marine couch grassland surrounded by bare salt pans. Most of the area is occasionally inundated by high and king tides. While sightings are not confirmed for Newport this habitat is known to support populations of the vulnerable water mouse *Xeromys myoides* and saltwater crocodile *Crocodylus porosus*. The conservation park would provide habitat for a variety of migratory birds including white-bellied sea-eagle *Haliaeetus leucogaster* and the vulnerable painted snipe *Rostratula benghalensis*.

## Aboriginal culture

A native title claim by the Darumbal and Barada Barna people (QC97/21, QC99/1 and QC08/11) exists over the management area. The relationship of Traditional Owners with their traditional country is a special one with the whole landscape having important value.

Known sacred places exist on Mount O'Connell National Park and the Darumbal people hold significant cultural connections to the land.

Limited information is available about sites of cultural or historic significance or any other heritage values in the management area. No cultural survey has been undertaken in the management area; however it is reasonable to expect that heritage sites and artefacts occur.

It is important for Queensland Parks and Wildlife Service (QPWS) to continue to work with the Traditional Owners to identify cultural connections and ensure appropriate measures are taken to protect known sites in the area. QPWS will work towards ensuring Traditional Owners are actively participating in the day-to-day management and that cultural heritage is protected by maintaining relationships with the Traditional Owners.

## Shared-history culture

Remnants of European heritage are located throughout the management area. Prior to gazettal of Bukkulla Conservation Park, the Lorna Vale property was managed for grazing. Structures such as windmills and water tanks are present on the park.

The first gold mine in Rockhampton was located in Lake Learmouth State Forest. Kanoona alluvial gold mine operated in the valley. Foundations of an old stamping battery and other metal relics can be found at the site.

A World War II navigation beacon on Morinish State Forest can be seen from Rockhampton airport.

Newport Conservation Park is located along the Waverley Creek. A tallow works was established in the 1860s, on what is now the conservation park, and operated for the local community of St Lawrence and surrounding areas. A meatworks and wharf site were constructed in the area in 1893. The wharf was a major centre for trade, particularly for the export of tallow from cattle. A donkey boiler is still located at the site and is one of very few known to survive in Queensland. These relics were once located on conservation park and now have been moved onto the adjoining Isaac Regional Council land. The site is listed under the *Queensland Heritage Act 1992*.

## Tourism and visitor opportunities

Protected areas throughout Queensland offer a range of visitor opportunities to cater for different types of visitors. Some visitors may enjoy a safe and comfortable experience; others prefer wild places away from any sign of development. The protected areas in the Central Queensland region provide a range of visitor experiences. The high profile Byfield National Park and State forest and Blackdown Tableland National Park encourage visitor opportunities such as four-wheel driving, fishing, mountain biking and interpretative day walks. Other protected estates throughout Central Queensland such as Goodedulla National Park and the various estates within the Bukkulla/Marlborough management area provide visitors with isolated, self-sufficient opportunities for remote hiking, bird watching, boating, fishing and photography. The management area may see a gradual increase in the visitor use of the area, due to the region's population growth from the mining industry boom.

Bukkulla Conservation Park is managed under a trustee agreement between Wildlife Land Fund Limited and QPWS. Wildlife Land Fund Limited welcomes visitors from community organisations particularly with a conservation or naturalist interest. Prior to visiting Bukkulla Conservation Park, visitors must contact the Wildlife Land Fund Limited and seek permission. As sole trustee Wildlife Land Fund Limited has implemented protocols that must be followed to minimise environmental harm to the holding. In addition Wildlife Land Fund Limited can advise if the holding is closed for management activities, the presence of stock under stock grazing authority or if other groups are planning a visit. The park can be accessed on the unsealed Glen Prairie Road. Visitors can park at the boundary and access the park by foot. Remote bushwalking and bird watching can be experienced within the conservation park. The Wildlife Land Fund Limited management plan has divided the conservation park into two management zones. Zone 1 is a small area that has been set aside for vehicle access, parking and camping for management activities. Zone 2 protects the natural and scenic values of the conservation park.

Newport Conservation Park can be accessed via Settlement Road—a gazetted, unsealed road. The conservation park provides access to a boat ramp, which is popular for boating and fishing activities in the adjoining Great Barrier Reef Coast Marine Park and Great Barrier Reef Marine Park.

North Pointer and Tooloombah Creek conservation parks, and Glencoe, Alligator Creek, Canal Creek, Werribee and Lake Learmouth State forests can be accessed by gazetted unsealed roads to the QPWS estate boundary. Once at the QPWS estate, visitors can explore the areas by foot.

Mount O'Connell National Park, Princhester Conservation Park, and Mount Buffalo, Morinish, Stuart Creek, Eugene, Aricia and Marlborough State forests are only accessed via private property on tracks to the QPWS estate boundary. Permission from landholders must be acquired to traverse through private property. Once at the QPWS estate, visitors can explore the areas by foot.

## Education and science

The management area offers learning opportunities in geology and biology. The area also provides opportunities for scientific research and monitoring especially in the vegetation communities growing on serpentinite. Any research conducted on QPWS estate must be conducted under the appropriate permit. Results from research and monitoring can benefit the area's management and educate staff and the community.

Further surveys would provide improved direction on the protection of plant and animal species and the impact of threatening processes of inappropriate fire regimes, pest animal and plant species.

## Partnerships

QPWS is directly responsible for planning, managing and regulating activities in the management area. QPWS will work with neighbours, Wildlife Land Fund Limited, Traditional Owners, Department of Defence, lessees, councils, user groups and individuals to achieve the vision. Efficiencies in resource sharing, improved communication, decision making and enhanced on-ground outcomes will be facilitated, where possible, through working partnerships.

Under the provisions of the *Nature Conservation Act 1992*, the Governor-in-Council has appointed the Wildlife Land Fund Limited as the sole trustee of Bukkulla Conservation Park. As the sole trustee, the Wildlife Land Fund Limited is responsible for the management of Bukkulla Conservation Park and exercises specific powers of the Chief Executive as stated in section 12 of the *Nature Conservation (Protected Area Management) Regulation 2006*. The Wildlife Land Fund Limited has developed a management plan specific to Bukkulla Conservation Park (Boyland 2004). This management agreement was made between the State of Queensland and the Wildlife Land Fund Limited in 2002. It outlines the purpose and direction of management for the park, cooperative arrangements, administrative and communication protocols, and operational roles. This management statement provides additional guidance for the management of Bukkulla.

A working relationship with the Traditional Owners is essential so that their views and aspirations for the land can be included in planning and management. Traditional Owners have a role to protect cultural heritage in the management area and a role to educate QPWS and visitors on cultural heritage management.

## Other key issues and responses

### Pest management

There is a pest management strategy for the management area. This strategy helps to prioritise pest plant and animal controls, guide operational work plans and evaluate the effectiveness of control actions on QPWS-managed estate. Pest plant and animal surveys and monitoring have been limited in the management area and further information is required to understand the impacts of pests.

Rubbervine *Cryptostegia grandiflora* is considered a threat to the Bukkulla/Marlborough management area. It is a declared Class 2 pest plant in the Weeds of National Significance database. It causes changes to ecosystems by forming dense thickets. The aim is to reduce numbers and prevent further increase in distribution. Infestations are known to occur in Mount O'Connell National Park, and Tooloombah Creek and Bukkulla conservation parks.

Buffel grass *Cenchrus ciliaris* is a perennial grass that colonises disturbed soils and displaces native species. Buffel grass has the potential to impact on the vine scrubs, brigalow vegetation and riparian communities by promoting more frequent and intense fires. The aim is to map and identify management options where possible.

Parthenium *Parthenium hysterophorus* is a declared Class 2 pest plant within the Weeds of National Significance database. There is an infestation around the Marlborough State Forest communication towers. Parthenium invades disturbed areas, including roads, tracks and fire control lines, and has the potential to cause significant economic loss to neighbouring properties. The aim is to minimise disturbance, identify, map and monitor infested areas. Good hygiene practices such as cleaning vehicles and machinery before entering and leaving the area will assist to minimise the spread.

Giant rat's tail grass *Sporobolus pyramidalis* is a declared Class 2 pest plant within the Weeds of National Significance database. Giant rat's tail grass has the potential to out-compete native grasses and has potential to cause more intense fires. The aim is to identify and map the areas and identify management options where possible.

Lantana *Lantana camara* is a declared Class 3 pest plant within the Weeds of National Significance database. The aim is to identify and map the areas of infestation and identify management options where possible.

Feral pigs are a declared Class 2 pest under the *Land Protection (Pest and Stock Route Management) Act 2002*. They cause significant damage and degradation to waterholes, spread pest plants and diseases, consume native

species including frogs and cause significant losses to neighbouring properties. The aim is to monitor impacts and cooperatively work with neighbours to manage impacts.

QPWS, lessees and permit holders on QPWS-managed estates will work cooperatively to manage pest plants and animals within their lease area.

## Fire management

QPWS has a statewide fire management system. QPWS is the primary agency for fire management on protected areas and State forests. Fire strategies provide the overall framework and direction for fire management and are the foundation from which planned burn programs are developed. A Level 2 fire management strategy has been prepared for the area.

Lessees and permit holders on QPWS managed estates are responsible for managing fire on their lease area.

The main threats to the Bukkulla/Marlborough management area are inappropriate fire regimes and wildfires. The long-term fire management aims for the area are to maintain the current diversity of vegetation communities and native flora and fauna species while allowing for natural change. The intention is to conserve fire sensitive ecosystems and species. Brigalow, semi-evergreen vine thicket/forest and rosewood dominated ecosystems are fire sensitive and fire should generally be excluded from these communities. These communities have experienced wildfires previously; however, the extent of impacts is not known. The encroachment of buffel grass is a concern for several of the vegetation communities. Buffel grass is likely to increase the intensity and frequency of fires. A coordinated approach to fire management with surrounding neighbours will be maintained to ensure fire is managed appropriately. Grazing at appropriate times may be an acceptable method of reducing fuel load and thus fire intensity and may be included in fire management considerations.

## Resource use

### Grazing and leases

Grazing occurs on Stuart Creek, Lake Learmouth, Alligator Creek, Aricia, Morinish and Marlborough State forests, and is authorised under the *Land Act 1994* and *Forestry Act 1959*. Grazing can occur under a term lease under the Land Act. On expiry of term leases under the Land Act, the preference is to issue a stock grazing permit under the Forestry Act. Bukkulla Conservation Park is conservatively grazed under a stock grazing authority. Such activity demonstrates that conservation and a conservative primary pursuit are not necessarily mutually exclusive and assists in reducing the fuel load and monitors the impact of grazing (Boyland 2004).

QPWS will work with neighbours and lessees to ensure stock do not stray from adjoining properties or from approved grazing lease areas.

Residences and other infrastructure associated with grazing are located on Lake Learmouth State Forest.

A stock route traverses through Glencoe State Forest and is administered under the *Land Protection (Pest and Stock Route Management) Act 2002*.

### Infrastructure

Authorities may be issued under the *Nature Conservation Act* sections 34–38 to allow certain types of infrastructure on protected area estate. These authorities can be used for public service facilities and they are most commonly used to enable infrastructure to be built or remain on a protected area. Authorities in the management area must be consistent with this management statement and relevant policies and be issued in accordance with the *Nature Conservation Act*.

A power line traverses through Lake Learmouth, Stuart Creek, Glencoe State forests. These power lines are recognised in a Deed of Agreement for Electricity Works on Protected Area between the State of Queensland and the Queensland Electricity Transmission Corporate Limited, Ergon Energy Corporation Limited and Energex. A power line runs on an easement through Eugene State Forest.

Owners of power lines and associated infrastructure must adhere to the code of practice for maintaining electricity corridors in Queensland parks and forests and are to be authorised in accordance with the Nature Conservation Act.

A Queensland Police communication tower is located on Marlborough State Forest and is authorised under the *Land Act*.



## Mining and extraction

Exploration and mineral development approvals exist over the Bukkulla/Marlborough management area.

Rockhampton Regional Council has a number of gravel pits in Lake Learmouth State Forest for road-based materials. The extraction of materials from the State forest is authorised under the Forestry Act.

Exploration permits and mineral development licences are assessed in accordance with the Environmental Protection Act 1994 and Mineral Resources Act 1989. All mining and exploration permits and licences issued on QPWS estate are assessed by the Department of Natural Resources and Mines with advice from QPWS in relation to management of sensitive areas and protection of significant species, habitat and biodiversity values.

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## Management directions

| Desired outcomes  | Actions and guidelines   |
|---|--|
| <p><b>Landscape</b></p> <p>The landscape is protected, particularly areas of serpentinite, high scenic quality or traditional and cultural significance, while allowing natural processes to continue.</p> <p>The full range of naturally occurring biological diversity, ecological processes and landscape dynamics are maintained.</p> | <p>Monitor the impacts from natural processes, pests, fire and recreation. Use the information to guide management decisions and amend current and future plans and strategies.</p> <p>Manage activities to be consistent with the high scenic landscape values. Activities that compromise these values, and cannot be mitigated or managed, will not be permitted.</p> <p>Review the pest management strategy when required and implement.</p> <p>Conduct a comprehensive plant and animal survey and accurately map regional ecosystems in the management area.</p> <p>Implement and review the fire management strategy.</p> |
| <p><b>Authorities</b></p> <p>Facilities on the management area are correctly authorised under the relevant legislation and do not significantly impact on the areas values.</p>   | <p>Manage future grazing and lease renewals in the management area to be consistent with the management strategies or plans and are issued in accordance with the Forestry Act and the Nature Conservation Act.</p>  |
| <p><b>Tourism and visitor opportunities</b></p> <p>Visitor use provides for a remote and self-reliant experience while maintaining the natural and cultural values of the Bukkulla/Marlborough management area.</p>   | <p>Provide management facilities will be provided in accordance with the Visitor Management framework.</p> <p>Provide visitor access and activities that are environmentally and culturally appropriate to protect the Bukkulla/Marlborough management area and are in keeping with a remote, self-reliant experience.</p>   |
| <p><b>Partnerships</b></p> <p>The effectiveness of future management is strengthened through cooperative partnerships.</p>  | <p>Continue to build relationships with the local community, organisations, visitors and interest groups to improve knowledge of the management area, and to highlight its significance to the region.</p> <p>Encourage and support Traditional Owners in conducting a comprehensive cultural heritage survey including recording sites, stories, language names and cultural heritage places.</p> <p>Encourage and allow access for the implementation of research programs, particularly those that will benefit conservation management.</p>  |

## Tables – Conservation values management

**Table 1: Endangered and of concern regional ecosystems**

| Protected area   | Regional ecosystem number | Description  | Biodiversity status |
|--|---------------------------|--|---------------------|
| Alligator Creek State Forest<br>Glencoe State Forest   | 8.3.1                     | Semi-deciduous notophyll/mesophyll vine forest fringing watercourses on alluvial plains  | Endangered          |
| Mount Buffalo State Forest   | 8.3.3a                    | <i>Melaleuca leucadendra</i> or <i>M. fluviatilis</i> and/or <i>Casuarina cunninghamiana</i> open-forest to woodland. Riverine wetland or fringing riverine wetland.                             | Of concern          |
| Mount Buffalo State Forest   | 8.3.5                     | <i>Corymbia clarksoniana</i> + <i>Lophostemon suaveolens</i> + <i>Eucalyptus platyphylla</i> woodland, or <i>E. platyphylla</i> woodland on alluvial plains.                                     | Endangered          |
| Canal Creek and Werribee State forests   | 8.3.13                    | <i>Eucalyptus tereticornis</i> and/or <i>Corymbia tessellaris</i> and/or <i>Melaleuca</i> spp. open woodland to open forest on alluvial and old marine plains, often adjacent to estuarine areas | Endangered          |
| Glencoe State Forest   | 8.3.14                    | <i>Pennisetum alopecuroides</i> , <i>Cynodon dactylon</i> , <i>Ischaemum australe</i> and <i>Fimbristylis dichotoma</i> grassland on drainage channels in gently undulating upland areas.        | Endangered          |
| Glencoe and Mount Buffalo State forests  | 8.12.9                    | <i>Eucalyptus tereticornis</i> +/- <i>Lophostemon suaveolens</i> +/- <i>Corymbia intermedia</i> woodland to open forest on undulating uplands, on Mesozoic to Proterozoic igneous rocks.         | Of concern          |
| Glencoe State Forest   | 8.12.16                   | Low microphyll vine forest to semi-evergreen vine thicket on drier subcoastal hills on Mesozoic to Proterozoic igneous rocks.  | Of concern          |
| Glencoe State Forest   | 8.12.23                   | <i>Eucalyptus moluccana</i> woodland on elevated tablelands on Mesozoic to Proterozoic igneous rocks.  | Of concern          |
| Mount O'Connell National Park, Aricia State Forest   | 11.3.1                    | <i>Acacia harpophylla</i> and/or <i>Casuarina cristata</i> open forest on alluvial plains  | Endangered          |
| Stuart Creek and Morinish State forests  | 11.3.2                    | <i>Eucalyptus populnea</i> woodland on alluvial plains   | Of concern          |
| Aricia State Forest  | 11.3.3                    | <i>Eucalyptus coolabah</i> woodland on alluvial plains.  | Of concern          |
| Mount O'Connell National Park, Lake Learmouth, Eugene, Morinish, Alligator Creek, Marlborough and Canal Creek State forests  | 11.3.4                    | <i>Eucalyptus tereticornis</i> and/or <i>Eucalyptus</i> spp. tall woodland on alluvial plains.   | Of concern          |
| Mount O Connell National Park, Bukkulla, Tooloombah Creek and Princhester conservation parks, Glencoe, Werribee, Stuart Creek, Lake Learmouth, Eugene, Morinish, Marlborough, Stuart Creek and Alligator Creek State forests | 11.3.25                   | <i>Eucalyptus tereticornis</i> or <i>E. camaldulensis</i> woodland fringing drainage lines   | Of concern          |

| Protected area   | Regional ecosystem number | Description  | Biodiversity status |
|--|---------------------------|--|---------------------|
| Alligator Creek State Forest   | 11.3.27b                  | Lacustrine wetlands (e.g. lake).   | Of concern          |
| Mount O'Connell National Park, Eugene State Forest   | 11.3.36                   | <i>Eucalyptus crebra</i> and/or <i>E. populnea</i> and/or <i>E. melanophloia</i> on alluvial plains. Higher terraces.  | Of concern          |
| Lake Learmouth and Marlborough State forests   | 11.3.38                   | <i>Eucalyptus tereticornis</i> , <i>Melaleuca viridiflora</i> , <i>Corymbia tessellaris</i> and <i>Eucalyptus fibrosa</i> subsp.(Glen Geddes) woodland with a grassy ground layer. Occurs on alluvial plains and broad drainage lines derived from serpentinite. | Endangered          |
| Tooloombah Creek Conservation Park   | 11.4.2                    | <i>Eucalyptus</i> spp. and/or <i>Corymbia</i> spp. grassy or shrubby woodland on Cainozoic clay plains.  | Of concern          |
| Tooloombah Creek Conservation Park   | 11.4.9                    | <i>Acacia harpophylla</i> shrubby open forest to woodland with <i>Terminalia oblongata</i> on Cainozoic clay plains.   | Endangered          |
| Newport Conservation Park  | 11.5.15                   | Semi-evergreen vine thicket on Cainozoic sand plains/remnant surfaces.   | Endangered          |
| Tooloombah Creek Conservation Park   | 11.10.8                   | Semi-evergreen vine thicket in sheltered habitats on medium to coarse-grained sedimentary rocks.   | Of concern          |
| Bukkulla, North Pointer and Princhester conservation parks, Lake Learmouth, Eugene, Aricia and Marlborough State forests | 11.11.7                   | <i>Eucalyptus fibrosa</i> subsp (Glen Geddes), <i>E. xanthope</i> woodland on serpentinite   | Of concern          |
| Marlborough State Forest   | 11.11.10                  | <i>Eucalyptus melanophloia</i> woodland on deformed and metamorphosed sediments and interbedded volcanics.   | Of concern          |
| Morinish State Forest  | 11.11.18                  | Semi-evergreen vine thicket on old sedimentary rocks with varying degrees of metamorphism and folding. Lowlands.   | Endangered          |
| Bukkulla and Princhester conservation parks, Lake Learmouth, Eugene, Aricia and Marlborough State forests                | 11.11.21                  | Semi-evergreen vine thicket on serpentinite  | Endangered          |
| Bukkulla Conservation Park   | 11.12.3                   | <i>Eucalyptus crebra</i> , <i>E. tereticornis</i> +/- <i>Angophora leiocarpa</i> woodland on igneous rocks especially granite.   | Of concern          |

**Table 2: Species of conservation significance**

| Scientific name                  | Common name                 | Nature Conservation Act 1992 status | Environment Protection and Biodiversity Conservation Act 1999 status | Back on Track status |
|----------------------------------|-----------------------------|-------------------------------------|--|----------------------|
| <b>Plants</b>                    |                             |                                     |  |                      |
| <i>Actephila sessilifolia</i>    | -                           | Near threatened                     | -  | Low                  |
| <i>Bonamia dietrichiana</i>      | -                           | Near threatened                     | -  | Low                  |
| <i>Capparis humistrata</i>       | -                           | Endangered                          | -  | Medium               |
| <i>Cerbera dumicola</i>          | -                           | Near threatened                     | -  | Low                  |
| <i>Corymbia xanthope</i>         | Glen Geddes bloodwood       | Vulnerable                          | Vulnerable   | Low                  |
| <i>Cycas megacarpa</i>           | -                           | Endangered                          | Endangered   | Critical             |
| <i>Cycas ophiolitica</i>         | Marlborough blue            | Endangered                          | Endangered   | Critical             |
| <i>Hernandia bivalvis</i>        | cudgerie                    | Near threatened                     | -  | Low                  |
| <i>Leucopogon cuspidatus</i>     | -                           | Least concern                       | Vulnerable   | Low                  |
| <i>Lissanthe brevistyla</i>      | -                           | Vulnerable                          | -  | High                 |
| <i>Macrozamia serpentine</i>     | -                           | Endangered                          | -  | Critical             |
| <i>Neoroepera buxifolia</i>      | -                           | Vulnerable                          | Vulnerable   | Medium               |
| <i>Olearia macdonnellensis</i>   | -                           | Endangered                          | -  | High                 |
| <i>Pimelea leptospermoides</i>   | -                           | Near threatened                     | Vulnerable   | Low                  |
| <i>Pultenaea setulosa</i>        | -                           | Vulnerable                          | Vulnerable   | Medium               |
| <b>Animals</b>                   |                             |                                     |  |                      |
| <i>Accipiter novaehollandiae</i> | grey goshawk                | Near threatened                     | -  | Low                  |
| <i>Adelotus brevis</i>           | tusked frog                 | Vulnerable                          | -  | Medium               |
| <i>Geophaps scripta scripta</i>  | squatter pigeon             | Vulnerable                          | Vulnerable   | Medium               |
| <i>Ninox strenua</i>             | powerful owl                | Vulnerable                          | -  | Medium               |
| <i>Paradelma orientalis</i>      | brigalow scaly-foot         | Vulnerable                          | Vulnerable   | Medium               |
| <i>Peophila cinta cinta</i>      | black-throated finch        | Endangered                          | Endangered   | High                 |
| <i>Turnix melanogaster</i>       | black-breasted button-quail | Vulnerable                          | Vulnerable   | Critical             |

**Table 3: Species listed in international agreements**

| Scientific name               | Common name               | Bonn | CAMBA | JAMBA | ROKAMBA |
|-------------------------------|---------------------------|------|-------|-------|---------|
| <i>Apus pacificus</i>         | fork-tailed swift         | -    | ✓     | ✓     | ✓       |
| <i>Ardea ibis</i>             | cattle egret              | -    | ✓     | ✓     | -       |
| <i>Ardea modesta</i>          | eastern great egret       | -    | ✓     | ✓     | -       |
| <i>Gallinago hardwickii</i>   | Latham's snipe            | ✓    | ✓     | ✓     | ✓       |
| <i>Haliaeetus leucogaster</i> | white-bellied sea-eagle   | -    | ✓     | -     | -       |
| <i>Hirundapus caudacutus</i>  | white-throated needletail | -    | ✓     | ✓     | ✓       |
| <i>Hirundo rustica</i>        | barn swallow              | -    | ✓     | ✓     | ✓       |
| <i>Merops ornatus</i>         | rainbow bee-eater         | -    | -     | ✓     | -       |
| <i>Monarcha melanopsis</i>    | black-faced monarch       | ✓    | -     | -     | -       |
| <i>Myiagra cyanoleuca</i>     | satin flycatcher          | ✓    | -     | -     | -       |
| <i>Rostratula australis</i>   | Australian painted snipe  | -    | ✓     | -     | -       |

Bonn – Bonn Convention

CAMBA – China–Australia Migratory Bird Agreement

JAMBA – Japan–Australia Migratory Bird Agreement

ROKAMBA – Republic of Korea–Australia Migratory Bird Agreement