



NICHOLII FLORA RESERVE NO. 137

SITE SPECIFIC WORKING PLAN

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This site-specific working describes the important values of an individual flora reserve and identifies site-specific priorities for management. The plan is to be read in conjunction with the Flora Reserve Plan: Background and General Management document, which identifies Forestry Corporation's broad objectives and strategies for managing flora reserves. These two documents together form the flora reserve working plan in line with the requirements of section 25 of the *Forestry Act 2012*.

1. DETAILS OF THE RESERVE

1.1 LOCATION

Nicholii Flora Reserve is located about 35km northwest of the town of Dorrigo. The reserve includes the whole of Extension No. 4 of Hyland State Forest, the extension was dedicated on 29th July 1988 to include a 3-hectare section of a former Travelling Stock Route. See Locality Map in Appendix 1.

1.2 KEY ATTRIBUTES OF THE RESERVE

Under the *Forestry Act 2012*, flora reserves are set apart for the preservation of native flora.

The reserve possesses the following identified attributes that are to be protected:

- » stands of Small-leaved Black Peppermint (*Eucalyptus nicholii*)
- » representative examples of forest ecosystems in the area.

1.3 GENERAL DESCRIPTION

Area

The reserve has an area of about 40 hectares. The boundaries of the reserve are marked by a fence line to the south and northwest, by Marengo Road to the east, and part of the western boundary adjoins Guy Fawkes River National Park.

Topography

The reserve essentially consists of gently undulating slopes with a predominantly southerly aspect. The elevation ranges from 1090 metres above sea level to 1190 metres. The two main gullies and three subsidiary drainage lines all drain in a southerly direction to flow into the Blicks River. There is a rocky knob nearby with an elevation of 1198m (just outside the reserve) with associated rock outcrops, otherwise no exposed rock occurs in the reserve. Refer to Appendix 2 for topographic map.

Geology and Soils

There is one major soil type within the reserve. It is a yellow podsollic clay soil of moderate fertility, declining to low fertility in the southeast of the reserve. This soil derived from siliceous, dark, massive argillite of the Carboniferous Moombil Beds.

Climate

The area has a warm to cool temperate climate with moderate rainfall occurring with a summer/autumn peak, January to March. The reserve lies in an area of relatively low rainfall beyond the Dorrigo Escarpment. Frosts occur frequently in winter, due to the open nature of the stand, and snow has fallen in extremely cold periods.

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Vegetation / flora and fauna

Most of the reserve carries an open dry sclerophyll forest made up of two distinct forest types, Messmate-Gum (forest type 152) occurring along drainage lines in the southern and western falls of the reserve, and New England Blackbutt (forest type 163), the predominantly mapped forest type, occupying the ridges and the local northern and western falls. Both these forest types are typical of the main commercial forest stands which have been used for sawlog harvesting on Hyland State Forest.

However, the major feature of the reserve, and the one leading to its notification as a flora reserve, is the presence of a stand of Small-leaved Black Peppermint (*Eucalyptus nicholii*), close to the eastern most limits of its naturally limited range. *E. nicholii* occurs along the drainage line in the southern section of the reserve and is represented by a range of size classes, from seedlings to mature trees with a diameter at breast height of up to 40cm.

Appendices 3 and 4 outline a list of flora and fauna species known to occur within the reserve.

1.4 HISTORY

Aboriginal History and Cultural Values

Nicholii Flora Reserve is situated within the traditional lands of the Gumbainggir people and there are a number of Aboriginal cultural heritage sites located within or within the surrounding area. The area is part of a cultural landscape, used for everyday and ceremonial activities including seasonal food and resource gathering and also as a travel route from the mountains to the coast. Tangible aspects of these activities are evident as walking tracks and scar trees, the remains of camp sites with stone tools (isolated stone artefact and artefact scatters) as well as sacred features and places created at the beginning of time.

Post European Settlement

Harvesting and grazing

The whole of the reserve has been harvested for sawlogs in two separate operations during July/September 1977 and July 1974. The logging tracks and dump sites used in these operations are now re-vegetated with Eucalyptus, shrubs, and grass/herbs ground layer.

The reserve was part of Forest Lease No. 336 and has been grazed since 1975. The lease was not extended upon its expiry in 1985 and the reserve was not included for grazing under Occupation Permit, as a replacement for Forest Lease No. 336, due to considerations which led to the notifications of the area as a flora reserve.

The Shire-maintained Marengo Road is confined to Travelling Stock Reserve 30781 and forms the eastern boundary of the reserve. The road provides access to the reserve.

Fire

The reserve was burnt by wildfire in the summer season of 2019/20, with high to extreme intensity recorded, resulting in a burnt canopy throughout the entire reserve.

1.5 CURRENT USAGE

The reserve receives limited recreational usage, primarily by visitors driving pass the reserve on Marengo Road. No recreational facilities are provided at the Reserve and there is no intention to develop any facilities.

2. SYSTEM OF MANAGEMENT

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2.1 OBJECTIVES OF MANAGEMENT

Under the *Forestry Act 2012*, flora reserves are set apart for the preservation of native flora. The objectives of Nicholi Flora Reserve are to:

- » enhance the ecological quality of stands of *Eucalyptus nicholii*
- » protect representative examples of forest ecosystems in the area
- » protect Aboriginal cultural heritage sites and cultural values
- » maintain reference stands and provide for limited scientific study consistent with the protection of the area.

2.2 MANAGEMENT STRATEGIES

The broad management strategies and related actions to preserve native flora and improve the value and extent of habitat in State forest flora reserves are detailed in the Flora Reserve Management Plan: Background and General Management document, which is to be read in conjunction with this plan. Specific additional management strategies applied in this flora reserve may include:

- » Property maintenance, through:
 - establishment and maintenance of appropriate fences, gates and signs
 - removal of unnecessary fencing
 - removal of rubbish
 - maintenance of roads and trails.
- » Conservation and improvement of habitat, through:
 - maintenance of native vegetation, which may include manipulation by mechanical means for habitat improvement
 - regeneration of any cleared or degraded land, through plantings and natural recruitment
 - weed control
 - removal of rubbish
 - management of human disturbance, including harvesting and other forest product operations
 - retention of dead timber and other habitat resources
 - management of fire, including prescribed or hazard reduction burning.
- » Pest animal control.

Cultural Values

Explore opportunities for Aboriginal community involvement in managing the flora reserve.

Weeds

The vegetation within the flora reserve is in very healthy state with no obvious weeds present. As far as reasonably practicable, exotic species will be controlled, as detailed in section 2.4.

Trail maintenance

Maintenance of roads and trails is important to enable access to the forest for forest management, firefighting, tourism and recreation. Poorly maintained roads can also transport significant levels of

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sediment, increasing the turbidity of water within creeks. This consequently reduces habitat quality and aquatic biodiversity and can take significant periods of time to recover.

Permitted activities

Under the Forest Management Zoning (FMZ) system, Nicholii Flora Reserve №. 137 is a dedicated reserve zoned FMZ 1 and therefore contributes to the dedicated reserve system in the Upper North East Region. Management will be consistent with the requirements of JANIS dedicated reserves.

The latest operational guide detailing information not permitted in FMZ1 is published on the Forestry Corporation website.

The following activities may be permitted subject to standard conditions approved by the delegated Manager and consistent with the management objectives for the reserve, relevant codes of practice, forest practices / operational circulars, protocols, licenses and management / recovery plans:

- » scientific studies (e.g., fauna surveys including trapping)
- » maintenance of existing roads and fire trails
- » maintenance of existing recreation facilities and upgrading where necessary to keep pace with demand while protecting the attributes of the reserve
- » limited tree and or limb removal for safety, viewing or construction of facilities in areas used for recreation
- » pest animal and weed control
- » general access for activities such as bush walking, photography and nature study
- » beekeeping (existing set-down sites may be used)
- » Aboriginal use of forest products consistent with the maintenance of the conservation attributes to be protected in the reserve
- » fire management will be undertaken in a manner consistent with maintaining the health of forest ecosystems.

The following activities may only be permitted with special conditions:

- » Construction of new roads. Construction will only be permitted in exceptional instances and consistent with the following principles:
 - no practical alternative is available
 - the attributes of the reserve will not be significantly affected by the road or fire trail
 - opportunity is provided for public comment on the proposal, obtained through advertising in the local newspaper
 - Ministerial approval is given for the proposal.

Mining

There are no gazetted exemptions from provisions of the *Mining Act 1992* for this this flora reserve.

2.3 MANAGEMENT RESPONSIBILITY

The reserve will be administered by Forestry Corporation of NSW's Hardwood Forests Division, with the authority for decision making delegated to the Senior Manager Forest Stewardship or equivalent level manager.

2.4 MONITORING, REPORTING AND REVIEW

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The region will monitor changes to the key attributes of the reserve and will review the effectiveness of the management strategies designed to protect those attributes and to achieve the management objectives.

The results of this monitoring, review and management response will be included in annual reporting processes.

The provisions of this working plan will be amended, if necessary, in light of the results of the monitoring program and / or legislative change and with the approval of the Minister administering the *Forestry Act 2012*.

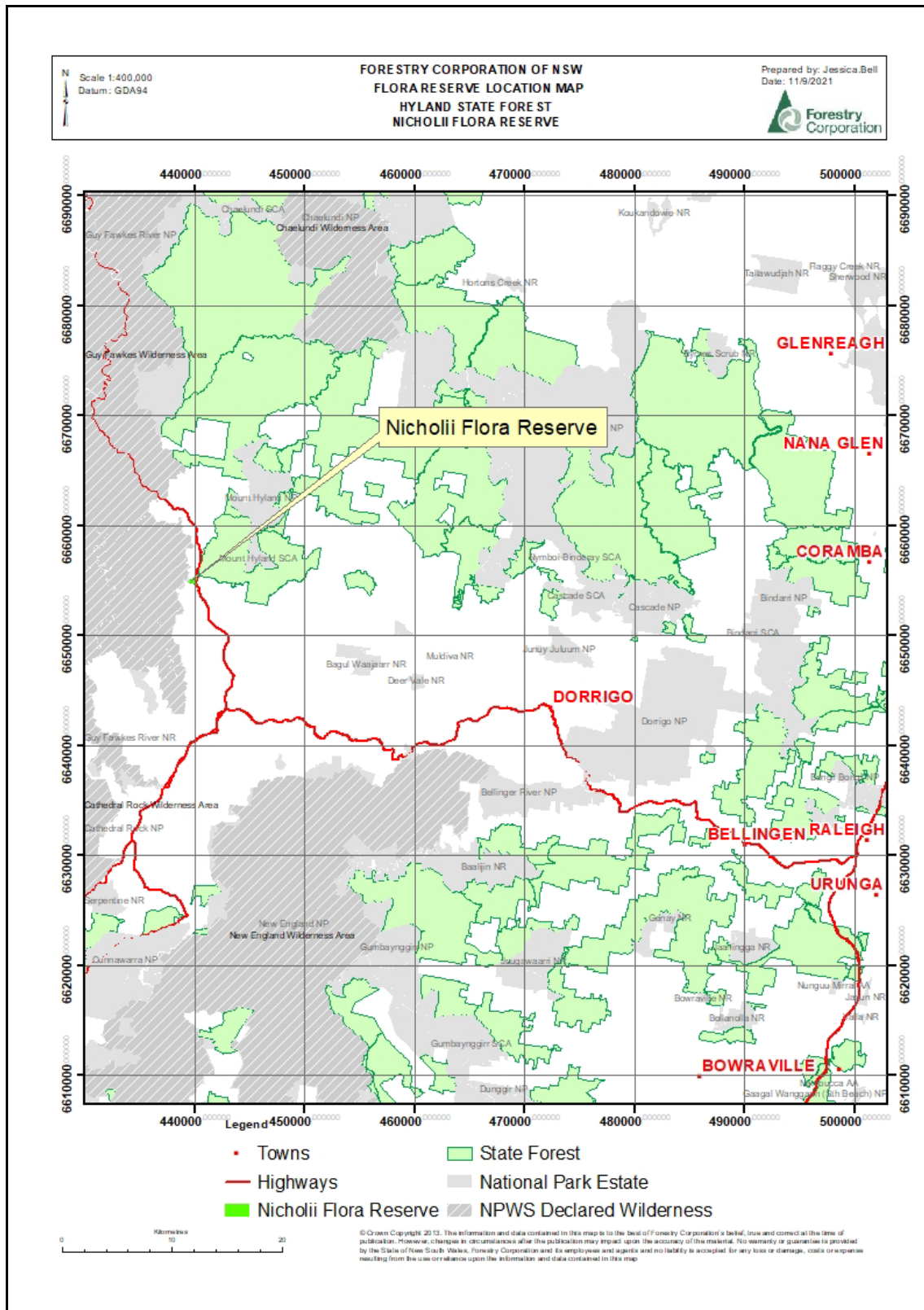
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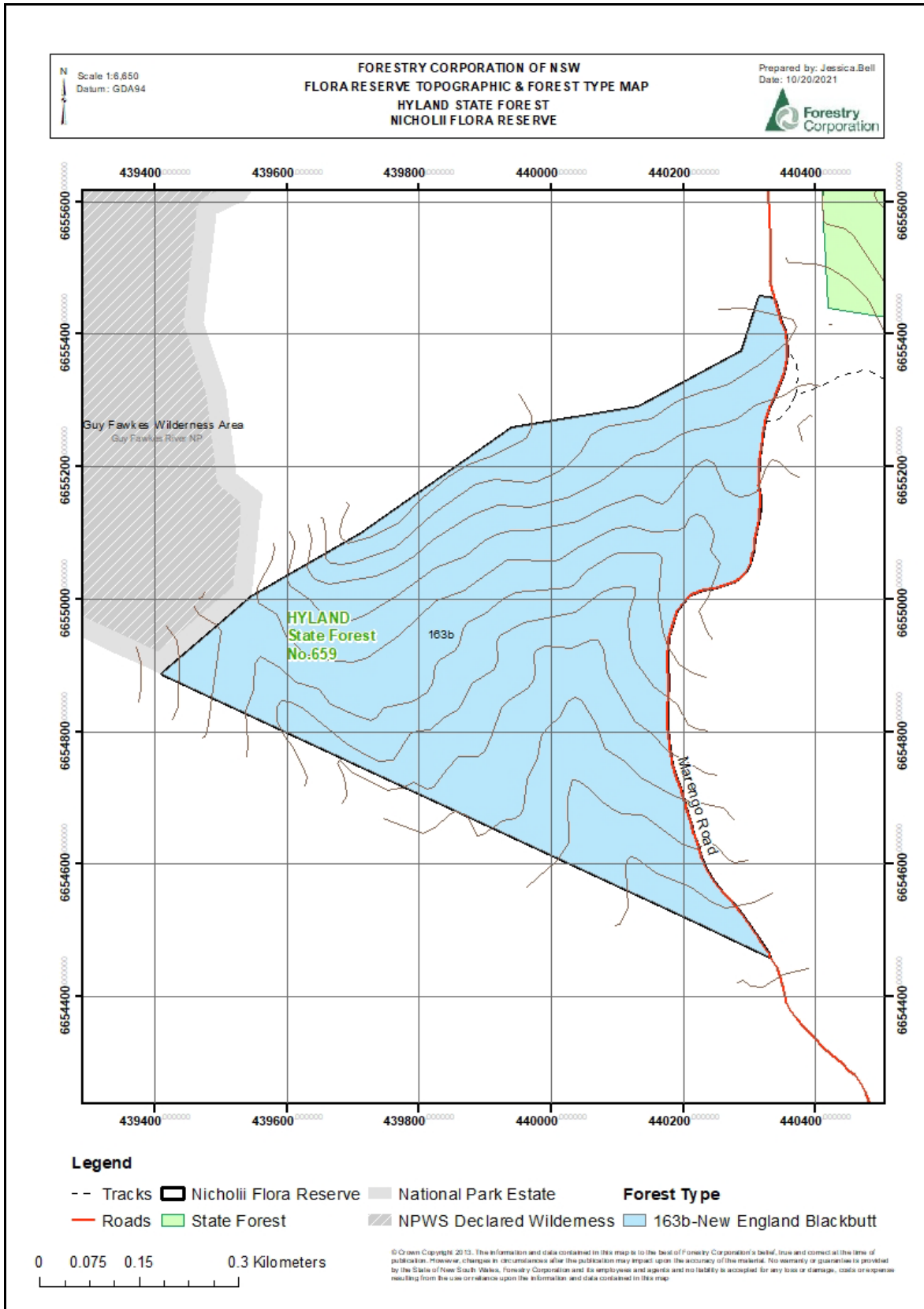
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APPENDIX 1 – LOCALITY MAP



APPENDIX 2 – TOPOGRAPHIC & FOREST TYPE MAP



APPENDIX 3 – FLORA SPECIES LIST

Flora found within 5000m of flora reserve, desktop search undertaken October 2021

Scientific name
<i>Adiantum aethiopicum</i>
<i>Adiantum formosum</i>
<i>Alangium villosum</i> subsp. <i>polyosmoides</i>
<i>Aneilema acuminatum</i>
<i>Aphanopetalum resinosum</i>
<i>Aristolelia australasica</i>
<i>Arthropteris tenella</i>
<i>Asplenium australasicum</i>
<i>Austrostipa ramosissima</i>
<i>Bulbophyllum elisae</i>
<i>Cardamine</i> spp.
<i>Carex lobolepis</i>
<i>Cassinia telfordii</i>
<i>Cayratia clematidea</i>
<i>Celastrus australis</i>
<i>Cheilanthes austrotenuifolia</i>
<i>Cissus antarctica</i>
<i>Cissus hypoglauca</i>
<i>Clematis aristata</i>
<i>Commelina cyanea</i>
<i>Cyclosorus dentatus</i>
<i>Cyperus lucidus</i>
<i>Dendrobium bowmanii</i>
<i>Dendrobium linguiforme</i>
<i>Dendrobium speciosum</i>

Scientific name
<i>Dianella caerulea</i>
<i>Dichondra repens</i>
<i>Dictymia brownii</i>
<i>Diplazium australe</i>
<i>Eucalyptus acaciiformis</i>
<i>Eucalyptus bridgesiana</i>
<i>Eucalyptus cameronii</i>
<i>Eucalyptus campanulata</i>
<i>Eucalyptus dalrympleana</i> subsp. <i>heptantha</i>
<i>Eucalyptus globoidea</i>
<i>Eucalyptus moluccana</i>
<i>Eucalyptus pauciflora</i>
<i>Eucalyptus saligna</i>
<i>Eucalyptus x vitrea</i>
<i>Euroschinus falcatus</i> var. <i>falcatus</i>
<i>Eustrephus latifolius</i>
<i>Geitonoplesium cymosum</i>
<i>Gynochthodes jasminoides</i>
<i>Jasminum volubile</i>
<i>Lastreopsis acuminata</i>
<i>Lastreopsis microsora</i> subsp. <i>microsora</i>
<i>Legnephora moorei</i>
<i>Leucopogon lanceolatus</i>
<i>Maclura cochinchinensis</i>

Scientific name
<i>Marsdenia flavescens</i>
<i>Marsdenia pleiadenia</i>
<i>Microsorium scandens</i>
<i>Oplismenus aemulus</i>
<i>Pandorea jasminoides</i>
<i>Pandorea pandorana</i>
<i>Parsonsia straminea</i>
<i>Parsonsia velutina</i>
<i>Pellaea falcata</i>
<i>Pellaea nana</i>
<i>Pellaea paradoxa</i>
<i>Peperomia blanda</i> var. <i>floribunda</i>
<i>Petrophile canescens</i>
<i>Platynerium bifurcatum</i>
<i>Plectranthus graveolens</i>
<i>Pomaderris eriocephala</i>
<i>Pteris umbrosa</i>
<i>Pyrrosia confluens</i> var. <i>confluens</i>
<i>Pyrrosia rupestris</i>
<i>Ripogonum brevifolium</i>
<i>Ripogonum discolor</i>
<i>Sarcochilus falcatus</i>
<i>Sarcochilus hillii</i>
<i>Sicyos australis</i>
<i>Viola hederacea</i>

APPENDIX 4 – FAUNA SPECIES LIST

Fauna found within 5000m of flora reserve, desktop search undertaken October 2021

Mammals	
Scientific name	Common name
<i>Antechinus stuartii</i>	Brown Antechinus
<i>Trichosurus</i> sp.	brush-tail possum
<i>Rattus fuscipes</i>	Bush Rat
<i>Canis lupus</i>	Dingo, domestic dog
<i>Macropus giganteus</i>	Eastern Grey Kangaroo
<i>Melomys cervinipes</i>	Fawn-footed

Mammals	
Scientific name	Common name
	Melomys
<i>Acrobates pygmaeus</i>	Feathertail Glider
<i>Vulpes vulpes</i>	Fox
<i>Pseudomys oralis</i>	Hastings River Mouse
<i>Isoodon macrourus</i>	Northern Brown Bandicoot
<i>Ornithorhynchus anatinus</i>	Platypus

Mammals	
Scientific name	Common name
<i>Notamacropus rufogriseus</i>	Red-necked Wallaby
<i>Tachyglossus aculeatus</i>	Short-beaked Echidna
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll
<i>Cervus</i> sp.	Unidentified Deer

Birds	
Scientific name	Common name
<i>Hirundapus caudacutus</i>	White-throated Needletail

Reptiles	
Scientific name	Common name
<i>Eulamprus quoyii</i>	Eastern Water-skink
<i>Silvascincus murrayi</i>	Murray's Skink

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APPENDIX 5 – APPROVAL AND AMENDMENTS FROM PREVIOUS VERSION

In line with section 25 of the *Forestry Act 2012*, flora reserve working plans and any amendments must be approved by the Minister. This plan forms part of the working plans for each of the individual flora reserves listed in section 6.

This plan was approved by The Hon. Tara Moriarty MLC, Minister for Agriculture, Minister for Regional New South Wales and Minister for Western New South Wales

Date of approval: 6/9/23

Version	Changes	Approval details
2.0	<ul style="list-style-type: none"> » Reference to the <i>Flora Reserve Plan: Background and General Management</i> » Formatting updated » Change 	<ul style="list-style-type: none"> » The Hon. Tara Moriarty MLC, Minister for Agriculture, Minister for Regional New South Wales and Minister for Western New South Wales, 6/9/23