Flora Survey and Management Recommendations for the Glenlyon Biolink Reserve, Glenlyon

Prepared for the Glenlyon Upper Loddon Landcare Group









November 2019

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Cover photos: Top: The Loddon River flowing through the Glenlyon Biolink Reserve. Bottom left: the vulnerable Austral Crane's-bill (*Geranium solanderi* s.s.). Bottom centre: Southern Brown Tree-frog (*Litoria ewingii*). Bottom right: Chocolate-lily (*Arthropodium strictum*).





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1.0 Introduction

1.1 Project Context

The Glenlyon Upper Loddon Landcare Group engaged the author to provide advice on the composition and management of native vegetation occurring within the Glenlyon Biolink Reserve, located to the immediate east of the township of Glenlyon. The reserve was surveyed on the 16th of October 2019 during which time a list of flora and fauna species observed was compiled and management issues were documented.

This report presents a brief description of the reserve, its vegetation and habitat values, and provides guidelines for management over the next five years.

1.2 Study area

The Glenlyon Biolink Reserve is located to the immediate east of the township of Glenlyon in central Victoria, a short distance north of the Great Divide. The reserve follows the Loddon River and is approximately 101 hectares in size, extending for approximately 900 meters from the Daylesford-Malmsbury Road in the north to Dysart Street in the south. The reserve is flanked by private properties as well as the Glenlyon Recreation Reserve for part of the eastern border.

The reserve occurs within the Central Victorian Uplands bioregion and lies within the jurisdiction of the North Central Catchment Management Authority (NCCMA) and Hepburn Shire Council.

1.3 Geology and landforms

The Glenlyon Biolink occurs within a diverse and complex geology setting. The Great Dividing Range is situated approximately 15 kilometres to the south of the reserve, and the dominant geology of these hills is sedimentary rock of Ordovician age (440-480 million years old). But beginning around five million years ago, basaltic lava flows originating from volcanoes to the south-west of the reserve fanned out across the landscape, filling valleys and forming minor plains. The tendency for the volcanic flows to fill former valleys has over time led to an inversion of the landscape, as the more erodible sedimentary rocks have been worn away below the harder basalt, causing the basalt rocks to in many cases become the new high point (Willman et al. 2002).

The Loddon River, originally located further to the west prior to lava flows disrupting its course, has formed a new channel along the edge of the lava flow in the southern section of the Biolink Reserve before cutting into the basalt in the central and northern sections. The southern portion of the reserve is therefore dominated by a broad band of alluvial material that has backed up behind the lava flows, whereas the central and northern sections are dominated by volcanics with only a narrow area of alluvial material along the river. The basalt rocks outcrop as small escarpments in this section.

The geology of the study area has a major influence on its vegetation, with different plant communities occupying the alluvial and volcanic formations.

2.0 Flora

During the 2019 flora survey a total of 151 vascular plant species were recorded across the study area, including 80 that are indigenous (54%) and 71 that are introduced (46%).

Of the recorded species, two are of State significance:

- Austral Crane's-bill (Geranium solanderi var. solanderi s.s.), listed as 'vulnerable' in Victoria.
 Several plants were recorded in grassy areas near the Loddon River. Within the Hepburn Shire this species is only known from two other records. Austral Crane's-bill is distinguished from other local Geranium species by the long patent hairs on the stems, narrow leaf segments and relatively large pink flowers.
- Floodplain Fireweed (Senecio campylocarpus), listed as 'rare' in Victoria. This species prefers seasonally moist or inundated sites and is widespread but uncommon across large areas of Victoria. Several scattered plants were recorded along the Loddon River.

Following an analysis of flora records available in the Victorian Biodiversity Atlas (VBA), a further five species are considered to be of regional significance (within the Hepburn Shire) and seven to be of local significance (Glenlyon and surrounds). This includes several plants of Varied Water-milfoil (*Myriophyllum variifolium*) and White Purselane (*Montia australasica*) growing in aquatic habitats along the Loddon River, Flecked Flat-sedge (*Cyperus gunnii subsp. gunnii*), Fen Sege (*Carex gaudichaudiana*) and Tassel Sedge (*Carex fascicularis*) in seasonally inundated areas and Blanket Fern (*Pleurosorus rutifolius*), Necklace Fern (*Asplenium flabellifolium*), Water Blinks (*Montia fontana subsp. chondrosperma*) and Magenta Storke's-bill (*Pelargonium rodneyanum*) around basalt escarpments.

A summary of significant species recorded in the reserve in 2019 is provided in Table 1 below, whilst their locations are shown in Figure 1.

Table 1 Significant plant species recorded at the Glenlyon Biolink Reserve in spring 2019

Scientific name	Common name	Status
Asplenium flabellifolium	Necklace Fern	Locally significant
Blechnum minus	Soft Water-fern	Locally significant
Carex fascicularis	Tassel Sedge	Locally significant
Carex gaudichaudiana	Fen Sedge	Locally significant
Cyperus gunnii subsp. gunnii	Flecked Flat-sedge	Regionally significant
Cyperus lucidus	Leafy Flat-sedge	Locally significant
Geranium solanderi var. solanderi s.s.	Austral Crane's-bill	Listed as 'Vulnerable' in Victoria
Hypericum japonicum	Matted St John's Wort	Locally significant
Montia australasica	White Purslane	Locally significant
Montia fontana subsp. chondrosperma	Water Blinks	Regionally significant
Myriophyllum variifolium	Varied Water-milfoil	Regionally significant
Pelargonium rodneyanum	Magenta Stork's-bill	Regionally significant
Pleurosorus rutifolius s.s.	Blanket Fern	Regionally significant
Senecio campylocarpus	Floodplain Fireweed	Listed as 'Rare' in Victoria



Plate 1 The vulnerable Austral Crane's-bill (Geranium solanderi s.s.) adjacent to the Loddon River



Plate 2 The regionally significant Varied Water-milfoil (*Myriophyllum variifolium*) growing in the Loddon River.



Plate 3 The regionally significant Blanket Fern (*Pleurosorus rutifolius*) growing on a small basalt escarpment



Plate 4 The locally significant White Purselane (Montia australasica)



Plate 5 The regionally significant Magenta Stork's-bill (Pelargonium rodneyanum)

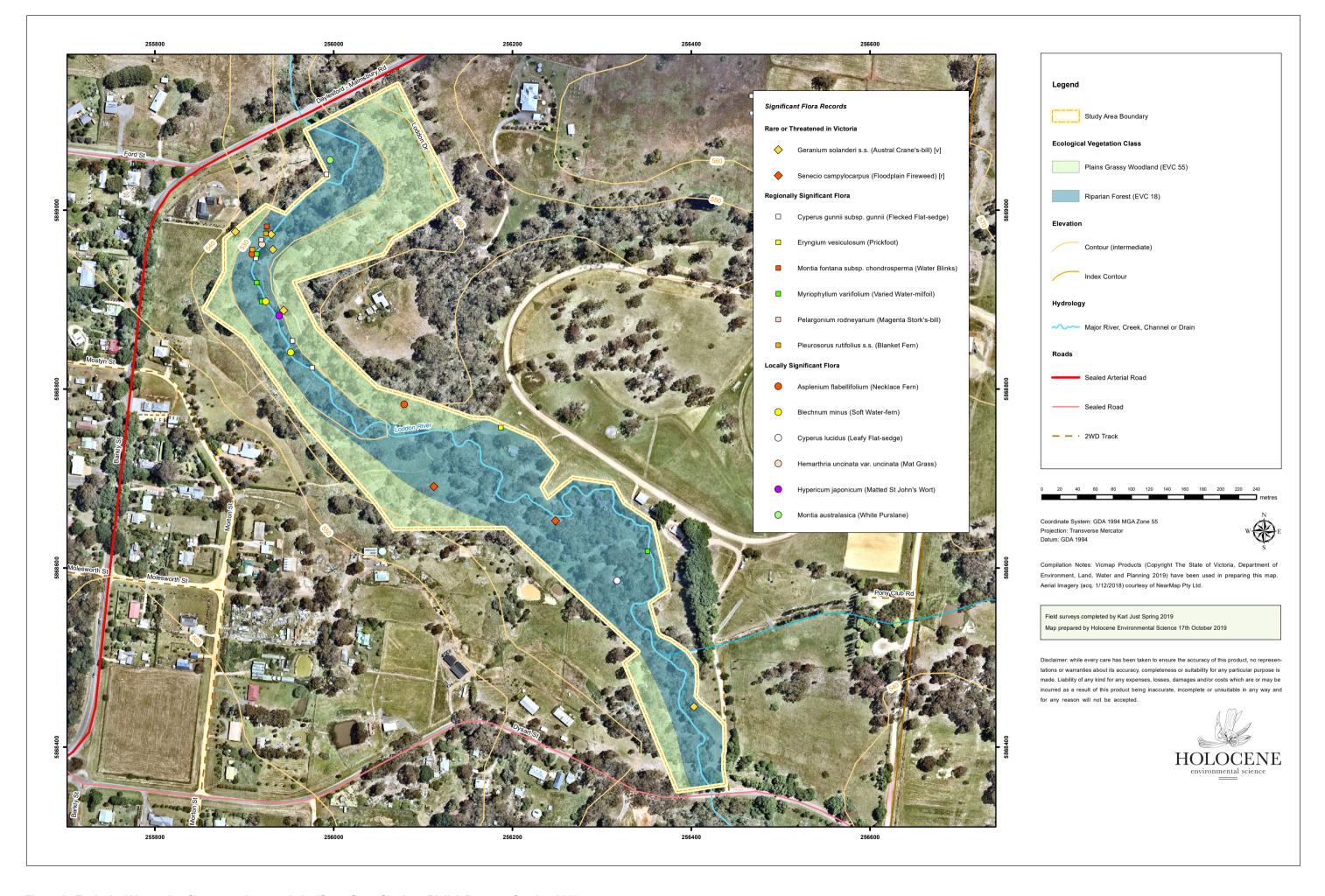


Figure 1: Ecological Vegetation Classes and rare and significant flora, Glenlyon Biolink Reserve, October 2019

2.1 Vegetation

The Glenlyon Biolink Reserve supports several vegetation communities that are distributed according the geology, soil type, aspect, tolerance to inundation and other local factors.

In Victoria, the primary system for classifying vegetation communities uses Ecological Vegetation Classes (EVCs), which are broad groupings of vegetation communities that tend to occur across similar environmental conditions. Although a useful system, the EVC typology is notoriously flawed due to a policy to limit the overall number of EVCs in order to simplify certain planning processes. This means that the very diverse range of vegetation types present in Victoria have been lumped within a relatively small number of different units. The state-wide EVC mapping provided by the Department of Environment, Land, Water and Planning (DELWP) was also undertaken with scare resources and limited field truthing and so is often highly inaccurate.

Within the study area, DELWP EVC mapping shows the northern section of the Loddon River to support Streambank Shrubland (EVC 851) and the southern area Sedgy Riparian Woodland (EVC 198), neither EVC which occurs within the study area. Streambank Shrubland occurs further north along the Loddon River (e.g. Vaughan Springs) and is typically dominated by River Bottle-brush and/or Woolly Tea-tree, but both of these species, as well as any other riparian shrubs, appear to be absent from the reserve (except for a few planted individuals). The DELWP mapping shows terrestrial areas as containing either Plains Grassy Woodland (EVC 55) or Herb-rich Foothill Forest (EVC 23), within only the former being present within the reserve.

The vegetation observed within the Glenlyon Biolink Reserve is described below.

Riparian Forest (EVC 18) – listed as 'Vulnerable' in the Central Victorian Uplands bioregion

The vegetation along the Loddon River was variously dominated by a tall canopy of Manna Gum (*Eucalyptus viminalis*) in the northern section where volcanic geology dominates, with Swamp Gum (*Eucalyptus ovata*) and Narrow-leaf Peppermint (*Eucalyptus radiata*) becoming prominent on the colluvial deposits in the central and southern sections. This vegetation is best described as Riparian Forest (EVC 18), however the central and southern sections have affinities with Swampy Riparian Woodland (EVC 83). The vegetation of stream channel has some similarity to Streambank Shrubland, but due to the absence of character riparian shrub species this EVC is not considered to be present within the site.

The banks of the river contained scattered Blackwood (*Acacia melanoxylon*) with a grassy understorey dominated by Common Tussock-grass (*Poa labillardierei*) and occasional Veined Spear-

grass (*Austrostipa rudis*). The river channel was dominated by aquatic species such as Water Ribbons (*Cycnogeton procerum*) with scattered sedges and rushes such as Tall Sedge (*Carex appressa*), Fen Sedge (*Carex gaudichaudiana*), Flecked Flat-sedge (*Cyperus gunnii*) and Hollow Rush (*Juncus amabilis*). The creek flats in the southern section contained swampy depressions supporting scattered sedges such as Knob-sedge (*Carex inversa*), Tall Sedge (*Carex appressa*) and Leafy Flat-sedge (*Cyperus lucidus*). Other features associated with the river included several small cut-off meanders (billabongs) dominated by Water Ribbons and Common Reed (*Phragmites australis*), as well as several small basalt escarpments in the northern area.

Weed cover was relatively low along the creek channel, however the alluvial terraces were dominated by various grassy weeds, particularly Phalaris (*Phalaris aquatica), as well as patches of Montpellier Broom (*Genista monspessulana). A range of previously planted non-indigenous native species occurred in southern area.

Plains Grassy Woodland (EVC 55) listed as 'Endangered' in the Central Victorian Uplands bioregion

The higher volcanic slopes above the Loddon River contained Plains Grassy Woodland (EVC 55) dominated by Manna Gum (*Eucalyptus viminalis*). The understorey was largely dominated by weeds such as Phalaris (**Phalaris aquatica*) and Montpellier Broom (**Genista monspessulana*), with occasional patches containing remnant indigenous grasses and forbs. Other features associated with the EVC included a basalt escarpment and a spring-fed sedgeland in the northern section. This latter feature carries regional botanical significance due to the increasing rarity of spring-fed sedgeland communities.



Plate 6 The Loddon River, dominated by Water Ribbons (Cycnogeton procerum)

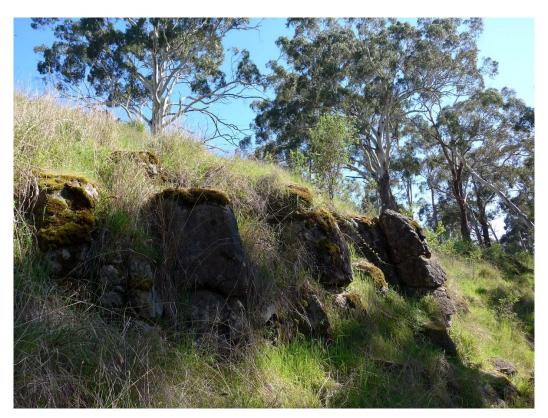


Plate 7 A basalt escarpment above the river. The rocks and ledges of these escarpments provide habitat for a variety of uncommon ferns and forbs.



Plate 8 The Loddon River in the southern section of the reserve.



Plate 9 Plains Grassy Woodland (EVC 55) in the northern area of the reserve.

3.0 Management Guidelines

Significant restoration efforts have been carried out within the Glenlyon Biolink Reserve over the last several decades by the Landcare Group and government agencies (DELWP and NCCMA), including control of large woody weed infestations and revegetation. The highly invasive shrub Gorse (**Ulex europaeus*) was previously dominant along the river (Margret Lockwood pers. comm.), but is now restricted to scattered, mostly small plants due to control works.

The aim for the next five years should be to continue weed control and revegetation programs, protect and retain faunal habitat and possibly install further interpretative material along the walking tracks.

The reserve has been divided into two broad management zones to aid in guiding the works program (See Figure 2):

Management Zone 1

This zone occupies the northern section of the reserve, including all areas dominated by volcanic geology. The zone encompasses some the more diverse riparian vegetation, with other important features including several small volcanic escarpments, a localised spring-fed sedgeland and a small grassy area dominated by Kangaroo Grass (*Themeda triandra*). Weed cover varies across the zone and includes large infestations of Montpellier Broom (*Genista monspessulana) and Phalaris (*Phalaris aquatica).

Management Zone 2

Management Zone 2 occupies the southern section of the reserve, including the area dominated by colluvial soils. The zone includes some good areas of riparian vegetation, with other important features including a small cut-off meander (oxbow billabong) and areas that retain indigenous groundflora, one of which includes a remnant Sweet Bursaria (*Bursaria* spinosa) and numerous small recruits of this species. There are also scattered depressions dominated by indigenous sedges. The zone includes some relatively extensive plantings of non-indigenous native species that were carried out several decades ago, as well as higher weed cover along the river (particularly Blackberry).

Guidelines for management of the two zones over the next five years are provided below.

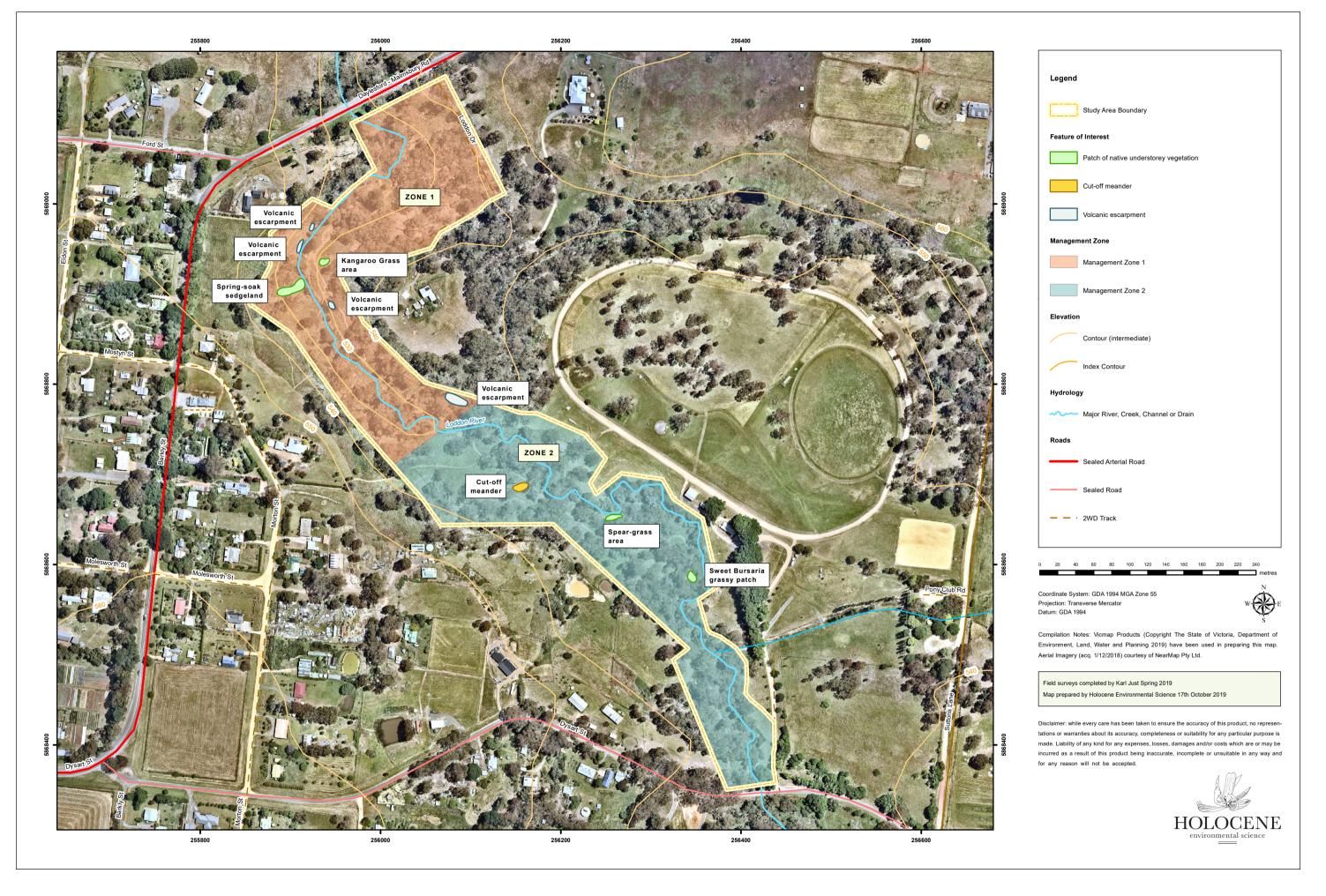


Figure 2: Management zones and features, Glenlyon Biolink Reserve, October 2019

3.1 Weed control

Of the 71 introduced flora species recorded during the flora survey, 20 are of priority for control. These species and their distribution are presented in Table 2 below.

To summarise, the species of highest threat and priority for control are Montpellier Broom (*Genista monspessulana), Blue Perrinkle (*Vinca major), Gorse (*Ulex europaeus) and Blackberry (*Rubus anglocandicans). The latter two species have been heavily reduced in extent by past control works and so should be prioritised by conducting annual to biennial works across the reserve. Montpellier Broom is still abundant throughout parts of the reserve, particularly in Management Zone 1, and so control should focus on control in the best quality areas, expanding outwards. Widespread control of this species could be achieved by either hand pulling (best undertaken when the soil is moist) or using herbicide application, however given the presence of an abundant long-lived seed bank, any infestations controlled in this way would likely recover within several years. It is therefore best to focus control in selected areas where follow-up work can be guaranteed. Control of the large Blue Perrinkle population in the northern section of the reserve is likely to be difficult due to the dense rhizomes and minimal effect of herbicide on this species. However, the patch should at the least not be permitted to spread further and any new infestations detected upstream should be controlled immediately (small patches can be removed by digging out plants and roots).

Control of high threat weeds should be undertaken with the least amount of herbicide as possible. Smaller plants can be removed by hand, and less extensive infestations controlled using the cut-paint technique (cutting stems at ground level and painting with herbicide). However larger patches, particularly Blackberry, will likely require herbicide application if success is to be ensured. Under these circumstances, great care must be taken to avoid off-target damage and no herbicide should be sprayed within two meters of the river and only taking great care (particularly not to be conducted on windy days when spray drift may occur).

The features of interest shown in Figure 2 should be a priority for control works.

Table 2 High Threat weeds requiring control within the Glenlyon Biolink Reserve

Botanical name	Common name	Priority	Distribution	Notes
Acacia boormanii	Snowy River Wattle			Gradual removal and replacement with suitable indigenous shrubs
		Low	Scattered planted individuals in Management Zone 2	recommended.
Acacia floribunda	White Sallow-wattle			Gradual removal and replacement with suitable indigenous shrubs
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0.1.1.111.111	Low	Scattered planted individuals in Management Zone 2	recommended.
Acacia howittii	Sticky Wattle		0 " 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Gradual removal and replacement with suitable indigenous shrubs
A#:	A 1 10 :	Low	Scattered planted individuals in Management Zone 2	recommended.
Allium triquetrum	Angled Onion	Moderate	Scattered dense patches, mostly on river terraces	Control of outlying patches, particularly those near areas of remnant groundflora recommended.
Banksia integrifolia subsp.	Coast Banksia	Moderate	Scattered derise patches, mostly of fiver terraces	Gradual removal and replacement with suitable indigenous shrubs
integrifolia	Coast Ballisla	Low	Scattered planted individuals in Management Zone 2	recommended.
Callistemon spp.	Bottlebrush	LOW	Coattered planted individuals in Management 25ne 2	Gradual removal and replacement with suitable indigenous shrubs
Сатысты зрр.	Dottiesrasii	Low	Scattered planted individuals in Management Zone 2	recommended.
Callitris rhomboidea	Oyster Bay Pine		Coalionou prantou marriadato in marragoment 20110 2	Gradual removal and replacement with suitable indigenous shrubs
Camare memberaca	Cycle: 2ay :c	Low	Scattered planted individuals in Management Zone 2	recommended.
Conium maculatum	Hemlock	Moderate	Localised in northern section near Loddon Drive	Should be controlled when possible.
Eucalyptus crenulata	Buxton Gum			Gradual removal and replacement with suitable indigenous shrubs
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Low	Scattered planted individuals in Management Zone 2	recommended.
Eucalyptus globulus	Southern Blue-gum			Gradual removal and replacement with suitable indigenous shrubs
<i>,,</i> °	ŭ	Low	Scattered planted individuals in Management Zone 2	recommended.
Fraxinus angustifolia subsp.	Desert Ash			
angustifolia		High	Small number of plants observed in Management Zone 2.	Control as soon as possible.
Genista monspessulana	Montpellier Broom			Selected areas should be subject to control, particularly near areas
		High	Scattered large patches, abundant in Management Zone 1.	of intact groundflora.
Hakea salicifolia subsp.	Willow-leaf Hakea			
salicifolia		Moderate	Scattered in Management Zone 2.	Control as soon as possible.
Hakea spp.	Hakea			Gradual removal and replacement with suitable indigenous shrubs
		Low	Scattered planted individuals in Management Zone 2	recommended.
Marrubium vulgare	Horehound		Small number of plants in northern section near Loddon	D
Dhalaria associa	T	High	Drive.	Remove plants with a mattock.
Phalaris aquatica	Toowoomba Canary-	Madanta	Scattered large patches, most abundant in Management	Selected areas should be subject to control, particularly near areas
Daving laware and the	grass Charry Laurel	Moderate	Zone 1.	of intact groundflora.
Prunus laurocerasus	Cherry Laurel	Moderate	One plant observed in Management Zone 2.	Control as soon as possible.
Rubus anglocandicans	Common Blackberry		0 " 1" 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Annual or biennial control run throughout the reserve should be
		LUMB	Scattered throughout, most larger patches occur in	undertaken. Larger infestations in Management Zone 2 require
I llov ouropoous	Gorse	High	Management Zone 2.	control.
Ulex europaeus	Gurse	High	Scattered mostly small plants.	Annual or biennial control run throughout the reserve should be undertaken.
Ulmus procera	English Elm	riigii	One dense suckering thicket in southern section of	undortanon.
Olinas proceia	Liigiion Liin	Moderate	Management Zone 2.	This patch should be controlled when possible.
Vinca major	Blue Periwinkle	Moderate	managaman Lone Li	This patch should not be permitted to spread any further and any
virica iriajoi	bide Periwilikie	High	Large infestation in far northern section of site	new patches emerging upstream controlled immediately.
				1 3 3 3 2 2 2

3.2 Revegetation

Some successful revegetation has already been undertaken throughout the reserve, particularly in the northern section. Further revegetation could be implemented along the Loddon River and adjacent alluvial terraces to increase habitat values. Areas of Plains Grassy Woodland would originally have been dominated by native grasses with only a light cover of shrubs, so plantings in these areas would best be restricted to scattered Blackwood (*Acacia melanoxylon*), Silver Wattle (*Acacia dealbata*) and Tree Banksia (*Banksia* marginata), with larger grasses (e.g. *Poa labillardierei*) where adequate weed control has been implemented.

Table 3 Suggested planting list for along the Loddon River and adjacent terraces

Scientific name	Common name	Notes
Acacia dealbata	Silver Wattle	Tolerant of occasional inundation but not to be planted in very wet areas
Acacia melanoxylon	Blackwood	Tolerant of occasional inundation but not to be planted in very wet areas
Acacia verticillata	Prickly Moses	Tolerant of occasional inundation but not to be planted in very wet areas
Carex appressa	Tall Sedge	Could be planted scattered or in dense clusters in damp sites
Carex fascicularis	Tassel Sedge	Would grow best along the river in areas that are near permanently water-logged.
Carex polyantha	River Sedge	Would grow best along the river in areas that are near permanently water-logged.
Cyperus lucidus	Leafy Flat-sedge	Could be planted scattered or in dense clusters in damp sites.
Gynatrix pulchella	Hemp Bush	Tolerant of occasional inundation but not to be planted in very wet areas
Lomandra longifolia	Spiny-headed Mat- rush	Tolerant of occasional inundation but not to be planted in very wet areas. Best planted in dense clusters.
Melicytus dentatus	Tree Violet	Tolerant of occasional inundation but not to be planted in very wet areas
Poa ensiformis	Sword Tussock-grass	Tolerant of occasional inundation but not to be planted in very wet areas. Best planted in dense clusters.
Poa labillardierei	Common Tussock- grass	Tolerant of occasional inundation but not to be planted in very wet areas. Best planted in dense clusters.
Pomaderris aspera	Hazel Pomaderris	Tolerant of occasional inundation but not to be planted in very wet areas
Pomaderris racemosa	Cluster Pomaderris	Tolerant of occasional inundation but not to be planted in very wet areas
Prostanthera lasianthos	Victorian Christmas- bush	Tolerant of occasional inundation but not to be planted in very wet areas
Rubus parvifolius	Small-leaf Bramble	Tolerant of occasional inundation but not to be planted in very wet areas

3.3 Other management considerations

Weed control and revegetation are the highest priority for management of the biolink. Other considerations include:

• The trail network should be maintained and development of further nature art and interpretation considered.

- All remnant vegetation should be protected, including retention of all habitat trees and excluding major disturbance (e.g. machinery).
- The small area of Sweet Bursaria (see Figure 2) could be fenced to exclude wallaby grazing of seedlings. However, this may lead to an increase in the cover of grassy weeds and so should be accompanied by seasonal hand-weeding.

4.0 Conclusion

The Glenlyon Biolink Reserve contains significant ecological values, including threatened flora species and valuable faunal habitat. Extensive weed control and some planting at the reserve over the last ten years have made considerable gains in restoring the sites native vegetation. Further revegetation and ongoing control of high threat weeds is required in order to maintain and enhance the biological values of the site.

Appendix 1 Vascular flora species recorded at Glenlyon Biolink Reserve, Glenlyon in spring 2019

Legend

- exotic taxa
- # non-indigenous native taxa
- P planted indigenous taxa
- V listed as 'vulnerable' in Victoria under the Victorian Advisory List 2014
- r listed as 'rare' in Victoria under the Victorian Advisory List 2014

Regional – considered to be rare or threatened in Hepburn Shire

Local – considered to be rare or threatened in the Glenlyon area

Origin	Scientific name	Common name	Status
P#	Acacia boormanii	Snowy River Wattle	
	Acacia dealbata	Silver Wattle	
Р#	Acacia floribunda	White Sallow-wattle	
Р#	Acacia howittii	Sticky Wattle	
	Acacia melanoxylon	Blackwood	
Р	Acacia nano-dealbata	Dwarf Silver Wattle	
Р	Acacia verticillata	Prickly Moses	
	Acaena novae-zelandiae	Bidgee-widgee	
*	Acetosella vulgaris	Sheep Sorrel	
	Adiantum aethiopicum	Common Maidenhair	
*	Agrostis capillaris var. capillaris	Brown-top Bent	
*	Agrostis stolonifera	Creeping Bent	
*	Allium triquetrum	Angled Onion	
*	Allium vineale	Crow Garlic	
	Alternanthera denticulata s.s.	Lesser Joyweed	
	Anthosachne scabra s.s.	Common Wheat-grass	
*	Anthoxanthum odoratum	Sweet Vernal-grass	
*	Arctotheca calendula	Cape Weed	
	Arthropodium strictum s.s.	Chocolate Lily	
	Asplenium flabellifolium	Necklace Fern	Local
	Austrostipa rudis subsp. rudis	Veined Spear-grass	
P#	Banksia integrifolia subsp. integrifolia	Coast Banksia	
Р	Banksia marginata	Silver Banksia	
	Blechnum minus	Soft Water-fern	Local
*	Bromus catharticus	Prairie Grass	
*	Bromus diandrus	Great Brome	
*	Bromus hordeaceus subsp. hordeaceus	Soft Brome	
	Bursaria spinosa subsp. spinosa	Sweet Bursaria	
	Callistemon sieberi	River Bottlebrush	
P#	Callistemon spp.	Bottlebrush	
*	Callitriche stagnalis	Common Water-starwort	
P#	Callitris rhomboidea	Oyster Bay Pine	
*	Cardamine hirsuta s.s.	Common Bitter-cress	
	Carex appressa	Tall Sedge	
	Carex fascicularis	Tassel Sedge	Local
	Carex gaudichaudiana	Fen Sedge	Local
	Carex inversa	Knob Sedge	

*	Carthamus lanatus	Saffron Thistle	
*	Conium maculatum	Hemlock	
*	Centaurium erythraea	Common Centaury	
*	Certautium erytiitäea Cerastium glomeratum s.s.	Sticky Mouse-ear Chickweed	
*	Cirsium vulgare	Spear Thistle	
	Crassula alata var. alata	•	
*		Three-part Crassula	
	Crassula helmsii	Swamp Crassula	
	Crassula sieberiana s.s.	Sieber Crassula	
*	Crataegus monogyna	Hawthorn	
	Cycnogeton procera	Common Water-ribbons	
	Cyperus gunnii subsp. gunnii	Flecked Flat-sedge	Regional
	Cyperus lucidus	Leafy Flat-sedge	Local
*	Dactylis glomerata	Cocksfoot	
	Dichondra repens	Kidney-weed	
*	Dietes grandiflora	Wild Iris	
	Eleocharis acuta	Common Spike-sedge	
	Epilobium billardierianum subsp. cinereum	Grey Willow-herb	
	Epilobium hirtigerum	Hairy Willow-herb	
P#	Eucalyptus crenulata	Buxton Gum	
Р#	Eucalyptus globulus	Southern Blue-gum	
	Eucalyptus ovata	Swamp Gum	
Р	Eucalyptus pauciflora subsp. pauciflora	White Sallee	
	Eucalyptus radiata subsp. radiata	Narrow-leaf Peppermint	
	Eucalyptus rubida subsp. rubida	Candlebark	
	Eucalyptus viminalis subsp. viminalis	Manna Gum	
P	Eucalyptus yarraensis	Yarra Gum	
	Euchiton japonicus	Creeping Cudweed	
*	Fraxinus angustifolia subsp. angustifolia	Desert Ash	
*	Fumaria bastardii	Bastard's Fumitory	
*	Galium aparine	Cleavers	
*	Genista monspessulana	Montpellier Broom	
-	Geranium gardneri	Rough Crane's-bill	
	Geranium gardnen Geranium potentilloides	Soft Crane's-bill	
	Geranium solanderi var. solanderi s.s.	Austral Crane's-bill	
		Variable Crane's-bill	Vulnerable
	Geranium sp. 2		
	Geranium sp. 5	Naked Crane's-bill	
	Glyceria australis	Australian Sweet-grass	
	Gonocarpus tetragynus	Common Raspwort	
*	Hakea salicifolia subsp. salicifolia	Willow-leaf Hakea	
P#	Hakea spp.	Hakea	
*	Hedera helix	English Ivy	
	Hemarthria uncinata var. uncinata	Mat Grass	
*	Holcus lanatus	Yorkshire Fog	
	Hydrocotyle laxiflora	Stinking Pennywort	
	Hydrocotyle sibthorpioides	Shining Pennywort	
	Hypericum japonicum	Matted St John's Wort	Local
*	Hypochaeris radicata	Flatweed	
	Isolepis marginata	Little Club-sedge	
	Juncus amabilis	Hollow Rush	
*	Juncus articulatus	Jointed Rush	
	Juncus bufonius	Toad Rush	
	Juncus gregiflorus	Green Rush	
	Juncus holoschoenus	Joint-leaf Rush	
	Juncus subsecundus	Finger Rush	
	Lachnagrostis filiformis s.s.	Common Blown-grass	
*	Leontodon saxatilis	Hairy Hawkbit	
	Leptospermum lanigerum	Woolly Tea-tree	
Р	Loptoopormannianigorani	Woony Tou troo	

*	Lolium perenne	Perennial Rye-grass	
	Lomandra filiformis subsp. coriacea	Wattle Mat-rush	
	Lomandra longifolia subsp. exilis	Cluster-headed Mat-rush	
	Lomandra longifolia subsp. longifolia	Spiny-headed Mat-rush	
*	Lotus subbiflorus	Hairy Bird's-foot Trefoil	
*	Lysimachia arvensis var. arvensis	Scarlet Pimpernel	
*	Lysimachia arvensis var. caerulea	Blue Pimpernel	
	Lythrum hyssopifolia	Small Loosestrife	
*	Marrubium vulgare	Horehound	
	Melaleuca ericifolia	Swamp Paperbark	
Р	Melicytus dentatus s.s.	Tree Violet	
•	Microlaena stipoides var. stipoides	Weeping Grass	
*	Mimulus moschatus	Musk Monkey-flower	
*	Moenchia erecta	Erect Chickweed	
	Montia australasica	White Purslane	Local
	Montia fontana subsp. chondrosperma	Water Blinks	Regional
*	Myosotis discolor	Yellow-and-blue Forget-me-not	rtegionai
	Myriophyllum variifolium	Varied Water-milfoil	Regional
	Oxalis exilis	Shady Wood-sorrel	regional
	Oxalis perennans	Grassland Wood-sorrel	
	Ozothamnus ferrugineus	Tree Everlasting	
	Pelargonium rodneyanum	Magenta Stork's-bill	Regional
	Persicaria decipiens	Slender Knotweed	Regional
*	Phalaris aquatica	Toowoomba Canary-grass	
	Phragmites australis	Common Reed	
*	Pinus radiata var. radiata	Radiata Pine	
*	Plantago lanceolata	Ribwort	
	Pleurosorus rutifolius s.s.	Blanket Fern	Regional
*	Poa annua	Annual Meadow-grass	Regional
*	Poa bulbosa	Bulbous Meadow-grass	
	Poa labillardierei var. labillardierei	Common Tussock-grass	
	Poa morrisii	Soft Tussock-grass	
*	Poa pratensis	Kentucky bluegrass	_
*	Prunella vulgaris	Self-heal	_
*	Prunus laurocerasus	Cherry Laurel	
	Pteridium esculentum	Austral Bracken	
*	Romulea rosea var. australis s.s.	Common Onion-grass	
*	Rubus anglocandicans	Common Blackberry	
*	Rumex crispus	Curled Dock	_
	Rytidosperma spp.	Wallaby Grass	
	Senecio campylocarpus	Floodplain Fireweed	Rare
	Senecio glomeratus	Annual Fireweed	raro
	Senecio minimus	Shrubby Fireweed	
	Senecio quadridentatus	Cotton Fireweed	
*	Sonchus asper s.s.	Rough Sow-thistle	
*	Taraxacum officinale spp. agg.	Garden Dandelion	
	Themeda triandra	Kangaroo Grass	
*	Trifolium fragiferum var. fragiferum	Strawberry Clover	
*	Trifolium repens var. repens	White Clover	
*	Trifolium subterraneum	Subterranean Clover	
*	Ulex europaeus	Gorse	
*	Ulmus procera	English Elm	
*	Veronica arvensis	Wall Speedwell	
*	Vicia sativa subsp. nigra	Narrow-leaf Vetch	
*	Vinca major	Blue Periwinkle	
*	Vulpia bromoides	Squirrel-tail Fescue	
*	Vulpia myuros	Rat's-tail Fescue	