

Protecting and Connecting EPBC species in the Yarra Ranges

An Action Plan for the lowland Leadbeater's Possum and the Helmeted Honeyeater



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Table of Contents

1. Introduction	1
2. Action Plan Approach	1
3. Refinement of Priority Work Areas	3
3.1 Priority Work Areas	3
3.2 Ranking Priority Work Areas	3
4. Implementation	4
4.1 Project Model	4
4.2 Next Steps	4
5. Works Plan	5
6. References	6
Appendices	7
Appendix 1: Overview map	7
Appendix 2: Healesville targeted restoration work areas	8
Appendix 3: Warramate targeted restoration work area	9
Appendix 4: Woori Yallock targeted restoration work area	10
Appendix 5: Mount Toolebewong targeted restoration work area	11
Appendix 6: Yellingbo targeted restoration work area	12
Appendix 7: Yellingbo South targeted restoration work area	13
Appendix 8: Works Plan Template	14
Appendix 9: Ecological Vegetation Class benchmarks	21

1. Introduction

In 2013, the Port Phillip and Westernport Catchment Management Authority (PPWCMA) obtained an Australian Government grant to undertake the project 'Protecting and Connecting EPBC species (Helmeted Honeyeater *Lichenostomus melanops cassidix* and the lowland Leadbeater's Possum *Gymnobelideus leadbeateri*) in the Yarra Ranges'. This project is intended to build on previous environmental restoration works undertaken through the PPWCMA-coordinated 'Yarra4Life' program, but with a specific focus on the two threatened species.

The first phase of the project has featured the development of an Ecological Character Description (ECD) and this associated Action Plan, which the Department of Environment and Primary Industries (DEPI) was commissioned to undertake. An ECD is a conceptual planning tool that attempts to synthesise both scientific and practical sources of knowledge to capture the 'essence' or 'character' of a particular ecosystem (or species) to help guide its restoration. The ECD document for this project is available in a separate report (DEPI 2014).

This Action Plan complements the ECD by directing the actions required for the project's implementation. It is intended to be a concise document outlining steps to interpret priority area mapping from the ECD. A general guide as to the implementation model and next steps are provided. A *Works Plan Template* is also provided to enable assessment of properties, development of site-specific actions, and outline required monitoring and reporting back to the PPWCMA.

Further information on the overall project objectives, methods and background to recommended actions can be found in the ECD report (DEPI 2014). This Action Plan does not attempt to repeat information or concepts outlined in the ECD - readers are therefore advised to refer to these documents together.

2. Action Plan Approach

The Action Plan takes the following approach:

1. Adoption of the Zonation model recommendations for restoration works from the ECD (DEPI 2014)
2. Refinement of works areas to prioritise private land
3. Utilisation of a Landcare-type model to target landholders within the refined works area
4. Preparation of a works plan for each targeted property (based on a template within this document) for landholders to use in conjunction with Landcare Facilitators and/or other support personnel
5. Guidance on monitoring evaluation and reporting

These steps are further addressed in Figure 1 to help the reader understand the process of implementing on-ground works associated with this project.

The decision to prioritise private over public land was made for a number of reasons. Namely, funding is available for public land via alternative grant programs. For example, through the past Victorian Environmental Partnerships Program (VEPP), 2 Million trees projects, and Greening Australia is already doing works in the area. Community groups working on public land can access these other grant programs via DEPI, PPWCMA and Parks Victoria. Targeting private land also supports landowners to participate in conservation projects and receive financial benefits.

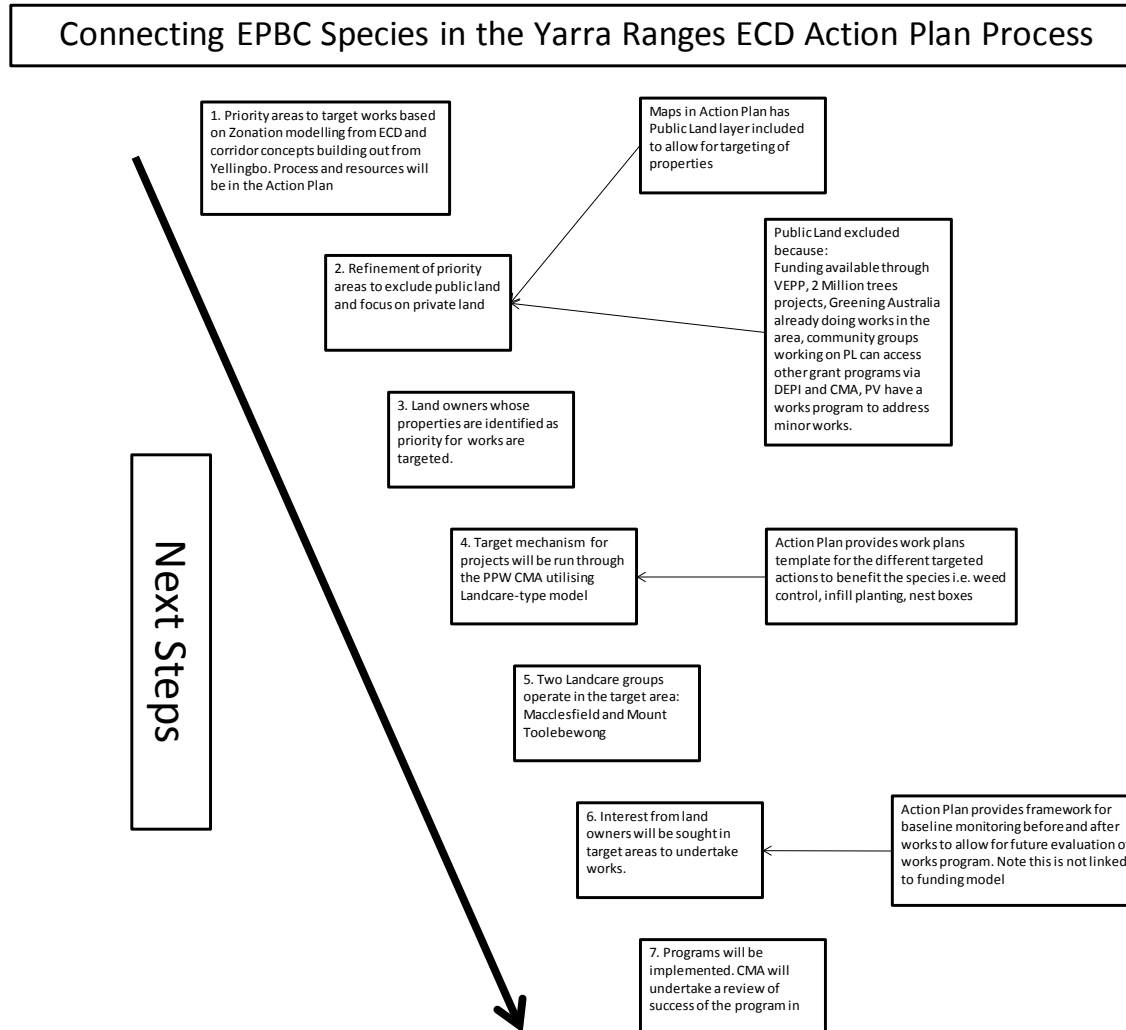


Figure 1: Action Plan approach

3. Refinement of Priority Work Areas

The Yarra4Life Committee provided guidance on how the 2.5% Zonation model of priority restoration areas outlined in the ECD should be practically implemented. The Yarra for Life Committee commented that some of the cleared areas prioritised within the Zonation model would take more effort to restore than already existing treed areas.

Comments were particularly relevant to the land directly adjoining the eastern side of Warramate Hills Flora and Fauna Reserve. This area is highlighted as a high priority in the Zonation model but on the ground is a former swamp with tree layers limited to windrow planting. The Committee recommended a practical 'join-the-dots' approach whereby areas with an existing overstorey of native trees - specifically Swamp gums (mountain or lowland) or Manna gum - are targeted first in terms of restoring understorey and connecting patches.

3.1 *Priority Work Areas*

The Yarra for Life Committee requested that priority areas for restoration works are highlighted on a series of maps at a scale where parcel (property) boundaries can be identified and with a partially transparent aerial image so that treed properties can be located. An Overview map (Appendix 1) at 1:25,000 scale highlights all of the top 2.5% priority areas for restoration within the study area. A series of zoomed in maps are also provided at a scale of 1:10,000 with the parcel boundaries identified. Six maps cover the priority areas (Appendix 2 to 7). These maps are titled:

- Healesville
- Warramate
- Woori Yallock
- Mount Tollebewong
- Yellingbo
- Yellingbo South

3.2 *Ranking Priority Work Areas*

Properties should be further ranked for restoration works based on the following selection criteria, which are listed in order of importance (1=highest, 6=lowest):

1. Private land tenure vs. public
2. Covered by darker green hatchings on the zoomed-in Zonation maps (Appendices 2 to 7) vs. lighter green or no green hatching
3. Larger parcel size vs. smaller
4. Provide stepping stones between the larger parcels of high-value land
5. Existing native tree or understorey layers vs. no existing native vegetation
6. An even spread of parcels of land rather than a selection of parcels in a group will reduce risks of restoration efforts being lost due to unforeseeable events such as wildfire or disease. This point was discussed and agreed to by the Yarra 4 Life Committee.

4. Implementation

The Port Phillip and Westernport Catchment Management Authority (PPWCMA) recommended the project utilise Landcare Groups to access landholders within the priority work areas. The Yarra Ranges Landcare Network has two Landcare Groups active in these areas: Macclesfield Landcare and Mount Toolebewong Landcare. Both of these groups are well-established and have strong links into the community and to the PPWCMA and Yarra Ranges Shire Council.

A project model for implementation of this program will need to be decided by the PPWCMA. The model will then need to activate a series of next steps to implement the funding set aside for restoration works. Both the project model and next steps are provided in the following sub-sections.

4.1 Project Model

Two project models are available to the PPWCMA:

1. The PPWCMA runs a grant program using Landcare Groups to initiate contact with target landholders. The PPWCMA would then need to develop works plans with the landholders and distribute funds as it sees fit.
2. The PPWCMA sponsors the Yarra Ranges Landcare Network or the two existing Landcare Groups (Macclesfield and Mount Toolebewong) to act as delivery agent(s). The delivery agent(s) then manage the grant program including targeting landholders, developing works plans with the landholders, and distributing funds.

4.2 Next Steps

Once the project model has been selected, the next steps will be:

1. Select a project manager from within the PPWCMA or Landcare Groups or Networks.
2. Using the zoomed in maps from Appendices 2 to 7, identify target parcels of land for restoration works.
3. Rank the target parcels of land in accordance with the principles in Section 3.2.
4. Access knowledge of the Landcare Groups, Yarra Ranges Landcare Network and land use data from the Shire of Yarra Ranges to help select landowners that are amenable to undertaking restoration works on their properties.
5. Once a short-list of land parcels has been developed from steps 1- 4, each landholder should be contacted and then visited if they are interested in participating in the project. A further refined short-list of properties will be developed at this step.
6. The refined short-list of land parcels should be visited and the type of restoration works to meet the project objective (see ECD, DEPI 2014) identified. Such works will fall into the following categories:
 - a. Purchase parcel and protect on-title and manage for conservation.
 - b. Habitat enhancement by putting back elements of habitat (specific species or nest boxes) that are missing. Usually minor works in comparison to revegetation activities.
 - c. Undertake infill planting of vegetation community (general revegetation) to achieve appropriate Ecological Vegetation Class benchmark of condition.
 - d. Management actions required to maintain habitat condition such as controlled burns or modification of hydrological regime.
 - e. Undertake weed control works to allow native vegetation to effectively out-compete weeds.

- f. Undertake fencing activities to reduce grazing pressure on native vegetation.
 - g. Undertake direct pest animal control such as rabbit baiting programs or burrow destruction.
 - h. Undertake soil manipulation to rectify erosion or hydrological problems.
7. Using the *Works Plan Template*, decide upon the course of action(s) with the landholder that can be implemented within one year. This may be simplified if the parcel purchase option is undertaken.
 8. Develop a project budget for submission with the Work Plan to the delivery agent (i.e. PPWCMA or Landcare Group) for funding approval.
 9. Complete 'letter of agreement' process with the delivery agent if project proposal is approved.
 10. Project can now be implemented.

The following information is required to be collected prior to on-ground works commencing so that project success can be tracked. The *Works Plan Template* contains prompts for these data types to be recorded:

1. Hand draw or use mapping program to mark out a mud map of the project and where each type of works are to be undertaken.
2. Mark on the map the location of photo-points so that photos of the project on-ground works can be taken every 6 months.
3. Mark out any threats occurring such as erosion points, rabbit burrows, tree dieback, deer or other animal trails.
4. Current approximate percentage cover of weeds and dominant type e.g.. Willow at 30% cover
5. Current approximate cover of native species and layer e.g. ground cover – grasses, mid storey – shrubs, overstorey – dominant Eucalypt species.
6. Document in point form the actions that will be undertaken, including site preparation, planting, weed control and baiting etc.
7. Document in point form the ongoing management actions that will be undertaken e.g. herbicide application every 6 months to Canary grass patches.
8. Outline the time frequency for collection of information on the works e.g. photos will be taken in September and March each year on zero zoom at each photo monitoring point.

5. Works Plan

A *Works Plan Template* is provided in Appendix 8. Information is included to establish the site-based project, document threats, outline the proposed works, and monitoring and reporting requirements. Common Ecological Vegetation Classes (EVCs) for the standard vegetation communities within the priority areas are included in Appendix 9 for reference in selecting species and planting densities when developing the works plan. Further information on mapped EVCs and associated benchmarks can be found at:
<http://www.depi.vic.gov.au/environment-and-wildlife/biodiversity/biodiversity-interactive-map>.

6. References

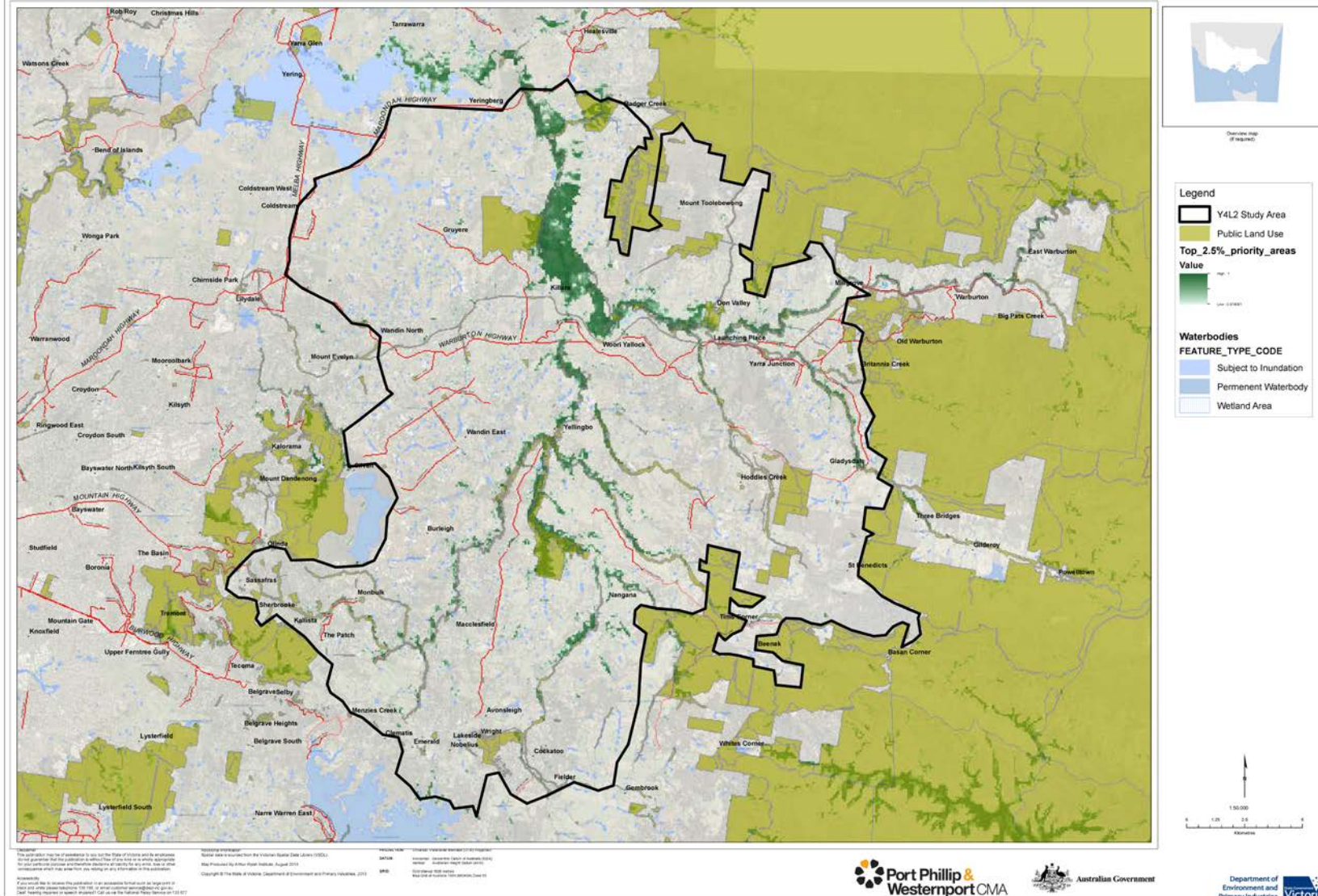
DEPI (2014) Protecting and Connecting EPBC species in the Yarra Ranges: Ecological Character Description. Unpublished report prepared for Port Phillip and Westernport Catchment Management Authority, Department of Primary Industries and Environment May 2014.

SER (2004) Society for Ecological Restoration International Science & Policy Working Group: SER International Primer on Ecological Restoration, version 2 October 2004. Accessed at <http://www.ser.org/resources/resources-detail-view/ser-international-primer-on-ecological-restoration> on 6 May 2014.

Appendices

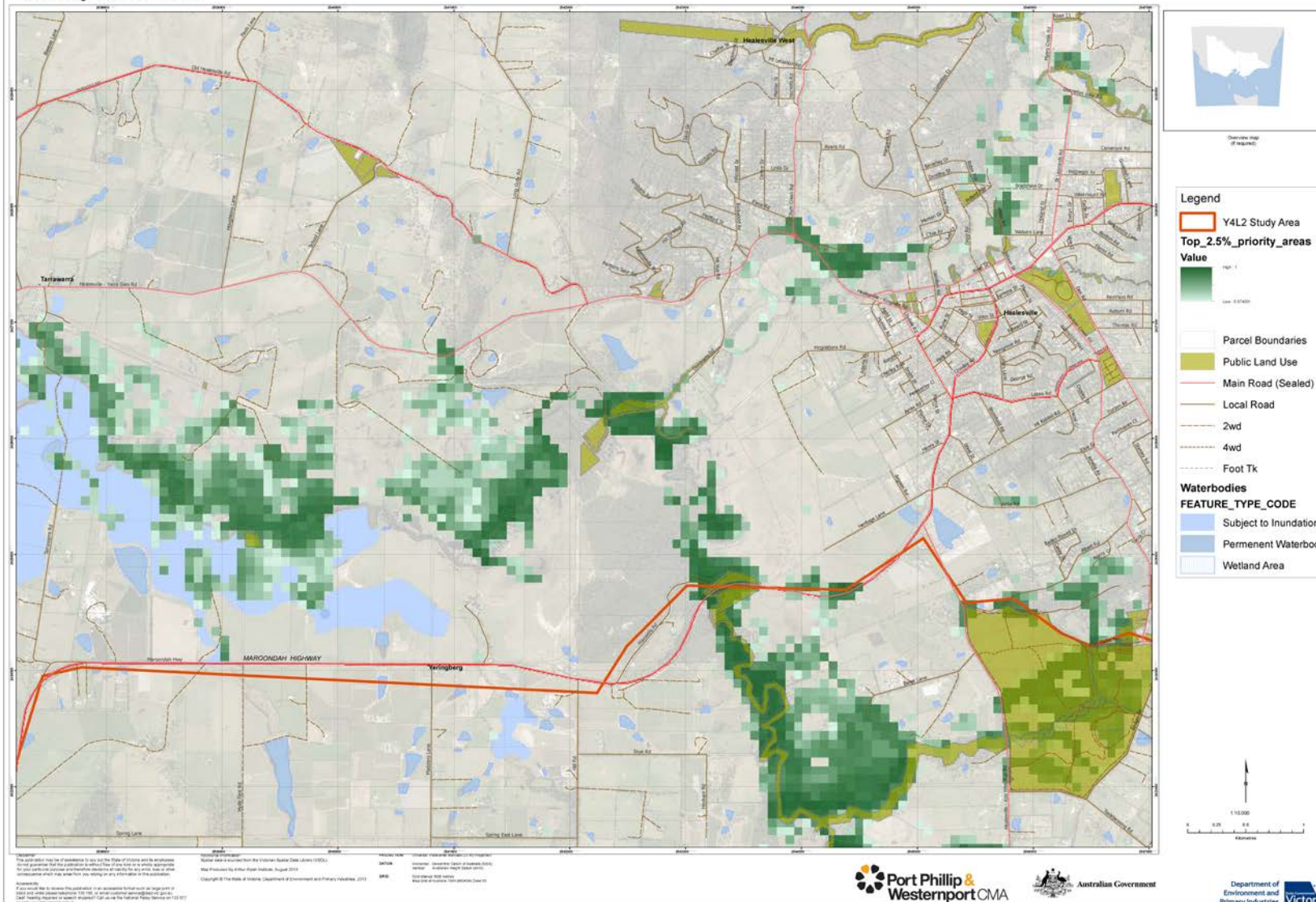
Appendix 1: Overview map

Yarra for Life, Protecting and Connecting EPBC species in the Yarra Valley ECD (Action Plan)
Overview of Targeted Restoration Areas

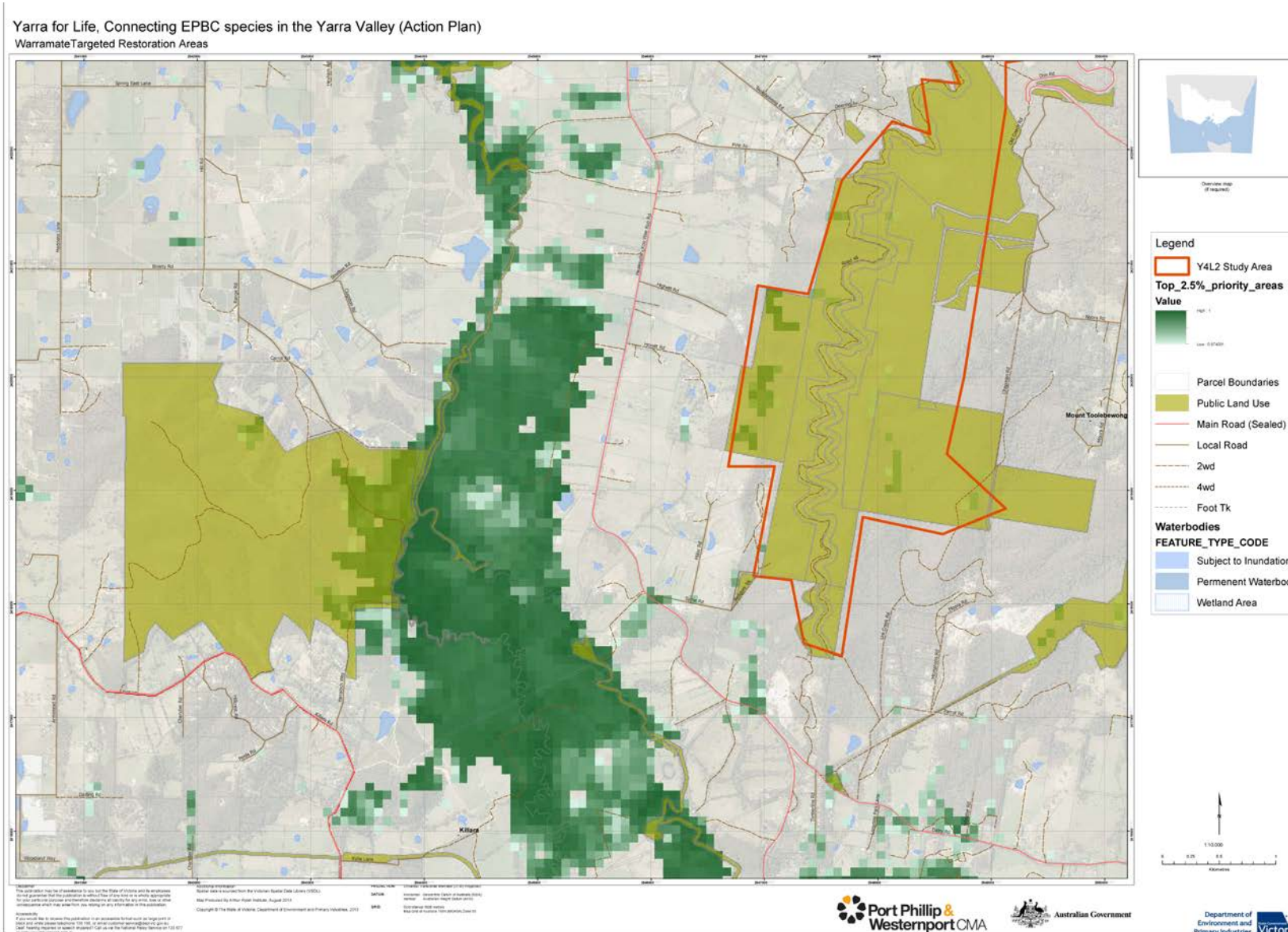


Appendix 2: Healesville targeted restoration work areas

Yarra for Life, Connecting EPBC species in the Yarra Valley (Action Plan)
Healesville Targeted Restoration Areas

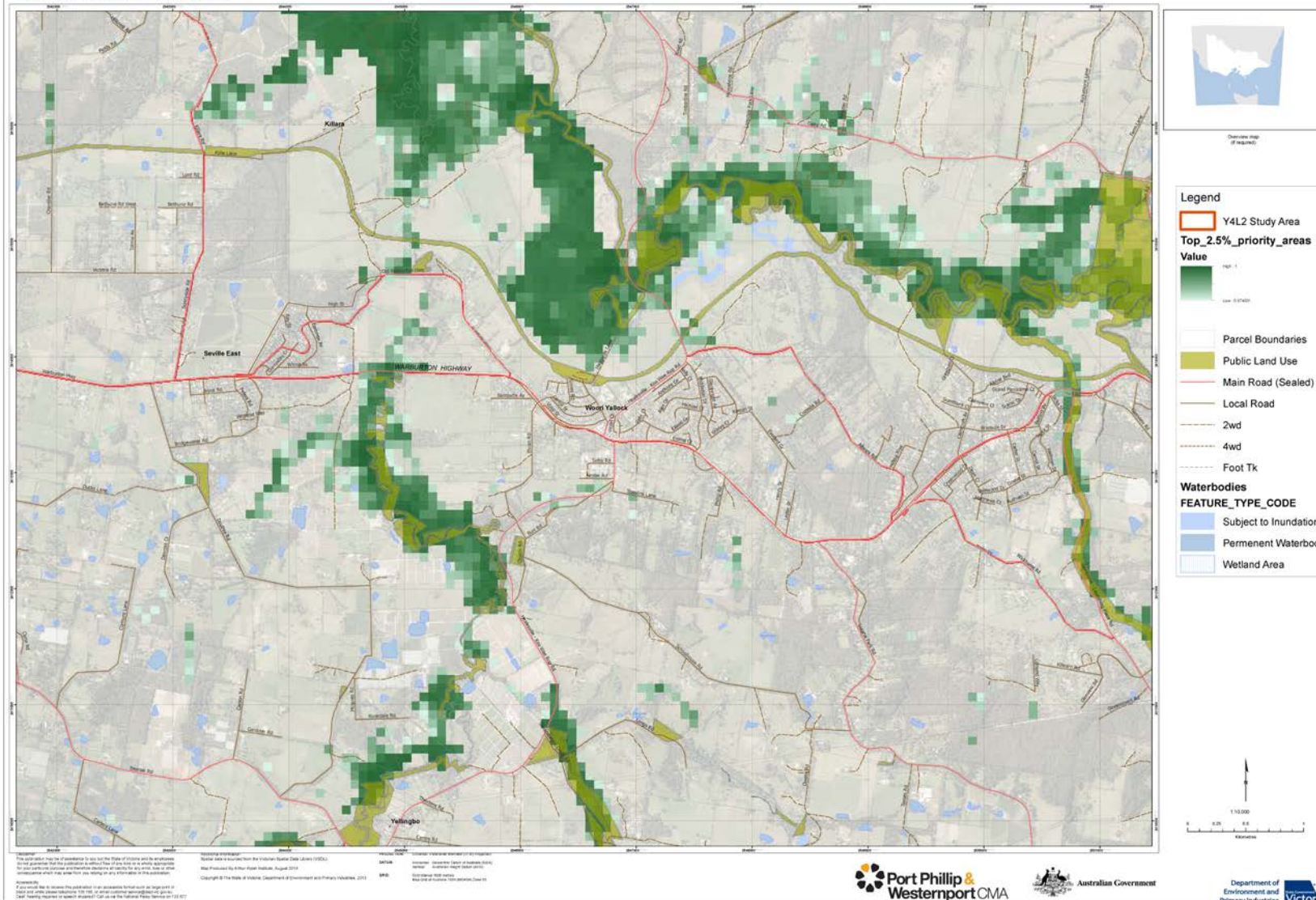


Appendix 3: Warramate targeted restoration work area



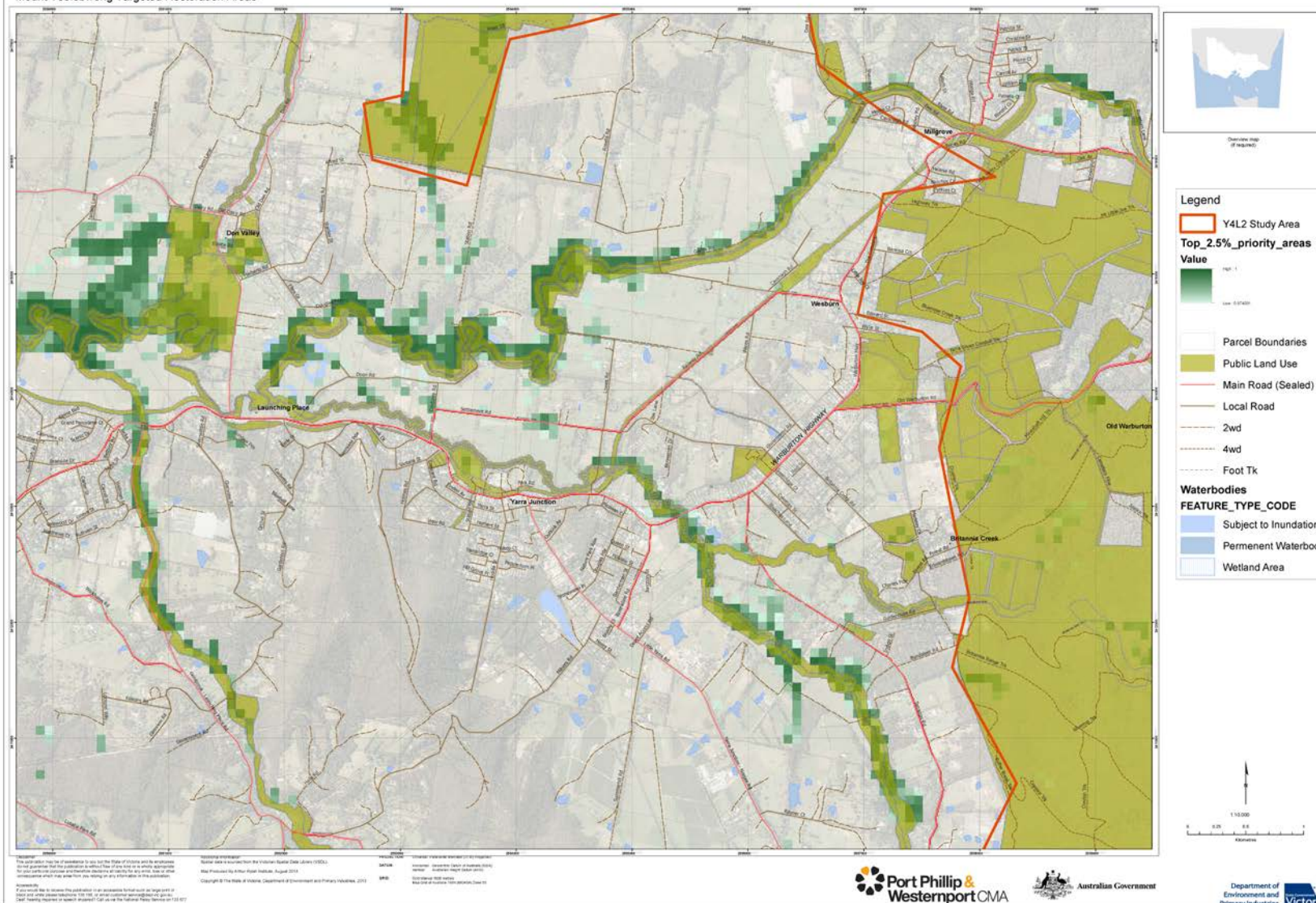
Appendix 4: Woori Yallock targeted restoration work area

Yarra for Life, Connecting EPBC species in the Yarra Valley (Action Plan)
Woori Yallock Targeted Restoration Areas



Appendix 5: Mount Toolebong targeted restoration work area

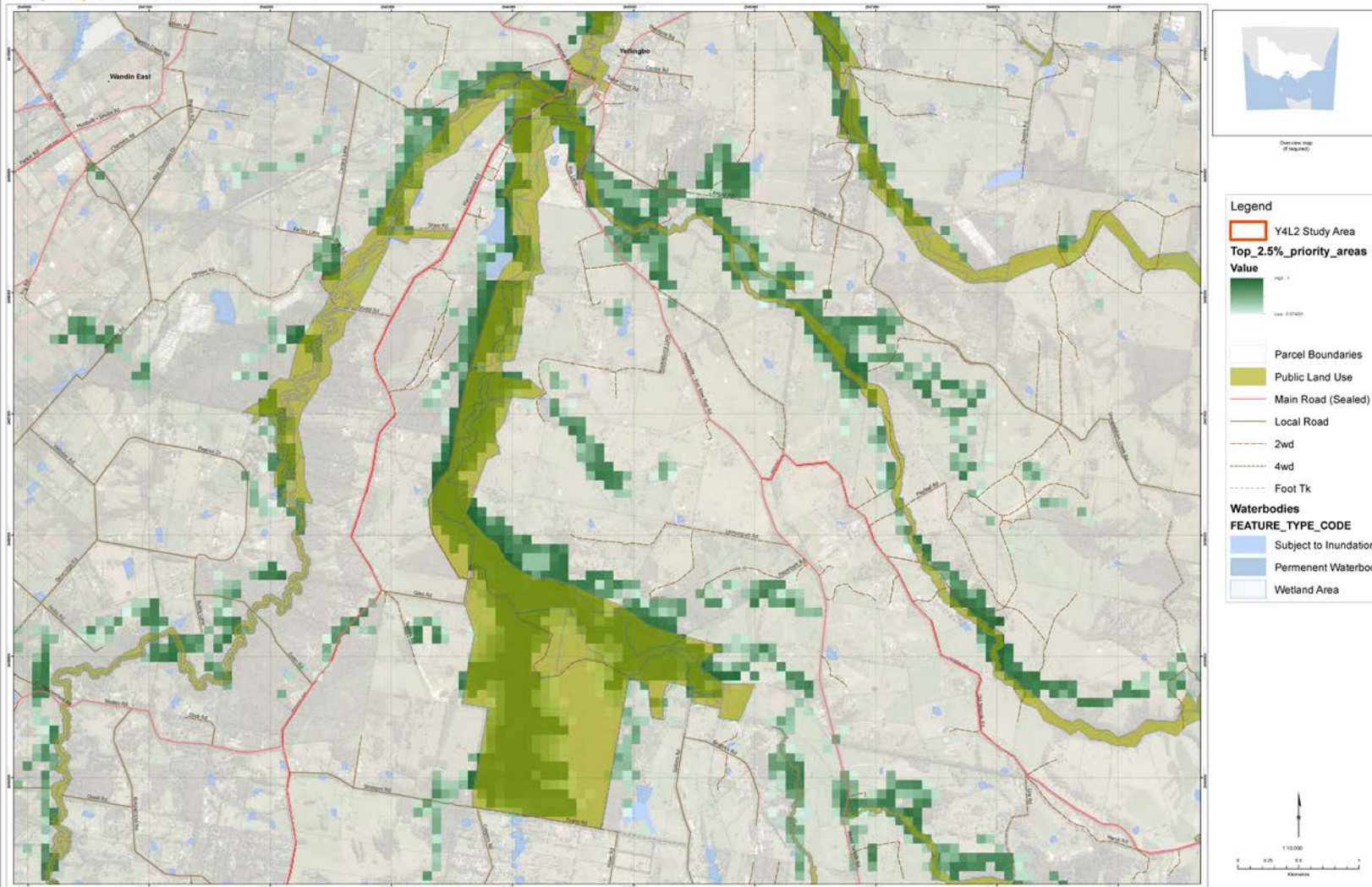
Yarra for Life, Connecting EPBC species in the Yarra Valley (Action Plan)
 Mount Toolebong Targeted Restoration Areas



Appendix 6: Yellingbo targeted restoration work area

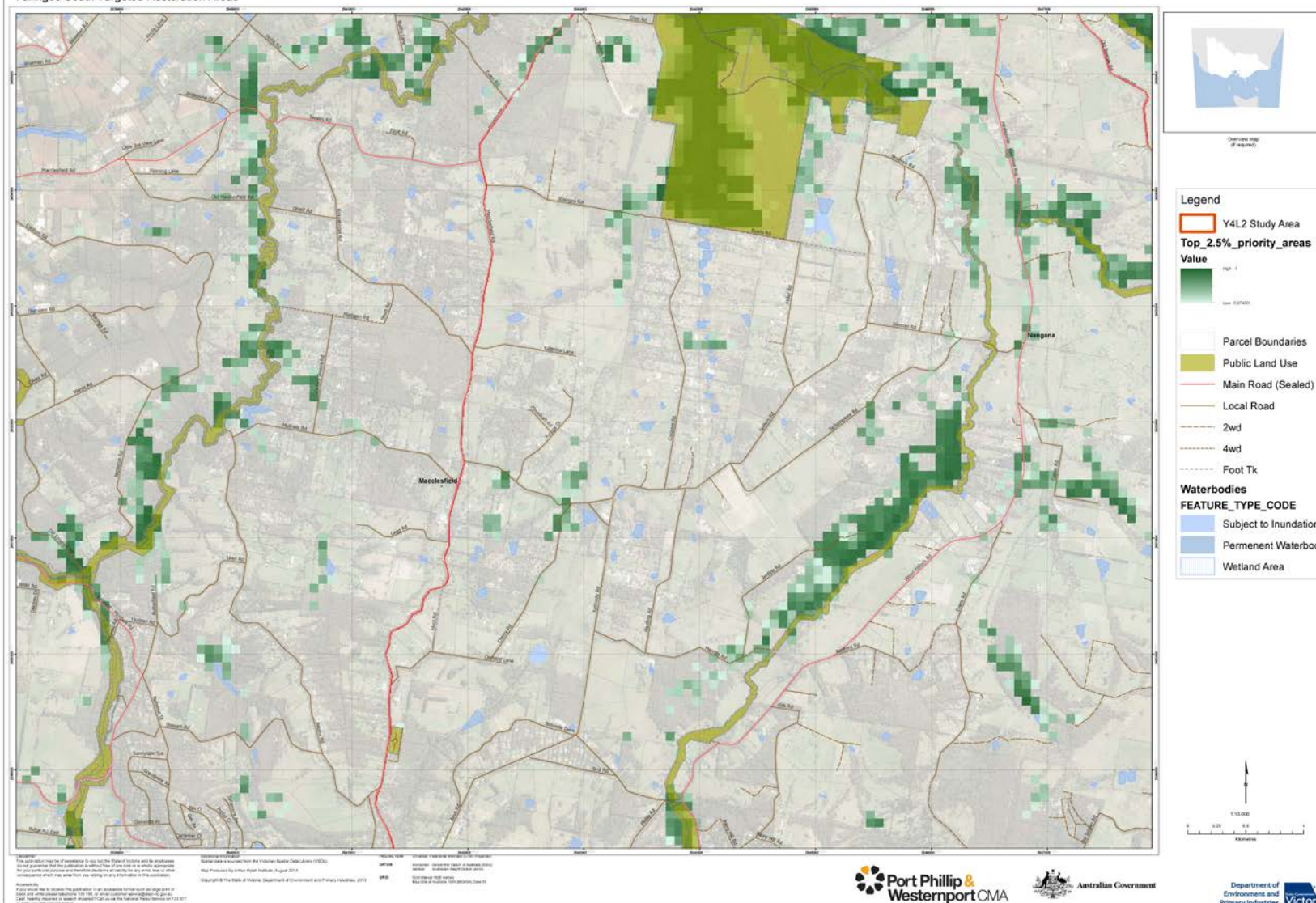
Yarra for Life, Connecting EPBC species in the Yarra Valley (Action Plan)

Yellingbo Targeted Restoration Areas



Appendix 7: Yellingbo South targeted restoration work area

Yarra for Life, Connecting EPBC species in the Yarra Valley (Action Plan)
Yellingbo South Targeted Restoration Areas



Appendix 8: Works Plan Template

WORKS PLAN TEMPLATE

1. Administrative details

Applicant name and affiliated group	
Postal address	
Phone number	
Email	
Date of submission	
Specific location details (GPS coordinates, or attach Google Earth kmz shape file)	
Which zoomed-in Zonation map is the property located on?	

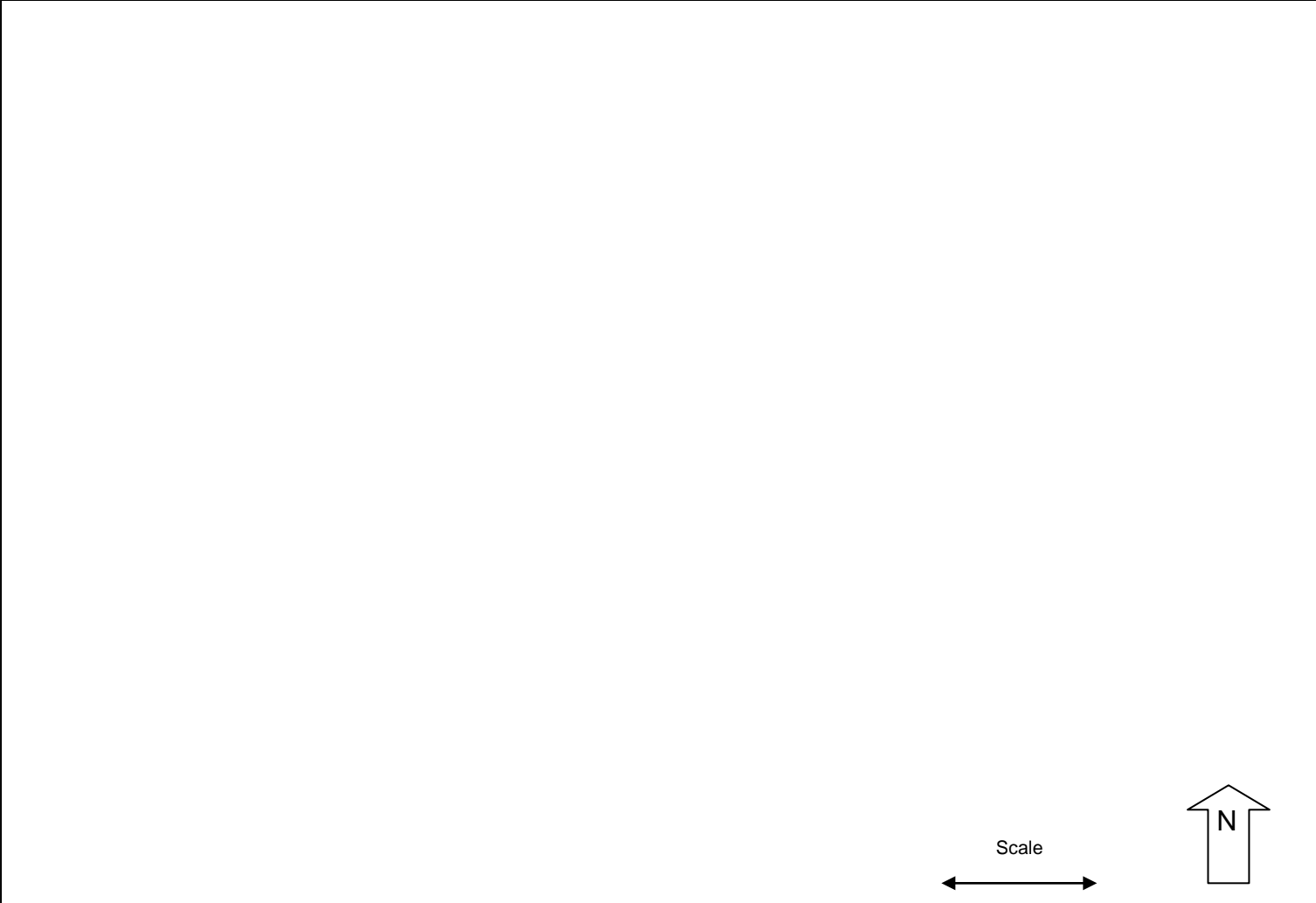
2. Purpose of Action

Threats to be addressed	
Desired outcome of action	
Summary of proposed action	

3. Site Description

Size (area) of proposed restoration works(ha)				
Perimeter length (m)				
Shape of site				
Land tenure				
Current site condition description	Native vegetation presence and type (see Appendix 9 for EVC types)		Adjacent land use	
	Weed presence/extent		Current land use	
	Introduced animals presence/damage		Other	
Summary of factors potentially affecting success and required management approach				
Previous rehabilitation activities undertaken at site?	Y/N	Detail :		

4. Map of Site

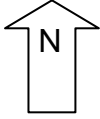


Legend

Add the following information with a symbol of your choice:

- Property boundary
- Works area
- Watercourse
- Weed control area
- Planting area
- Fencing
- Pest animal control
- Native vegetation
- Photo monitoring point

Scale



5. Site Preparation

Action	Detail
Weed control	What (target species): When: How often: Technique:
Proposed ground preparation	What: When: How often: Technique:
Has expert advice been sought on site preparation requirements and what are the recommendations?	
Are there any required approvals for the proposed works and have they been obtained?	

Associated works:	e.g. fencing
Other comments or actions proposed:	

6. Works Program

Works Program Action	Details	
Photo-point details: location, date, camera settings, etc.		
Proposed pest plant control <i>i.e. estimate the cover of vegetation to be controlled or eliminated from the restoration area on the following scale:</i> 0-5%; 6 – 20%; 20 - 50%; 50 – 80%; >80%	Weed control (not eliminated) Estimated area (ha): _____ Grasses: _____ Mid storey <5m in height: _____ Overstorey >5m in height: _____	Weed eradication (intention not to leave any on site) Estimated area (ha): _____ Grasses: _____ Mid storey <5m in height: _____ Overstorey >5m in height: _____

Works Program Action	Details
Proposed pest animal control	Estimated area (ha) of pest animal control: _____ Pest animal control technique: _____ Signs of pest animal return? _____
Proposed planting density of native plants	Estimated area of planting (ha): _____ Total number of tube stock: _____ Total number of different species: _____
Proposed planting diversity (native)	Total number of Grasses: Total number of mid storey <5m in height: Total number of overstorey >5m in height:
Proposed soil manipulation activities:	
Ongoing maintenance requirements:	

7. Monitoring and Reporting

To be completed every 12 months and submitted to PPWCMA

Project name		
Site location		
Contact name and details		
Photo point details: location, date, camera settings		
Monitoring technique, frequency and schedule <i>i.e. estimated cover of weeds and native vegetation on the following scale:</i> <i>0-5%; 6 – 20%; 20 - 50%; 50 – 80%; >80%</i>	Weeds Grasses: Mid storey <5m in height: Overstorey >5m in height:	Native Grasses: Mid storey <5m in height: Overstorey >5m in height:
Pest Animal control	Estimated area (ha) of pest animal control: _____ Pest animal control technique: _____ Signs of pest animal return? _____	
Number of native plants	Estimated area of planting (ha): _____ Total number planted: _____ Total number of different species: _____ Total estimated number of plants survived: _____ Any signs of natural recruitment?: _____	
Mapping <i>Insert map of where works have been undertaken using the template in Section 4 of Works Plan</i>		
Update on any issues with implementing works:		
Ongoing maintenance requirements:		

Appendix 9: Ecological Vegetation Class benchmarks

EVC 18: Riparian Forest Highlands – Southern Fall bioregion

Description:

A tall forest along river banks and associated alluvial terraces with occasional occurrences in the heads of gullies leading into creeks and rivers. The soil is fertile alluvium, regularly inundated and permanently moist. Dominated by tall eucalypts to 30 m tall, but also has an open to sparse secondary tree layer of wattles and scattered dense patches of shrubs, ferns, grasses and herbs.

Large trees:

Species	DBH(cm)	#/ha
<i>Eucalyptus</i> spp.	90 cm	20 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
40%	<i>Eucalyptus obliqua</i>	Messmate Stringybark
	<i>Eucalyptus viminalis</i>	Manna Gum

Understorey:

Life form	#Spp	%Cover	LF
code Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	4	20%	T
Medium Shrub	8	20%	MS
Small Shrub	1	1%	SS
Prostrate Shrub	1	1%	PS
Large Herb	2	1%	LH
Medium Herb	6	10%	MH
Small or Prostrate Herb	2	1%	SH
Large Tufted Graminoid	3	10%	LTG
Large Non-tufted Graminoid	2	5%	LNG
Medium to Small Tufted Graminoid	3	5%	MTG
Medium to Tiny Non-tufted Graminoid	2	5%	MNG
Ground Fern	5	20%	GF
Tree Fern	1	10%	TRF
Scrambler or Climber	3	5%	SC
Bryophytes/Lichens	na	20%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	<i>Acacia dealbata</i>	Silver Wattle
T	<i>Pomaderris aspera</i>	Hazel Pomaderris
T	<i>Acacia melanoxylon</i>	Blackwood
MS	<i>Coprosma quadrifida</i>	Prickly Currant-bush
MS	<i>Prostanthera lasianthos</i>	Victorian Christmas-bush
MS	<i>Goodenia ovata</i>	Hop Goodenia
MS	<i>Olearia lirata</i>	Snowy Daisy-bush
MH	<i>Viola hederacea</i> sensu Willis (1972)	Ivy-leaf Violet
MH	<i>Acaena novae-zelandiae</i>	Bidgee-widgee
MH	<i>Hydrocotyle hirta</i>	Hairy Pennywort
MH	<i>Geranium potentilloides</i>	Cinquefoil Cranesbill
SH	<i>Oxalis corniculata</i> s.l.	Yellow Wood-sorrel
LTG	<i>Carex appressa</i>	Tall Sedge
LTG	<i>Lepidosperma elatius</i>	Tall Sword-sedge
LTG	<i>Gahnia sieberiana</i>	Red-fruit Saw-sedge
LNG	<i>Tetrarrhena juncea</i>	Forest Wire-grass
MTG	<i>Poa australis</i> spp. agg.	Tussock Grass
MTG	<i>Dianella tasmanica</i>	Tasman Flax-lily
MTG	<i>Isolepis inundata</i>	Swamp Club-sedge
MNG	<i>Poa tenera</i>	Slender Tussock-grass
MNG	<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass
GF	<i>Blechnum nudum</i>	Fishbone Water-fern
GF	<i>Pteridium esculentum</i>	Austral Bracken
GF	<i>Blechnum wattsi</i>	Hard Water-fern
GF	<i>Polystichum proliferum</i>	Mother Shield-fern
TRF	<i>Cyathea australis</i>	Rough Tree-fern
SC	<i>Clematis aristata</i>	Mountain Clematis

Recruitment:

Continuous

Organic Litter:

50 % cover

Logs:

30 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MS	Rubus fruticosus spp. agg.	Blackberry	high	high
MH	Hypochoeris radicata	Cat's Ear	high	low
MH	Prunella vulgaris	Self-heal	high	low

EVC 56: Floodplain Riparian Woodland Highlands – Southern Fall bioregion

Description:

An open eucalypt woodland to 15 m tall over a medium to tall shrub layer with a ground layer consisting of amphibious and aquatic herbs and sedges. Occurs along the banks and floodplains of the larger meandering rivers and major creeks, often in conjunction with one or more floodplain wetland communities. Elevation and rainfall are relatively low and soils are fertile alluviums subject to periodic flooding and inundation.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	80 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
20%	Eucalyptus ovata	Swamp Gum
	Eucalyptus viminalis	MannaGum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree		5%	IT
Understorey Tree or Large Shrub	4	15%	T
Medium Shrub	3	10%	MS
Large Herb	4	10%	LH
Medium Herb	3	10%	MH
Small or Prostrate Herb	2	5%	SH
Large Tufted Graminoid	3	15%	LTG
Large Non-tufted Graminoid	3	20%	LNG
Medium to Small Tufted Graminoid	5	15%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Scrambler or Climber	3	10%	SC
Bryophytes/Lichens	na	10%	BL

LF Code	Species typical of at least part of EVC range	Common Name
T	Acacia dealbata	Silver Wattle
T	Melaleuca ericifolia	Swamp Paperbark
T	Acacia melanoxylon	Blackwood
MS	Bursaria spinosa ssp. spinosa	Sweet Bursaria
MS	Hymenanthera dentata s.l.	Tree Violet
LH	Senecio quadridentatus	Cotton Fireweed
LH	Senecio minimus	Shrubby Fireweed
LH	Senecio pinnatifolius	Variable Groundsel
MH	Acaena novae-zelandiae	Bidgee-widgee
MH	Crassula helmsii	Swamp Crassula
MH	Persicaria decipiens	Slender Knotweed
SH	Dichondra repens	Kidney-weed
LTG	Juncus sarophorus	Broom Rush
LTG	Juncus gregiflorus	Green Rush
LTG	Carex appressa	Tall Sedge
LTG	Poa labillardierei	Common Tussock-grass
LNG	Phragmites australis	Common Reed
LNG	Schoenoplectus tabernaemontani	River Club-sedge
MTG	Juncus amabilis	Hollow Rush
MTG	Carex inversa	Knob Sedge
MNG	Microlaena stipoides var. stipoides	Weeping Grass
SC	Calystegia sepium	Large Bindweed

Recruitment:

Episodic/Flood. Desirable period between disturbances is 10 years.

Organic Litter:

40 % cover

Logs:

30 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive
T	<i>Fraxinus angustifolia</i> ssp. <i>angustifolia</i>	Desert Ash	high
T	<i>Salix fragilis</i>	Crack Willow	high
T	<i>Salix cinerea</i>	Grey Sallow	high
T	<i>Crataegus monogyna</i>	Hawthorn	high
MS	<i>Solanum pseudocapsicum</i>	Madeira Winter-cherry	high
MS	<i>Prunus cerasifera</i>	Cherry Plum	high
LH	<i>Cirsium vulgare</i>	Spear Thistle	high
LH	<i>Solanum americanum</i>	Glossy Nightshade	high
LH	<i>Plantago lanceolata</i>	Ribwort	high
LH	<i>Rorippa palustris</i>	Marsh Yellow-cress	high
LH	<i>Sonchus asper</i> s.l.	Rough Sow-thistle	high
LH	<i>Verbena bonariensis</i> s.l.	Purple-top Verbena	high
LH	<i>Aster subulatus</i>	Aster-weed	high
LH	<i>Rumex pulcher</i> ssp. <i>pulcher</i>	Fiddle Dock	high
LH	<i>Rumex crispus</i>	Curled Dock	high
LH	<i>Rumex conglomeratus</i>	Clustered Dock	high
LH	<i>Echium plantagineum</i>	Paterson's Curse	high
MH	<i>Hypochoeris radicata</i>	Cat's Ear	high
MH	<i>Ranunculus repens</i>	Creeping Buttercup	high
MH	<i>Anagallis arvensis</i>	Pimpernel	high
MH	<i>Arctotheca calendula</i>	Cape Weed	high
MH	<i>Gamochaeta purpurea</i> s.l.	Purple Cudweed	high
MH	<i>Lotus corniculatus</i>	Bird's-foot Trefoil	high
MH	<i>Atriplex prostrata</i>	Hastate Orache	high
MH	<i>Stellaria media</i>	Chickweed	high
SH	<i>Trifolium repens</i> var. <i>repens</i>	White Clover	high
SH	<i>Modiola caroliniana</i>	Red-flower Mallow	high
SH	<i>Callitriche stagnalis</i>	Common Starwort	high
LTG	<i>Phalaris aquatica</i>	Toowoomba Canary-grass	high
LNG	<i>Holcus lanatus</i>	Yorkshire Fog	high
LNG	<i>Pennisetum clandestinum</i>	Kikuyu	high
MTG	<i>Iris pseudacorus</i>	Yellow Flag Iris	high
MTG	<i>Paspalum dilatatum</i>	Paspalum	high
MTG	<i>Lolium perenne</i>	Perennial Rye-grass	high
MTG	<i>Cyperus eragrostis</i>	Drain Flat-sedge	high
MTG	<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	high
MTG	<i>Agrostis stolonifera</i>	Creeping Bent	high
MTG	<i>Setaria gracilis</i> var. <i>pauciseta</i>	Slender Pigeon Grass	high
MTG	<i>Bromus catharticus</i>	Prairie Grass	high
MTG	<i>Poa annua</i>	Annual Meadow-grass	high
MTG	<i>Lolium rigidum</i>	Wimmera Rye-grass	high
MTG	<i>Ehrharta erecta</i> var. <i>erecta</i>	Panic Veldt-grass	high
MTG	<i>Agrostis capillaris</i> s.l.	Brown-top Bent	high
MNG	<i>Dactylis glomerata</i>	Cocksfoot	high
MNG	<i>Leersia oryzoides</i>	Rice Cut-grass	high
MNG	<i>Paspalum distichum</i>	Water Couch	high
MNG	<i>Poa pratensis</i>	Kentucky Blue-grass	high
SC	<i>Rubus</i> sp. aff. <i>armeniacus</i>	Blackberry	high
SC	<i>Vinca major</i>	Blue Periwinkle	high
SC	<i>Tradescantia fluminensis</i>	Wandering Jew	high
SC	<i>Galium aparine</i>	Cleavers	high