



# Council Roadside Reserves Project

## Rapid Assessment Methodology (RAM) Guide

## Acknowledgements

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Cover: Rapid Assessment Method Training in Albury (Photo: LGNSW)



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# 1. Introduction

The Rapid Assessment Method (RAM) was developed for linear reserve managers (eg local government and Local Land Services staff) to assess the conservation value of many sites in a relatively short timeframe and collate and compare these with other sites. The RAM work is part of the Council Roadside Reserves (CRR) project, which was funded by the NSW Environmental Trust and managed by LGNSW from 2016-2020.

## 1.1. Purpose of the Rapid Assessment Method (RAM)

The Rapid Assessment Method (RAM) is designed to provide councils in NSW with a simple, efficient and standardised method for assessing the conservation value of council roadside reserves. This guide has been specifically designed for councils to assist them in undertaking roadside assessments using the RAM. To provide statewide consistency, it is based on the LLS guide '[Rapid conservation assessment method – Training package and guidelines](#)'.

## 1.2. What is the RAM?

The RAM is a relatively simple method of assessment that comprises a three-part scoring system as follows:

- Part A: Conservation Status
- Part B: Landscape Context, and
- Part C: Vegetation Condition.

## 1.3. Intent of the RAM

The rapid field assessment component of the RAM is not a flora or fauna survey, rather a method to broadly categorise the vegetation condition of linear reserves such as roadside reserves, travelling stock reserves and other areas of native vegetation. This will help inform basic management decisions based on the vegetation condition identified at the site.

## 1.4. Who will implement the RAM?

Following adequate training, all relevant council staff and others involved in native vegetation and land management will be capable of undertaking assessment using the RAM.

The basic competencies required is the ability to use or access existing spatial vegetation data and basic vegetation identification in the field e.g. main tree species and whether the ground layer is mostly native perennial grass or weedy.

## 1.5. When to use the RAM

The RAM should be used by councils when information about roadside environmental values is required as part of council decision making processes regarding management of roadside reserves. The results can be incorporated into a Roadside Vegetation Management Plan (RVMP) for council roadside reserves, as well as other council systems and processes such as asset management and property systems.



## 2. Resources to Assist the RAM

The RAM can be completed using the following methods:

- (i) Use of a field proforma

The RAM can be completed using the field proforma provided in Appendix A. This method requires an additional step to transfer data collected into council's mapping system.

- (ii) Use of the *ESRI Collector for ArcGIS* app provided by Local Land Services

This app is provided by Local Land Services. For instructions on using this app refer to the [LLS User Guide](#).

- (iii) Use of the *EcoRoadside App*

At this time, preference for councils is to use the EcoRoadside App, as it does not require ESRI software or purchase of credits for data hosting and usage.

The EcoRoadside App has been developed to provide an electronic data collection tool for completing the RAM, bypassing the need for using field sheets and reducing the risk of transcription errors. A key part of the EcoServer platform, which hosts EcoRoadside, is the cloud database that manages, serves and synchronises data collected in the field. Data can be collected 'live' using a 4G signal, or offline using an Apple (iOS) device and the offline version of the app, called EcoRoadside-mobile.

The EcoRoadside App is available to all councils for a small licence fee, which also includes app support. See Appendix B for details on setting up and using the EcoRoadside App. Other support resources include the [Online Introductory Setup Video](#) and the [Online Detailed Training Video](#).

### 2.1. Access to Spatial Data

To complete the Rapid Assessment Method, access to a number of spatial datasets is required. These may be available on your council's internal mapping system, or via the SEED Web Map links provided in Table 1.

Table 1: GIS Data required to complete the RAM using EcoRoadside App

Data Required	Link to SEED Data / Web Map
<b>IBRA Region</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-regions">https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-regions</a>
<b>IBRA Subregion</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-subregions">https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-subregions</a>
<b>Mitchell Landscapes</b>	<a href="https://datasets.seed.nsw.gov.au/dataset/nsw-mitchell-landscapes-version-3-1">https://datasets.seed.nsw.gov.au/dataset/nsw-mitchell-landscapes-version-3-1</a>
<b>Vegetation Mapping (for PCT information)</b>	<a href="https://www.environment.nsw.gov.au/vegetation/state-vegetation-type-map.htm">https://www.environment.nsw.gov.au/vegetation/state-vegetation-type-map.htm*</a>

\*see Section 2.2 for further information about sourcing PCT information



## 2.2. Vegetation Mapping and Plant Community Types

The State Vegetation Type Map (SVTM) is currently being produced by the NSW Department of Planning Industry and the Environment, in order to provide consistent information about the distribution of Plant Community Types across NSW.

Figure 1 illustrates the status of the SVTM across NSW, which shows it is currently complete for:

- Sydney Metro
- Border Rivers – Gwydir- Namoi
- Central West
- Riverina – Murray
- Western
- Central Tablelands
- Upper Hunter

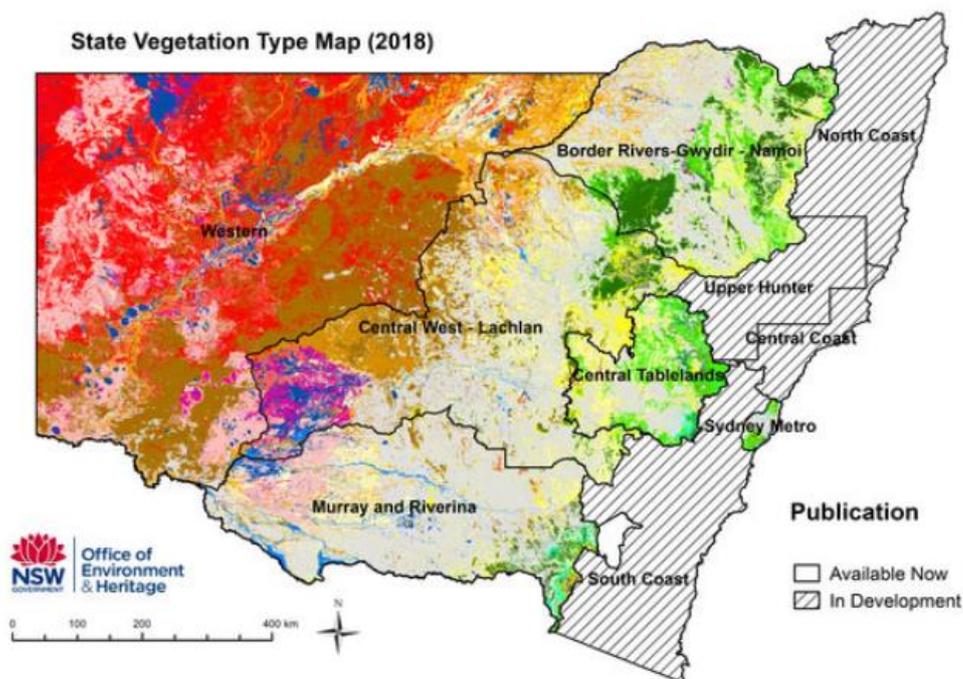


Figure 1: Status of State Vegetation Type mapping across NSW

To assist councils to determine and access the most relevant vegetation dataset for their LGA, a vegetation ‘lookup’ table has been provided in Excel format, with links to the spatial data in the SEED webmap. This will need to be updated as new and revised SVTM datasets or other vegetation data that contain the Plant Community Types become available.

A copy of the lookup table is provided in Appendix C. Note that there are some Local Government Areas which currently do not have suitable SVTM or other mapping which contains Plant Community Types required to complete the RAM. In this instance, these councils should do the following:

1. Determine the best source of vegetation mapping for your Local Government Area. You could do this by liaising with the environmental officer and/or GIS staff in your council, or by



consulting the SEED portal to conduct a search for spatial data which may be available for your LGA: <https://datasets.seed.nsw.gov.au/>

2. Use the available spatial data to determine the vegetation community at the site of your assessment.
3. Consult the BioNet Web Service (<https://www.environment.nsw.gov.au/research/Visclassification.htm>) to classify your vegetation community as a Plant Community Type for use in the RAM.

### 2.3. Prioritising Roadsides

To assist councils with directing their limited resources to the areas of highest conservation significance, it is recommended that a site prioritisation process be undertaken prior to commencing site assessments.

Roadside values vary from region to region, and as such each council must determine the characteristics which form the basis for prioritising roadside vegetation for assessment. This could include:

- Threatened Ecological Community status;
- Proximity of records of threatened species and their habitats;
- Sites within environmental land zoning types;
- Presence of unique or significant attributes, such as few remaining locations for threatened species that are under threat from urban development or other issues.

An example of a prioritisation method applied by a council is contained within Section 4 of the Penrith RVMP– see Appendix D. In this example, a desktop analysis was applied to identify roadside reserves that:

- Contain native vegetation;
- Contain or are adjacent to threatened flora or fauna species;
- Are within 250m of a species prioritised by the 'Saving Our Species' (SOS) project; and
- Include a council or joint managed land.

Roadside reserves that contained native vegetation and or threatened species were prioritised for assessment, whilst developed urban areas were excluded from assessment. This is illustrated in the maps of 'initial priority road segments'.



### 3. Completing the RAM

#### 3.1. Process Summary

A significant component of the RAM can be completed as a desktop assessment using GIS data. Figure 2 below outlines the components of the RAM within the EcoRoadside App that rely on GIS data, and those components that require field survey.

The RAM is explained in this section. **Error! Reference source not found.**B contains further information on using the EcoRoadside App to undertake an assessment.

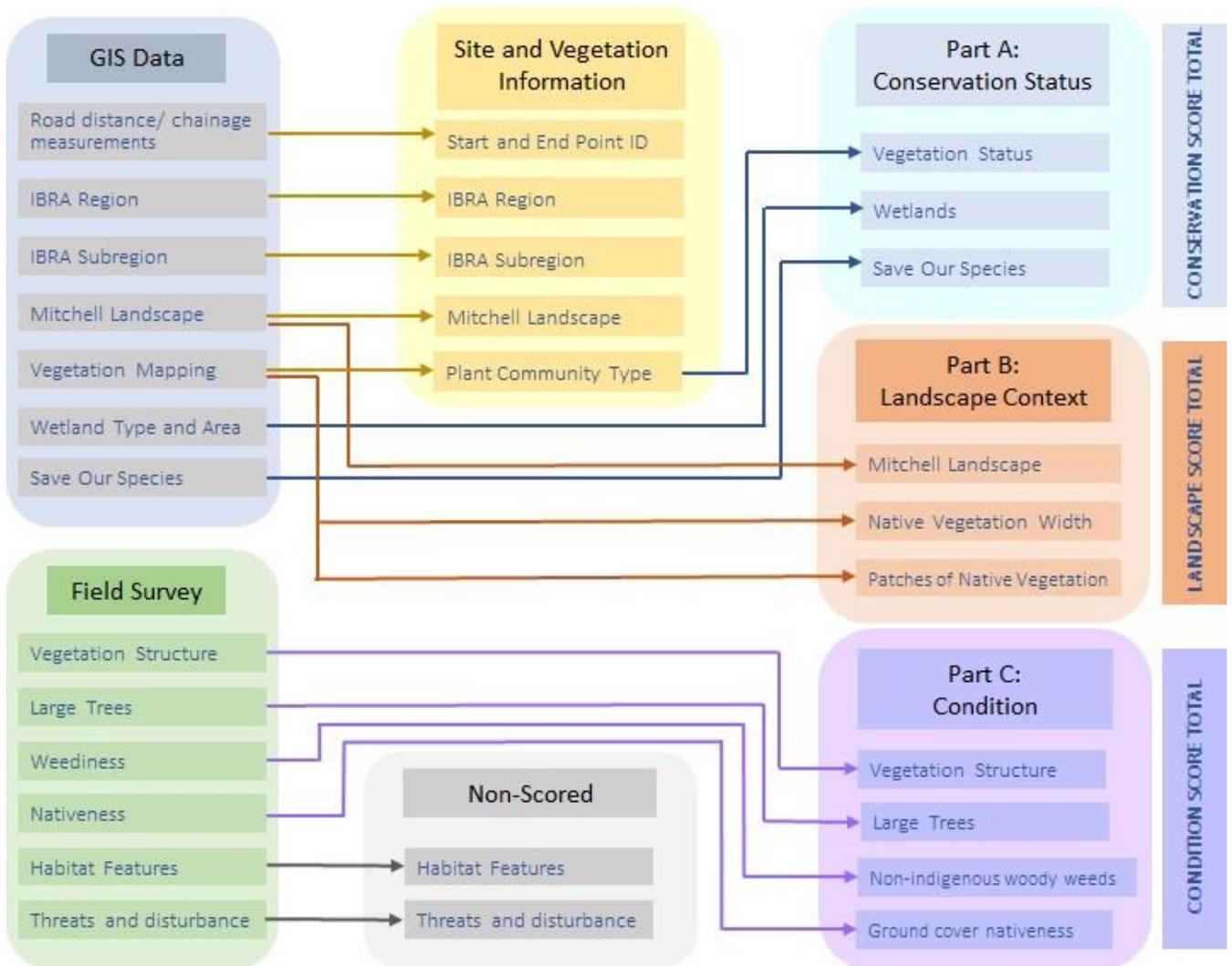


Figure 2: Components of the RAM that require GIS input and field survey

The RAM consists of the following:

- **General site information** including the assessor’s name, date and time of assessment, and location identification information (such as road name, site id number, coordinates, distance markers at start and end points where available);



- **Part A Conservation Status:** The information in this component is used to generate a score for conservation status of the site based on the vegetation status, proximity to important wetlands, and to 'Save Our Species' sites;
- **Part B Landscape Context:** This section applies a score to the site based on regional landscape context such as Mitchell Landscape type, width of native vegetation and patch size;
- **Part C Condition:** The score for this section is generated based on the vegetation structure, presence of large trees, non-indigenous woody weeds and ground cover native species.

Each of these sections and associated scoring is described in detail here.

### 3.2. General Site Information

General site information required in the RAM includes:

- The site assessor's name;
- Date and time of assessment.

A description of the remaining components of this section, as well as the relevant field in the 'EcoRoadside' App, is provided in Table 2 below.

Table 2: General site information

RAM Component	Description	EcoRoadside Field
<b>Local Government Area</b>	Local Government Area	Drop down menu
<b>Start Point</b>	Location of the start point for the stretch of roadside being assessed.	Road distance marker from GIS
<b>End Point</b>	Location of the end point for the stretch of roadside being assessed.	Road distance marker from GIS
<b>Site ID/Number</b>	Site ID number for the stretch of road being assessed	Site ID /Number from GIS <i>(Can be used as an alternative to the 'start' and 'end' locations if these are unavailable).</i>
<b>Road Name</b>	Name of road being assessed	Drop down menu pre-populated with road names within your LGA
<b>Site location details</b>	Coordinates of start and end points	Can be captured in the field using the 'navigate' icon, or by taking photos in the field, saving them to your photo library, then adding them to the app.

#### Side of Road

If the reserve is divided by a road, is the assessment zone on both sides of the road? If not select the direction to the assessment zone. For example, if the assessment zone lies to the NE of the road, select 'North east'.



## Specht Vegetation Structure

Scoring of the RAM is based on the broad vegetation structure types. Identification of the correct vegetation structure type enables the site to be categorised as either naturally treed, shrubland/heathland or grassland, which prompts the correct vegetation condition scoring (in Part C). Table 3 shows the vegetation structure categories used in the RAM.

Table 3: Specht vegetation structure types explained

	Percentage canopy cover			
<b>Life form and height of tallest stratum</b>	>70%	>30-70%	10-30%	<10%
<b>Trees &gt;8m</b>	Closed forest	Open forest	Woodland	Open-woodland
<b>No trees, Shrubs &lt;8m</b>		Shrubland/ heathland	Open shrubland/ heathland	Open shrubland/ heathland
<b>Grassy with sparse or no shrubs or trees</b>				Grassland

## Vegetation Information

The vegetation information included in the RAM is summarised in Table 4.

Table 4: Vegetation information included in RAM

RAM Component	Description	EcoRoadside Field
<b>IBRA Region and Subregion</b>	The IBRA Region and Subregion information is not part of the RAM proforma, however they are used to pre-populate vegetation information within the EcoRoadside App.	Drop down menu
<b>Mitchell Landscape</b>	Mitchell Landscapes are used in NSW as a method of determining current extent of native vegetation and are based on areas of land with similar geomorphology, soil and broad vegetation type. They are used for a variety of purposes including determination of over-cleared landscapes.	Drop down menu
<b>Plant Community Type (PCT) Name and Number</b>	The Plant Community Type determines the threatened status of the vegetation community which is a component of the <i>Part A Conservation Status Score</i> .	Drop down menu pre-populated based on selection of IBRA Region, IBRA Subregion and Mitchell Landscape
<b>Vegetation Formation</b>	Vegetation formation is the basic structure of the vegetation present.	Automatically populated based on PCT
<b>Vegetation Class</b>	The broad vegetation class or category of the vegetation present.	Automatically populated based on PCT



### 3.3. Scored Information

#### 3.3.1. Part A: Conservation Status

This section of the RAM relates to environmental legislation at state and federal level that prioritise protection of flora, fauna and ecological communities.

Extra protection is generally directed towards species and communities of high conservation status, such as those that are threatened or have exceptional ecological values.

#### 3.3.2. Vegetation Status

This section establishes the rarity of the vegetation community present and hence its priority for protection. The RAM assigns a score based on vegetation status as follows:

Status	Score
Threatened ecological community / Over-cleared (>70%) vegetation community	2
Not present	0

In the EcoRoadside App, the vegetation status is automatically assigned based on the selection of the Plant Community Type (PCT) in the previous section.

#### 3.3.3. Wetlands

Wetlands have high essential biodiversity values and their protection is a high conservation priority.

The definition of a wetland for the purpose of this assessment is ‘a low point/depression in the landscape that holds water during wet periods’. During dry periods when wetlands may be dry they can be identified by their sunken landform and/or the presence of hardy perennial wetland plants like sedges, rushes and reeds.

If there is a wetland present at the assessment site, consult your GIS to determine if the wetland is classified as either:

- Directory of Important Wetlands of Australia (DIWA)
- RAMSAR or
- Coastal wetland listed under the Coastal Management Act 2016 (previously SEPP 14 Coastal Wetlands).

Also use your GIS to determine the size of the wetland, and whether it is greater than 2 hectares.

The RAM assigns a score based on the category and size of the wetland as follows:

Status	Score
RAMSAR/ DIWA/ CM Act wetland	2
Other wetland greater than 2ha	1
Not present (< 2ha)	0

#### 3.3.4. Site Managed Species

The definition of a site-managed species are threatened plants and animals that can be secured by conservation projects at specific sites.



The presence of site managed species is based on data provided in the [NSW Bionet Atlas](#).

The RAM assigns a score for site managed species as follows:

Status	Score
Present	2
Absent	0

**Part A Conservation status score:**

**Threatened = 2+**

**Depleted = 1**

**Common = 0**

### 3.3.5. Part B: Landscape Context

This section of the RAM considers the significance of the reserve in relation to the surrounding landscape attributes, which include:

- Proportion of Mitchell Landscape remaining;
- The vegetation patch size and shape;
- Connectivity to other patches of vegetation
- The proportion of native vegetation in the neighbouring area.

### 3.3.6. Mitchell Landscape

Mitchell Landscapes are used in NSW as a method of determining current extent of native vegetation and are based on areas of land with similar geomorphology, soil and broad vegetation type, and are also used to determine over-cleared landscapes.

The RAM assigns a score for Mitchell Landscapes as follows:

Status	Score
>70% cleared	10
30-70% cleared	5
<30% cleared	0

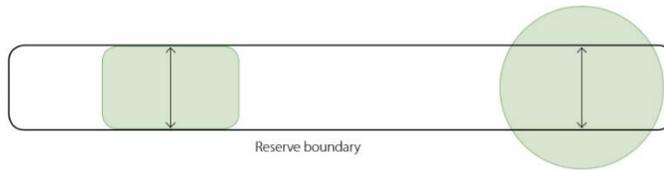
In the EcoRoadside App, the Mitchell Landscape name and % cleared are automatically populated from the Mitchell Landscape selected in the previous section.

### 3.3.7. Width of Native Vegetation

This is measured as two elements for purposes of the RAM. For both elements, reference to vegetation mapping and aerial imagery may be required to determine the response.

- Assessment Zone width, which measures the width of native vegetation in the assessment zone only;

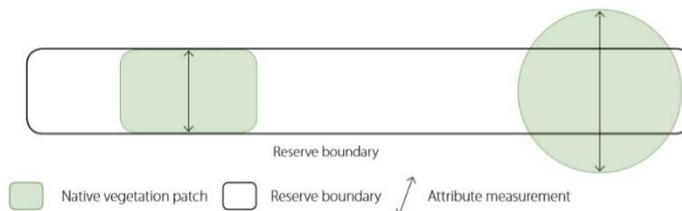




The RAM assigns a score for reserve/ assessment zone width as follows:

Status	Score
>100m	10
21-100m	6
5-20m	2
<5m	0

(b) Total native vegetation width, which measures the width of the total patch of native vegetation.



The RAM assigns a score for Total native vegetation width as follows:

Status	Score
>100m	10
20-100m	6
<20m	0

### 3.3.8. Patches of Native Vegetation within 100m

Refer to vegetation mapping and aerial imagery in GIS to determine the number of vegetation patches that are within 100m of the assessment site.

Figure 3 illustrates the assessment of native vegetation patches within 100m.

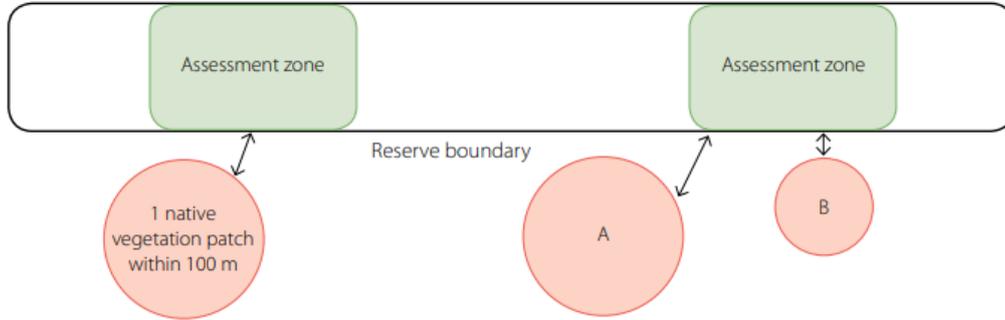
The RAM assigns a score for patches of native vegetation within 100m of the site as follows:

Status	Score
>5ha within 100m	10
1-5ha	5
<1ha	0

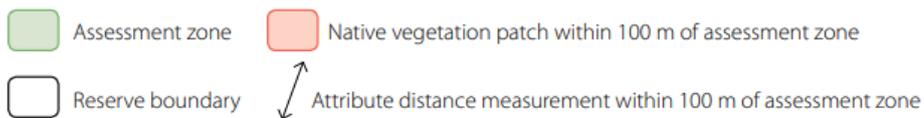
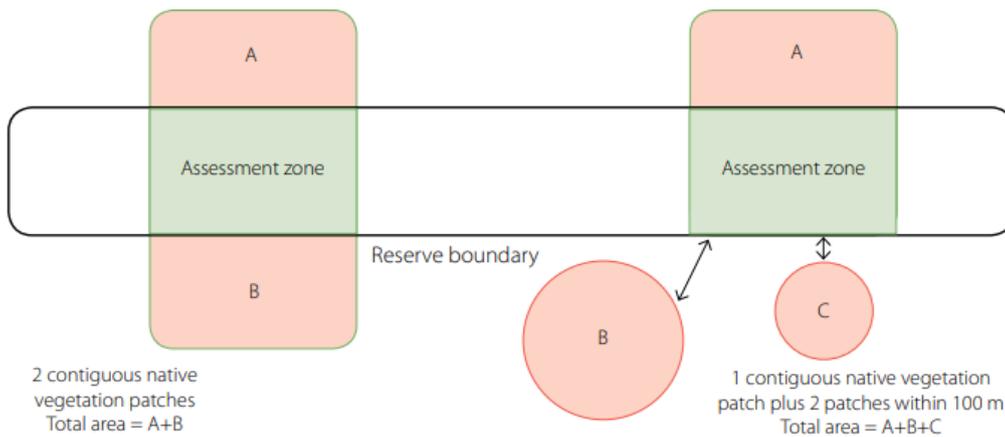


Figure 3: Assessment of native vegetation patches within 100m of assessment site

- a. Examples where assessment zone is not connected to nearest native vegetation patch (i.e. not contiguous). Measure total area of all native vegetation patches that are within 100 m of assessment zone. Exclude patches < 1 ha.



- b. Examples where assessment zone is connected to nearest native vegetation patch (i.e. contiguous). Measure total area of contiguous native vegetation patches plus other patches that are within 100 m of the assessment zone. Exclude patches < 1 ha.



Part B Landscape Context score:

- Large and/or connected = 22+
- Moderate = 10-21
- Small or disconnected = 0-9



### 3.3.9. Part C: Vegetation Condition

This section of the RAM is scored during field survey, and is based on the presumed natural type of vegetation that occurred on a site (eg Pre-European). The [LLS Regional Vegetation Guides](#) provide detailed information on the vegetation communities for each LLS region including information on typical vegetation structure for these communities.

### 3.3.10. Vegetation Structure

Indicates the degree to which assessed vegetation retains the structural components typical of its formation or class.

The RAM assigns a score for vegetation structure as follows:

Status	Description and Examples <i>(photos from LLS 2017)</i>	Score
Intact/natural	<p>All vegetation layers (mature trees and shrubs, some younger trees and shrubs and regeneration) are present.</p> 	6
Mostly intact	<p>Most vegetation layers are present.</p> 	4
Partially intact	<p>Missing 2 or more structural layers.</p> 	2



Status	Description and Examples <i>(photos from LLS 2017)</i>	Score
Sparse or absent	<p>Only occasional or no trees or shrubs</p> 	0

### 3.3.11. Large Trees

Large mature trees are irreplaceable habitat elements, especially those with hollows that often take centuries to develop and provide vital habitat resources for many wildlife including parrots, owls, possums and bats.

The RAM assigns a score for presence / absence of large trees at the site as follows:

Status	Score
Common	3
Sparse	1
Absent	0

### 3.3.12. Non-Indigenous Woody Weeds

Woody weeds and vines are often invasive and if left uncontrolled can spread throughout natural habitats changing the structure of the vegetation. Early detection and intervention is ideal allowing relatively inexpensive eradication or control.

The RAM assigns a score for presence / absence of woody weeds at the site as follows:

Status	Score
Absent	3
Sparse	2
Common/ abundant	1

### 3.3.13. Groundcover

Groundcover condition often influences the resilience of a site, ie its capacity to self-regenerate. Groundcover is made up of two elements for the purposes of the RAM:

- (a) Weediness, which is the overall cover of grass and herbaceous weeds in the ground layer; and
- (b) Nativeness, which is the diversity of native species in the ground layer.



The RAM assigns a score for weediness as follows:

Status	Score
Sparse (weeds are sparse or patchy throughout)	4
Common in parts (weeds are only common in parts and generally sparse elsewhere)	3
Common throughout (weeds are found commonly throughout)	2
Abundant (Weeds dominate the ground layer and native grasses are sparse at best)	0

The RAM assigns a score for nativeness as follows:

Status	Score
Diverse throughout (mostly native species with many native grass and forb types)	4
Diverse in patches (areas with many native grass and native forb types and mostly surrounded by areas of native grass with few species)	3
Few species common throughout (mostly native grass with few species)	2
Patches only (patches of native grass amongst otherwise exotic pasture grasses)	1
Abundant (Only scattered or no native grass throughout)	0

Scoring vegetation condition is divided into three categories determined from the vegetation structure category and vegetation formation assessment into either naturally treed, shrubland/heathland or grassland. The same format is used for scoring assessments across all categories of vegetation formation. In the case of naturally treed formations all components are included, while for shrubland/heathland the large tree component is excluded and vegetation structure and large tree components are excluded for grasslands.

The total score for the RAM vegetation condition assessment is the sum of all relative component scores above and provides the overall RAM vegetation condition rating of high, moderate or low quality.

Naturally Treed Vegetation	Score
<b>High Quality</b>	17+ = Residual or Modified A; 14-16 = Modified B
<b>Moderate Quality</b>	9-13 = Transformed A; 6-8 = Transformed B
<b>Low Quality</b>	0-5 = Replaced
Shrublands/ heathlands	Score
<b>High Quality</b>	14+ = Residual or Modified A; 11-13 = Modified B
<b>Moderate Quality</b>	8-10 = Transformed A; 6-7 = Transformed B



<b>Low Quality</b>	0-5 = Replaced
<b>Grasslands</b>	<b>Score</b>
<b>High Quality</b>	7+ = Residual or Modified A; 5-6 = Modified B
<b>Moderate Quality</b>	4 = Transformed A; 3 = Transformed B
<b>Low Quality</b>	0-2 = Replaced

### 3.4. Scoring and Conservation Value

The EcoRoadside App automatically assigns scores to each of the components for all three parts – Part A, B and C – and integrates these scores into a conservation value matrix (see Table 5) to assign an overall conservation value to the site.

Table 5: Conservation value assessment matrix

Conservation Status	Landscape Context	Condition and habitat		
		High quality	Moderate quality	Low quality
<b>Threatened</b>	Large and/or connected	High HCV	High HCV	Medium MCV*
	Moderate	High HCV	Medium MCV	Medium MCV*
	Small and disconnected	High HCV	Medium MCV	Medium MCV*
<b>Depleted</b>	Large and/or connected	High HCV	Medium MCV	Low LCV
	Moderate	High HCV	Medium MCV	Low LCV
	Small and disconnected	High HCV	Medium MCV	Low LCV
<b>Common</b>	Large and/or connected	High HCV	Medium MCV	Low LCV
	Moderate	Medium MCV	Low LCV	Low LCV
	Small and disconnected	Medium MCV	Low LCV	Low LCV

\*Reserves that fall into these three categories will form part of the RAM matrix audit and may be revised in subsequent versions of this guide.



### 3.5. Non-Scored Information

Other important information (non-scored) relevant to land management are also recorded whilst in the field. This information includes:

#### 3.5.1. Major Weed Species Present

List the main local weed species for each category, eg woody weeds and vines, exotic grasses and herbaceous weeds.

The EcoRoadside App contains a pre-populated list of common weed species to choose from, or you can add your own to this list.

#### 3.5.2. Native Species

List the native tree canopy, shrub and understorey species present.

The EcoRoadside App allows you to enter up to 5 species of each strata, and contains a pre-populated list of common native species, or you can add your own to this list.

It is a good idea to take photos of species you are unsure of to identify later.

#### 3.5.3. Habitat Features

A range of important habitat features are included in the table below, but your council may like to add others. Tick the correct abundance rating for each habitat feature.

The EcoRoadside App contains a drop down menu to select abundance (*sparse, common, abundant* or *not present*) for each of the following habitat features.

Habitat feature	Sparse	Common	Abundant
Tree regeneration – regeneration is defined as a tree with a trunk diameter of less than 10 cm or a canopy height less than 50% of adult trees.			
Shrub cover – woody plants, non-eucalypt and usually < 5m, for example; wattles, saltbush.			
Shrub regeneration – shrub regeneration is defined as a shrub with a canopy height less than 50% of adult shrubs.			
Logs and fallen timber – logs and fallen timber are defined as timber with a diameter greater than 10cm lying on or adjacent to the ground.			
Wetlands/springs/gilgais – landforms that hold water during wet periods and are known to be important habitat features.			
Rocky outcrops – landforms with exposed rock and are known to be important habitat features.			
River/creek banks – drainage channels.			
Mistletoe – habitat features important to many wildlife			
Cryptogams – non-flowering plants that are known as important indicators of soil crust health, e.g. mosses, algae, ferns, lichens, and fungi			
Rare plants – rare plants from the local list that are incidentally recorded.			



### 3.5.4. Threats/Disturbances

A range of common threats and disturbance types are included in the table below, but your council may like to add others. Tick the correct action priority for each.

Threat/ disturbance	Impact	
	Minor	Significant
Grazing eg free feeding		
Fire break, eg ploughed fire break		
Tracks, eg new earthworks		
Drainage, eg drainage earthworks		
Cropping, eg ploughed area		
Feral animals, eg goat browsing		
Timber removal, eg recently felled trees		
Active erosion, eg active gullies forming		
Invasive weed eg identification and removal of minor infestation		
Flood/fire damage eg damaged fences		
Illegal dumping, eg building waste, potential asbestos		
General littering		

The EcoRoadside App contains a drop down menu to select the priority rating for most of these threats and disturbance types, as well as a free text field to add others if required.

### 3.5.5. Cultural Heritage

Use free text to record any potential cultural heritage observed on the site, such as scarred trees or old buildings.

The EcoRoadside App allows a free text field for this.

### 3.5.6. Current Management Regime

Use free text to describe comments on grazing, fire and other management practices.

The EcoRoadside App allows councils to provide a list of common management practices to pre-populate a drop down menu in the app, or use a free text field for councils to add their own.

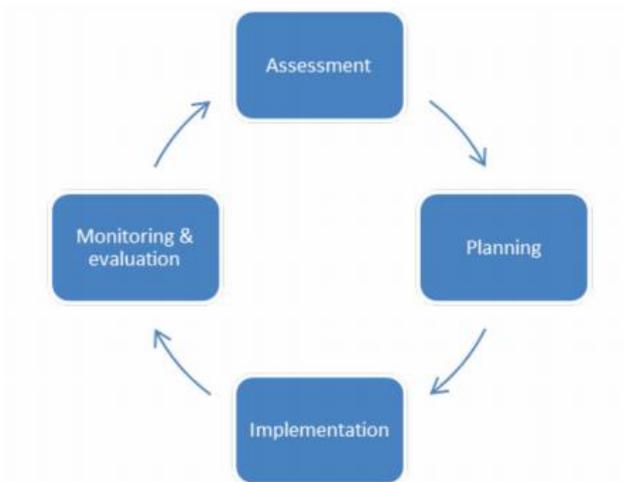


## 4. Implementing the RAM Results

There are four stages that lead to best practice roadside environmental management:

1. Assessment;
2. Planning;
3. Implementation;
4. Monitoring and evaluation.

These stages are carried out in a cycle as shown below.



The RAM is a tool that can be used for both the ‘Assessment’ and the ‘Monitoring and Evaluation’ stages of this cycle.

The other components are addressed here.

### 4.1.1. Planning

The data collected via a RAM should be stored in appropriate systems such as council’s GIS and/or asset management system so that it is readily available across all sections of council.

The prioritisation of roadsides via the RAM allows for development of appropriate management actions to be documented in a Roadside Vegetation Management Plan (RVMP). As well as the outcomes of the RAM, other considerations of a RVMP are how it links to other council systems and planning, as well as community interests, values and activities.

Roadside reserves should be viewed as natural assets associated with road infrastructure and, as such, should be valued and included in council’s asset management plans and systems. The RVMP should outline the risks and council’s efforts to manage their roadside reserves as an important asset.

Linkages with local and regional natural resource management plans and related activities should also be encouraged. Regional natural resource management plans such as Catchment Action Plans identify regional NRM priorities, and may have specific reference to roadside reserves with associated management targets. Linkages with these external plans may assist councils to obtain funds for priority roadside reserve activities.



#### 4.1.2. Implementation

Actions relating to the management of high, medium and low conservation value roadsides will be developed as part of a Roadside Vegetation Management Plan (RVMP). Actions could include:

- Appropriate maintenance of roadsides based on conservation value;
- Signage and markers to identify high conservation value areas;
- Training local council staff to generate interest and skill in roadside management;
- Community education regarding appropriate management of high conservation value roadsides;
- Regulation by councils;
- Stakeholder engagement and partnerships to share resources;
- Funding opportunities;
- Restoration and rehabilitation projects.

#### 4.1.3. Examples

Examples of roadside assessment, planning and implementation are provided in Appendix EE.

#### 4.1.4. Conservation Value Data in SEED

GIS data from councils who undertook roadside assessments through the CRR project, utilising the RAM, is available on [SEED - Council Roadside Reserves](#). Local Land Services' Travelling Stock Reserve (TSR) conservation value data is also available on [SEED - TSRs](#). The provision of this data into a statewide database such as SEED enables other land managers to see the conservation values of roadside reserves and to plan and manage their works accordingly.

Appendix F outlines the process and requirements for adding roadside reserve conservation value data to SEED and Appendix G provides step by step instructions on downloading existing data.



# Appendix A

## Field Proforma

Linear and Discreet Reserves <b>Major Vegetation Type</b> (Grasslands, Shrublands/Heath, Treed)												
Assessor name					Date							
Reserve Name					Crown Reserve Number							
Roadside Name					Road Number							
Side of Road	Both	or	N	NE	E	SE	S	SW	W	NW		
Vegetation Formation			<b>FREE TEXT</b>			Vegetation Class		<b>FREE TEXT</b>			Plant Community/No. if known	<b>FREE TEXT</b>
Assessment Zone Identification					GPS Coordinates							
Start of Zone					End of Zone							
<b>Part A Conservation Status</b>												
<b>Vegetation</b>			<b>Wetlands</b>			<b>Site Managed Species</b>						
TEC/Over cleared veg community			2			Ramsar/DIWA/CM Act		2		Present	2	
Not Present			0			Wetlands (>2ha)		1		Absent	0	
Name if known						None (or <2ha)		0				
TOTAL SCORE =					Threatened = 2+, Depleted = 1, Common = 0							
<b>Part B Landscape Context</b> (Note any site with non-native vegetation scores 0)												
<b>Mitchell Landscape</b>			<b>Zone Vegetation Width</b> (width within assessment zone)			<b>Total Native Vegetation width</b> (within and adjoining assessment zone)						
>70% cleared			10			> 100m		10		>100m	10	
30-70% cleared			5			21-100m		6		20-100m	6	
<30% cleared			0			5-20m		2		<20m	0	
<5m			0									
<b>Native Vegetation within 100m</b>												
>5 ha within 100m			10									
1-5 ha			5									
<1 ha			0			TOTAL SCORE =		Large and or connected = 22+, Moderate = 10-21, Small or disconnected = 0-9				
<b>Part C Condition</b>												
<b>Vegetation Structure</b>			<b>Large Trees</b>			<b>Non- indigenous woody weeds</b>						
Intact/natural			6			Common		3		Absent	3	
Mostly intact			4			Sparse		1		Sparse	2	
Partially intact			2			absent		0		Common/abundant	1	
Sparse or absent			0									
					<b>Ground Cover</b>							
<b>Weediness</b>			<b>Nativeness</b>									
sparse			4			diverse throughout		4		<b>Naturally treed vegetation:</b> HIGH QUALITY: 17+ = Residual or Modified A; 14-16 = Modified B; MODERATE QUALITY: 9-13 = Transformed A; 6-8 = Transformed B; LOW QUALITY: 0-5 = Replaced  <b>Shrublands / Heathlands:</b> HIGH QUALITY: 14+ = Residual or Modified A; 11-13 = Modified B; MODERATE QUALITY: 8-10 = Transformed A; 6-7 = Transformed B; LOW QUALITY: 0-5 = Replaced  <b>Grasslands:</b> HIGH QUALITY: 7+ = Residual or Modified A; 5-6 = Modified B; MODERATE QUALITY: 4 = Transformed A; 3 = Transformed B; LOW QUALITY: 0-2 = Replaced		
common in parts			3			diverse in patches		3				
common throughout			2			few species common throughout		2				
abundant			0			patches only		1				
						absent/sparse		0				
TOTAL SCORE =												



Other Information recorded:

Main weed species present

1-5 species

Main tree species

1-5 species

Main shrub species

1-5 species (if known)

Main understorey species

1-5 species (if known)

Other indicators – tick if present

Habitat features	Sparse	Common	Abundant
Tree regeneration			
Shrub cover			
Shrub regeneration			
Logs & fallen timber			
Wetlands/springs/gilgais			
Rocky outcrops			
River/creek banks			
Mistletoe			
Cryptogams			
Rare plants			

Threats /disturbances

Threats / Disturbances	Impact	
	Minor	Significant
Grazing		
Firebreaks		
Track(s)		
Drainage		
Cropping		
Feral animals		
Timber removal		
Active erosion		
Invasive weed		
Flood/fire damage		
Other (list)		

Cultural Heritage sites

- Note any significant cultural heritage sites located within the reserve.

Current Management Regime

- This can include comments on grazing, fire and other management practices. Note the current and any past management regime, if known.



## Appendix B

### Setting Up EcoRoadside App on Your Device

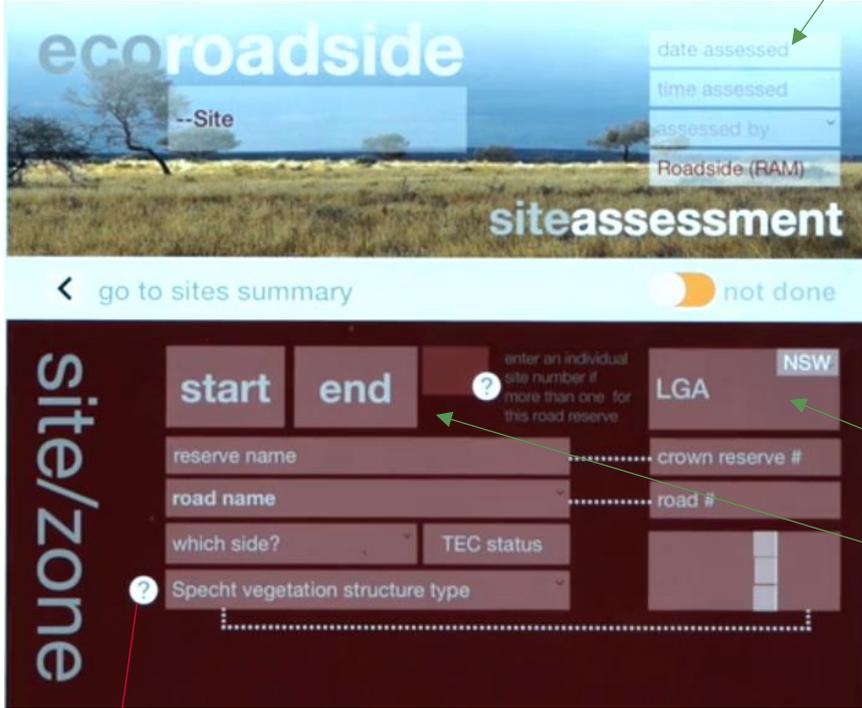
Contact LGNSW to organise an account. There are some costs associated with using the App and the provision of data storage and access. More detail is available from LGNSW, however costs have been kept to a minimum to ensure accessibility to all interested councils. All users will be assisted with set up and support.

The below information provides a quick snap shot of setting up the EcoRoadside App. More detailed information is available from [EcoRoadside Guide](#), [EcoRoadside intro/setup video](#) and [EcoRoadside app run-through video](#).



## Introduction

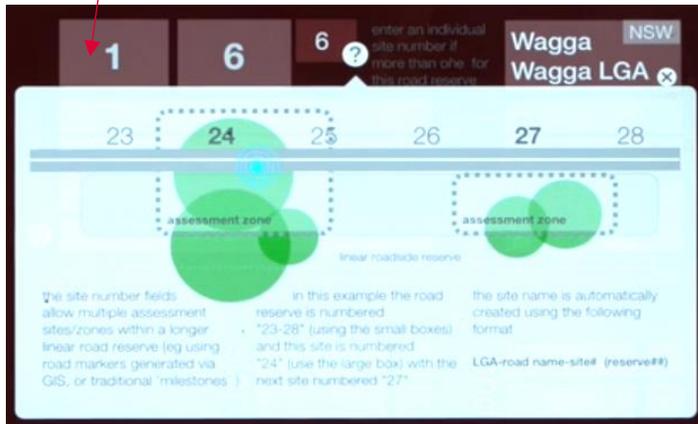
This user guide has been prepared to assist council staff to undertake a rapid assessment of their roadside reserves using the Eco Roadside App.



Explanatory notes available



Navigate icons for start and end points



## 7. Coordinates and Photos

Coordinates for the start and end points can be entered by either selecting the 'navigate' icon, which will enter the coordinate details for you; OR by taking a photo at the start and end points, then save to the device.

Enter the photos from your photo library for the coordinates to be stored (the coordinates will not be available directly from the camera). You can add notes to your photos here too. This is also the location to enter 'photo points' for monitoring purposes if required.



### 1. General Information

- Complete the **Date** and **Time** fields by either toggling through the options in the drop down menu, or select 'insert' for the current date and time to be entered.
- Assessed by:** Enter the name of the person conducting the assessment. If the assessor's name is not in the drop down menu, select 'edit value', enter the name, click 'save' and the name will save to your menu.

### 2. Enter the LGA

A drop down menu is provided.

### 3. Enter the Site Details

You can enter road distance/chainage details in the **'Start'** and **'End'** fields if this information is available from your GIS, OR you can enter a **site number**.

Click on '?' to open the description information as shown. To close this box, tap on the space in the screen outside of this box.

### 4. Road Name

A drop down menu of all road names in your selected LGA is provided within the App.

### 5. Which Side?

Select which side of the road you're working on.

### 6. Specht Vegetation Structure

Select the most appropriate vegetation structure type from the drop down menu.



## Vegetation Information

Much of the information in this section can be pre-populated by referencing data available from GIS, before you go out in the field. You can enter as much of this information as you can in your office, save it and then continue the assessment in the field.

### 1. IBRA Region and Subregion

Determine the IBRA region and subregion from your GIS or SEED, and enter these details using the drop down menus.

### 2. Mitchell Landscape

Determine the Mitchell Landscape from your GIS or SEED, and enter these details using the drop down menus.

### 3. Plant Community Type

Determine the PCT from available vegetation mapping for your site. A drop down menu of PCTs within your selected IBRA Region will be available.

*Links to Useful SEED Web Maps and Data:*

Data	Link
IBRA Regions	<a href="https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-regions">https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-regions</a>
IBRA Subregions	<a href="https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-subregions">https://datasets.seed.nsw.gov.au/dataset/interim-biogeographic-regionalisation-for-australia-ibra-version-7-subregions</a>
Mitchell Landscapes	<a href="https://datasets.seed.nsw.gov.au/dataset/nsw-mitchell-landscapes-version-3-1">https://datasets.seed.nsw.gov.au/dataset/nsw-mitchell-landscapes-version-3-1</a>
State Vegetation Type Map	<a href="https://www.environment.nsw.gov.au/vegetation/state-vegetation-type-map.htm">https://www.environment.nsw.gov.au/vegetation/state-vegetation-type-map.htm</a>

### 4. Vegetation Formation and Class

These fields will automatically populate based on the Plant Community Types (PCTs) selected.

*The PCT drop down*

If a BioNet State Vegetation Map is available for this LGA, you can identify the mapped PCT for the roadside reserve, assessment site/zone and adjacent area: display the State Vegetation Map (SVM) layer in a mobile GIS app and run that app side-by-side with EcoRoadside.

PCT information is displayed here based on the selected IBRA region and subregion, so make sure you enter these. If the PCT field is flagged orange or = zero then there may be no SVM data in BioNet for the selected subregion.

Otherwise, you may identify familiar PCTs or use the filtered list below (which includes PCTs mapped/modelled to occur in the selected IBRA subregion) as an aid.

- 2 River Red Gum-sedge dominated very tall open forest in frequently RIV03;RIV05;COP05;NSS01;RIV05;NSS02;RIV02;MDD01;RIV01 50% cleared AUS TEC 10837 NSW TEC
- 5 River Red Gum herbaceous-grassy very tall open forest wetland on RIV02;NSS02;COP05;RIV03;MDD06;NSS01 40% cleared AUS TEC NSW TEC
- 7 River Red Gum - Warrego Grass - herbaceous riparian tall open COP05;RIV02;RIV03;MDD01;NSS02;RIV01;RIV05 15% cleared AUS TEC NSW TEC
- 9 River Red Gum - wallaby grass tall woodland wetland on the outer COP05;NSS02;RIV02;COP05;RIV03;MDD01;NSS01;RIV01 66% cleared AUS TEC NSW TEC
- 10 River Red Gum - Black Box woodland wetland of the semi-arid COP05;RIV02;RIV03;COP02;COP04;MDD01;MDD06;NSS02;RIV01;RIV



## Part A: Conservation Status

**i vegetation status** score

if you've already entered the plant community type (or PCT) this field will be filled with the TEC/EEC or over-cleared status of that PCT, if you don't know the PCT, you can enter the vegetation status here manually

**2**

TEC/EEC

10546

Mt Canobolas Xanthoparmelia Lichen Community

**ii wetlands** score

is there a wetland present? if so, is the site mapped as Ramsar wetland, Directory of Important Wetlands of Australia (DIWA) or SEPP 14 coastal wetland, or > 2 hectares?

**0**

none

### 1. Vegetation Status

This field will automatically populate from the PCTs, if it is identified as a Threatened Ecological Community (TEC) or Endangered Ecological Community (EEC). A manual check or validation is recommended, as this information is subject to change.

### 2. Wetlands

You need to consult your GIS or SEED to determine if there is a wetland present, and if so, is it RAMSAR, DIWA, CM Act Wetland, and greater or less than 2ha in area.

### 3. Saving Our Species

Is there a program in your area? If so, use the drop down box to make your selection.

**iii site managed species** score

add from OEH Save Our Species program listings below (check roadside site proximity vs Atlas records and/or use local knowledge)

**0**

absent

enter SOS species from list

SOS status

enter SOS program site if applicable

**threatened** conservation status subtotal **2**

Conservation Status Score automatically calculated

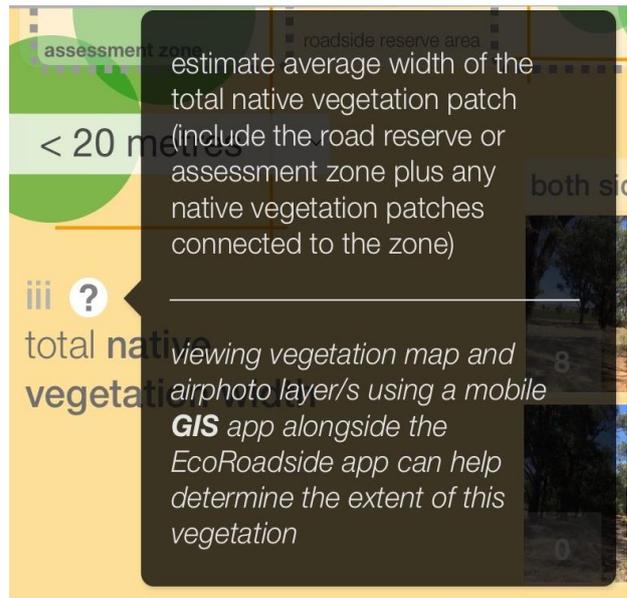
## Part B: Landscape Context

### 1. Mitchell Landscape and % Cleared

These fields will be automatically populated from the Mitchell Landscape chosen earlier.

### 2. Native Vegetation Width

- (a) Assessment zone – from the road shoulder to the edge of the road reserve
- (b) Total native vegetation width – estimate the total width of the patch you are working in. Use the '?' explanatory tools for assistance.



### 3. Patches of Native Vegetation Within 100m

Consult your GIS to determine the size of each patch of native vegetation.

Use the compass point fields to enter the direction of each native vegetation patch relative to your survey site.

roadside reserve area

assessment zone

Abercrombie Road

< 100 m

SEW

W

5 hectares

near-side

iv ?

patches of native vegetation within 100 metres (total area)

**10**

score

large and/or connected

landscape context subtotal

**31**

Landscape Context Score automatically calculated



## Part C: Condition

### 1. Vegetation Structure

Select the appropriate description from the drop down menu.

### 2. Large Trees

Are there any large trees located at the site?

### 3. Non-Indigenous Woody Weeds

How common are non-Indigenous woody weeds?

**iii non-indigenous woody weeds**

woody weeds and vines can invade natural habitats, changing the structure and composition of native vegetation type. Early detection and intervention is identified as a key strategy to reduce costs of eradication or control.

score

absent

sparse

common/abundant

### 4. Ground Cover Weediness

How common are non-Indigenous woody weeds?

**iv ground cover weediness**

ground cover influences resilience (capacity to self-regenerate). Ground cover is made up of two elements in the RAM: weediness (here) and nativeness (below) – weeds compete for space with preferred native plants and limit opportunities for germination.

sparse

common in parts

common throughout

abundant

### 5. Ground Cover Nativeness

How diverse are ground cover native species?

**v ground cover nativeness**

sites where native species dominate have lower management requirements as they spread is limited, they provide ideal sites for native plant germination, they provide higher quality feed year-round and are less likely to be affected by drought. Sites with exotic pasture grasses they denigrate and increase lower fire hazard.

diverse throughout

diverse in patches

few species common throughout

patches only

sparse/absent

high  condition subtotal **19**

Condition Score automatically calculated

## Other Information

EcoRoadside (EcoServerOne)

ecoroadside

Roadside (RAM)

16 Nov 2017

12:00 PM

Oberon LGA - Abercrombie Road Reach 0-2

Ben/Nakia/Tom

siteassessment

1 major weed species

list (up to five) major weed species present at the assessment zone/site

Willow species, Blackberry and Patersons curse

species	common name	strata/form
Willow species	Willow species	tree
Blackberry	Blackberry	groundcover
Patersons curse	Patersons curse	groundcover

### 1. Major Weed Species

Select the appropriate description from the drop down menu, which has been pre-populated with common weed species of concern to councils.

### 2. Native Species

Select the appropriate description from the drop down menus for genus and species, which have been pre-populated.

### 3. Photos

You can take multiple photos for a floristic record of the site. These photos will not be geo-referenced.

### 4. Habitat Features

Select the appropriate option from each of the drop down menus to indicate habitat features at the site.

### 5. Threats and Disturbances

Select the appropriate option from each of the drop down menus to indicate threats and disturbances at the site.

### 6. Notes fields

Open text notes fields are provided here to allow you to enter additional disturbances, cultural heritage notes, management practice notes and other field notes.

**On Completion:  
Check that all your fields have been completed, and then submit your assessment.**



## Appendix C

### Vegetation Spatial Data Lookup Tables

Table C-1: Lookup by LGA

LGA	SVTM Layer 1	SVTM Layer 2	SVTM Layer 3
<b>ALBURY</b>	SVTM Riverina-Murray	na	na
<b>ARMIDALE REGIONAL</b>	SVTM BRGN	na	na
<b>BALLINA</b>	**	na	na
<b>BALRANALD</b>	SVTM Central West	SVTM Riverina-Murray	SVTM Western
<b>BATHURST REGIONAL</b>	SVTM Central West	SVTM Central Tablelands	na
<b>BAYSIDE</b>	SVTM Sydney Metro	na	na
<b>BEGA VALLEY</b>	VIS2900	na	na
<b>BELLINGEN</b>	**	na	na
<b>BERRIGAN</b>	SVTM Riverina-Murray	na	na
<b>BLACKTOWN</b>	SVTM Sydney Metro	na	na
<b>BLAND</b>	SVTM Central West	SVTM Riverina-Murray	na
<b>BLAYNEY</b>	SVTM Central West	SVTM Central Tablelands	na
<b>BLUE MOUNTAINS</b>	SVTM Central Tablelands	na	na
<b>BOGAN</b>	SVTM Central West	SVTM Western	na
<b>BOURKE</b>	SVTM Western	na	na
<b>BREWARRINA</b>	SVTM Central West	SVTM Western	na
<b>BROKEN HILL</b>	SVTM Western	na	na
<b>BURWOOD</b>	SVTM Sydney Metro	na	na
<b>BYRON</b>	**	na	na
<b>CABONNE</b>	SVTM Central West	SVTM Central Tablelands	na
<b>CAMDEN</b>	SVTM Sydney Metro	na	na
<b>CAMPBELLTOWN</b>	SVTM Sydney Metro	na	na
<b>CANADA BAY</b>	SVTM Sydney Metro	na	na
<b>CANTERBURY-BANKSTOWN</b>	SVTM Sydney Metro	na	na
<b>CARRATHOOL</b>	SVTM Central West	SVTM Riverina-Murray	na
<b>CENTRAL COAST</b>	SVTM Sydney Metro	na	na
<b>CENTRAL DARLING</b>	SVTM Central West	SVTM Western	na



LGA	SVTM Layer 1	SVTM Layer 2	SVTM Layer 3
CESSNOCK	SVTM Upper Hunter	na	na
CLARENCE VALLEY	**	na	na
COBAR	SVTM Central West	SVTM Western	na
COFFS HARBOUR	**	na	na
COOLAMON	SVTM Riverina-Murray	na	na
COONAMBLE	SVTM BRGN	SVTM Central West	na
COOTAMUNDRA-GUNDAGAI	SVTM Central West	SVTM Riverina-Murray	na
COWRA	SVTM Central West	SVTM Central Tablelands	na
CUMBERLAND	SVTM Sydney Metro	na	na
DUBBO REGIONAL	SVTM Central West	SVTM Central Tablelands	na
DUNGOG	SVTM Upper Hunter	na	na
EDWARD RIVER	SVTM Riverina-Murray	na	na
EUROBODALLA	VIS2900	na	na
FAIRFIELD	SVTM Sydney Metro	na	na
FEDERATION	SVTM Riverina-Murray	na	na
FORBES	SVTM Central West	SVTM Central Tablelands	na
GEORGES RIVER	SVTM Sydney Metro	na	na
GILGANDRA	SVTM Central West	na	na
GLEN INNES SEVERN	SVTM BRGN	na	na
GOULBURN MULWAREE	**	na	na
GREATER HUME	SVTM Riverina-Murray	na	na
GRIFFITH	SVTM Riverina-Murray	na	na
GUNNEDAH	SVTM BRGN	na	na
GWYDIR	SVTM BRGN	na	na
HAWKESBURY	SVTM Central Tablelands	SVTM Upper Hunter	na
HAY	SVTM Central West	SVTM Riverina-Murray	na
HILLTOPS	SVTM Central West	SVTM Riverina-Murray	SVTM Central Tablelands
HORNSBY	SVTM Sydney Metro	na	na
HUNTERS HILL	SVTM Sydney Metro	na	na
INNER WEST	SVTM Sydney Metro	na	na



LGA	SVTM Layer 1	SVTM Layer 2	SVTM Layer 3
INVERELL	SVTM BRGN	na	na
JUNEE	SVTM Riverina-Murray	na	na
KEMPSEY	**	na	na
KIAMA	VIS4678	na	na
KU-RING-GAI	SVTM Sydney Metro	na	na
KYOGLE	**	na	na
LACHLAN	SVTM Central West	na	na
LAKE MACQUARIE	**	na	na
LANE COVE	SVTM Sydney Metro	na	na
LEETON	SVTM Riverina-Murray	na	na
LISMORE	**	na	na
LITHGOW	SVTM Central West	SVTM Central Tablelands	SVTM Upper Hunter
LIVERPOOL	SVTM Sydney Metro	na	na
LIVERPOOL PLAINS	SVTM BRGN	SVTM Central West	SVTM Upper Hunter
LOCKHART	SVTM Riverina-Murray	na	na
MAITLAND	SVTM Upper Hunter	na	na
MID-COAST	SVTM Upper Hunter	na	na
MID-WESTERN REGIONAL	SVTM Central West	SVTM Central Tablelands	SVTM Upper Hunter
MOREE PLAINS	SVTM BRGN	SVTM Western	na
MOSMAN	SVTM Sydney Metro	na	na
MURRAY RIVER	SVTM Central West	SVTM Riverina-Murray	SVTM Western
MURRUMBIDGEE	SVTM Riverina-Murray	na	na
MUSWELLBROOK	SVTM Central West	SVTM Central Tablelands	SVTM Upper Hunter
NAMBUCCA	**	Na	na
NARRABRI	SVTM BRGN	SVTM Central West	na
NARRANDERA	SVTM Riverina-Murray	na	na
NARROMINE	SVTM Central West	SVTM Central Tablelands	na
NEWCASTLE	**	na	na
NORTH SYDNEY	SVTM Sydney Metro	na	na
NORTHERN BEACHES	SVTM Sydney Metro	na	na
OBERON	SVTM Central West	SVTM Central Tablelands	na



LGA	SVTM Layer 1	SVTM Layer 2	SVTM Layer 3
ORANGE	SVTM Central Tablelands	na	na
PARKES	SVTM Central West	SVTM Central Tablelands	na
PARRAMATTA	SVTM Sydney Metro	na	na
PENRITH	**	na	na
PORT MACQUARIE-HASTINGS	SVTM Upper Hunter	na	na
PORT STEPHENS	**	na	na
QUEANBEYAN-PALERANG	**	na	na
RANDWICK	SVTM Sydney Metro	na	na
RICHMOND VALLEY	**	na	na
RYDE	SVTM Sydney Metro	na	na
SHELLHARBOUR	VIS4678	na	na
SHOALHAVEN	VIS2900	na	na
SINGLETON	SVTM Central West	SVTM Central Tablelands	SVTM Upper Hunter
SNOWY MONARO REGION	SVTM Riverina-Murray	na	na
SNOWY VALLEYS	SVTM Riverina-Murray	na	na
STRATHFIELD	SVTM Sydney Metro	na	na
SUTHERLAND SHIRE	SVTM Sydney Metro	na	na
SYDNEY	SVTM Sydney Metro	na	na
TAMWORTH REGIONAL	SVTM BRGN	SVTM Upper Hunter	na
TEMORA	SVTM Central West	SVTM Riverina-Murray	na
TENTERFIELD	SVTM BRGN	na	na
THE HILLS SHIRE	SVTM Sydney Metro	na	na
TWEED	**	na	na
UPPER HUNTER	SVTM BRGN	SVTM Central West	SVTM Central Tablelands
UPPER LACHLAN SHIRE	SVTM Central West	SVTM Central Tablelands	na
URALLA	SVTM BRGN	na	na
WAGGA WAGGA	SVTM Riverina-Murray	na	na
WALCHA	SVTM BRGN	SVTM Upper Hunter	na
WALGETT	SVTM BRGN	SVTM Central West	SVTM Western
WARREN	SVTM Central West	SVTM Western	na



LGA	SVTM Layer 1	SVTM Layer 2	SVTM Layer 3
WARRUMBUNGLE	SVTM BRGN	SVTM Central West	SVTM Central Tablelands
WAVERLEY	SVTM Sydney Metro	na	na
WEDDIN	SVTM Central West	SVTM Central Tablelands	na
WENTWORTH	SVTM Western	na	na
WILLOUGHBY	SVTM Sydney Metro	na	na
WINGECARRIBEE	VIS4670	na	na
WOLLONDILLY	SVTM Sydney Metro	SVTM Central Tablelands	na
WOLLONGONG	VIS4678	na	na
WOOLLAHRA	SVTM Sydney Metro	na	na
YASS VALLEY	SVTM Central West	SVTM Riverina-Murray	na

Table C-2: Links to spatial data

Veg Data Source	VIS ID	Link
SVTM Border Rivers Gwydir Namoi	4467	<a href="https://datasets.seed.nsw.gov.au/dataset/border-rivers-gwydir-namoi-regional-native-vegetation-map-version-2-0-vis_id-420443dc7">https://datasets.seed.nsw.gov.au/dataset/border-rivers-gwydir-namoi-regional-native-vegetation-map-version-2-0-vis_id-420443dc7</a>
SVTM Central Tablelands	4778	<a href="https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-central-tablelands-region-version-0-1-vis_id-4778">https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-central-tablelands-region-version-0-1-vis_id-4778</a>
SVTM Central West	4468	<a href="https://datasets.seed.nsw.gov.au/dataset/central-west-lachlan-regional-native-vegetation-pct-map-version-1-0-vis_id-4358182f4">https://datasets.seed.nsw.gov.au/dataset/central-west-lachlan-regional-native-vegetation-pct-map-version-1-0-vis_id-4358182f4</a>
SVTM Sydney Metro	4489	<a href="https://datasets.seed.nsw.gov.au/dataset/the-native-vegetation-of-the-sydney-metropolitan-area-oe-h-2016-vis-id-4489">https://datasets.seed.nsw.gov.au/dataset/the-native-vegetation-of-the-sydney-metropolitan-area-oe-h-2016-vis-id-4489</a>
SVTM Upper Hunter	4894	<a href="https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-upper-hunter-v1-0-vis_id-4894">https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-upper-hunter-v1-0-vis_id-4894</a>
SVTM Western	4492	<a href="https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-western-region-v1-0-vis_id-4492">https://datasets.seed.nsw.gov.au/dataset/state-vegetation-type-map-western-region-v1-0-vis_id-4492</a>
SVTM Wingecarribee	4670	<a href="https://datasets.seed.nsw.gov.au/dataset/wingecarribee-fine-scale-native-vegetation-map-version-v2-0-vis-id-4670">https://datasets.seed.nsw.gov.au/dataset/wingecarribee-fine-scale-native-vegetation-map-version-v2-0-vis-id-4670</a>
Biometric- Shoalhaven, Bega, Eurobodalla	2900	<a href="https://datasets.seed.nsw.gov.au/dataset/compilation-map-biometric-vegetation-types-of-the-shoalhaven-eurobodalla-and-bega-valley-loc-a8bf08">https://datasets.seed.nsw.gov.au/dataset/compilation-map-biometric-vegetation-types-of-the-shoalhaven-eurobodalla-and-bega-valley-loc-a8bf08</a>
Illawarra PCT	4678	<a href="https://datasets.seed.nsw.gov.au/dataset/illawarra-compiled-plant-community-type-map-2016-vis-id-4678">https://datasets.seed.nsw.gov.au/dataset/illawarra-compiled-plant-community-type-map-2016-vis-id-4678</a>
Wingecarribee PCT	4670	<a href="https://datasets.seed.nsw.gov.au/dataset/wingecarribee-fine-scale-native-vegetation-map-version-v2-0-vis-id-4670">https://datasets.seed.nsw.gov.au/dataset/wingecarribee-fine-scale-native-vegetation-map-version-v2-0-vis-id-4670</a>
**	-	SVTM layers in production



## Appendix D

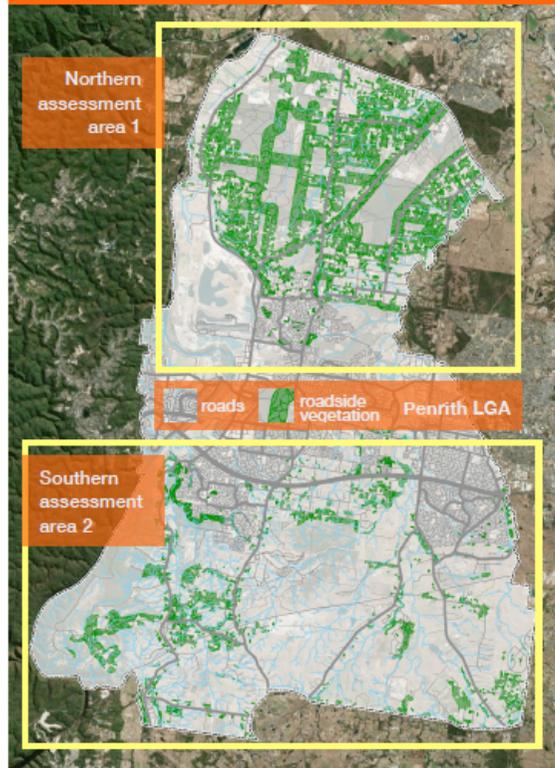
### Example of Site Prioritisation for Conducting a RAM:

#### Penrith Roadside Vegetation Management Plan



# 4

## Priority areas for roadside vegetation management



Council has undertaken an assessment of the conservation significance of approximately 567 km of roadside within peri-urban and rural areas of the LGA.

The conservation significance of the roadside reserve throughout the northern and southern rural and peri-urban areas of the Penrith LGA were assessed using the Roadside Assessment Method (RAM) developed by Local Government NSW and LLS (Ecosure 2017).

### Prioritising roadside reserves for assessment

Prior to assessment a prioritisation process was undertaken to prioritise roads for assessment. This involved a desktop analysis of spatial data to identify roadside reserves that:

- contain native vegetation
- contain or are adjacent to a threatened flora or fauna species
- are within 250 m of a species prioritised by the Saving Our Species (SOS) Project
- include a Council or joint managed road

To determine this the following spatial data sets were interrogated:

- State-wide vegetation mapping
- Native vegetation of the Cumberland Plain (OEH 2013 and unpublished update)
- VIS Database – Plant Community Types
- IBRA and IBRA subregions

- Mitchell landscapes
- BioNet Atlas threatened species and endangered ecological communities
- Saving Our Species (SOS) program sites and species
- Ramsar and Directory of Important Wetlands in Australia (DIWA)
- NSW Waterways and stream order
- DPI Key Fish Habitat mapping
- Penrith cadastre
- Road reserve (property) and road segment (topographic) layers for Penrith
- Waterways

Roadside reserves containing native vegetation and/or threatened species were prioritised for assessment. Developed urban areas were excluded from assessment.

Assessment area 1 in the north of the LGA included 257 road kilometres total. For identification of reaches for assessment and management, these roads were assigned marker points at 100 metre intervals. Area 1 contains 2384 marker points (accounting for shared points at intersections). The road reserves within this area included 10 Plant



Community Types (PCTs) within their confines or a 100 metre buffer. Similarly, 1340 threatened flora sightings were recorded within these reserves or a 250 metre buffer.

A total of 95 kilometres of linear reserve contained roadside canopy vegetation, and 63 kilometres were proximate to threatened flora within a 250 metre buffer radius. Including the overlap, These reaches were prioritised for assessment (map on page 21).

Assessment area 2 in the south of the LGA included 310 road kilometres total, corresponding to 2777 marker points at 100 metre intervals (accounting for shared points at intersections). The road reserves within this area included 12 Plant Community Types within their confines or a 100 metre buffer. Similarly, 713 threatened flora sightings were recorded within these reserves or a 250 metre buffer.

A total of 37 kilometres of linear reserve contained roadside canopy vegetation, and 26 kilometres were proximate to threatened flora within a 250 metre buffer radius. Including the overlap, These reaches were prioritised for assessment (map on page 22).

### Field assessment

Field assessment was undertaken by CTENVIRONMENTAL in March and April 2018. All prioritised roads were inspected and assessed. However in the case where no native vegetation was present within the prioritised road reserve no assessment was undertaken. In the instance where native vegetation was observed in the road reserve in areas not identified as vegetated by statewide mapping, an assessment was undertaken.

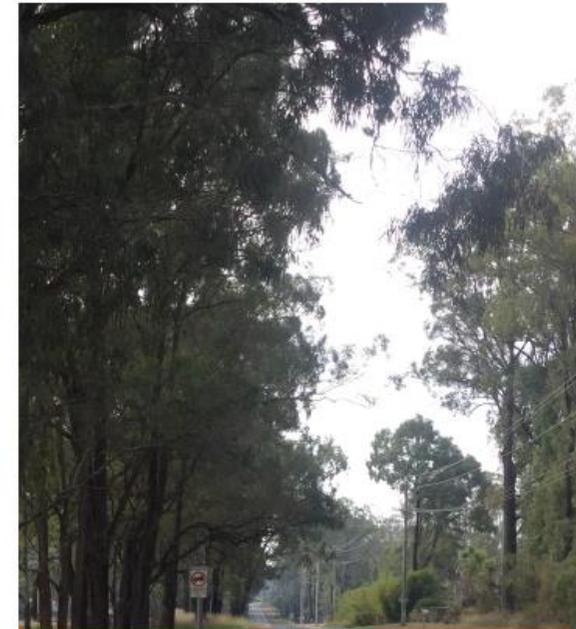
Assessment of the conservation significance of the roadside reserve was undertaken using the

EcoRoadside mobile application developed by EcoServer for the Local Government NSW Council Roadside Reserves project. EcoRoadside is a mobile digital version of the RAM field sheets and provides a user-friendly platform for data collection. Assessment data including photographs are immediately uploaded to the cloud database hosted by EcoServer.

A total of 100 assessments of conservation significance of the roadside reserve were undertaken across the Penrith LGA representing **205.8 km** of roadway.

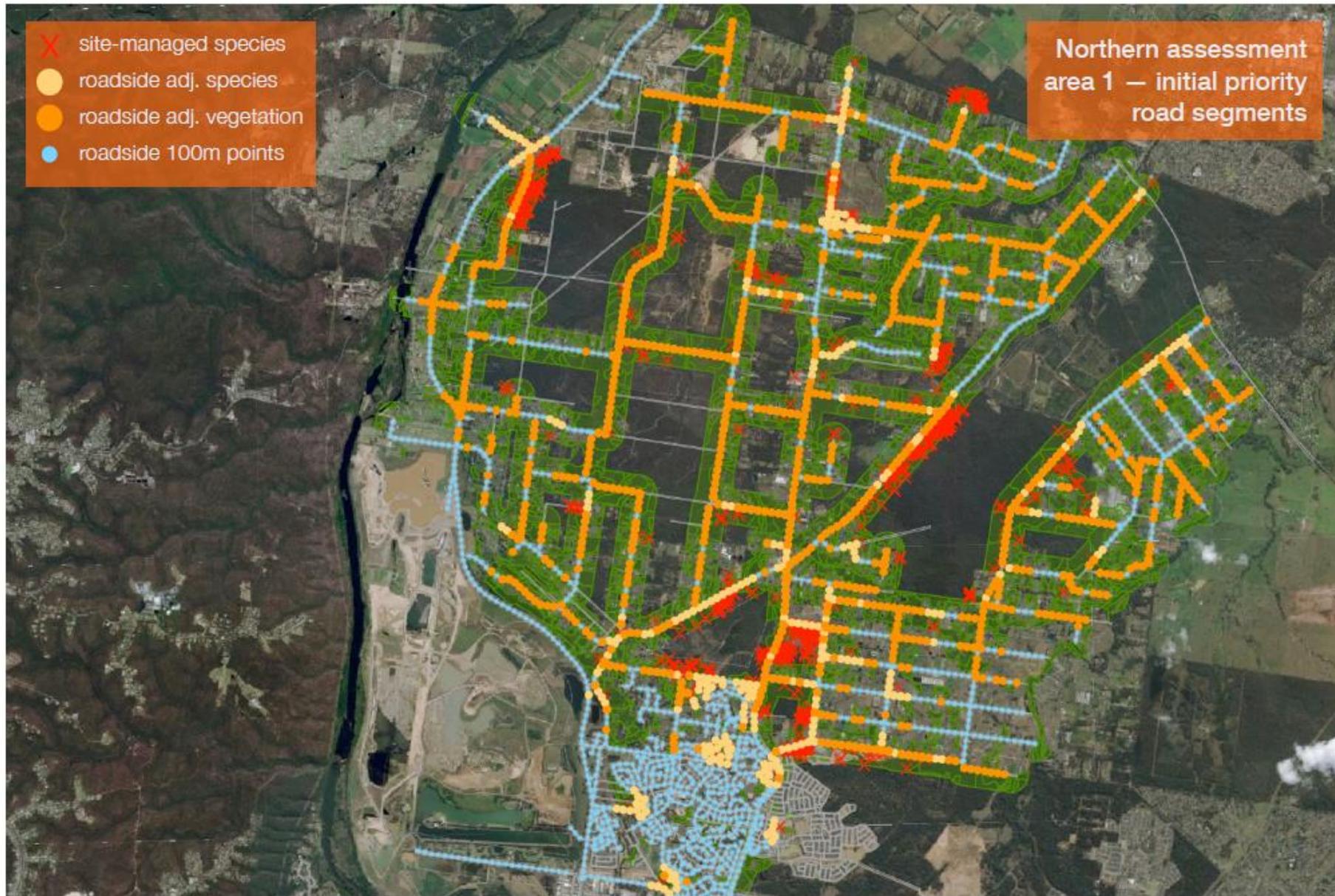
Results of assessment show **140.2 km** were considered to have high conservation value or HCV and **42.3 km** with moderate conservation value or MCV. A small number of the MCV assessment reaches totalling **2.1 km** are provisionally rated moderate but depend on closer assessment to finalise conservation value due to poor condition of vegetation (notwithstanding presence of threatened communities or over-cleared landscapes) and these are tagged MCV\* following revisions to the method by Local Government NSW and Local Land Services. The maps on page 21 (covering the northern assessment area) and page 22 (southern assessment area) show the results.

An overview of management actions at LGA and reach scale can be found in Section 6. A full summary of the assessment reaches and related management actions can be found in Appendix A. Comprehensive assessment reach profiles including conservation status, landscape context and vegetation condition, along with observations of habitat features and threats and reach species lists can be found in Appendix B.



Roadside reserves containing native vegetation and/or threatened species were prioritised for assessment. Developed urban areas were excluded from assessment.





# Appendix E

## Implementation Examples



### Bellingen Shire Council RVMP

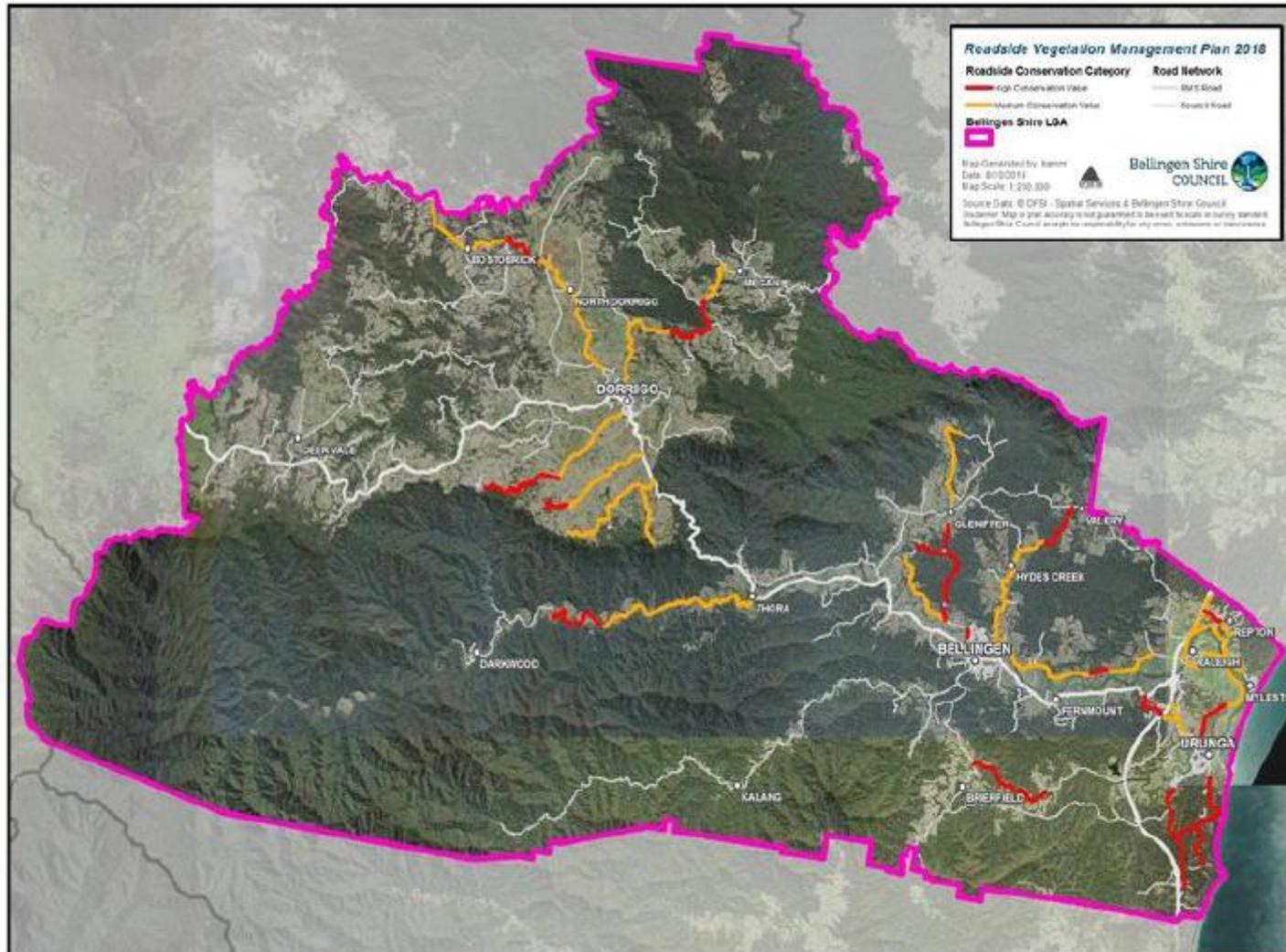


Figure 6: Mapped conservation values of roadsides in the Bellingen LGA



Table 5: Operational Guidelines

Management Category	Guidelines
General – all areas	<p>Where possible schedule work from High Conservation Areas, to Medium, to Low (or where conservation mapping is not available from less weedy areas to weedy areas).</p> <p>Check for significant sites (cultural plantings, active Landcare areas) - a management action of the RVMP is to map these sites</p> <p>Where they do not impede road safety or maintenance, trees with hollows, dead and fallen timber, and rocks and crevices can be left insitu within the roadside environment. *Sally Wattles/ dead limbs that may fall over the road should be removed</p> <p>Clean down machines at end of day with a portable air compressor, or after working in a heavily infested site, with particular attention to areas where seeds are known to collect such as the slasher deck and back of the tractor. Vehicles can be cleaned in a designated area, to be determined by Works staff and the Invasive Plants Officer, so that these areas can be actively managed to prevent weed spread.</p>
High Conservation Value	<p>Minimise side arm or flat deck slashing of native vegetation beyond the table drain, selective clearing of branches is preferential</p> <p>Materials needing to be moved can be relocated to adjacent habitat area, without causing damage to existing vegetation</p> <p>Consider alternative for the placement of new stockpiles or dump sites</p> <p>Where possible, no broad scale application of herbicides – spot spraying, cut and paint with herbicide and manual weeding techniques are preferred</p> <p>Where possible replant areas that have undergone removal of large areas of woody weeds, to stop new weed infestations occurring</p> <p>Limit importing of external soil material</p> <p>Undertake mulching or chipping in situ, spreading small branches out to ensure they are no more than 5cm deep</p>
Medium Conservation Value	<p>Avoid broad scale application of herbicides – spot spraying, cut and paint with herbicide and manual weeding techniques are preferred</p> <p>Felled trees, dead and fallen timber, rocks and leaf litter is to be left insitu where possible</p> <p>Materials needing to be moved should be relocated to adjacent habitat area without causing damage to existing vegetation</p>

	<p>Undertake mulching or chipping in situ, spreading small branches out to ensure they are no more than 5cm deep</p> <p>Where possible replant areas that have undergone removal of large areas of woody weeds, to stop new weed infestations occurring</p> <p>Where possible work from HCV to MCV and LCV areas.</p>
Low Conservation Value	<p>Can be used for stockpile and dump sites</p> <p>Can be used for parking equipment</p> <p>Where possible replant areas that have undergone removal of large areas of woody weeds, to stop new weed infestations occurring</p>

#### Incorporating roadside management into Reflect

Roadside areas that were included in the initial field assessment will be incorporated into Council's inspection and maintenance management software Reflect. This will allow operational staff to identify specific chainage points needing special consideration before scheduling or undertaking works. Reflect will also be set up to send an email alert to supervisors when works are scheduled in areas with a High or Medium conservation area. This will contain the Operational Guidelines presented above.

Consideration has also been given to a customised form available in Reflect for Council staff to record sightings of target weed species like Tropical Soda Apple, dense stands of woody weeds, sightings of rare or endangered species, evidence of cultural heritage items, or observations relevant to roadside vegetation management at that site. As Reflect is designed to be accessed remotely this could be captured in the field and instantly uploaded and linked to a specific chainage point for future reference. This has been included in the RVMP list of management actions.



## Griffith City Council RVMP

### 7.2 SUMMARY OF ROADSIDE VEGETATION MAPPING RESULTS

Each polygon on every road in Griffith LGA was assigned to a low, medium, or high conservation value category. This was mapped across the LGA to produce a complete set of vegetation mapping. Colour coding was used to differentiate the conservation value categories:

- **HIGH CONSERVATION VALUE RSV**
- **MEDIUM CONSERVATION VALUE RSV**
- **LOW CONSERVATION VALUE RSV**

The purpose of this is to provide a visual cue to Council staff about the management requirements for each section of road, based on the following:

So, for routine maintenance activities, **RED= STOP WHAT YOU ARE DOING** and check for special considerations, **YELLOW =PROCEED WITH CAUTION**, and **GREEN = GO AHEAD AND WORK** according to the normal guidelines.

A detailed set of maps has been included in the Griffith Roadside Vegetation Management Field Guide, is provided as a GIS layer to Council for their use, has been included in the mapping and data provided to Council staff via the tablet based platform, with links to threatened species, priority control weeds and other information as required. Summary maps are included here to provide an overview of Griffith's roadside vegetation natural assets.

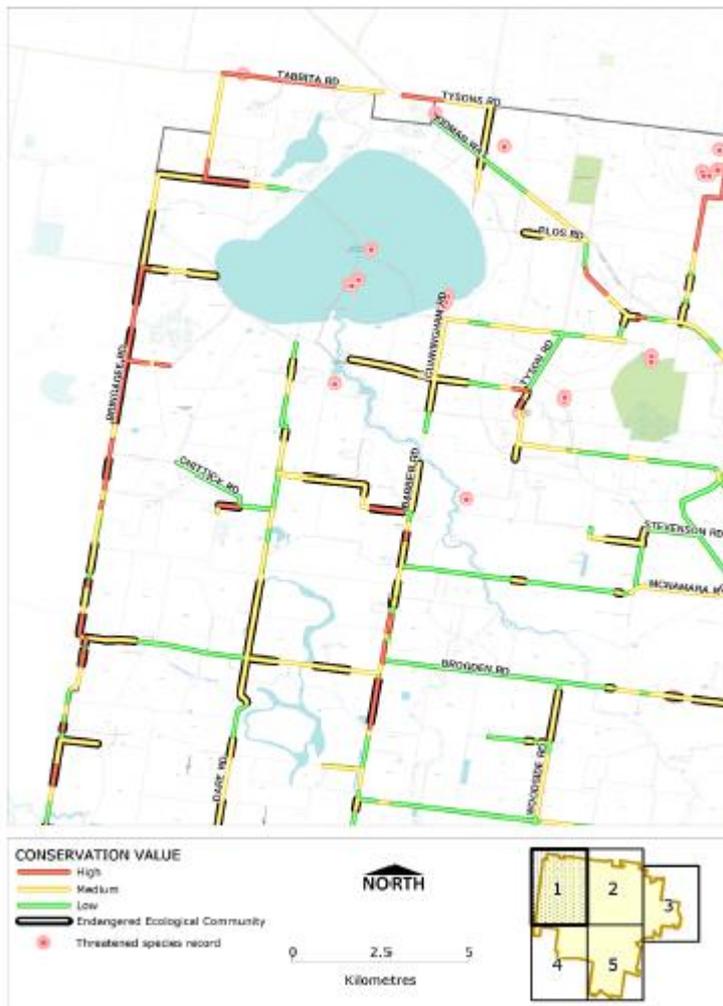
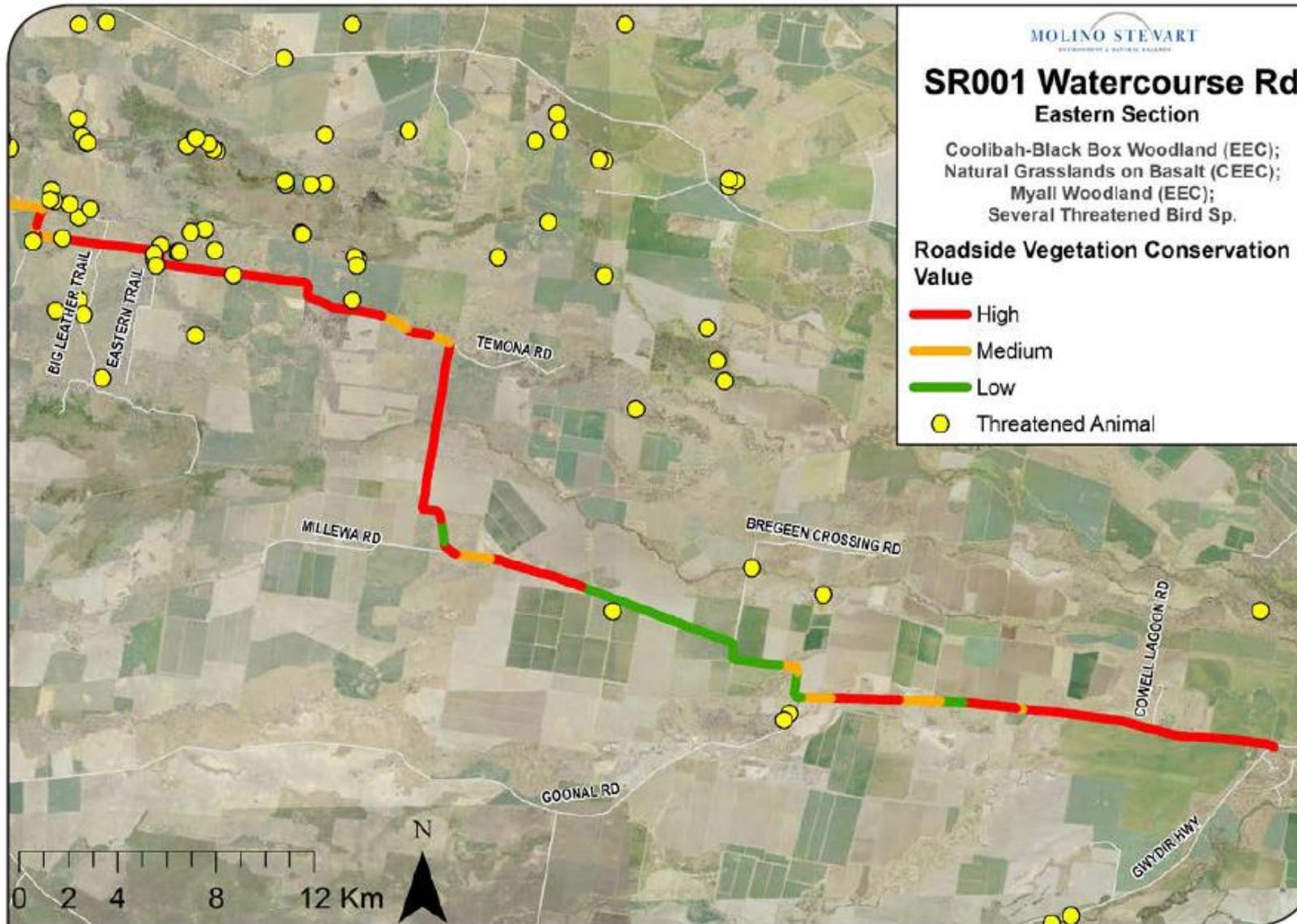


Figure 20 Summary roadside vegetation condition mapping for Griffith City Council: Sheet 1



Moree Plains Shire Council – Glovebox Guide



## Matrix of roadside activities



Before you start: Have you got environmental approvals in place (Checklist, REF or EIS)?

Vegetation Conservation Value				
Works	High	Medium	Low	Recommendation
Grading and maintenance grading of the road surface, NOT in the road reserves	✓	✓	✓	<p>Do not grade any vegetation, especially Endangered Ecological Communities (EECs).</p> <p>Only grade the road surface and never the road reserves unless essential for drainage. Complete grading increases weeds and removes habitat.</p> <p>If shoulder grading is for safety, stage the works to minimise impacts. Define the work zone and stay within this area; vehicles and equipment to remain on defined access tracks.</p>
Branch trimming	×	×	✓	<p>Limit trimming to remove obstacles to vision along road and property entrances.</p> <p>If mulching large quantity of removed vegetation is necessary, spread mulch to cover bare areas or extensive non-native grass area.</p> <p>Avoid spreading mulch in areas of known threatened species or EECs.</p>
Cutting down trees	×	×	×	<p>Avoid tree removal at all costs unless it is a safety issue.</p> <p>Assess trees for hollows and/or nests. If hollows are present do not remove the tree unless it poses a danger.</p> <p>Only trim overhanging vegetation within the minimum 5.5 metre high road maintenance zone; retain remaining vegetation to allow for fauna movement.</p>



Oberon Council RVMP

# Council Roadside Reserves

sort records by LGA and road name

sort records by LGA and conservation value

sort records by LGA and PCT

sort records by LGA and assess date

Admin

106 total sites

LOCAL GOVERNMENT NSW

assess date

record complete incomplete

PCT

TEC status

Part A conservation status

Part B landscape context

Part C vegetation condition

site raw score

site conservation value

export records

view as site report/s

106 LGA sites

## Oberon LGA

### Abercrombie Road

start

-34.185345  
149.737945

end

-34.193858  
149.73758

12 site/s

6	from 0 km to 2 km	16 Nov 17 Ben/Nakia/Tom	<input checked="" type="checkbox"/>	649		threatened	large and/or connected	high	52	HCV	>
6	from 29 km to 32 km	16 Nov 17 Ben/Nakia/Tom	<input checked="" type="checkbox"/>	1197	NSW TEC	threatened	large and/or connected	moderate	38	HCV	>
8	from 36 km to 37 km	26 Oct 17 Carl/Luke	<input checked="" type="checkbox"/>	963	NSW TEC	threatened	large and/or connected	moderate	40	HCV	>
4	from 37 km to 38.5 km	26 Oct 17 Carl/Luke	<input checked="" type="checkbox"/>	963	NSW TEC	threatened	moderate	moderate	25	MCV	>
4	from 41 km to 42 km	26 Oct 17 Carl/Luke	<input checked="" type="checkbox"/>	963	NSW TEC	threatened	moderate	low	16	MCV*	>
8	from 42 km to 44.5 km	26 Oct 17 Carl/Luke	<input checked="" type="checkbox"/>	1197	NSW TEC	threatened	large and/or connected	moderate	45	HCV	>



Abercrombie Road		Part A conservation status	Part B landscape context	Part C vegetation condition	Conserv'n Value
from 0 km to 2 km	PCT 649	threatened	large and/or connected	high	HCV
		weeds observed		weed density	minor
		Willow species, Blackberry and Patersons curse			
		site managed species			
action status	action priority				
proposed	<b>avoid grading vegetated buffer</b>	start	<input type="text"/>	who	
		completed	<input type="text"/>	\$	
proposed	<b>avoid spraying sensitive understory</b>	start	<input type="text"/>	who	
		completed	<input type="text"/>	\$	
proposed	<b>flag: primary connectivity potential</b>	start	<input type="text"/>	who	
		completed	<input type="text"/>	\$	
proposed	<b>maintain condition of existing vegetation</b>	start	<input type="text"/>	who	
		completed	<input type="text"/>	\$	
proposed	<b>passive management of vegetated areas</b>	start	<input type="text"/>	who	
		completed	<input type="text"/>	\$	



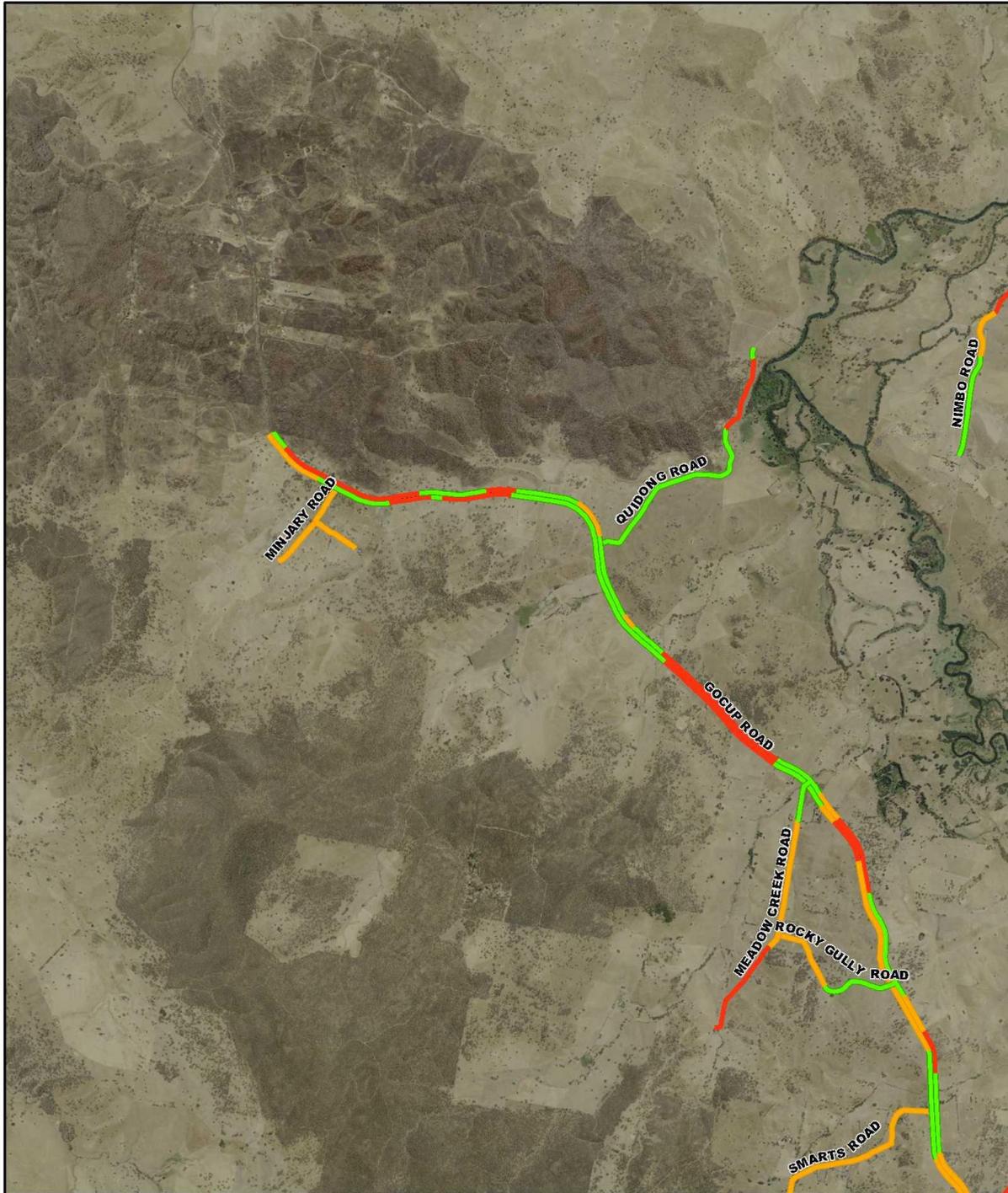
Oberon LGA - Abercrombie Road Reach 0-2			HCV		
conservation status	<b>threatened</b>	<b>2</b>	landscape context	<b>large and/or connected</b>	<b>31</b>
<p>The roadside assessment zone extends approx 2 kilometres along Abercrombie Road and contains naturally treed vegetation of Specht class woodland (canopy 10-30%) including Plant Community Type (PCT) 649 Apple Box - Broad-leaved Peppermint dry open forest of the South Eastern Highlands Bioregion. The site traverses the Rockley Plains Mitchell landscape, which is 62% cleared in NSW. The PCT is associated with a Threatened Ecological Community (TEC ID 10546). The RAM conservation status is 'threatened'.</p>			<p>The assessment zone traverses the Rockley Plains Mitchell landscape. Vegetation within the roadside reserve boundary is 20-100 metres wide. Continuous vegetation extends &gt; 100 metres wide in total. There are 5 hectares of native vegetation or vegetation patches within 100 metres on the nearside of the zone (west of Abercrombie Road) and 5 hectares on the offside of the zone (east of Abercrombie Road) as assessed. The RAM landscape context is 'large and/or connected'.</p>		
weeds present			vegetation condition	<b>high</b>	<b>19</b>
<p>Willow species, Blackberry and Patersons curse</p>			<p>The assessment zone includes naturally treed vegetation of Specht class woodland (canopy 10-30%). Within the assessment zone, vegetation structure is intact/natural, large trees are common and non-indigenous woody weeds are sparse. Groundcover weediness is sparse and groundcover nativeness is diverse throughout. The RAM vegetation condition is 'high' (for this broad vegetation type).</p>		

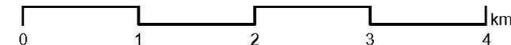


habitat features		threats and disturbance		site-managed species
canopy regeneration	abundant	grazing	not present	BioNet Atlas record of site-managed species with 250 metres of road reserve for this reach  absent     Save Our Species site listed for Oberon LGA     <div style="text-align: right;"><b>wetlands</b></div> Ramsar, DIWA, SEPP 14 or other wetland none <input type="text"/>
mid-storey cover	abundant	firebreak	not present	
mid-storey regeneration	abundant	road or track/s	not present	
logs and fallen timber	abundant	drainage or diversion	not present	
trees with hollows	abundant	cropping	not present	
wetlands, springs, gilgais	not present	feral animals	not evident	
rocky outcrops	common	timber removal	not present	
waterway bank habitat	common	active erosion	minor	
mistletoe	common	invasive weeds	minor	
cryptogams	sparse	flood or fire damage	minor	
rare plants	not present	other disturbance		



**Snowy Valleys Council RVMP**



<p><b>Legend</b></p> <p><b>Conservation Value</b></p> <ul style="list-style-type: none"> <li><span style="color: green;">—</span> Low</li> <li><span style="color: yellow;">—</span> Medium</li> <li><span style="color: red;">—</span> High</li> <li><span style="border-bottom: 1px solid black; width: 20px; display: inline-block;"></span> Not Assessed</li> </ul>	 <p>PO Box 7231 Tathra NSW 2550 t: 02 6494 5422</p>	<p>Map datum, projection: GDA 1994, MGA Zone 55</p> <p>Data Sources: Road Conservation Value: EnviroKey Aerial Imagery: SIX Maps</p> <p>Mapping date: February, 2018</p>	
	<p><b>Roadside Conservation Value</b> <b>Map No: B05</b></p>		

## 8 MANAGEMENT ACTIONS

### 8.1.1 High conservation value

Areas of HCV are considered vital to the long-term viability of ecological communities, flora and fauna. This is particularly relevant in highly cleared landscapes which includes many areas of the lower slopes of the SVC LGA. Activities within areas of HCV should be highly restrictive, but where deemed necessary by SVC, should be subject to detailed environmental assessment. Table 8-1 provides recommendations for HCV roadsides within the SVC LGA.

### 8.1.2 Medium conservation value

Areas of MCV are considered important to the long-term viability of ecological communities, flora and fauna. This is of particular importance in highly cleared landscapes which includes many areas of the lower slopes of the SVC LGA. SVC could also target restoration activities in areas of MCV to increase the conservation value. Activities within areas of MCV should be highly restrictive as with areas of HCV, but where deemed necessary by SVC, should be subject to detailed environmental assessment. Table 8-1 provides recommendations for MCV roadsides within the SVC LGA.

### 8.1.3 Low conservation value

Activities within areas of LCV are subject to no special requirements under this RVMP. However, activities as defined by Part 5 of the EP&A Act and within the Infrastructure SEPP, provide guidance for SVC whether approval for activities is required. Table 8-1 provides recommendations for LCV roadsides within the SVC LGA.

**Table 8-1: Recommendations for management of high, medium and low conservation roadsides within Snowy Valley Council**

Activity	HCV Roadsides	MCV Roadsides	LCV Roadsides
Road construction and maintenance	Disturbance only permitted within the existing road footprint and existing disturbed area (ie, road verge and mowed clearzone if present). Disturbance outside of the existing road foot print and mowed cleared zone subject to detailed environmental assessment	Disturbance only permitted within the existing road footprint and existing disturbed area (ie, road verge and mowed clearzone if present). Disturbance outside of the existing road foot print and mowed cleared zone subject to environmental assessment	No special requirements
Ancillary works (stockpile sites, machinery parking)	No new works recommended	No new works recommended	Permissible
Public utilities (water, electricity, phone, footpath)	Not recommended without detailed environmental assessment	Permissible Retain existing vegetation and utilise existing disturbed/degraded areas Revegetate impact areas	Permissible
Firewood collection	Not recommended	Not recommended	Not recommended
Grazing	Not recommended	Permissible for travelling stock and when compatible with management aims (eg weed control, hazard reduction). Avoid camping and corralling Avoid during spring seeding and heavy rain periods	Permissible
Weed control	Minimal impact methods including spot hand spraying, selective herbicide use, hand removal, controlled burning	Minimal impact methods including spot hand spraying, selective herbicide use, hand removal, controlled burning, light grazing	Permissible



## Appendix F

### Adding Roadside Reserve Conservation Value Data to SEED

A data standard is provided below to facilitate the addition of new Council data to the NSW Council Roadside Reserves Conservation Values data set currently available on the NSW Government [SEED Portal](#). This includes the required data format, data type, coordinate system and attribute table format. Any data set created by a Council (which is to be added to the currently available NSW Council Roadside Reserves Conservation Values data set) must follow the below data standards for the new data to be uploaded into the existing data set.

The broad steps for the creation and provision of NSW Council Roadside Reserves Conservation Values data to the NSW Government SEED Portal are:

1. Conduct roadside reserve assessment consistent with the RAM and associated resources located at <https://lgnsw.org.au/Public/Policy/REM-pages/RAM.aspx>
2. Produce data set consistent with details in this data standard document
3. Email to NSW Government SEED mailbox requesting data be incorporated into the NSW Council Roadside Reserves Conservation Values data set.

It is recommended that the NSW Council Roadside Reserves Conservation Values data set is downloaded (see instructions in Appendix G) and reviewed prior to data being created so the data format and type are fully understood.

#### Data format and type

Provided in **Table F-3** are the data format, data type, coordinate system details and file naming protocols.

Table F-3: Attribute table data standards

Item	Data Standard
Data format	Data is to be provided in an ESRI format. The preferred data format is a Feature Class stored within a File Geodatabase (.gdb). If this format is not possible then an ESRI Shapefile (.shp) format is acceptable.  Software such as MapInfo and QGIS provide data translators to change the format of your data if required.
Data feature type	The data is to contain only Line Features depicting the roads assessed. Polygon Features and Point Features should not be used. If data has been captured in Polygon Features or Point Features it will need to be converted to a Line Feature data set before it can be uploaded to SEED.  The base data set used for roads within the LGA should be existing road data held by Council or road data held in the NSW Topographic Database. The roads data held in the NSW Topographic Database can be accessed at SIX Maps Clip and Ship - <a href="https://maps.six.nsw.gov.au/clipnship.html">https://maps.six.nsw.gov.au/clipnship.html</a>
Coordinate system	Data is to be provided in Geocentric Datum of Australia 1994 (GDA94) or Geocentric Datum of Australia 2020 (GDA2020)
File name	A clear file name is required that adequately describes the data being provided. It is suggested that the File Geodatabase or Shapefile be named as follows – <LGAName>_CouncilRoadsideReserves_<Date> (e.g ParkesShireCouncil_ CouncilRoadsideReserves_20200515)



Item	Data Standard
Metadata	An ANZLIC compliant metadata statement should be prepared to accompany the data set. An example prepared for the NSW Council Roadside Reserves Conservation Values data set is provided in <b>Attachment 1</b> .

### Attribute table

The attribute table for the data must contain three user defined fields for the capture of consistent information. The fields used in the attribute table are:

- LGAName – the official and full name of the LGA to which the data applies
- RoadName – the name of the road assessed
- ConValue – the conservation value applied to the road (or section of road).

**Table F-4** contains the details for each field data type, length and the data to be entered into each field.

Table F-4: Attribute table

Attribute field name	Attribute field type	Attribute field length	Data to be entered
LGAName	String (text)	100	The official and full name of the LGA to which the data applies
RoadName	String (text)	250	The name of the road spelled out in full (i.e. Smith Road not Smith Rd)
ConValue	String (text)	25	Data entered must be one of the values below. Please ensure no errors are made in the entry of this data and use the text exactly as displayed. <ul style="list-style-type: none"> <li>• High HCV</li> <li>• Medium MCV</li> <li>• Low LCV</li> </ul>

### Provision to SEED Portal

Data captured consistent with this data standard can be emailed to [info@seed.nsw.gov.au](mailto:info@seed.nsw.gov.au) for incorporation into the NSW Council Roadside Reserves Conservation Values data set. The correspondence must make it clear that the data is being provided for inclusion in the NSW Council Roadside Reserves Conservation Values data set located at <https://datasets.seed.nsw.gov.au/dataset/nsw-council-roadside-reserves-conservation-values>



**Attachment 1: Example metadata statement**

<b>ANZLIC Metadata Element</b>	<b>Fields</b>
<b>Title</b>	NSW Council Roadside Reserves Conservation Values
<b>File Identifier</b>	System generated
<b>Abstract</b>	Local Government NSW (LGNSW), as part of the Council Roadside Reserves (CRR) Project funded by the NSW Environmental Trust, facilitated the assessment of the conservation value of roadside reserves in a number of NSW Local Government Areas (LGAs) using a standard Rapid Assessment Method (RAM). This line spatial dataset contains the results of the assessments completed by 18 LGAs. Conservation value is described as either High Conservation Value (HCV), Medium Conservation Value (MCV), or Low Conservation Value (LCV).
<b>Purpose</b>	<p>LGNSW facilitated the assessment of roadside reserves in a number of NSW Local Government Areas (LGAs) using a standard Rapid Assessment Method (RAM). The LGAs who undertook the assessment, and are included in the spatial data set, are Bellingen Shire Council, Blacktown City Council, Edward River Council, Glen Innes Severn Shire Council, Griffith City Council, Lockhart Shire Council, Moree Plains Shire Council, Muswellbrook Shire Council, Oberon Council, Parkes Shire Council, Penrith City Council, Port Stephens Council, Queanbeyan-Palerang Regional Council, Snowy Valleys Council, Temora Shire Council, The Hills Shire Council, Upper Hunter Shire Council and Wagga Wagga City Council.</p> <p>This spatial dataset contains the results of the assessments completed by 18 LGAs. This assessment describes conservation value as either High Conservation Value (HCV), Medium Conservation Value (MCV) or Low Conservation Value (LCV).</p> <p>The RAM utilised for the assessment was prepared by NSW Local Land Services (LLS), the Office of Environment and Heritage (OEH) and LGNSW and is available at <a href="https://lgnsw.org.au/Common/Uploaded_files/REM_files/Final_RAM_Feb_2018.pdf">https://lgnsw.org.au/Common/Uploaded_files/REM_files/Final_RAM_Feb_2018.pdf</a>. Further details are available at <a href="https://www.lls.nsw.gov.au/_data/assets/pdf_file/0017/801161/rapid-assessment-methodology.pdf">https://www.lls.nsw.gov.au/_data/assets/pdf_file/0017/801161/rapid-assessment-methodology.pdf</a>.</p>
<b>Contact</b>	<p>Data custodian Senior Policy Officer - Environment Local Government NSW Senior Policy Officer – Environment Ph: 02 9242 4055 <a href="mailto:kirsty.mcintyre@lgnsw.org.au">kirsty.mcintyre@lgnsw.org.au</a></p> <p>Distributor Data Broker Department of Planning, Industry and Environment Ph: 131555 PO Box A290 Sydney South NSW 1232 <a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a></p>



<b>ANZLIC Metadata Element</b>	<b>Fields</b>
<b>Jurisdictions</b>	New South Wales
<b>Geographic Bounding Box</b>	North bound -28.690574 South bound -36.298651 East bound 153.039232 West bound 144.133598
<b>Lineage</b>	<p>The NSW Council Roadside Reserves Conservation Values data set is a compilation of a number of data sets provided by the 18 LGAs included in the assessment. Data provided prior to compilation included point data sets, line data sets and polygon data sets.</p> <p>After assessing the data provided it was decided that a single line data set would be created based on the information provided. For those LGAs who provided data as a line data set (Bellingen Shire Council, Blacktown City Council, Edward River Council, Griffith City Council, Moree Plains Shire Council, Parkes Shire Council, Penrith City Council, Snowy Valleys Council and The Hills Shire Council) the data provided was accepted without modification.</p> <p>For those LGAs who provided data as a polygon data set (Glen Innes Severn Shire Council, Queanbeyan-Palerang Regional Council and Temora Shire Council) the polygon layers depicting conservation value were used to clip a road data set for the LGA. Small road slivers that were not assessed were then removed manually from the layer, and conservation value was assigned manually based on the original polygon data classification.</p> <p>For those LGAs who provided data as a point data set (Lockhart Shire Council, Muswellbrook Shire Council, Oberon Council, Port Stephens Council, Upper Hunter Shire Council and Wagga Wagga City Council) the point locations were used to split the road data sets for each LGA at the start and end point for each roadside reserve assessment. A buffer of 30 m was applied to each assessment point due to potential inaccuracies in the GPS location of the original point data. Conservation value was then assigned manually based on the original point data classification.</p>
<b>Extent</b>	2019
<b>Distribution Format</b>	File Geodatabase Feature Class
<b>Keyword</b>	
<b>Maintenance And Update Frequency</b>	As needed
<b>Use Limitation</b>	This data is provided under a Creative Commons Attribution 4.0 licence <a href="http://creativecommons.org/licenses/by/4.0">http://creativecommons.org/licenses/by/4.0</a> Attribute 'Local Government NSW' in publications using this data.
<b>Legal Constraints</b>	No restrictions



ANZLIC Metadata Element	Fields
<b>Resolution</b>	Maximum 1:5,000 Minimum 1:20,000,000
<b>DQ Completeness</b>	Complete
<b>Reference System</b>	Geographic coordinate reference GCS_GDA_1994
<b>Topic Category</b>	Environment
<b>DateType Date Created</b>	2019-12-06
<b>DateType Date Published</b>	2019-12-06
<b>DateType Date Last Revised</b>	2019-12-0

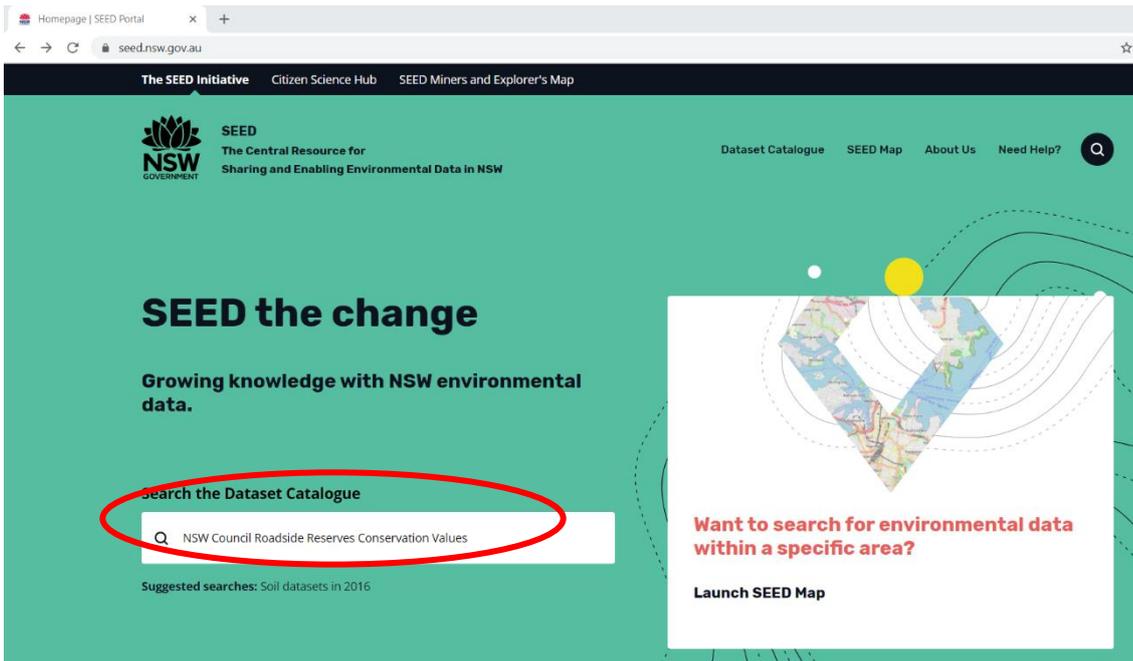


# Appendix G

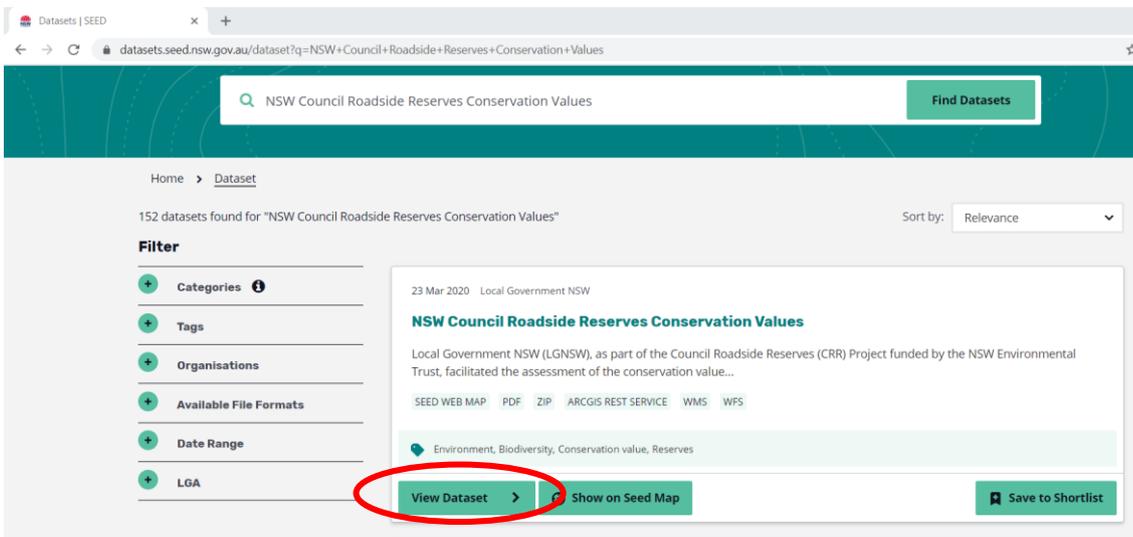
## Downloading Roadside Reserve Conservation Value Data from SEED to display in ArcMap or QGIS

### Step 1 – Download Council Roadside Reserves data from SEED Portal

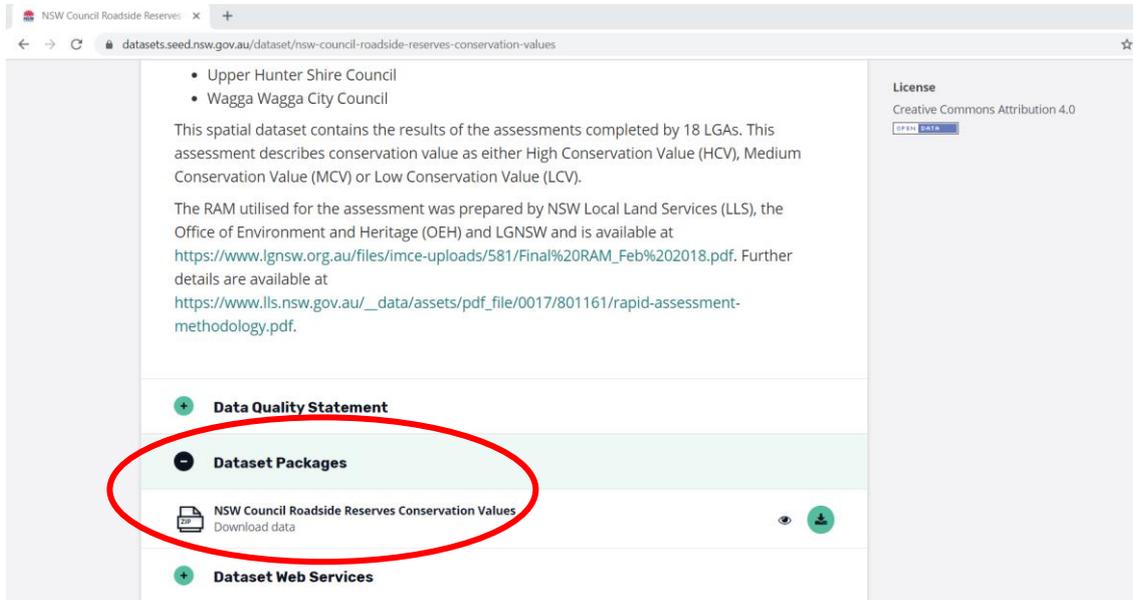
To download the NSW Council Roadside Reserves Conservation Values data from the NSW SEED Portal navigate to <https://www.seed.nsw.gov.au/> and type 'NSW Council Roadside Reserves Conservation Values' into the *Search the Dataset Catalogue* box.



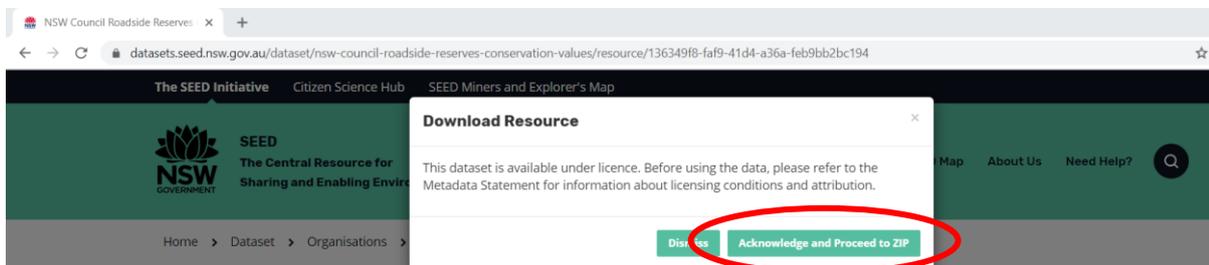
Select the *View dataset* link under NSW Council Roadside Reserves Conservation Values. If you don't wish to download the GIS data you can select the *View on Seed Map* here to view the data in an online mapping tool.



Scroll down and select *Dataset Packages* and then select *NSW Council Roadside Reserves Conservation Values*.



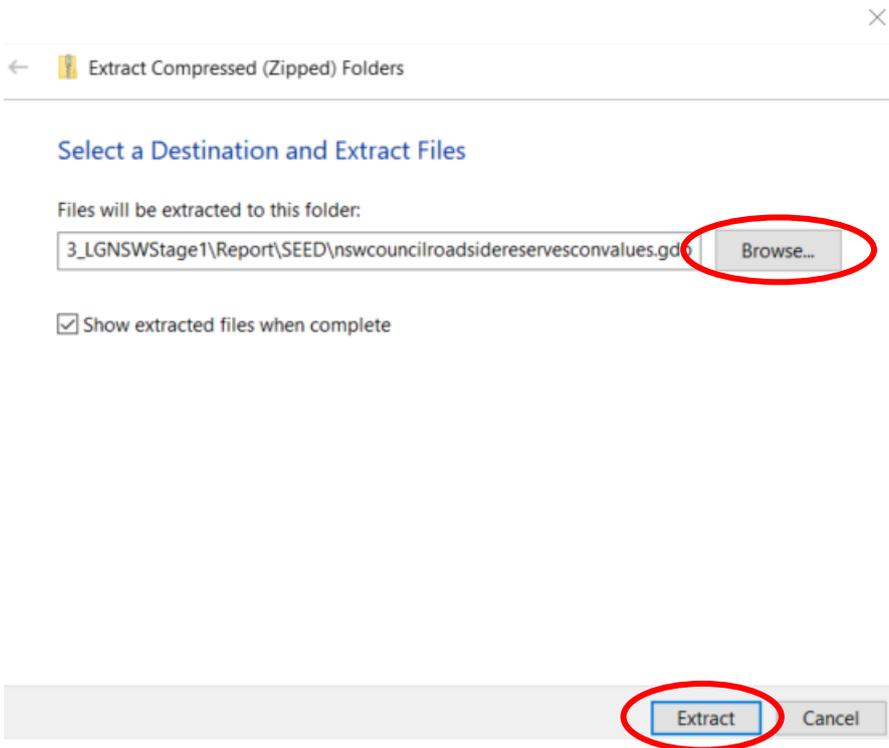
Now select *Download ZIP* in the top right-hand corner of the screen. Read the *Download Resource* disclaimer and acknowledge if you wish to proceed and download the data. A ZIP file will now download.



## Step 2 – Extract data from the ZIP file

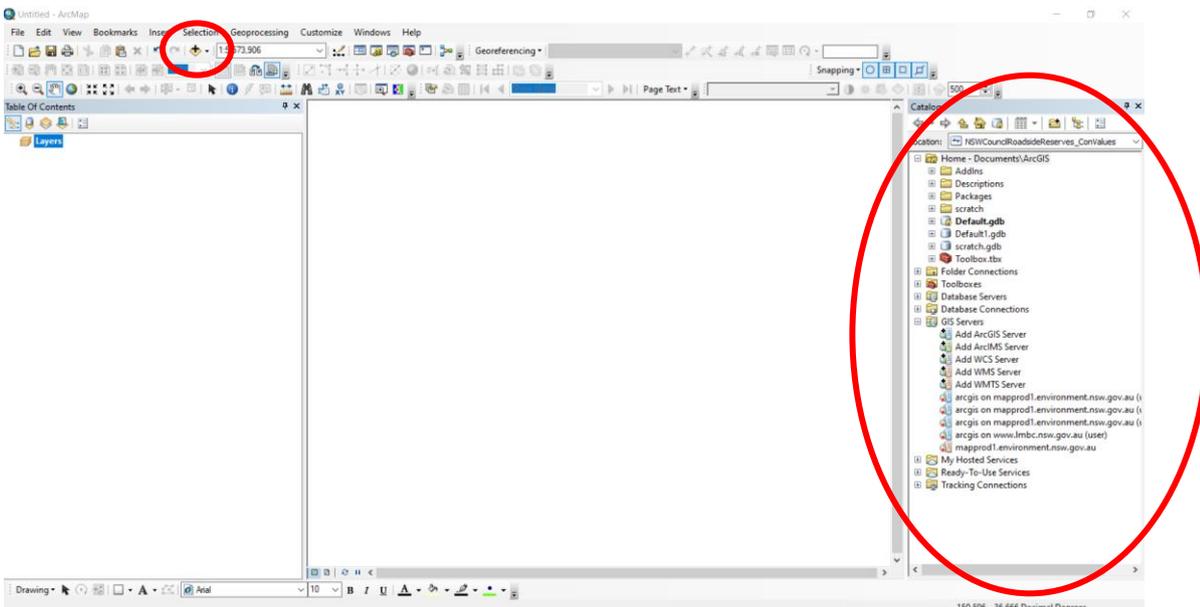
The downloaded file will be called **nswcouncilroadsidereservesconvalues.gdb.zip**. To extract the ArcGIS File Geodatabase from the ZIP file right click on the ZIP file and select *Extract All*. Browse to an appropriate location and select *Extract*. Once extracted you will see a file called *NSWCouncilRoadsideReserves\_ConValues.gdb* which is the ESRI File Geodatabase that contains the spatial data and *NSWCouncilRoadsideReserves\_ConValues.lyr* which is an ESRI layer file that contains the suggested layer symbology.



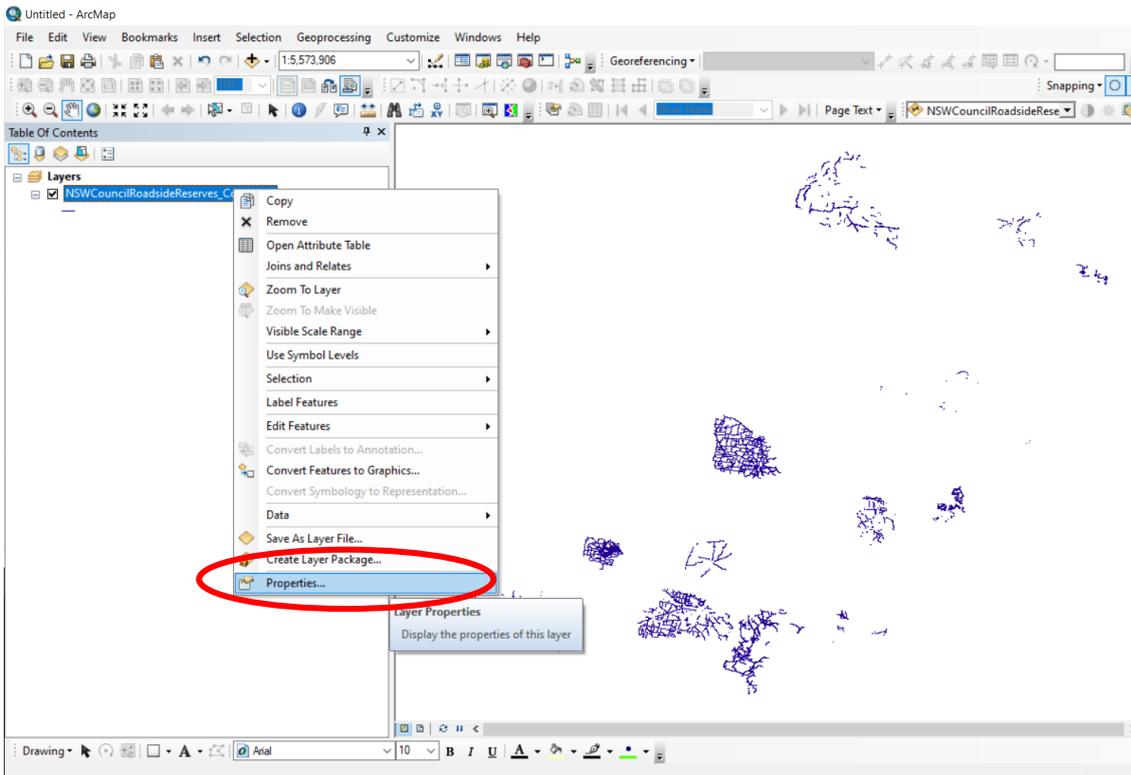


### Step 3 – Open data in ArcMap

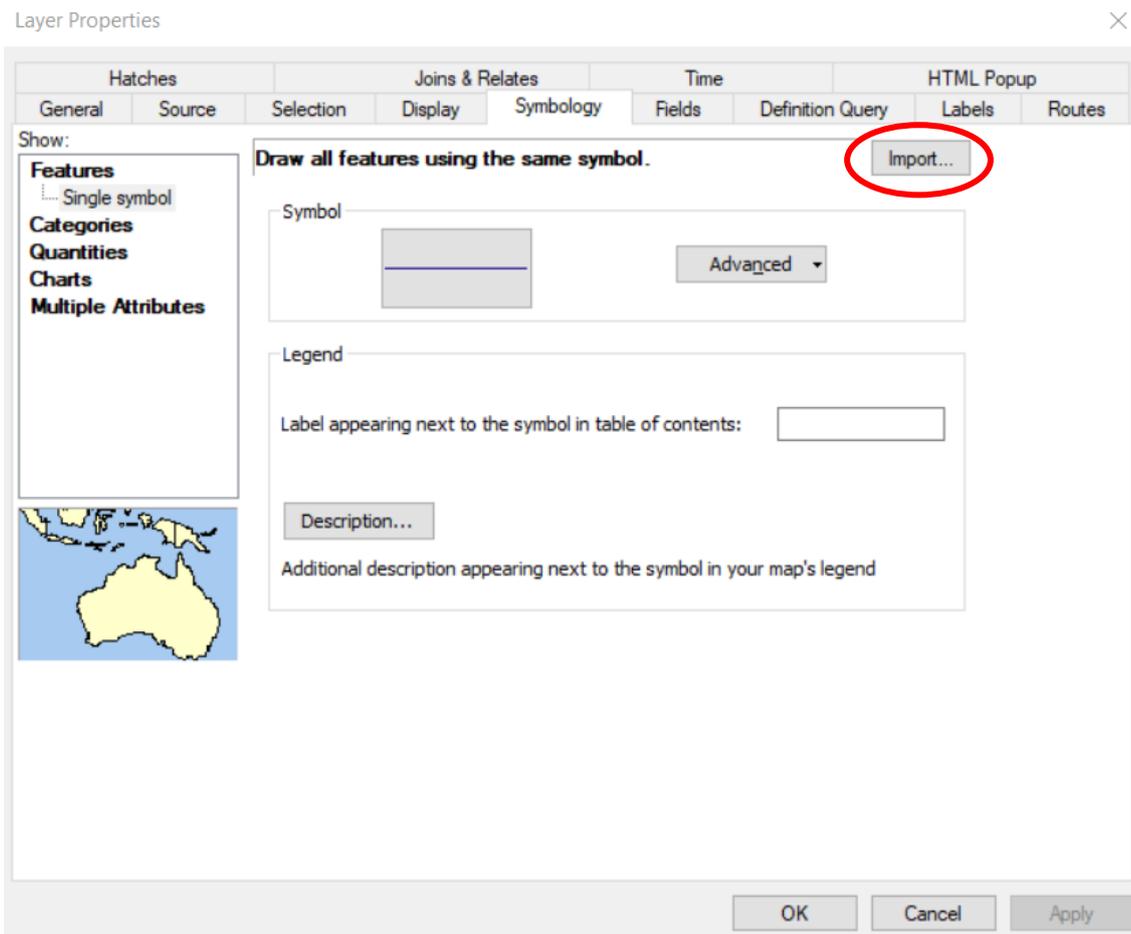
Open ArcMap and add the NSWCouncilRoadsideReserves\_ConValues data layer using the *Add Data* button or dragging in data from *ArcCatalog*.



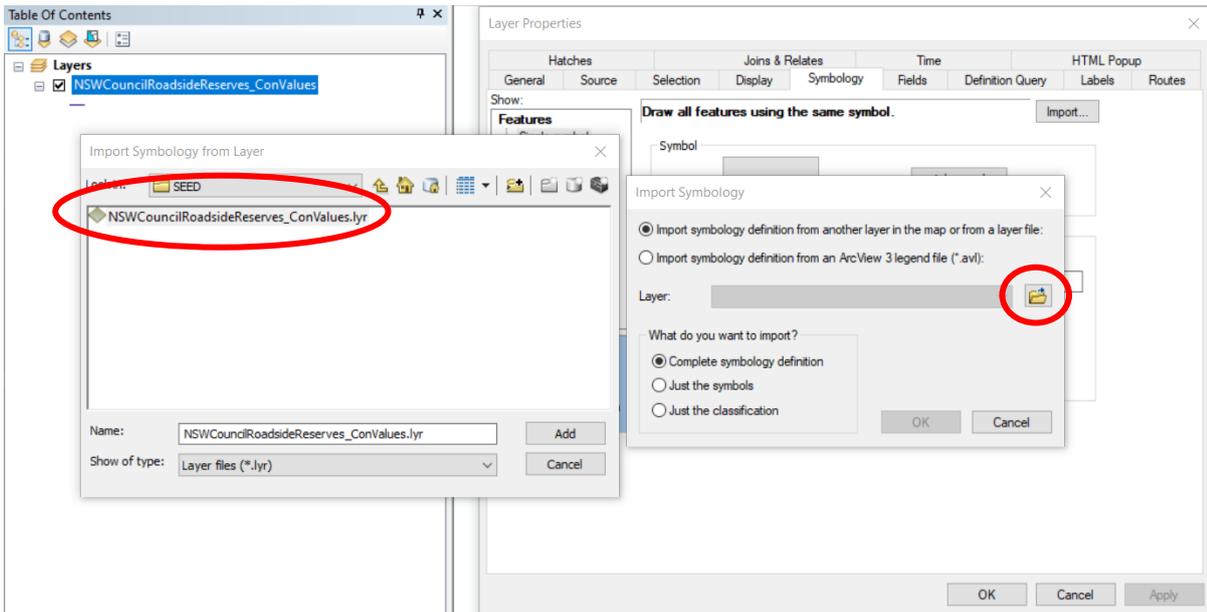
To change the colour of the layer right click on the layer and select *Properties*.



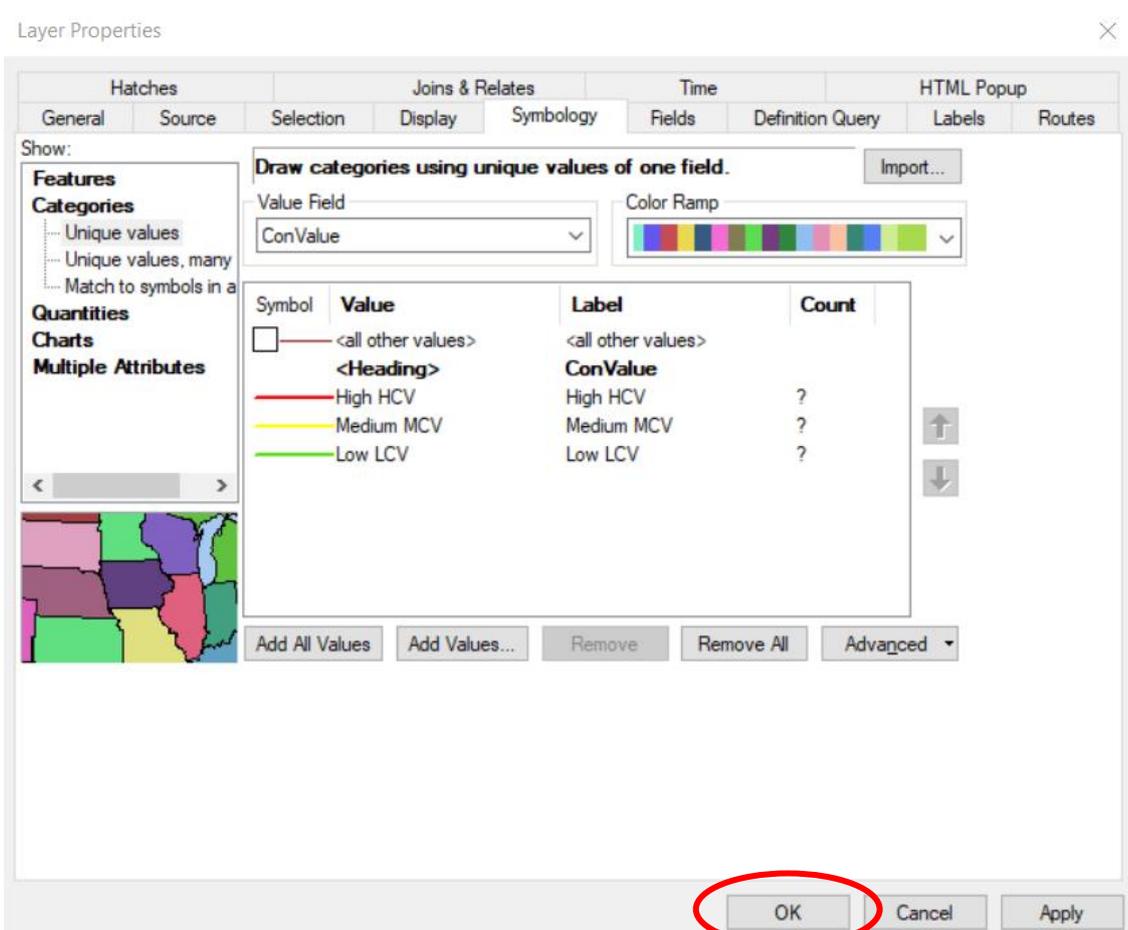
Select the *Symbology* tab and select the *Import* button

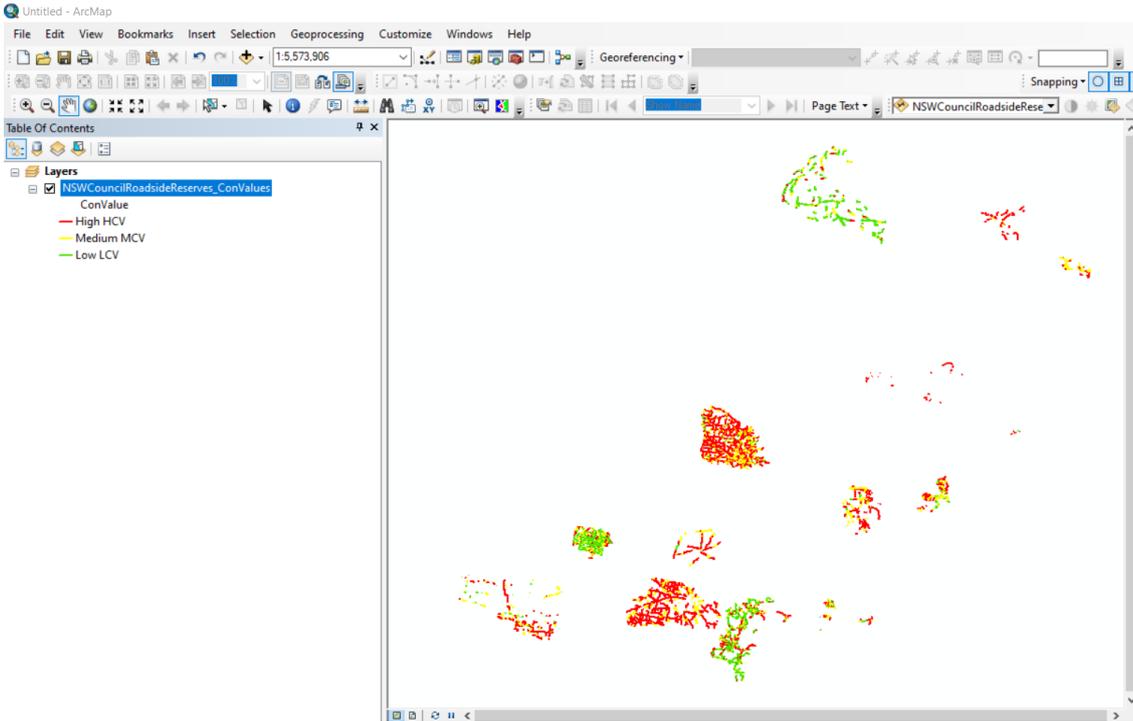


Select the *Open Folder* button and navigate to where the data is saved and select the file *NSWCouncilRoadsideReserves\_ConValues.lyr*.



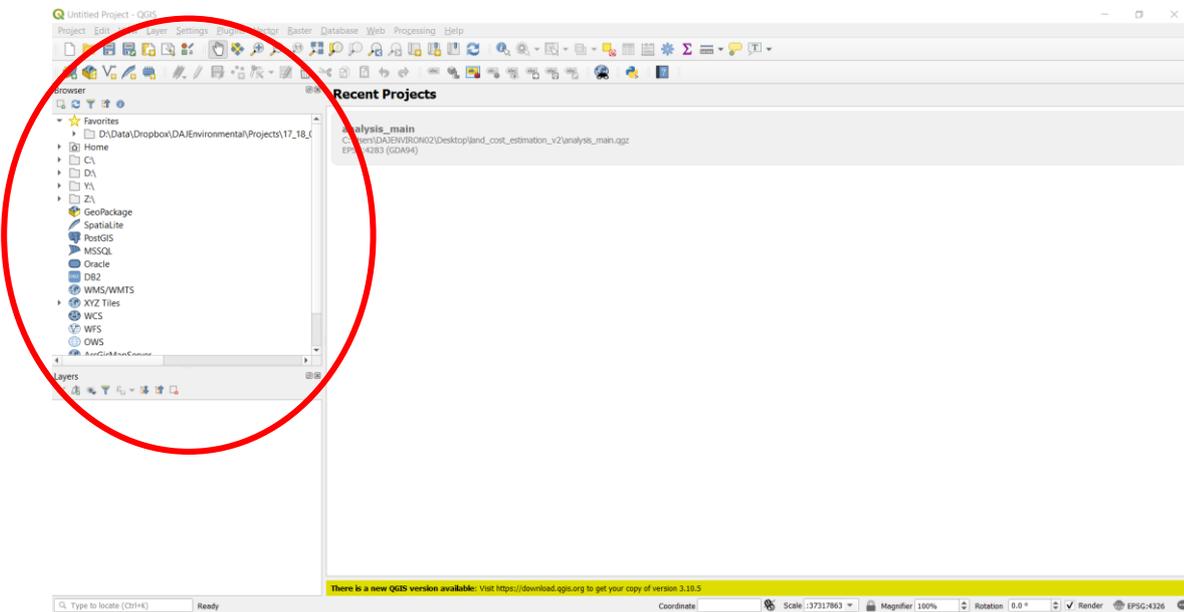
Select *Add* and then select *OK* and *OK* again. The colours should automatically be applied to High HCV (red), Medium MCV (yellow) and Low LCV (green). Select *OK* and the data should display in colours assigned.



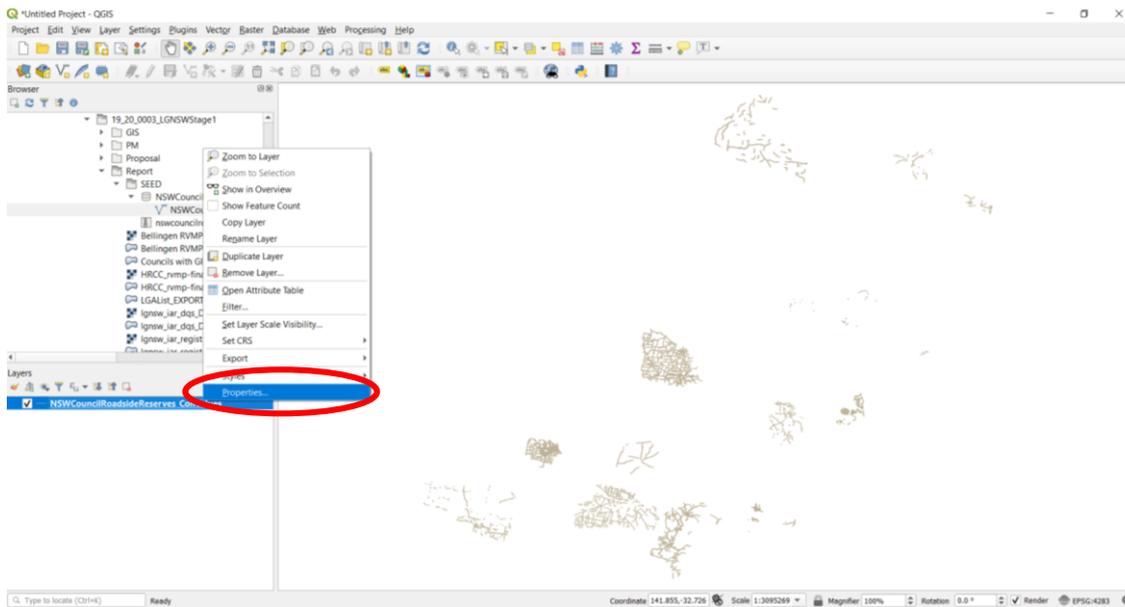


### Step 4 – Open data in QGIS

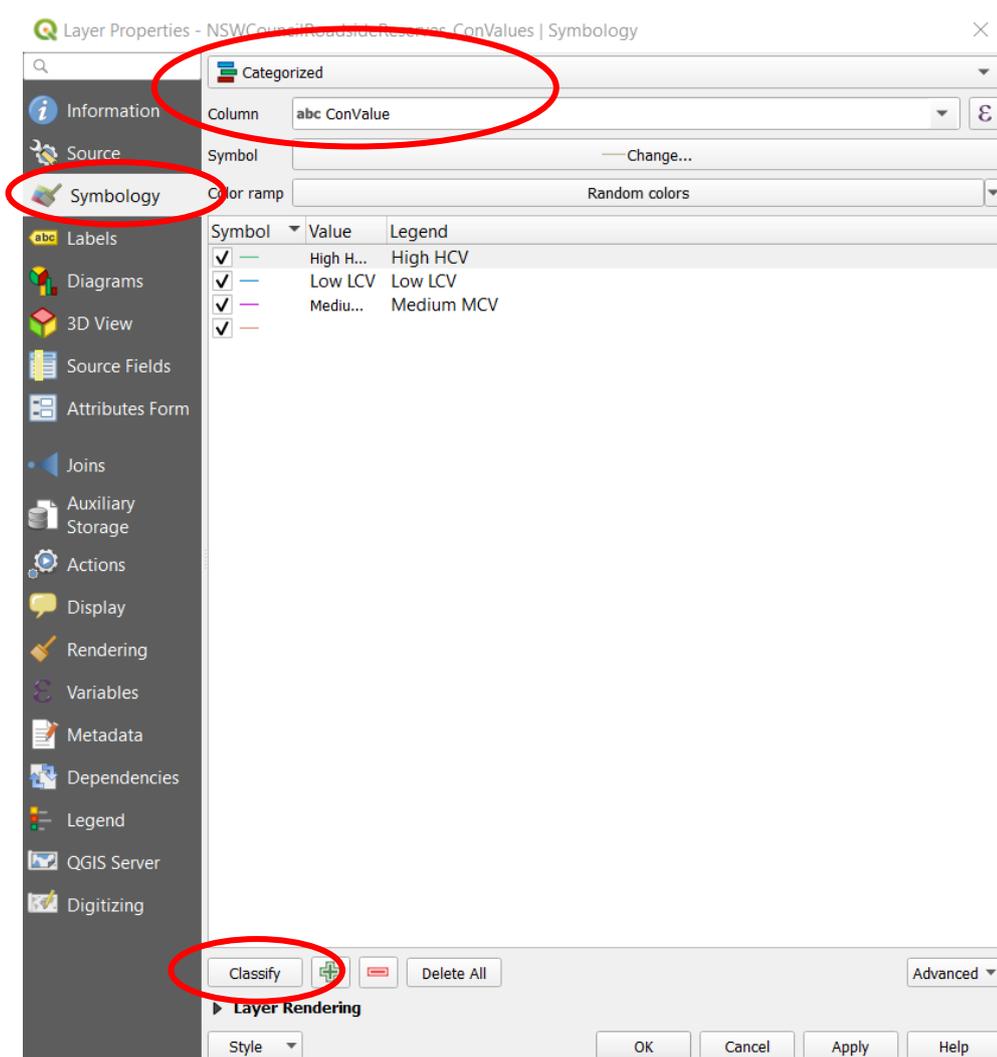
Open QGIS and add the NSWCouncilRoadsideReserves\_ConValues data layer using the *Browser* window.



To change the colour of the layer right click on the layer and select *Properties*.



Select the *Symbology* tab and select *Categorized*, then *ConValue* in the *Column* field and then select *Classify*.



Change each conservation value type to your preferred colour by double clicking on the *Symbol*. The standard colours are High HCV (red), Medium MCV (yellow) and Low LCV (green). Once each colour is changed select *OK* and the data should display in colours assigned.

