



# Local Land Services

## **Rapid conservation assessment method**

### Training package and guidelines



Rapid Conservation Assessment Method Training Package and Guidelines  
Prepared for NSW Local Land Services

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## What is the rapid conservation assessment method?

The rapid conservation assessment method (RAM) is part of a strategy to enable the recording of the conservation value of many discrete parcels of land (e.g. travelling stock reserve (TSR) or roadside reserve) across NSW.

The RAM is a relatively simple method of assessment that uses a three-part scoring system using conservation status (Part A) and landscape context (Part B) measures from existing spatial and data layers, and vegetation condition (Part C) that is assessed and scored in the field. Other important information (non-scored) relevant to land management e.g. vegetation and habitat features and threats and disturbances are also recorded in the field.

## Why have the RAM?

The RAM enables land managers (e.g. Local Land Services or local government staff) to assess the conservation value of many sites in a relatively short time frame and collate and compare with other sites.

The RAM coupled with establishing photo monitoring points (PMPs) can be used to monitor changes in site condition over a period of time (e.g. regeneration, weeds, grazing impacts) on selected sites. Further information on the monitoring of TSRs is provided in the LLS "Travelling Stock Reserve Monitoring and Audit Strategy".

## How will the RAM be applied?

Initially, the RAM will be applied as part of the Linear Reserve Project on selected TSRs and roadside reserves, however the RAM will be applicable to all managers of reserves:

The RAM Training Package and guidelines are to assist with State wide consistency where possible and enable key reserve management staff to undertake RAM assessments

The training package and guidelines are designed to be supplemented by locally relevant fact sheets (including regionally specific advice on Threatened Ecological Communities (TECs), vegetation formations, key over storey species, key woody, vine, herbaceous and grassy weeds, significant threatened plants and wildlife and timings for assessments) and regionally based local training.

## Who will implement RAM?

Following adequate training, all relevant field staff and others involved in native vegetation and land management will be capable of undertaking assessment using the RAM. The basic competencies required will be the ability to use or access existing spatial vegetation data as provided in an ArcMap platform, and basic vegetation identification in the field e.g. main tree species and whether the ground layer is mostly native perennial grass or weedy.

## Intent of the RAM?

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

Subsequent flora and fauna surveys of individual reserves is recommended if resources permit, to determine floristic diversity and the presence or absence of particular species e.g. threatened plants.

# Completing the RAM

The RAM is completed using the ESRI Collector for ArcGIS application (app) downloaded on a smart phone or tablet. The app is available free of charge and Appendix 1 has the instructions for download and user guides for either IOS or Android devices. This app will enable the RAM to be completed in the field using a smart device with associated geographic positioning system and where possible, pre-populated landscape information related to TSR or reserves. The app has the capability to operate off line for areas outside mobile range.

An ArcGIS online account is necessary to access the maps and associated data which will enable the RAM to be completed electronically.

## TSR / reserve general information

This section covers the general information required to be completed at the beginning of the RAM.

Scoring the RAM is based on three broad vegetation structures, i.e. forest/woodland, shrubland and grassland. Identification of the correct vegetation structure from Table 1 below enables the site to be categorised into either naturally treed, shrubland/heathland or grassland which prompts the correct vegetation condition (Part C) scoring to use.

Once the major vegetation structure is determined, this will be used to select either naturally treed, shrubland/heathland or grassland vegetation structure .

Refer to attached link for further information [www.anbg.gov.au/aust-veg/veg-map.html](http://www.anbg.gov.au/aust-veg/veg-map.html).

**Table 1. Major Vegetation structure modified from Specht**

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

- Assessor name - name of field assessor
- Date – date of field assessment
- Reserve name – record if known
- Crown reserve number – record
- Roadside name – record
- Road number –record if known
- Side of road – If the reserve is divided by a road, is the assessment zone on both sides of road? If not, select the direction to the assessment zone (e.g. zone lies to the NE of road).  
Both or    N    NE    E    SE    S    SW    W    NW.
- Vegetation formation – verify the vegetation formation as per vegetation spatial data, if known, for that region in the reserve/assessment zone. Table 2 below categorises the 16 NSW vegetation formations into broad vegetation structures consistent with RAM scoring.

**Table 2. NSW Vegetation Formations in basic structure categories**

NSW Vegetation Formation	Structure			
	Treed	Shrubland	Grassland	Other
Alpine complex				✓
Arid shrubland (acacia)		✓		
Arid shrubland (chenopod)		✓		
Dry sclerophyll (shrub/grass)	✓			
Dry sclerophyll (shrubby)	✓			
Forested wetlands	✓			
Freshwater wetlands				✓
Grasslands			✓	
Grassy woodlands	✓			
Heathlands		✓		
Rainforest	✓			
Saline wetlands				✓
Semi-arid woodlands (grassy)	✓			
Semi-arid woodlands (shrubby)	✓			
Wet sclerophyll (grassy)	✓			
Wet sclerophyll (shrubby)	✓			

- Vegetation class - verify the vegetation class as per vegetation spatial data, if known, for that region in the reserve/assessment zone.
- Plant community/No. if known – verify as per vegetation spatial data, if known, for that region.
- Reserve/assessment zone identification (GPS coordinates) – location automatically recorded when picture taken at the PMP. Refer to the RAM PMP establishment document for more information.

# Part A:

## Conservation status scoring and guide

Part A of the RAM relates to environmental legislation at state and federal level that prioritise the 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.

The score from Part A provides the information to complete the first column of the conservation value assessment matrix (refer to the RAM scoring and conservation matrix Table 5).

### Vegetation

This section establishes the rarity of the vegetation community present and hence its priority for protection.

Status	Score
Threatened ecological community/over-cleared veg community	2
Not present	0
Name if known	

Is the vegetation in the reserve a threatened ecological community (TEC), or an over-cleared vegetation community, i.e. over 70 % of pre-European extent has been cleared? Score 2

Record the name of the TEC from the desktop geographic information system (GIS) data from inferred mapping. Photo examples of these vegetation communities should be gathered at a regional scale to use in the field to assist in verifying the spatial vegetation data. The TEC will be validated following field assessment and be noted in the field as present as mapped or present not mapped..

For more information visit: [www.environment.nsw.gov.au/projects/biometric-dataset.htm](http://www.environment.nsw.gov.au/projects/biometric-dataset.htm).

### Wetlands

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

Wetland definition - wetlands are low points/depressions in the landscape that hold 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.

Status	Score
RAMSAR/DIWA/SEPP 14 etc	2
Other wetland > 2 ha	1
Not present (< 2ha)	0

Is there a wetland present? If so, is the site mapped as a RAMSAR wetland, a Directory of Important Wetlands of Australia (DIWA) or a SEPP 14 coastal wetland? Score 2

Otherwise, if a wetland(s) present is it > 2ha in area? Score 1

A wetland size of 2 ha was chosen for the RAM assessment scoring threshold because it is relatively easy to identify remotely and in the field.

For more information visit: [www.environment.nsw.gov.au/wetlands/WhereAreWetlands.htm](http://www.environment.nsw.gov.au/wetlands/WhereAreWetlands.htm)

## Site managed species

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

Status	Score
Present	2
Absent	0

Has a site-managed species been recorded in or within 250 m of the reserve?

The presence of site managed species (which are mostly threatened plant species) is based on data provided by the Office of Environment and Heritage.

**Conservation status score = Threatened = 2+, Depleted =1, Common = 0**