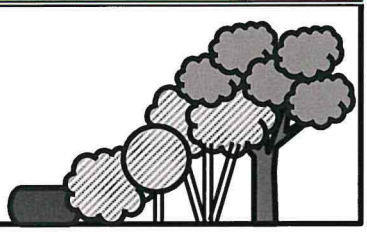
RCV SCORES GUIDE – A SENSE OF SCALE FOR RATING & RECORDING

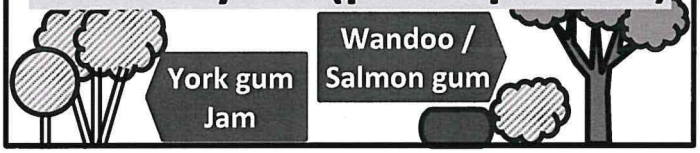
HIGH

All layers



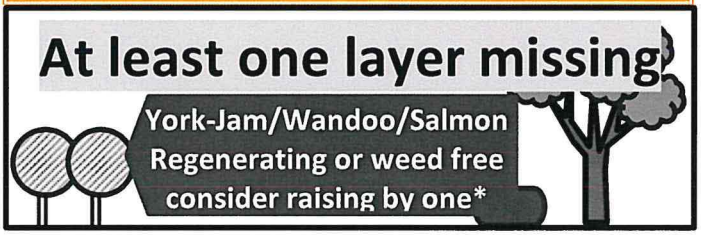
MED-HIGH

Most layers (perhaps thin)



MED-LOW

At least one layer missing



LOW

No layers

PURPOSE

This guide to Roadside Conservation Values (RCV scores) is meant to supplement the Roadside Conservation Committee (RCC) publication "Assessing Roadsides: a guide for rating conservation value" of 2002. It augments: i) the steps involved in scaling and scoring the core attributes that make the composite RCV class that is shown on related maps; and ii) makes some allowance for slight changes to indices since 2002.

It is intended to provide a little more guidance, especially where groups are attempting to re-survey Local Government areas, or are seeking to survey in advance of RCC priorities or related limitations in terms of current capacity and resources. In both cases the RCC is not able to provide resources or support; so this needs to be arranged independently and by alternate means.

Independent assessment of roadsides is also in keeping with Local Government and community actively engaging with management of their roadsides. Here each RCV map can serve as a foundation resource that can be steadily augmented in order to refine local roadside stewardship.

Coordinators should be aware of the magnitude of the task they are undertaking at the level of a full survey. It is important to have at least two key participants who can *dedicate* significant amounts of time to this work over potentially one to two years. Not just for directing survey, but then for due diligence in terms of data entry and checking, RCV scoring, tabulating, and some form of mapping.

Alternatives may be to: i) break the work into much smaller parts and allow for a longer timeframe; and/or ii) aim to produce workable tables or maps, rather than publication or GIS standard items.

DISCLAIMER

The RCC provides this guide in good faith, but enters into no liability in terms of its uptake, use, or efficacy. In particular, the RCC recommends that surveyors seek endorsed road safety advice from the relevant road managers and road safety bodies.

CHECKLIST OF MATERIALS

Survey road safety guide (check with relevant road managers and road safety bodies) & gear (e.g. flashing light & Hi-Viz vests).
Vegetation types (assemble basic guides from local NRM guides and Beard's vegetation series).
Weed guides both general and in-house field sets for main weeds.
RCV maps, report, tables and data.
Data sheets and working copies of parts of RCV maps; recording implements.
GPS, camera

PRIORITISING ROADS TO RE-SURVEY

When re-surveying a shire a key advantage is that less may need to be surveyed if HIGH and MEDIUM-HIGH conservation value roads are made the main priority.

However, it may still be prudent to include any known instances of roads that may have recovered since disturbance, and to check some sections of MEDIUM-LOW rated roads in case these were systematically skewed lower by previous observers, and so may in some cases warrant a MEDIUM-HIGH rating.

Less may need to be recorded if desired, as the bare minimum is the set of core RCV attributes; which are outlined below. Other observations support this set, but are not central to scoring.

OUTPUT OPTIONS:

All options require sustained effort and attention to data quality (checking data entry and transfer is correct and error-free). A certain amount of experience in spreadsheets is preferred; as RCV scores are generated from the sum of 6 core attributes. It is then feasible to produce a rough hand-drafted map or maps. This in turn could be fully drafted and scanned to pdf. (Ideally, and only if locally feasible, a participant experienced in GIS (ArcGIS) may then help draft a map as a GIS layer.)

Options:

1) Put data in a table (preferably a spreadsheet – default is Excel) and produce RCV scores.
2) Mark up existing map and create a revised serviceable map.
3) Have the serviceable map drafted (many original RCC maps were hand-drafted and it makes the data no less valid).
4) Lift data from Excel and move it to ARCGIS; create layers. A lot more effort is required to reach this level. (GIS support may be required from the local government or suitable provider.)

It is the coordinator's responsibility to assemble the resources and support for the selected option.

CALIBRATING OBSERVERS

It is important to meet to adjust or record how things are rated by different people; ultimately there should be reasonable agreement on ratings.

There are two ways to allow for variation **between** observers, either:

1) Try to get near agreement on perception and rating by working through a few actual cases as a group (seek cases with high & low extremes, and also some in the middle); and/or
2) Compare independent ratings of the same actual cases and then consistently "handicap" each observer's recorded ratings as required based on established differences.

Audit these things at set intervals; both:

1) before; and
2) at regular intervals during, the survey work.

LINE CALLS AND MATTERS OF DOUBT

Where a rating may not clearly fall into one division or another (in other words in terms of line calls and other matters of doubt), it is better to err on the side of caution and raise the score and so the value, as all residual diversity has value and ongoing adverse trends mean it is realistic to accept any such residual values can often represent "the best-on-offer".

Be careful not to use this as a pretext to inflate values regardless – remember that a fair representation of remnant ecosystem values underpins the whole exercise.

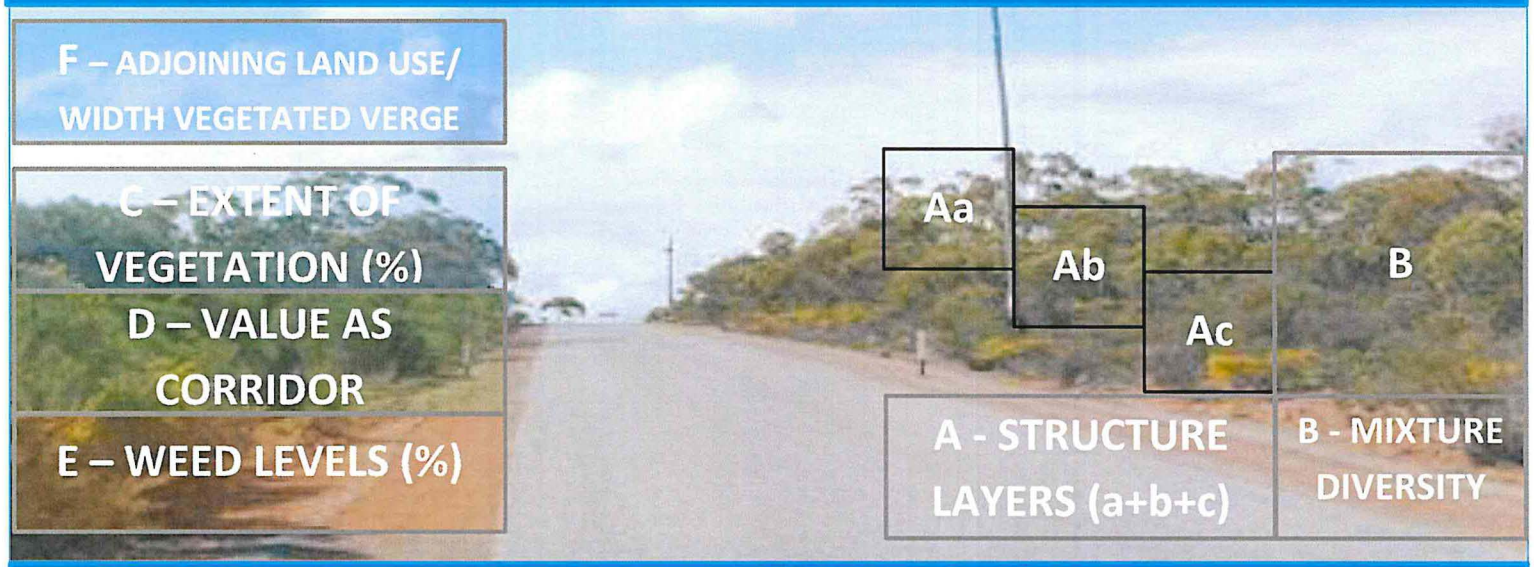
OBSERVATIONS ARE MADE ON THE LEFT AND RIGHT IN THE DIRECTION OF TRAVEL

Observations are made for the left and right sides of the road; this includes the core attributes that make up the Roadside Conservation Values and other supporting attributes and observations.

OBSERVATIONS REFLECT THE MOST COMMON STATE FOR EACH SECTION

Aim to reflect the most common or typical state of each attribute along the road section. Attempt to assign sections so they are relatively consistent in state (whether they initially appear "Low", "Medium-Low", "Medium-High", or "High"). It is better to map a relatively short section with higher values separately than blend it into a larger "Low" class for example. However, sections will generally need to be 100m or more (as 100m is fairly small at the level of a shire map or works plan, for example).

Outline of how Roadside Conservation Values are scored



VALUES SHOW A SCORE – highest score of 12 (for A to F)

F	0	1	2	
C	0	1	2	
D	0	1	2	3
E	0	1	2	

A	0	1	2
B	0	1	2

Applies from 1988 to 2010; from 2011 on:
i) adjoining land use was dropped; ii) corridor values scored 0 to 3; & iii) width of vegetated roadside scored 0 to 1.

CORE VALUES – DEVELOPING A SENSE OF SCALE

The following is an aid to developing a sense of the scales that underlie the conservation values.

Values are built from core attributes:

- Extent of the native vegetation (Scores 0-2).
- Layers or structure of native vegetation (Scores 0-2).
- Number of different native plant species (Scores 0-2)
- Value as a biological corridor (Scores 0-3).
- Width of vegetated roadside (Scores 0-1)
- Weeds (Scores 0-2).

The status of a roadside is reflected in a composite score based on this set of attributes.

Out of a possible total of 12 the "Roadside Conservation Value" (RCV) classes are:

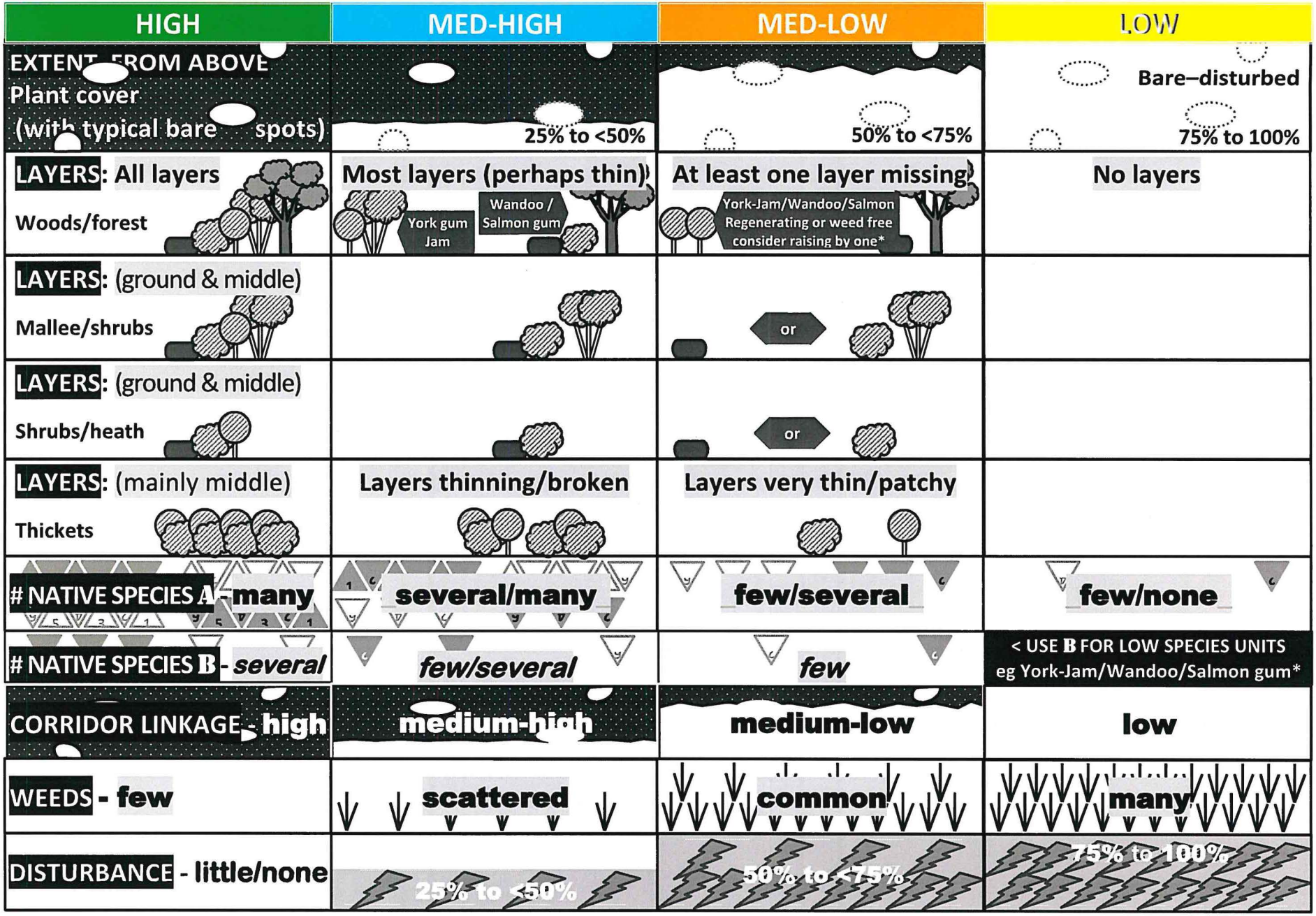
HIGH 9-12;

MEDIUM-HIGH 7-8;

MEDIUM-LOW 5-6; &

LOW 1-4.

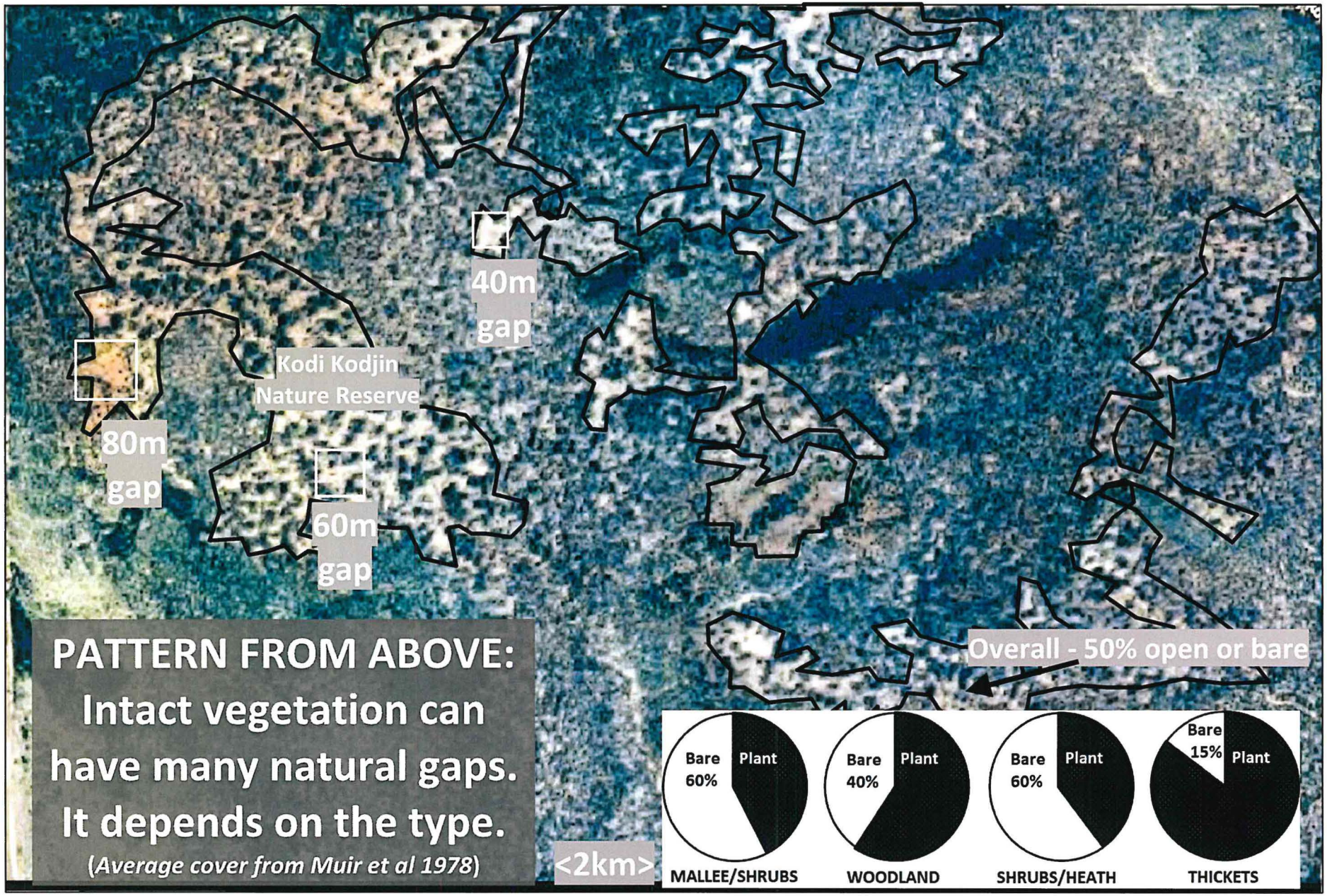
The following table lays the above attributes out by quarters under the 4 RCV classes.


HIGH
MED-HIGH
MED-LOW
LOW
EXTENT FROM ABOVE
Plant cover
(with typical bare spots)
25% to <50%
50% to <75%
Bare–disturbed
75% to 100%
LAYERS: All layers
Woods/forest
Most layers (perhaps thin)
York gum
Jam
Wandoo /
Salmon gum
At least one layer missing
York-Jam/Wandoo/Salmon
Regenerating or weed free
consider raising by one*
No layers
LAYERS: (ground & middle)
Mallee/shrubs
or
LAYERS: (ground & middle)
Shrubs/heath
or
LAYERS: (mainly middle)
Thickets
Layers thinning/broken
Layers very thin/patchy
NATIVE SPECIES A - many
several/many
few/several
few/none
NATIVE SPECIES B - several
few/several
few
< USE B FOR LOW SPECIES UNITS
eg York-Jam/Wandoo/Salmon gum*
CORRIDOR LINKAGE - high
medium-high
medium-low
low
WEEDS - few
scattered
common
many
DISTURBANCE - little/none
25% to <50%
50% to <75%
75% to 100%

THE EXTENT OF THE NATIVE VEGETATION.

- Extent reflects both cover and continuity; whether the unit is fairly intact or is somewhat interrupted, with unnatural gaps and breaks.
- Extent also considers how a unit might be viewed from above, and whether its original pattern is intact or has unnatural gaps and breaks (which are either of large size or are frequent).
- It can help to look at good examples of the main vegetation units in the area and become familiar with the typical patterns of cover and breaks on display.
    - Remember that it is changes to the natural pattern in the vegetation that are being sought – so try to overlook natural breaks and leave them out of any rating.
    - The following figure shows a range of natural breaks and vegetation cover in a wheatbelt reserve. (For example York gum-jam, wandoo and salmon gum woodland may all have significant natural gaps.)
- A rough visual guide to how extent aligns with the RCV classes (HIGH, MED-HIGH, MED-LOW, and LOW) is shown in the table above (classes may be viewed as undisturbed cover, *including natural gaps and bare areas*, of 100 to 75%, <75 to 50%, <50 to 25%, and 25 to 0% respectively).

Aim to reflect the most common or typical state of each attribute along the road section. This will generally be for 100m or more.


40m gap
Kodi Kodjin Nature Reserve
80m gap
60m gap
PATTERN FROM ABOVE:
Intact vegetation can have many natural gaps. It depends on the type.
(Average cover from Muir et al 1978)
<2km>
Overall - 50% open or bare
Bare 60%
Plant
MALLEE/SHRUBS
Bare 40%
Plant
WOODLAND
Bare 60%
Plant
SHRUBS/HEATH
Bare 15%
Plant
THICKETS

LAYERS OR STRUCTURE OF NATIVE VEGETATION

Each vegetation unit has its own signature of expected layers.

In terms of three basic layers:

- Trees need no explanation.
- Shrubs broadly cover non-trees and non-ground-layer (many mallees may fall here; the range of shrub heights will tend to be 1 to 5m). Scrub or kwongan or heath may fit here.
- Ground layer includes reeds (rushes & dryland sedges), herbs (including daisies), grasses, groundcovers (creepers, low spreading shrubs, ferns, etc).
- The layers will vary in cover, some may be low naturally.
- The table above illustrates that only some units will have all three basic layers.
    - Woodlands and forest, or shrubland with scattered trees, will tend to three layers.
    - Some woodland units may have only two layers (e.g. salmon gum, wandoo or jam).
    - Shrubland or heath or kwongan may have only two layers (shrub and ground layers).
    - Thickets may have one or two layers (either shrub-only or shrub and ground layers). Grassland may have only one.
- So it is important to have a sense of whether a layer is lacking due to change or because it is naturally absent.

It is also useful to note the vegetation type (if feasible) as this will leave a clue to how to score layers.

Aim to reflect the most common or typical state of each attribute along the road section. This will generally be for 100m or more.

NUMBER OF DIFFERENT NATIVE PLANT SPECIES

Each vegetation unit has its own signature range of expected native plant species.

- A basic species range is given, it is: 0-5; 6-19; over20.
  - It suits many types, including: woodland, forest, mallee, shrubland/heath/kwongan.
- However, low species units include:
  - Thickets, which may have only 1 or 2 species and still be in a good state.
  - Open versions of jam-York gum, salmon gum and wandoo woodland which may range from 1 to 5 and over 5 species.
  - So both low species units should score at least 1 for any remaining species.

Aim to reflect the most common or typical state of each attribute along the road section. This will generally be for 100m or more.

VALUE AS A BIOLOGICAL CORRIDOR

Some key principles support this attribute. The parts are:

- Connects uncleared areas – consider this part in two ways:
  - If the road connects conservation reserves or otherwise protected remnants.
  - If the road reserve itself is wide and still vegetated (eg [40 to] 60m or more) and so acts as a reserve in its own right (tick the box).
- A range of plant resources are present – this covers habitat:
  - In the sense of refuge (hollows in logs and trees, debris piles, thickets, etc.).
  - In the sense of food (a range of pollen, nectar, fruit, seed and foliage, and an associated range of prey in soil, litter, bark and foliage).
- Large trees with hollows – consider this part in four ways:
  - (In the sense of refuge – already covered above.)
  - In the sense of reflecting mature trees in the population as a long-term asset (tick the box).
  - In the sense of is there any regeneration? This is a vital factor that should be recorded whenever it is seen.
  - Likewise note the presence of a range of tree ages as this reflects a healthy population.

Aim to reflect the most common or typical state of each attribute along the road section. This will generally be for 100m or more.

WIDTH OF VEGETATED ROADSIDE

This is not highlighted as it is really an add-on to corridor value. The classes are: 1-5m; 6-20m; & over 20m. In terms of the upper two classes, it is increasingly likely that road reserves were surveyed with one or two extra "chains" (20m) of width *primarily for conservation*. (Note this attribute loses relevance in national parks, state forest, etc.)

WEEDS

Weeds are the flip side to extent of native vegetation and can reflect the extent of all disturbances.

Weed cover:

- Can reflect unnatural gaps and breaks and so the extent to which remnant vegetation is interrupted.
- Is roughly aligned with RCV classes (HIGH, MED-HIGH, MED-LOW, and LOW) in the table (classes shown as cover of 0 to 25%, >25 to 50%, >50 to 75%, and >75 to 100% respectively).
- *Is estimated overall as* ***all weeds as a proportion of total plant cover along a section***.
    - The levels are: Few weeds (<20% of cover), Half weeds (20-80% of cover); Mostly weeds (>80& of cover; this includes where the ground layer is totally covered).
- *Is estimated for the most common and dominant weeds* (the main five or so); *as a* ***proportion of total weed cover along a section***.
    - For each major weed the levels are: <20% of total weeds; 20-80% of total weeds; & >80% of total weeds.
    - Weeds selected should reflect:
        - Dominance.
        - Previous maps in the case of re-survey (which also reflect report tables). Ensure the same names and abbreviations used are as in the tables in the RCV report.
        - (Possibly also some which have expanded in the interim – check with the shire or the Department of Agriculture.)

Aim to reflect the most common or typical state of each attribute along the road section. This will generally be for 100m or more.

CORE VALUES – SCORING THEM

Scoring involves blending the initial observations outlined above.

(As an extra aid to scoring consistency an independent visual split by quarters is also shown in the sub-tables below; *this provides an initial sense of the ultimate match to likely-RCV-classes*.)

EXTENT OF THE NATIVE VEGETATION (Scores 0-2).

KEY: ■ **Feature present** ☐ **Feature absent**

This records the degree to which native vegetation (regardless of type) is continuous along the road section, or interrupted by weeds or related disturbances. The scores for extent of vegetation are: 0 for <20%; 1 for 20-80%; & 2 for >80%. (If this was assessed by quarters (as in HIGH to LOW) it is simple to align with the score levels as shown below. The visual aid is repeated for this purpose.)

HIGH	MED-HIGH	MED-LOW	LOW
Vegetation: 75 to 100%	Vegetation: 50 to <75% (& increasingly patchy>>>)	Vegetation: 25 to <50%	Vegetation: 0 to <25%
EXTENT-SCORE 2: >80%	**EXTENT-SCORE 1: 20-80%**		**EXTENT-SCORE 0: <20%**
<20% ☐ 20 – 80% ☐ >80% ■	<20% ☐ 20 – 80% ■ >80% ☐	<20% ☐ 20 – 80% ■ >80% ☐	<20% ■ 20 – 80% ☐ >80% ☐

LAYERS OR STRUCTURE OF NATIVE VEGETATION (Scores 0-2).

This attribute requires care to fit the score to the vegetation unit/s present (usually the most common unit/s in a section). This score falls when "expected layers" are missing – so it relies on basic awareness of unit's features.

Scores range between 0 for "no layers" and 2 for "all expected layers".

However, layers may naturally be thin or lacking in some units, so a score of 2 may not mean three layers (or even a range of plants per layer).

Recall that only some units will have all three basic layers.

- **Woodlands and forest, or shrubland with scattered trees, will tend to three layers.**

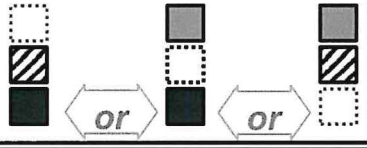
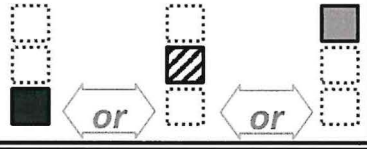
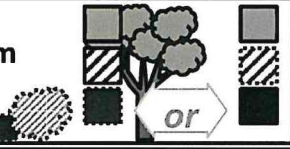
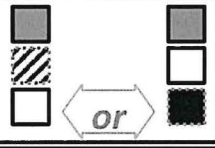
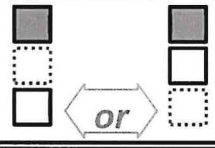
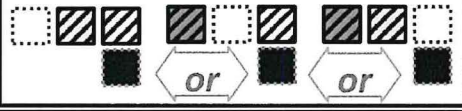
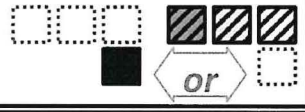
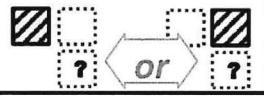
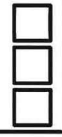
Some others will score 2 while having only 1 or 2 'reliable' layers.

- **Some woodland units may have only two (consistent) layers (e.g. salmon gum, wandoo or jam; where lower layer cover may also be naturally low).**
- **Shrubland or heath or kwongan may have only two layers (shrub and ground layers).**
- **Thickets may have one or two layers (either shrub-only or shrub and ground layers). Grassland may have only one.**

Ways of scoring these options are outlined below.

LAYERS OR STRUCTURE OF NATIVE VEGETATION (Scores 0-2).

KEY: Missing expected layer (or part of layer) — Expected layer/s present — Layer absent

HIGH	MED-HIGH	MED-LOW	LOW
LAYERS – SCORE 2:	**LAYERS – SCORE 1:**		**LAYERS – SCORE 0:**
LAYERS: all	most layers present/1 lost	1 - 2 or more layers lost	no layers
Woods/forest > 			Tree layer Shrub layer Ground layer
LAYERS: tree & grd &/or mid **Typically few shrubs or grazed**			
ESPECIALLY Jam/York gum Salmon gum Wandoo 		Jam may be the only woodland relic 	Tree layer Shrub layer Ground layer
LAYERS: ground & middle			
Mallee/shrubs > Shrubs/heath > 			Tree layer Shrub layer Ground layer
LAYERS: mainly middle	layers thinning/patchy	layers thin/broken	no layers
Thickets > 			Tree layer Shrub layer Ground layer

NUMBER OF DIFFERENT NATIVE PLANT SPECIES (Scores 0-2)

This attribute requires care to fit the score to the vegetation unit/s present (usually the most common unit/s in a section). This score falls when "expected species numbers" are missing – so it relies on basic awareness of unit's features.

Scores range between 0 for few or no species and 2 for "an expected range of species".

However, species may naturally be few in some units, so a score of 2 may not require many species.

Units with more species will tend to be:

- **Woodlands and forest, or shrubland with scattered trees.**
- **Shrubland or heath or kwongan.**

Units with naturally fewer species will tend to be:

- **Woodland units tending to only two (consistent) layers (e.g. salmon gum, wandoo or jam/York gum; where lower layer cover may be naturally low).**
- **Thickets with one or two layers (either shrub-only or shrub and ground layers).**

Ways of scoring these options are outlined below.

NUMBER OF DIFFERENT NATIVE PLANT SPECIES (Scores 0-2)

KEY: ☐ Feature present ☐ Feature absent

HIGH	MED-HIGH	MED-LOW	LOW
# NATIVE SPECIES - many	several/many	few/several	few/none
# SPECIES A - SCORE 2:	# SPECIES A (for high-species units) – SCORE 1:		# SPECIES A – SCORE 0:
woods/forest mallee/shrubs shrubs/heath Over 20 ☐	6 - 19 ☐	(0) - 5 ☐	0 (- 5) ☐

# NATIVE SPECIES - several	few/several	few	< USE B FOR LOW SPECIES UNITS eg York-Jam/Wandoo/Salmon gum*
# SPECIES B – SCORE 2:	# SPECIES B (for low-species units) – SCORE 1:		# SPECIES B – SCORE 0:
York gum-jam open salmon gum open wandoo Over 5 ☐	2 - 5 ☐	1(- 2) ☐	0 ☐
thickets (sheoak, acacia, etc) 1 - 3/more ☐	1 - 3 ☐	1 – 3 ☐	0 ☐

VALUE AS A BIOLOGICAL CORRIDOR (Scores 0-3).

KEY: ☐ **Feature present** ☐ **Feature absent**

This attribute score is simplest to score:

- No features – 0.
- One feature – 1.
- Two features – 2.
- Three features – 3.

Ways of scoring these options are outlined below.

HIGH	MED-HIGH	MED-LOW	LOW
CORRIDOR LINKAGE - high	medium-high	medium-low	low
CORRIDOR – SCORE 3:	**CORRIDOR – SCORE 2:**	**CORRIDOR – SCORE 1:**	**CORRIDOR – SCORE 0:**
Connects uncleared areas ☐ A range of plant resources ☐ Large trees with hollows ☐	☐ ☐ ☐ *or* ☐ ☐ ☐ *or* ☐ ☐ ☐	☐ ☐ ☐ *or* ☐ ☐ ☐ *or* ☐ ☐ ☐	Connects uncleared areas ☐ A range of plant resources ☐ Large trees with hollows ☐

WIDTH OF VEGETATED ROADSIDE (Scores 0-1)

KEY: ☒ Feature present ☐ Feature absent

If a vegetated roadside is over 5m wide it scores 1.

Record the observed width as well if possible.

(Note: This attribute needs revision and more weight; as roadside width strongly influences remnant vegetation. At present roadsides 10m or wider may only be emphasized *by ensuring they are scored under Corridors "Connects uncleared areas";* as such wider roadsides start to form significant uncleared areas in their own right.)

Ways of scoring these options are outlined below.

HIGH	MED-HIGH	MED-LOW	LOW
WIDTH – SCORE 1:	**WIDTH – SCORE 1:**		**WIDTH – SCORE 0:**
1 – 5m ☐	1 – 5m ☐	1 – 5m ☐	1 – 5m ☒
>5m – 20m ☐	>5m – 20m ☒	>5m – 20m ☒	>5m – 20m ☐
over 20m ☒	over 20m ☐	over 20m ☐	over 20m ☐

WEEDS (Scores 0-2).

KEY: ☐ Feature present ☐ Feature absent

This attribute score is only for total weeds.

It reflects the degree to which weeds are present along the road section.

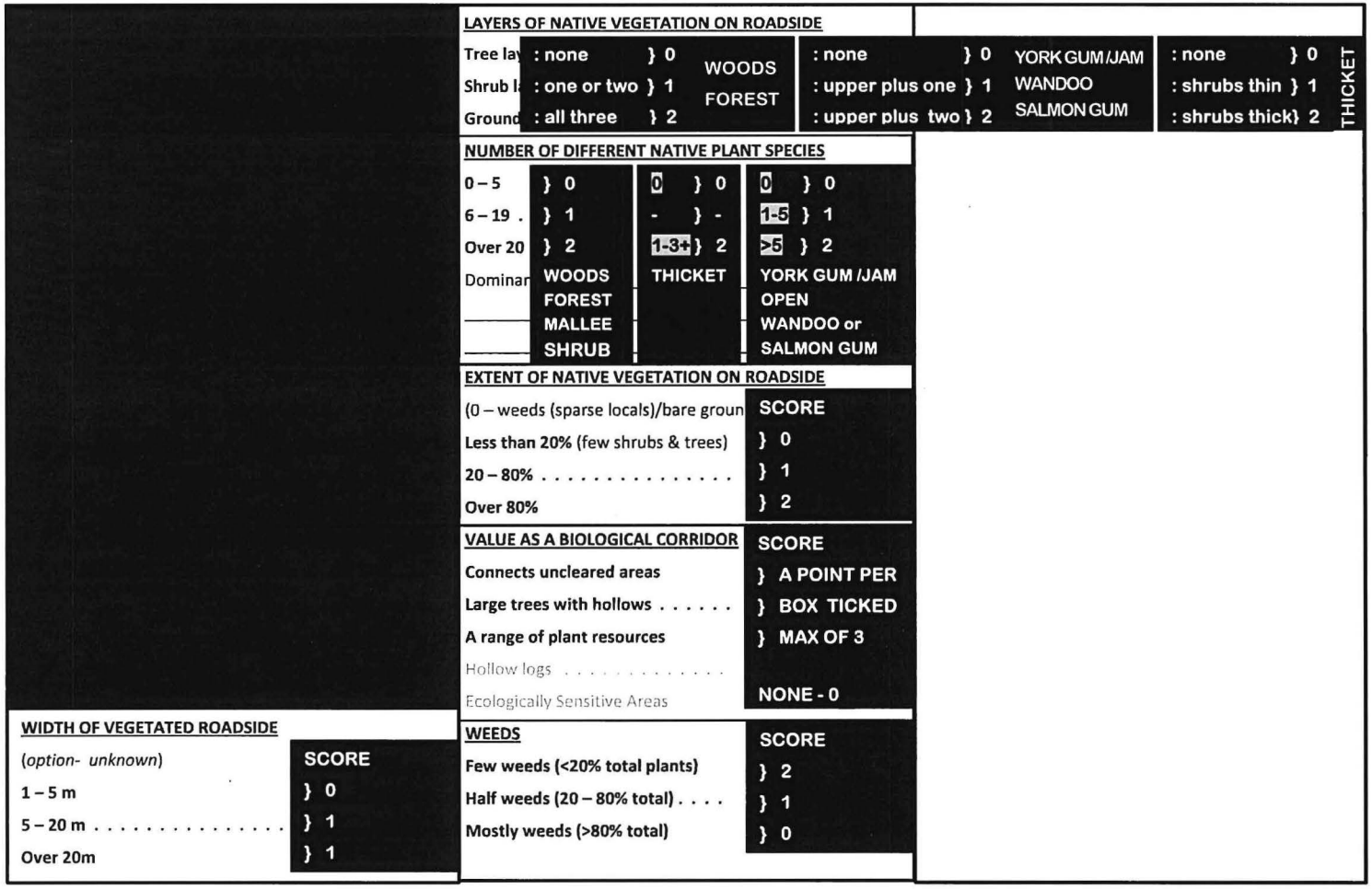
The scores for extent of weeds are: 2 for <20%; 1 for 20-80%; & 0 for >80%. (If this was assessed by quarters (as in HIGH to LOW) it is simple to align with the score levels as shown below. The visual aid is repeated for this purpose.)

Ways of scoring these options are outlined below.

HIGH	MED-HIGH	MED-LOW	LOW
WEEDS - few	**scattered** (*25 to <50%*)	**common**, (50 *to <75%*)	**many** (*75 to <100%*)
WEEDS - SCORE 2: <20%	**WEEDS - SCORE 1: 20-80%**		**WEEDS - SCORE 0: >80%**
>80% ☐ 20 – 80% ☐ <20% ☐	>80% ☐ 20 – 80% ☐ <20% ☐	>80% ☐ 20 – 80% ☐ <20% ☐	>80% ☐ 20 – 80% ☐ <20% ☐

(Note that individual major weed scores are only collected for eventual mapping of each weed and do not contribute to RCV scores.)

How the scoring of the six core attributes relates to a survey sheet is shown below (the sheet is in the accompanying file RCV SURVEY SHEET).



LAYERS OF NATIVE VEGETATION ON ROADSIDE

	WOODS FOREST	YORK GUM /JAM WANDOO SALMON GUM	THICKET
Tree la	: none } 0	: none } 0	: none } 0
Shrub l	: one or two } 1	: upper plus one } 1	: shrubs thin } 1
Ground	: all three } 2	: upper plus two } 2	: shrubs thick } 2

NUMBER OF DIFFERENT NATIVE PLANT SPECIES

	WOODS FOREST MALLEE SHRUB	THICKET	YORK GUM /JAM OPEN WANDOO or SALMON GUM
0 – 5	} 0	0 } 0	0 } 0
6 – 19 .	} 1	- } -	1-5 } 1
Over 20	} 2	1-3+ } 2	>5 } 2
Dominar			

EXTENT OF NATIVE VEGETATION ON ROADSIDE

	SCORE
(0 – weeds (sparse locals)/bare groun	
Less than 20% (few shrubs & trees)	} 0
20 – 80%	} 1
Over 80%	} 2

VALUE AS A BIOLOGICAL CORRIDOR

	SCORE
Connects uncleared areas	} A POINT PER
Large trees with hollows	} BOX TICKED
A range of plant resources	} MAX OF 3
Hollow logs	
Ecologically Sensitive Areas	NONE - 0

WIDTH OF VEGETATED ROADSIDE

(option- unknown)	SCORE
1 – 5 m	} 0
5 – 20 m	} 1
Over 20m	} 1

WEEDS

	SCORE
Few weeds (<20% total plants)	} 2
Half weeds (20 – 80% total)	} 1
Mostly weeds (>80% total)	} 0

The data can then be transferred to a suitable table.

There are two options: i) use the accompanying spreadsheet file ("RCV DATA SHEET" which has a full set of columns); or ii) create a table which has fewer columns and which is limited to generating the RCV scores based on the six core attributes.

OUTLINE OF THE ESSENTIAL COLUMNS REQUIRED TO ESTIMATE RCV SCORES (PART I)

KEEP THIS ROW (note most observation columns appear in left & right pairs)	SHIRE_NAME	START_DATE	LAT_START	LONG_START	LAT_END	LONG_END	SECTION	ODSTART	ODFINISH	DIRECTION	ROAD_NAME
GUIDE ONLY > (REMOVE)	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL	ESSENTIAL
GUIDE ONLY > (REMOVE)											
GUIDE ONLY > (REMOVE)	COMMENT	COMMENT	COMMENT in decimal degrees	COMMENT in decimal degrees	COMMENT in decimal degrees	COMMENT in decimal degrees	COMMENT break each road into sections between junctions from start	COMMENT record odometer at the start of the section at the same time as the coord-inates from GPS	COMMENT record odometer at the end of the section at the same time as the coord-inates from GPS	COMMENT direction of travel along road (eg N means heading north; NW means north-west)	COMMENT

OUTLINE OF THE ESSENTIAL COLUMNS REQUIRED TO ESTIMATE RCV SCORES (PART II)

WIDTHVEG_L	WIDTHVEG_R	WIDV_SUM_L	WIDV_SUM_R	VEGTYPE_L	VEGTYPE_R	EXT_VEG_L	EXT_VEG_R	SPECIES_L	SPECIES_R	GEN_WEEDS_L	GEN_WEEDS_R
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	SUPPORTS LAYER SCORE	SUPPORTS LAYER SCORE	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV
SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	ACTUAL SCORE	ACTUAL SCORE			ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE
COMMENT core RCV; options: 1-5m 5-20m over 20m unknown	COMMENT core RCV; options: 1-5m 5-20m over 20m unknown	COMMENT core RCV SCORE; options: 0 (1-5m) 1 (5-20m) 1 (over 20m) 1 (unknown)	COMMENT core RCV SCORE; options: 0 (1-5m) 1 (5-20m) 1 (over 20m) 1 (unknown)	COMMENT describe the basic or common elements of the vegetation (eg thicket, shrubland, woodland, forest). This can also help better weight the layer score to the most common vegetation in the section if required.	COMMENT describe the basic or common elements of the vegetation (eg thicket, shrubland, woodland, forest). This can also help better weight the layer score to the most common vegetation in the section if required.	COMMENT core RCV SCORE; 0 (*less than 20% local vegetation*; MOSTLY: non-native weeds/disturbed bare ground; planted non-natives; planted non-local natives) 1 (20 to 80% local vegetation) 2 (over 80% local vegetation)	COMMENT core RCV SCORE; 0 (*less than 20% local vegetation*; MOSTLY: non-native weeds/disturbed bare ground; planted non-natives; planted non-local natives) 1 (20 to 80% local vegetation) 2 (over 80% local vegetation)	COMMENT core RCV SCORE; Number of different native species 0 (0 to 5) 1 (6 to 19) 2 (20 & over) _____ however - thickets may score 2 (for only 3 species or so) and York gum-jam, & open salmon gum & wandoo score 1 (for 1-5)	COMMENT core RCV SCORE; Number of different native species 0 (0 to 5) 1 (6 to 19) 2 (20 & over) _____ however - thickets may score 2 (for only 3 species or so) and York gum-jam, & open salmon gum & wandoo score 1 (for 1-5)	COMMENT core RCV SCORE; 0 (mostly weeds [>80% total] /ground layer totally weeds) 1 (half weeds [20-80% total]) 2 (few weeds [<20% total])	COMMENT core RCV SCORE; 0 (mostly weeds [>80% total] /ground layer totally weeds) 1 (half weeds [20-80% total]) 2 (few weeds [<20% total])

RCV SCORES GUIDE

OUTLINE OF THE ESSENTIAL COLUMNS REQUIRED TO ESTIMATE RCV SCORES (PART III)

VEG_TREE_L	VEG_TREE_R	VEG_SHRB_L	VEG_SHRB_R	VEG_GRND_L	VEG_GRND_R	NVEG_SUM_L	NVEG_SUM_R
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV
SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	ACTUAL SCORE	ACTUAL SCORE
COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV SCORE; 0 (T+S+G=0) 1 (T+S+G=1or2) 2 (T+S+G=3)	COMMENT core RCV SCORE; 0 (T+S+G=0) 1 (T+S+G=1or2) 2 (T+S+G=3)

OUTLINE OF THE ESSENTIAL COLUMNS REQUIRED TO ESTIMATE RCV SCORES (PART IV)

CONNECT_L	CONNECT_R	TREEHOL_L	TREEHOL_R	SHRUBS_L	SHRUBS_R	HOLOGS_L	HOLOGS_R	ESA_L	ESA_R	HAB_SUM_L	HAB_SUM_R
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	supplementary	supplementary	supplementary	supplementary	ESSENTIAL - RCV	ESSENTIAL - RCV
SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUPPLEMENTARY	SUPPLEMENTARY	SUPPLEMENTARY	SUPPLEMENTARY	ACTUAL SCORE	ACTUAL SCORE
COMMENT core RCV score; connects uncleared areas 0 (absent) 1 (present)	COMMENT core RCV score; connects uncleared areas 0 (absent) 1 (present)	COMMENT core RCV score; tree hollows / mature trees present 0 (absent) 1 (present)	COMMENT core RCV score; tree hollows / mature trees present 0 (absent) 1 (present)	COMMENT core RCV score; A RANGE OF RESOURCE INCLUDING shrubs that can flower present 0 (absent) 1 (present)	COMMENT core RCV score; A RANGE OF RESOURCE INCLUDING shrubs that can flower present 0 (absent) 1 (present)	COMMENT core RCV score; hollow logs present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; hollow logs present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; ecologically sensitive areas (including threatened flora) present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; ecologically sensitive areas (including threatened flora) present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; 0 (0+0+0) 1 (1+0+0) 2 (1+1+0) 3 (1+1+1) from any mix of CONNECT, TREE HOL (MATURE TREES), SHRUBS (A RANGE OF RESOURCES)	COMMENT core RCV score; 0 (0+0+0) 1 (1+0+0) 2 (1+1+0) 3 (1+1+1) from any mix of CONNECT, TREE HOL (MATURE TREES), SHRUBS (A RANGE OF RESOURCES)

OUTLINE OF THE ESSENTIAL COLUMNS REQUIRED TO ESTIMATE RCV SCORES (PART V)

RCV_LEFT	RCV_RIGHT
FINAL RESULT RCV	FINAL RESULT RCV
SUM OF ALL ACTUAL SCORES	SUM OF ALL ACTUAL SCORES
COMMENT the sum of adding: WIDV_SUM_L EXT_VEG_L SPECIES_L GEN_WEEDS_L NVEG_SUM_L HAB_SUM_L	COMMENT the sum of adding: WIDV_SUM_R EXT_VEG_R SPECIES_R GEN_WEEDS_R NVEG_SUM_R HAB_SUM_R

ROADSIDE CONSERVATION VALUES:

EXAMPLES OF SCORES

HIGH (9-12)

MED-HIGH (7–8)

MED-LOW (5-6)

LOW (0-4)

CONTENTS

PURPOSE

This is a guide to help Local Governments (LGs) assign consistent ratings to roadside natural values.

It provides a series of examples that can be treated as 'standards'.

Primarily it is for LGs that lack a roadside map (Roadside Conservation Value or RCV map). It will help to either:

a) Make assessments for specific purposes; or
b) Undertake full-scale mapping.

Secondarily it is for mapped shires undertaking an assessment so as to update to their records.

USE

This is a simple visual guide. A series of examples of common vegetation types is shown along with a basic RCV rating (out of a possible total of 12). Comments reflect the reasoning for the scores.

There are also a few vegetation types and indicator species that are explained in more detail.

The examples should help set a frame of reference when rating unmapped roadsides for "surrogate" values (see "Have you planned to enhance your roadsides") or are intending to map roadsides.

Mapped LGs can use the examples as a way to check how their map was "calibrated" at the time when roadsides were assessed. This is important, because different observers, different vegetation benchmarks, and the biasing effect of weeds, have led to some variability over the past 30 years.

LIMITATIONS

It is not feasible to cover all vegetation types. So it will be necessary to get a sense of attributes from the examples and then apply this to the vegetation at hand.

MAPPED LOCAL GOVERNMENTS – FIRST CHECK HOW YOUR RCV MAP WAS CALIBRATED

Issue

It is likely that map vegetation rankings vary between mapped shires by a margin of one class.

Causes

The causes of inter-shire differences include:

- Inconsistent observers – as organisers and participants have changed regularly over the course of more than 30 years of mapping.
- That it was inherently impractical to gather all participants to:
  - Take them to the exact same benchmark remnants; and
  - Calibrate everyone the same way, by either repeatedly scoring the same benchmarks until: i) everyone agrees; or ii) it becomes clear who consistently under-scores and who consistently over-scores (so this can be remedied when scores are finalized).
- That the influence of weeds (and like impacts) on scores can be uneven as they are often more obvious than smaller native plants (especially native grasses, herbs and low shrubs).
- From the late 2010's adjacent land use was dropped from the overall score which puts more emphasis on the roadside as a corridor by 2 points. (This is not taken further below.)

Remedy

In practice there are two ways to treat such grey area or "line-call" variation.

A) Simplest is to assume that all medium-low roadsides still have significant values and ensure these are also highlighted in planning (see "Have you planned to enhance your roadsides" - Step 2). That is, err on the side of caution.

OR

B) Check a cross-section of medium-low roadsides by looking very carefully for more discrete things (especially native grasses, herbs and low shrubs) and if these are present in many/most it suggests the shire was under-scored. Such a check will require more resources. Another thing that may suggest that a shire was underscored may be a relatively large incidence of medium-low roadsides relative to other classes.

MAPPED LOCAL GOVERNMENTS – ALSO NOTE CHANGES TO RATING CHOICEs

In latter RCC mapping the scoring was changed (roughly the early 2000s). The examples here show the first approach. They need to be adjusted to reflect the second approach (where roadside width was added and corridor value was expanded).

ATTRIBUTES USED TO SCORE CONSERVATION VALUE		
Feature scored on the roadside (except for adjoining land use).	**FIRST APPROACH ESPERANCE 2002**	**SECOND APPROACH KALAMUNDA 2015**
	Scores	**Scores**
• the **structure of native vegetation** (e.g. layers - trees, shrubs, groundcovers)	0-2 (Toodyay "**native vegetation on roadside**")	**0-2**
• **the extent of native vegetation** (% of native vegetation cover)	0-2	**0-2**
• the approximate **number of different native plant species** (diversity)	0-2	**0-2**
• the degree of **weed** infestation (% weed cover)	0-2	**0-2**
• habitat value/**value as a biological corridor**: (i) connects to other bushland areas; provides habitat or food for reptiles, birds and other animals e.g. (ii) hollow logs, (iii) tree hollows and (iv) flowering shrubs; (v) environmentally sensitive areas (yellow hockey stick markers)	0-2	**0-3 <EXPANDED>**
• **width of vegetated roadside.**		**0-1 <ADDED>**
• **predominant adjoining land use**	0-2	**<DROPPED>**
POSSIBLE TOTAL SCORE	12	12

Conservation Value Colour Code

Each of these attributes is given a score ranging from 0 to 3 points (see above). Their combined scores provide a Roadside Conservation Value score ranging from 0 to 12. The conservation values are represented on the roadside conservation value map by the following colour-coded conservation status categories.

High	9 – 12 Dark Geen	9 – 12 Bright Green
Medium-High	7 – 8 Light Green	7 – 8 Pale Green
Medium-Low	5 – 6 Dark Yellow	5 – 6 Orange
Low	0 – 4 Light Yellow	0 – 4 Yellow

THE INFLUENCE OF ROAD RESERVE WIDTH ON ROADSIDE CONSERVATION VALUES

1. Corrigin case study

Summary

Wider road reserves (including any adjacent rail reserves), not entirely dedicated to infrastructure, are more likely to retain higher roadside conservation values and in the absence of RCV mapping or other information should be carefully managed for such values.

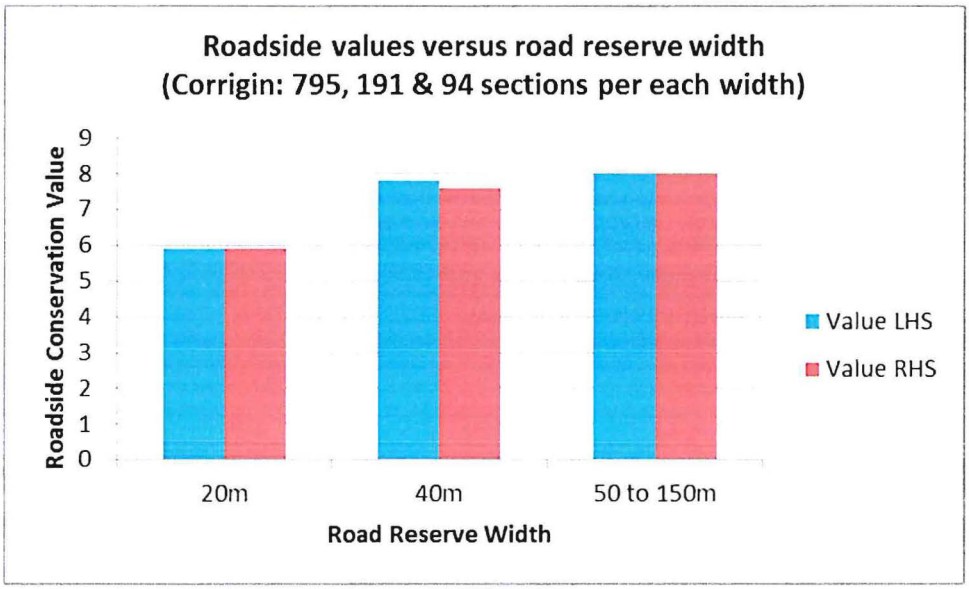
Background

As road reserves get wider their capacity to retain higher roadside values over time increases. This is not to say that road reserves of the early and common default width of 20m do not hold significant values. However, it does suggest that in the absence of more detailed information on roadside values, road reserve width offers a guide to which roadsides should be a central part of planning and management, if not a priority.

Corrigin's roadside conservation value mapping data was used as the basis of a simple analysis, with the result that those roadsides in 20m wide road reserves were generally 2 units lower in value than those in 40m or 50-150m road reserves (on average, 1994 data). Such a difference can reflect a lower value class and lower condition (in this case medium-low (5-6) versus medium-high (7-8)).

Roade reserve widths were measured from aerial imagery at about 1:2000 scale and the modal width along a road section matching a given RCV class was recorded. Any rail reserve that ran alongside and was still vegetated was also measured and added to the width. The subtotal of sections measured was 1080; of which 795 were 20m wide, 191 were 40m wide and 94 were 50-150m wide. Mean RCV's were 5.9, 7.8 (& 7.6) and 8.0 respectively. RCV differences between 20m and 40m or 50-150m wide road reserves were significant (t-test, $p<0.001$, 2-tailed, LHS values); while no difference was discernible between the two wider categories. These differences show despite the variability inherent in impacts along roadsides and variability that is part of the scoring process itself. This approach assumes that roadside width increases as road reserve width increases.

Mean Roadside Conservation Values versus road reserve width (incl. rail) in Corrigin (1994)			
Road Reserve Width	**Value LHS**	**Value RHS**	**# Road Sections**
20m	5.9	5.9	795
40m	7.8	7.6	191
50 to 150m	8	8	94
TOTAL			1080



2. Wide reserves warn that the most diverse vegetation types on light soil may be present

Because of the state's emphasis on putting wide road reserves in light land areas (especially between 1952 and 1959, but continuing thereafter) they will often reflect the most diverse vegetation types (especially kwongan shrublands, which are found on lighter, sandier soils (RCC 1988; Lambers 2014)). So they are likely to be markers of high conservation values that need to be a key part of management planning.

INHERENT HIGH VALUE OF VEGETATED UNUSED ROAD RESERVES

EXAMPLE OF WORKING AROUND AN UNDEVELOPED ROAD RESERVE (RIGHT-HAND STRIP)

In the example the value of an intact corridor has been recognised and given priority.

The road on the left was built on adjacent land.

The vegetation retains a shrub layer, and weeds are only in patches.

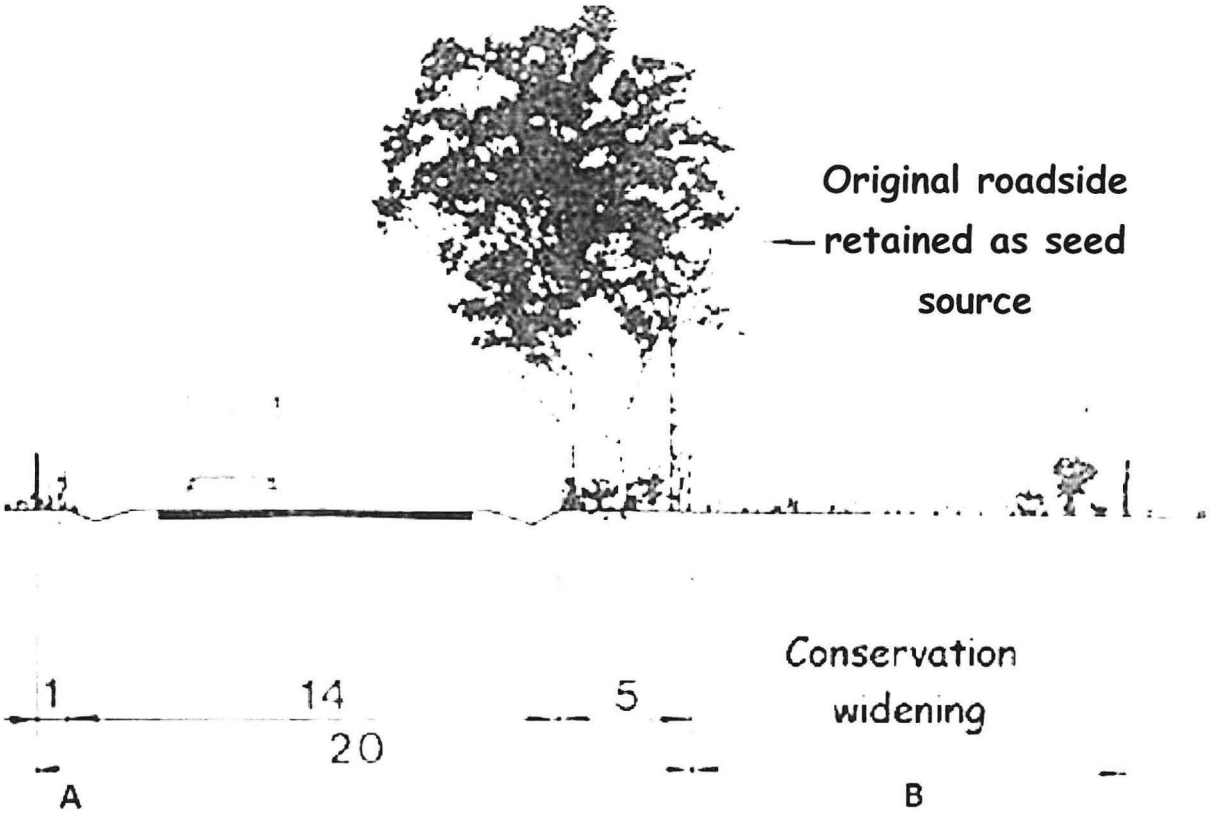
(Image – Tammin.)

FALLBACK OPTION FOR UNAVOIDABLE ROAD WIDENING

If roadway widening is unavoidable opt to widen on only one side and leave one roadside intact.

In such a case widen on the roadside with lower conservation value.

Ideally fence setback would be used to enhance this (see figure).



A - Widen road one side (of lower value)

B - Widen reserve other side (ideal option)

EXAMPLE OF A ROADSIDE SUITED TO WIDENING ON ONE SIDE (THE LEFT)

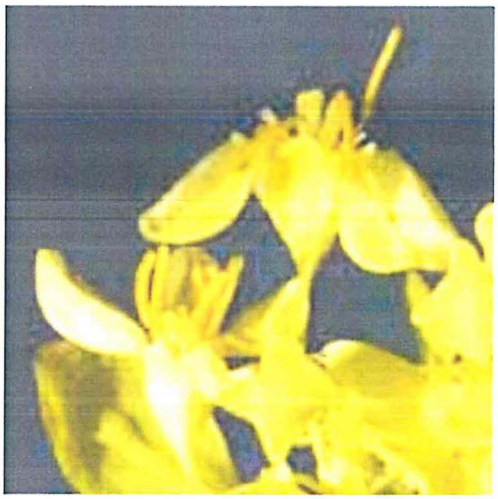
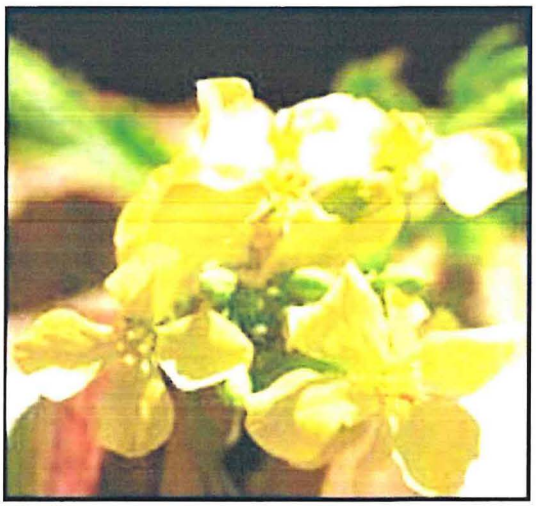
The left hand side of this reserve is suited to widening because:

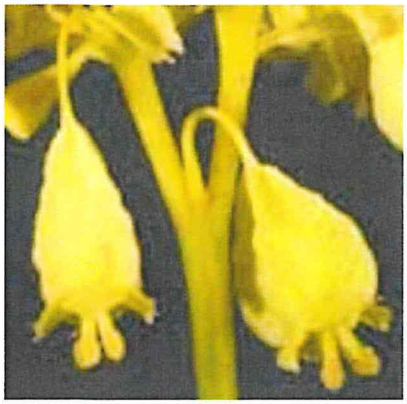
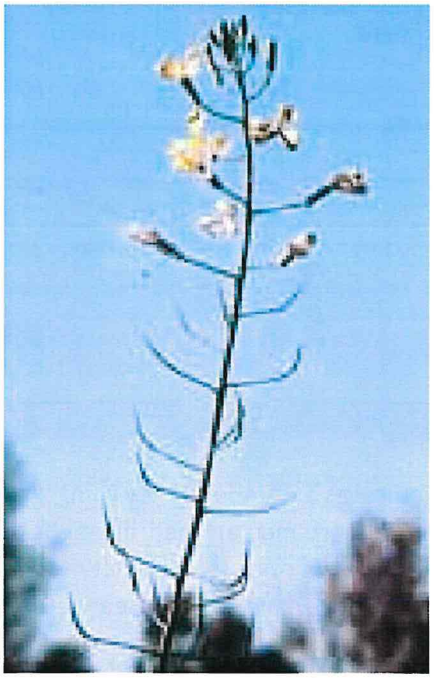
- There is just one shrub in the front, and one tree in the distance.
- The rest is weeds; lovegrass in front and wild radish in the middle distance.

The right hand side is <u>not suited</u> to widening because:

- There are several (maybe 10 to 20) species of local plants present.

(Image – Wongan Hills; K. Payne.)

CARE - DON'T CONFUSE THESE IMPORTANT INDICATORS!	
GOOD STATUS INDICATOR –*NATIVE!*	**POOR STATUS INDICATOR –*WEED!***
COMMON POPFLOWER (*Glischrocaryon aureum*)	**WILD RADISH** (*Raphanus raphanistrum*)
FOUND:	FOUND:
Mostly in the drain and the very verge. **Usually beside high-value native vegetation.**	Often all through disturbed roadsides. Usually in gaps with little native vegetation.
	
HABIT:	HABIT:
Each plant has many stems off a distinct tuft. **Erect, stick-like, with few leaves.**	Many tangled plants – sprawling & interwoven. Curved, with many broad leaves.
	
FLOWERS:	FLOWERS:
Yellow. (Like radish.)	Yellow to **white**. (Like popflower.)

	
FRUIT:	FRUIT:
A small winged lantern, ~0.7cm, yellow to red.	A very pointy pod (oil source in related canola).
	
FLOWERS & FRUIT ARRANGED:	FLOWERS & FRUIT ARRANGED:
In a compact head. **Lanterns tend to hang.**	Along an elongated stem. Pods all held erect, like a candelabra.
GERMINATES:	GERMINATES:
Strongly in response to grading.	After autumn rains, but sporadic over the year.
GROWTH:	GROWTH:
Promoted by short-term extra moisture.	Opportunistic with rain.
LIFE-SPAN:	LIFE-SPAN:
Longer-lived. Perennial base.	Short-lived. Annual (at times biennial).
HEIGHT:	HEIGHT:
0.15 to 1m tall.	0.15 to 1m tall.
IMAGES:	IMAGES:
J. Dodd, L. Fontanini, K.C. Richardson, J.F. Smith.	H. Bennett, B.A. Fuhrer, K.R. Thiele.

EXAMPLE WHERE POPFLOWER COVERS THE ROADSIDE AND LOOKS LIKE CANOLA OR RADISH.

This example indicates a number of key things:

- Previous disturbance on the front right removed most plants and part-churned surface soil.
- Disturbance was once (or twice at most) as some shrubs and Popflower managed to persist.
- Part-churn of surface soil still bearing native seed has caused Popflower to germinate.
- Disturbance likely occurred only a few years prior, as Popflower responds most soon after.
- Soil stripping was most in the foreground, as shrubs and Popflower are thinnest there.
- The soil seedbank was most or was heaped up at the zone with the most Popflower.
- There is still a lot of native vegetation nearby.

INDICATOR OF RESIDUAL BIODIVERSITY & CONSERVATION VALUE.

Use in restoration. Popflower is an excellent candidate for restoration work, as are native spear grasses (*Austrostipa* species). Both will suit disturbed areas with some topsoil, which has been stripped of weeds.

EXAMPLE WHERE WILD RADISH COVERS THE ROADSIDE (COMPARE WITH PREVIOUS IMAGE).

The differences to Popflower in the previous image are:

- Whiter, older, flowers.
- Longer flowering heads (longer white streaks), with more range in height of origin.
- Uneven crown across the mass of plants.
- Lack of individual tufts with many stems, rather plants with few stems inter-locked.
- Repeated disturbance by road and fence works has removed nearly all native plants.
- Both repeated topsoil stripping (left) and road-base overlay (right) have been factors.

INDICATOR OF LOCALLY DEPLETED VALUES (HERE EXTENSIVE, BUT MAY ALSO BE JUST PATCHES)

Popflower at Fankland (K. Payne)

CARE - TAKE THE TIME TO RECOGNISE KEY NATIVE GRASSES

Being able to recognise key native grasses is crucial to avoiding assigning false ratings; as these can readily be mistaken for weeds.

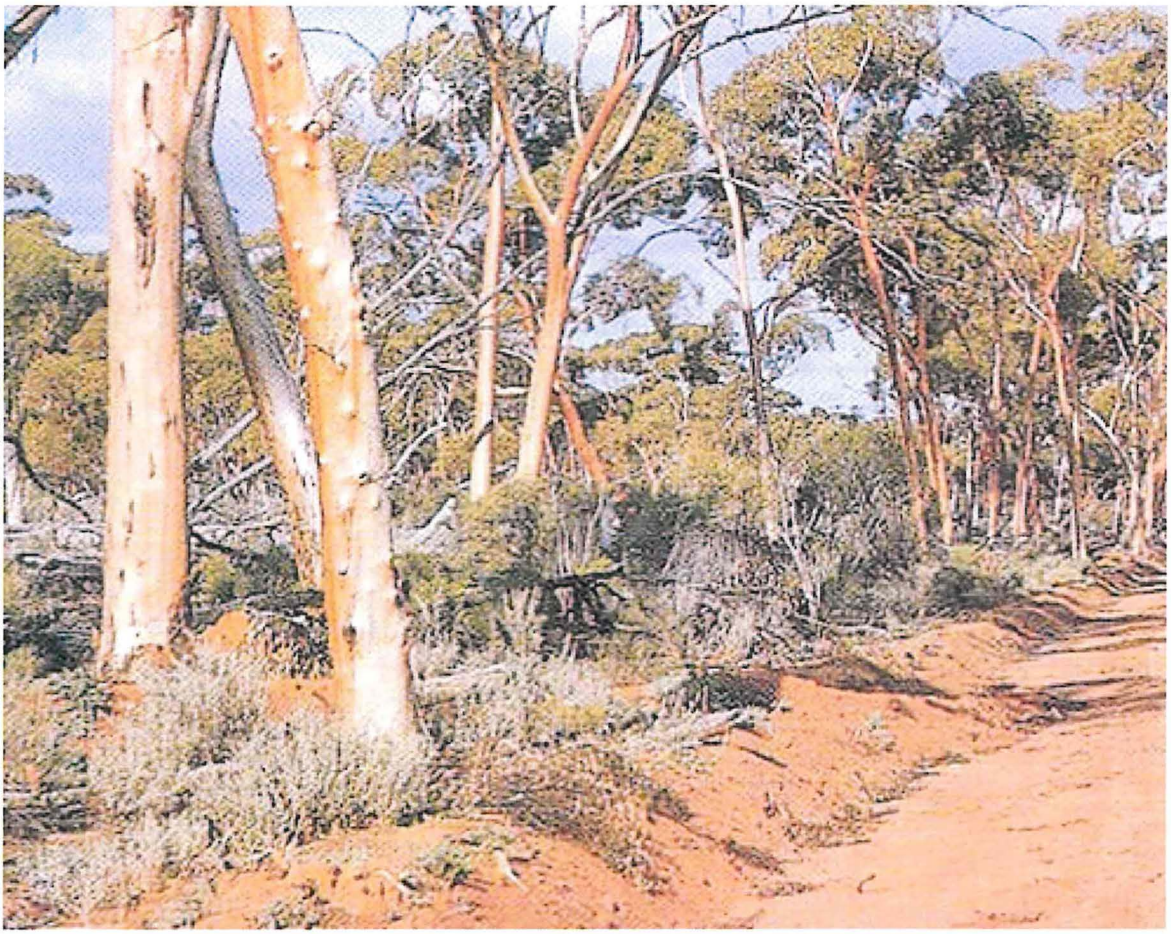
At a minimum aim to be able to recognise native spear grasses and wallaby grass.

And see "focus on York Gum woodlands" below.

SCORED EXAMPLES OF ROADSIDES

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Many local plant species present (up to ~50).
STRUCTURE - LAYERS			2	Several layers (rushes, herbs, grasses, low-shrubs, high shrubs, & mallees).
EXTENT OF VEGETATION (%)			2	Very high cover of native plants (~70%).
WIDTH OF VEGE-TATED VERGE			2	Medium (~3-4m or more).
VALUE AS A CORRIDOR			2	Excellent (unbroken cover and structure for fauna, and flora cross-pollination possible).
WEED LEVELS (%)			2	None (grasses are native *Austrostipa* sp; yellow herb in drain is Popflower - *Glischrocaryon* sp).
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper green			12	Shrubland on sand – "Kwongan" or "Kwongkan" (Image: R. Walmsley)

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Many local plant species present (about ~50).
STRUCTURE - LAYERS			2	Several layers (low-shrubs, high shrubs, & mallees).
EXTENT OF VEGETATION (%)			2	Very high cover of native plants (~80%).
WIDTH OF VEGE-TATED VERGE			2	Wide (100m or more).
VALUE AS A CORRIDOR			2	Excellent (unbroken cover and structure for fauna, and flora cross-pollination possible).
WEED LEVELS (%)			2	None.
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
HIGH (9 – 12) Deeper green			**12**	**Shrubland on sand/laterite – "Kwongan" or "Kwongkan"**



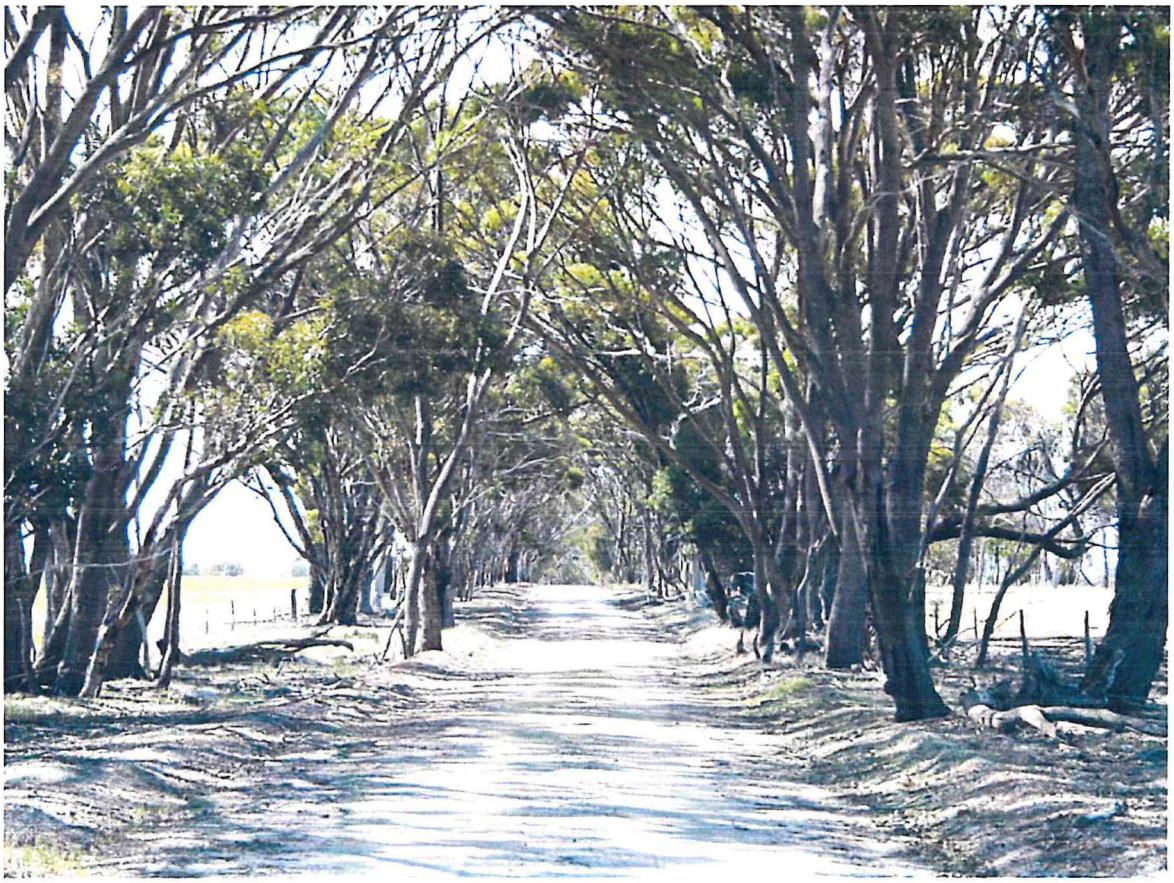
FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species present (up to 30). This can have open patches & few species. **
STRUCTURE - LAYERS			2	Several layers (low-shrubs, medium shrubs, & trees).
EXTENT OF VEGETATION (%)			2	Moderate cover of native plants (~30 - 40%).
WIDTH OF VEGE-TATED VERGE			2	Wide (100m or more).
VALUE AS A CORRIDOR			2	Excellent (patch-based cover and structure for fauna, and flora cross-pollination possible).
WEED LEVELS (%)			2	None.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper green			12	Woodland on heavy soils – Salmon Gum **CARE: Unit tends to have open areas, low numbers of plant species, and lack middle layers. IT STILL SCORES "HIGH".

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species present (up to 30). This can have open patches & few species. **
STRUCTURE - LAYERS			2	Several layers (low-shrubs, medium shrubs, & trees).
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (>30 - 40%).
WIDTH OF VEGE-TATED VERGE			2	Medium (4-5m).
VALUE AS A CORRIDOR			2	Excellent (patch-based cover and structure for fauna, and flora cross-pollination possible).
WEED LEVELS (%)		1		Some, moderate, in what would normally be bare areas. WEEDS DRAG THIS SCORE BACK.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper green			11	Woodland on heavy soils – Wandoo **CARE: Unit tends to have open areas, low numbers of plant species, and lack middle layers. IT STILL SCORES "HIGH".

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species present (up to 30). This can have open patches & few species. **
STRUCTURE - LAYERS			2	Several layers (low-shrubs, medium shrubs, & trees).
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (>30 - 40%).
WIDTH OF VEGE-TATED VERGE			2	Wide (over 100m).
VALUE AS A CORRIDOR			2	Excellent (patch-based cover and structure for fauna, and flora cross-pollination possible).
WEED LEVELS (%)			2	None, bare areas covered with litter.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper green			12	Woodland on heavy soils – Wandoo **CARE: Unit tends to have open areas, low numbers of plant species, and lack middle layers. IT STILL SCORES "HIGH". (Image: C. Wilson)

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Few local plant species present. This can have open patches & few species. **SCORE LOWER – weed cover *may* also be an influence.
STRUCTURE - LAYERS			2	Two layers (low-shrubs (in centre) & trees; there may be herbs & grasses on surface).
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (> 40%).
WIDTH OF VEGE-TATED VERGE			2	Medium (4 - 5m).
VALUE AS A CORRIDOR			2	Good (structure for fauna, and tree cross-pollination possible).
WEED LEVELS (%)	0			Many annual grasses in once bare areas. HIGHER WEED LEVELS DRAG THIS SCORE BACK.
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
HIGH (9 – 12) Deeper green			**9**	**Woodland on heavy soils – Wandoo (or Powderbark?)** ****CARE: Unit tends to have open areas, low numbers of plant species, and lack middle layers. IT STILL SCORES "HIGH".**

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1	(2)	Few local plant species present. ** No jam. Scattered low shrubs, possibly native grasses.
STRUCTURE - LAYERS		1		Two layers of native plants. (Usually 3, herbs & grasses, jam, & trees.)
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (30- 40%).
WIDTH OF VEGE-TATED VERGE			2	Medium (4 - 5m).
VALUE AS A CORRIDOR			2	Good (structure for tree-dwelling fauna, and tree cross-pollination possible).
WEED LEVELS (%)		1		Annual grasses scattered. LOW WEED LEVELS
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper green			9 (to 10)	Woodland on medium soils – York Gum **CARE: Unit tends to be open with few layers. IT MIGHT NUDGE HIGH VALUE. Very susceptible to grazing impacts.



FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1	(2)	Few local plant species present. ** No jam. (May be a clump mid left hand side.)
STRUCTURE - LAYERS		1		One (to two) layers of native plants. (Usually 3, herbs & grasses, jam, & trees.)
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (> 40%).
WIDTH OF VEGE-TATED VERGE			2	Medium (4 - 5m).
VALUE AS A CORRIDOR			2	Good (structure for tree-dwelling fauna, and tree cross-pollination possible).
WEED LEVELS (%)	0			Annual grasses scattered throughout. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MEDIUM-HIGH (7 – 8) Light Green			8 (to 9)	Woodland on medium soils – York Gum **CARE: Unit tends to be open with few layers. IT MIGHT NUDGE HIGH VALUE. Very susceptible to grazing impacts.

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1	(2)	Few local plant species. ** York Gum at rear. Young jam and threatened flora species.
STRUCTURE - LAYERS		1		One (to two) layers of native plants. (Usually 3, herbs & grasses, jam, & trees.)
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (~30%).
WIDTH OF VEGE-TATED VERGE			2	Medium (4 - 5m).
VALUE AS A CORRIDOR		1	(2)	Fair (structure for shrub-dwelling fauna, and shrub cross-pollination possible).
WEED LEVELS (%)	0			Annual weedy grasses common – typical. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MEDIUM-HIGH (7 – 8) Light Green			7 (to 9)	Woodland on medium soils – York Gum **CARE: Unit tends to be open with few layers. IT MIGHT NUDGE HIGH VALUE. Very susceptible to grazing impacts.

FOCUS ON YORK GUM WOODLAND

CARE – HARD TO RATE!

Despite its simple appearance York Gum woodland may be harder to rate.

This is because:

- Historically it was very heavily cleared as it occurred on loamy soils suited to agriculture.
- The understorey of herbs, native grasses and jam, is depleted by grazing; *so this is the norm*.
- Grazing is from 3 sources with different cycles and peaks:
    - Stock steadily deplete understorey in areas to which they have ongoing access.
    - In fenced-off vegetation rabbits and kangaroos can still deplete herbaceous species and seedlings, with the most pressure coming during summer when other resources are lowest. Heavy kangaroo grazing was evident on mallee region road verges after fires in 2016 (N. Burrows pers. comm.).
- Its wide range means York Gum can be taken for granted.

With these points in mind consider York Gum remnants carefully as:

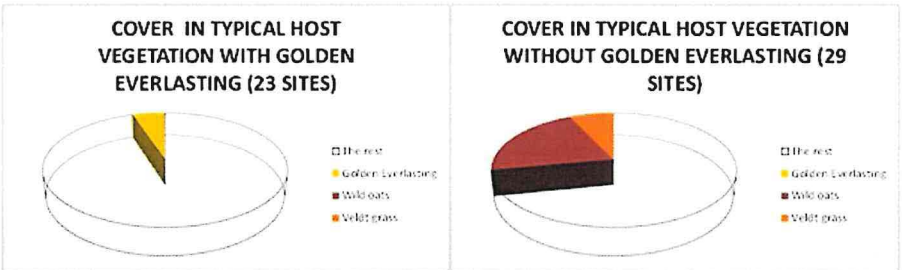
- Intact understoreys with herbs (daisies), native grasses and jam are **rare and HIGH VALUE**.
- Rarely, amongst the weeds (e.g. wild oats), it may also be that some native herbs linger.
- The presence of jam seedlings and a range of jam ages shows little grazing and **ADDS VALUE**.
- York Gum seedlings and saplings are uncommon and their **presence shows HIGH VALUE**.
- *Despite grassy weeds in the understorey it may be prudent to err higher if scoring this unit.*

[See Beard (1990) & Hobbs and Saunders (1993) on the former extent of York Gum and Prober *et al* (2011), Pettit and Froend (2001), and Mitchell et al (1979) on grazing depletion.]

FOCUS ON YORK GUM WOODLAND

EXAMPLE OF GROUND LAYER ONCE COMMON IN JAM/YORK GUM WOODLAND

The image above is an example of Jam woodland that would once have been common. It has high value. The intact understorey with herbs (daisies – Golden Everlasting), native grasses and jam is like that found under York Gum woodland. (In this case while Jam dominates, the somewhat heavier soils mean that scattered wandoo are present. Toodyay-Clackline Road North. Image M. Podesta. The figures below show how Golden Everlasting is replaced by weeds in such vegetation types (Casson 1992))

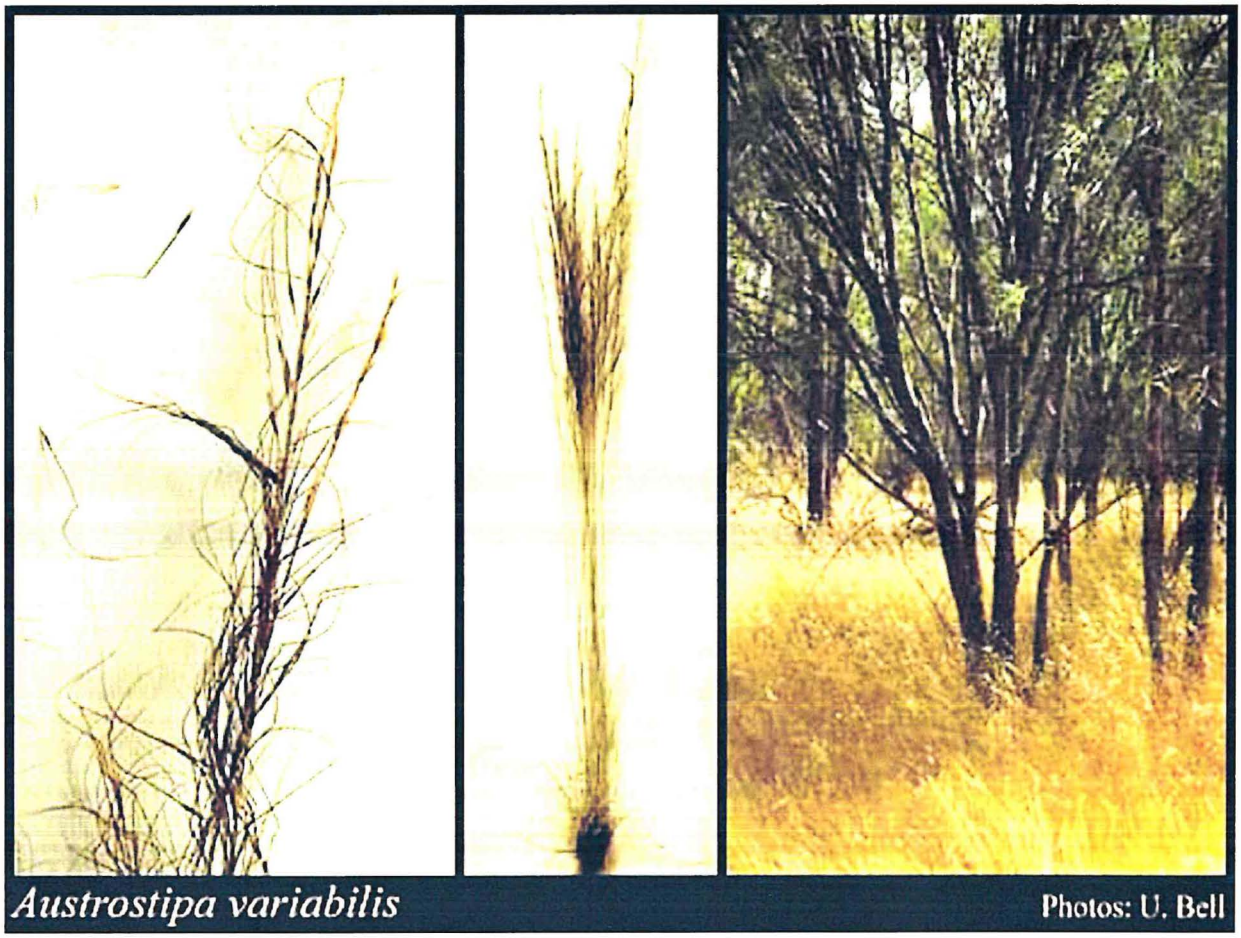


[See Beard (1990) & Hobbs and Saunders (1993) on the former extent of York Gum and Prober *et al* (2011), Pettit and Froend (2001), and Mitchell et al (1979) on grazing depletion.]

Also look for signs of a healthy tree community:

A range of ages of York gum, and especially of seedlings and saplings of York Gum and other trees. Plus regular instances of Jam regeneration

Evidence of tree and shrub decline will be senescence and absence of seedlings and saplings (grazing is a major factor, especially by rabbits, at times supplemented by kangaroos)



Austrostipa variabilis Photos: U. Bell

FOCUS ON YORK GUM WOODLAND

EXAMPLE OF GROUND LAYER ONCE COMMON IN JAM/YORK GUM WOODLAND

The image above is an example of Jam woodland that would have once been more common. It has high value. The intact understorey with a native spear grass and jam shows how some jam/York Gum woodland would have looked, before these were grazed by rabbits and stock and otherwise disturbed.

CARE: What looks like a weedy layer may be native grasses. Also, even in areas full of weeds, native grasses may still occur.

Images WAHERB 2010

FOCUS ON BANKSIA WOODLAND & SHRUBLAND WITH BANKSIA, HAKEA, GREVLLEA. ETC.

Some crucial values of banksia woodland and mixed shrubland are highlighted.

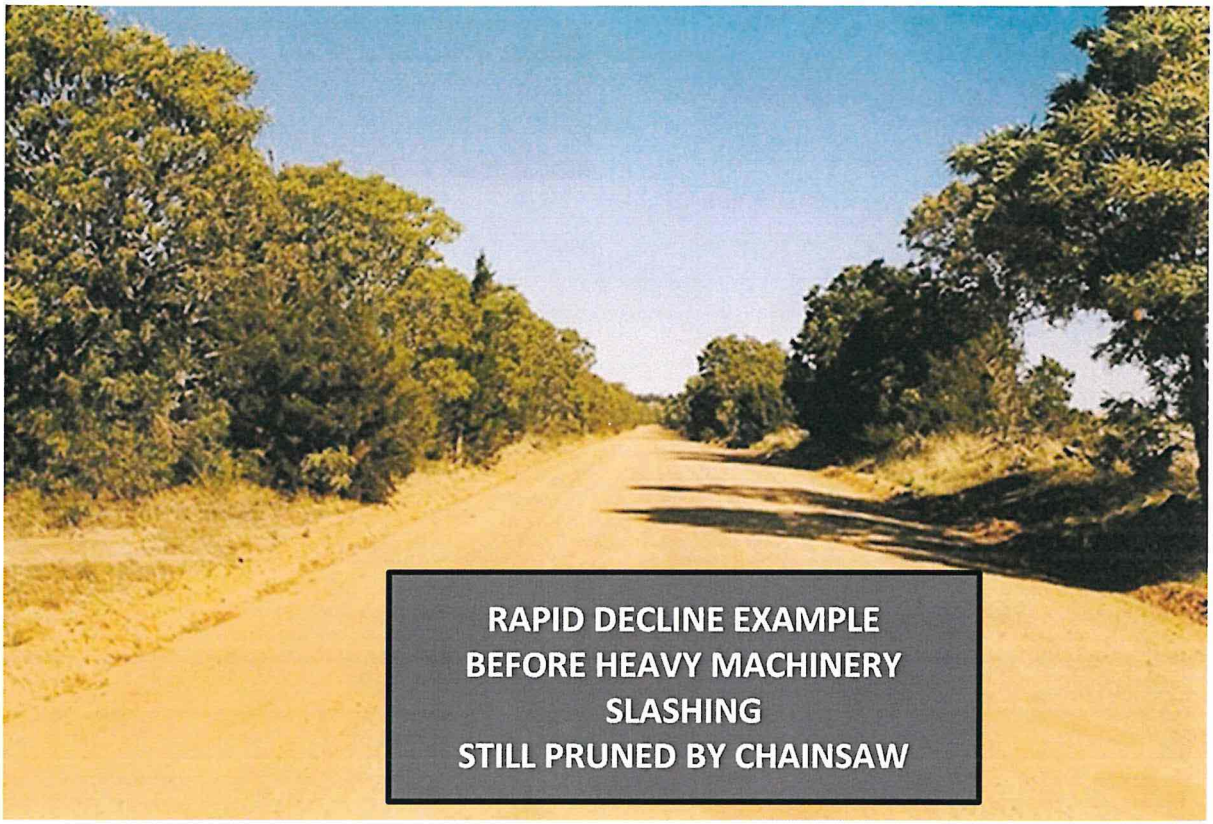
These units are important for fauna such as Carnaby's cockatoos and honey possums
This is because:

- Historically mixes with Banksia, Hakea, Grevillea and like plants would have been spread through the southwest, and were significant habitat and food source. The honey possum's distribution overlaps that of such mixed vegetation.
- Cockatoo's major food sources included fruit from: Eucalypts, Banksias (including *B. nivea* and other former "Dryandras"), and Hakeas. Insect larvae inside fruit were consumed (Saunders 1979).
- Nectar is taken from banksia cones (Mawson 1995).Insect larvae are consumed from cones of *Banksia attenuata, B. menziesii* and *B. prionotes* (~40, 15 & 10% respectively; Johnston et al 2016).
- At Manmanning (Dowerin Shire) there was little uncleared native vegetation and even less of this was near or linked to the woodland in which cockatoos nested. As a consequence of this:
    - Birds travelled further to find food.
    - Birds depended on road reserves and the railway reserve to the north-east. Food in verges would be foraged to exhaustion. Birds foraged linked verges to the south-east, even though these were narrow, in preference to flying over bare areas to larger remnants (such as the one 5km south).
    - Nesting groups were half the size of those from better vegetated areas.
    - Breeding success was poor as females were forced to stop incubating in order to forage, and resources were exhausted earlier in the season than in areas with more vegetation.
    - Birds made use of farmland. They ate the weed Storksbill while it was available, a short period of 3 to 6 weeks. Lupins were also consumed.
- Cockatoos can breed in areas that have been extensively cleared if there are corridors of native vegetation connecting other remnants; the visual links are important and the birds will not cross large bare areas to forage without these. Roadsides play a crucial role in such linkages (Saunders and Ingram 1987).

With these points in mind consider Banksia woodland and mixed-shrubland remnants carefully as these are crucial habitat.

Dieback
On the coastal plain and in the great southern there are also impacts from dieback on these units (Johnston et al 2016).

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1	(2)	Several local plant species; some shrubs.
STRUCTURE - LAYERS		(1)	2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (~30%).
WIDTH OF VEGE-TATED VERGE		1		Narrow (2 -3m).
VALUE AS A CORRIDOR		(1)	2	Fair to good structure(for shrub-dwelling fauna, and shrub cross-pollination possible).
WEED LEVELS (%)		1		Annual weedy grasses present/common. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 -12) Deeper Green			9 (to 9)	Banksia woodland Moora on sand *** IMPORTANT FEEDING CARNABY'S COCKATOOS HAVE STREWN CONES ON ROADSIDE



FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		(1)	2	Several local plant species; some shrubs.
STRUCTURE - LAYERS			2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (~30%).
WIDTH OF VEGE-TATED VERGE		1		Narrow (3m).
VALUE AS A CORRIDOR		(1)	2	Fair to good structure [LHS] (for shrub-dwelling fauna and shrub cross-pollination possible).
WEED LEVELS (%)		1		Annual weedy grasses present/common. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 -12) Deeper Green			10 (to 8)	Banksia woodland on sand *** IMPORTANT ALSO SUITABLE CARNABY'S COCKATOO RESOURCE

RAPID DECLINE EXAMPLE AFTER HEAVY MACHINERY SLASHING

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		A few local plant species; some shrubs.
STRUCTURE - LAYERS			2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)			2	Mod/low cover of native plants (~<15%).
WIDTH OF VEGE-TATED VERGE		1		Narrow (3m).
VALUE AS A CORRIDOR		1		Fair structure [LHS] (for shrub-dwelling fauna and shrub cross-pollination possible).
WEED LEVELS (%)		1		Annual weedy grasses present/common. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
MED-HIGH (7-8) Light Green			**8**	**Banksia woodland on sand** **MANY REMAINING TREES DEAD OR DYING & SHRUBS SMOTHERED WILL DETERIORATE FURTHER**

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species; some shrubs.
STRUCTURE - LAYERS			2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)			2	High cover of native plants (>30%).
WIDTH OF VEGE-TATED VERGE			2	Wide (LHS ~10m; RHS ~80m).
VALUE AS A CORRIDOR			2	Good structure (for shrub-dwelling fauna and shrub cross-pollination possible).
WEED LEVELS (%)			2	Low
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 -12) Deeper Green			12	Banksia woodland on sand *** VIGOROUS SEED SET AND SPROUTING FROM INTACT TOPSOIL & WIDE VEGETATION IS ALLOWING REGULARLY SLASHED STRIPS TO REGENERATE

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species; some shrubs.
STRUCTURE - LAYERS			2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)			2	Mod cover of native plants (~25%).
WIDTH OF VEGE-TATED VERGE		1		Narrow (3m).
VALUE AS A CORRIDOR			2	Fair to good structure(for shrub-dwelling fauna, and shrub cross-pollination possible).
WEED LEVELS (%)		1		Annual weedy grasses present/common. MEDIUM WEED LEVELS DRAG THE SCORE BACK
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
HIGH (9 -12) Deeper Green			10	**Banksia woodland on sand** **Weeds overshadow other values**

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several local plant species; some shrubs, and possibly some native spear grass.
STRUCTURE - LAYERS			2	Two or more layers of native plants.
EXTENT OF VEGETATION (%)		1		Mod/low cover of native plants (<10% alive).
WIDTH OF VEGE-TATED VERGE		1		Moderate/narrow (4-5m).
VALUE AS A CORRIDOR	0			Poor structure (for shrub-dwelling fauna).
WEED LEVELS (%)	0			Annual weedy veldt grass present/common. HIGH WEED LEVELS DRAG THE SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MED-LOW (5 - 6) Orange			6	**EXAMPLE ON LEFT HAND SIDE** Declining patch of Banksia woodland Weeds overshadow other values

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several to many local plant species.
STRUCTURE - LAYERS			2	Two (to three) layers of native plants.
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (~40-50%).
WIDTH OF VEGE-TATED VERGE			2	Wide (>100m). SIGNIFICANT WIDTH
VALUE AS A CORRIDOR			2	Good (tree & understorey structure for fauna, and cross-pollination possible).
WEED LEVELS (%)			2	No weeds.
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
HIGH (9 – 12) Deeper Green			**12**	**MALLEE (Wongan Hills; K. Payne)** **There are many mallees in many different plant communities.** **A single roadside may have up to 6 species at one locality.**

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY			2	Several to many local plant species.
STRUCTURE - LAYERS		(1)	2	Two (to three) layers of native plants. (Some tree & shrub decline at front.)
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (>40%).
WIDTH OF VEGE-TATED VERGE			2	Left wide (~30m), right medium (4 - 5m).
VALUE AS A CORRIDOR			2	Good (tree & understorey structure for fauna, and cross-pollination possible).
WEED LEVELS (%)			2	Weed levels appear low (to moderate)l.
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
HIGH (9 – 12) Deeper Green			**12 (to 11)**	**Woodland on heavy soils – Flat-topped Yate (*Eucalyptus occidentalis*; & perhaps morrell)** **Valley floor.**

FOCUS ON PATCHES OF SALINITY & ON SALTBUSH PLANTINGS – CARE!

Low-lying areas along flow-lines and lakes may be harder to rate; as many are disturbed but some are not. Salty disturbed areas show "secondary salinity", while undisturbed areas show "primary salinity".

Areas of "secondary salinity" - feature invasive native samphires and lower plant diversity.

Many areas will be along drainage where water gathers due to little cover of permanent vegetation. Often there is erosion, with both scouring and sediment dumping present.
The extra water also helps keep the watertable closer to the surface for longer, and as this is often salty, salt builds up as water evaporates.

Often the plant diversity will be low in such areas. This is because some common and widespread samphires profit from the disturbance and expand into such areas, while the former vegetation is killed (often leaving dead tree "stags").

However, it is advisable to be careful, and apply *at least* a "medium-low" RCV total score as:

- The samphires are native, and may even be local.
- They help suppress other introduced weeds.
- They provide fauna habitat and can help preserve corridor function.
- Provided there is limited cover of grassy weeds such areas may naturally act as firebreaks; as samphires have low flammability due to their salt content and succulence.

Similarly, if there are areas of planted saltbush along waterways, these may merit at least a "medium-low" score, as:

- They help suppress other introduced weeds.
- They provide fauna habitat and can help preserve corridor function.
- Provided there is limited cover of grassy weeds such areas may naturally act as firebreaks; as saltbushes have lower flammability due to their salt content.
- A clear note should be made however that *planted saltbushes do not aid conservation of local genotypes*, as seeds for such plantings were drawn from diverse sources, and are by-and-large out of place.

Areas of "primary salinity" – feature local samphires and may have higher plant diversity.

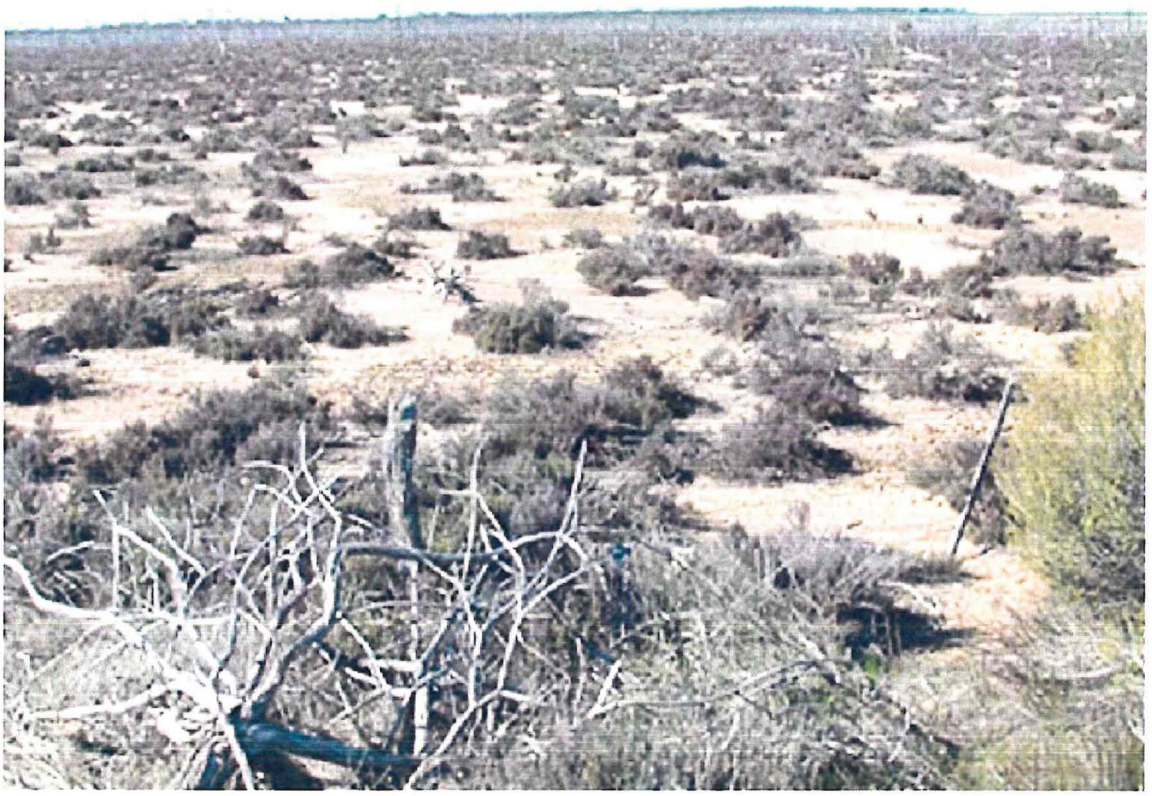
Before clearing of the landscape caused secondary salinity there were places where salinity was a long-standing feature. These areas:

- Can host a number of less common samphires and like plants, and CAN contain significant plant diversity.
- Are likely to merit at least a "medium-high" score.
- May be found wherever banks and dunes near waterways, marshes, and lakes have been little disturbed. They may be slightly higher than the bottom of the main channel (which may have been scoured, and may have been affected by secondary salinity). There will be more than 2 or 3 samphire species in such areas.

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Few local plant species. Samphire may be a common invasive species.
STRUCTURE - LAYERS		1		One layer of native plants. Tree & shrub decline at front. THIS DRAGS SCORE BACK
EXTENT OF VEGETATION (%)			2	Mod/high cover of native plants (>30%).
WIDTH OF VEGE-TATED VERGE			2	Left wide (~30m). SIGNIFICANT WIDTH
VALUE AS A CORRIDOR		1		Fair to good (understorey structure for fauna). STILL ADDS TO LINKAGE & CORRIDOR
WEED LEVELS (%)	(0)	1		Weed levels medium (to high); mainly grasses. THIS DRAGS SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MEDIUM-HIGH (7 – 8) Light Green			8 (to 7)	**SECONDARY SALINITY - FRONT LEFT** Patch of secondary salinity on heavy soils – Flat-topped Yate replaced by samphires Low valley floor. DEAD TREES & SALT CRUST ARE SIGNS

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Two or more local plant species.
STRUCTURE - LAYERS		1	(2)	One (to two) layers of native plants.
EXTENT OF VEGETATION (%)			2	Moderate cover of native plants (~30%).
WIDTH OF VEGE-TATED VERGE			2	Left wide (50 to 100m). SIGNIFICANT WIDTH
VALUE AS A CORRIDOR		(1)	2	Fair to good (understorey structure for fauna). STILL ADDS TO LINKAGE & CORRIDOR
WEED LEVELS (%)		1		Weed levels medium (to high); mainly grasses. THIS DRAGS SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper Green			9	**PRIMARY SALINITY - FRONT LEFT** Patch of primary salinity on heavy soils – Saltwater Paperbark (*Melaleuca cuticularis*, & sedges & samphires?) EXTRA FLOODING IS MAIN IMPACT ZONE - MILDER SUMMER/WET WINTER Basin rim on low valley floor.

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Three or more local plant species. (Likely change in species ratio but not mix.)
STRUCTURE - LAYERS			2	Two (mostly one) layer/s of native plants.
EXTENT OF VEGETATION (%)			2	Moderate cover of native plants (30 to 50%).
WIDTH OF VEGE-TATED VERGE			2	Wide (over 100m). SIGNIFICANT WIDTH
VALUE AS A CORRIDOR		(1)	2	Good to fair (understorey structure for fauna). Basin has usual low structure, fringe impaired.
WEED LEVELS (%)		1		Weed levels medium (to low); some grasses. (perhaps weedy sedges) THIS DRAGS SCORE BACK
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
HIGH (9 – 12) Deeper Green			10 (to 9)	**PRIMARY SALINITY** Patch of primary salinity on heavy soils – Saltwater Paperbark (*Melaleuca cuticularis*, & sedges & samphires?) EXTRA FLOODING IS MAIN IMPACT ZONE - MILDER SUMMER/WET WINTER Basin on low valley floor.



FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Three or so local plant species.
STRUCTURE - LAYERS		1		Mostly one layer of native plants. NOTE DEAD TREES AT BACK
EXTENT OF VEGETATION (%)		1		Mod/low cover of native plants (~15%).
WIDTH OF VEGE-TATED VERGE			2	Wide (over 100m). SIGNIFICANT WIDTH
VALUE AS A CORRIDOR		1	(2)	Good to fair (understorey structure for fauna). Basin has usual low structure, fringe impaired.
WEED LEVELS (%)	0	(1)		Weed levels low. But sapphires may be weedy.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MED-LOW (5 – 6) Orange			6 (to 8)	EXAMPLE LOOKS AT FLAT AREA SECONDARY SALINITY Patch of secondary salinity on heavy soils Note dead trees at back EXTRA FLOODING IS MAIN IMPACT Basin on low valley floor.

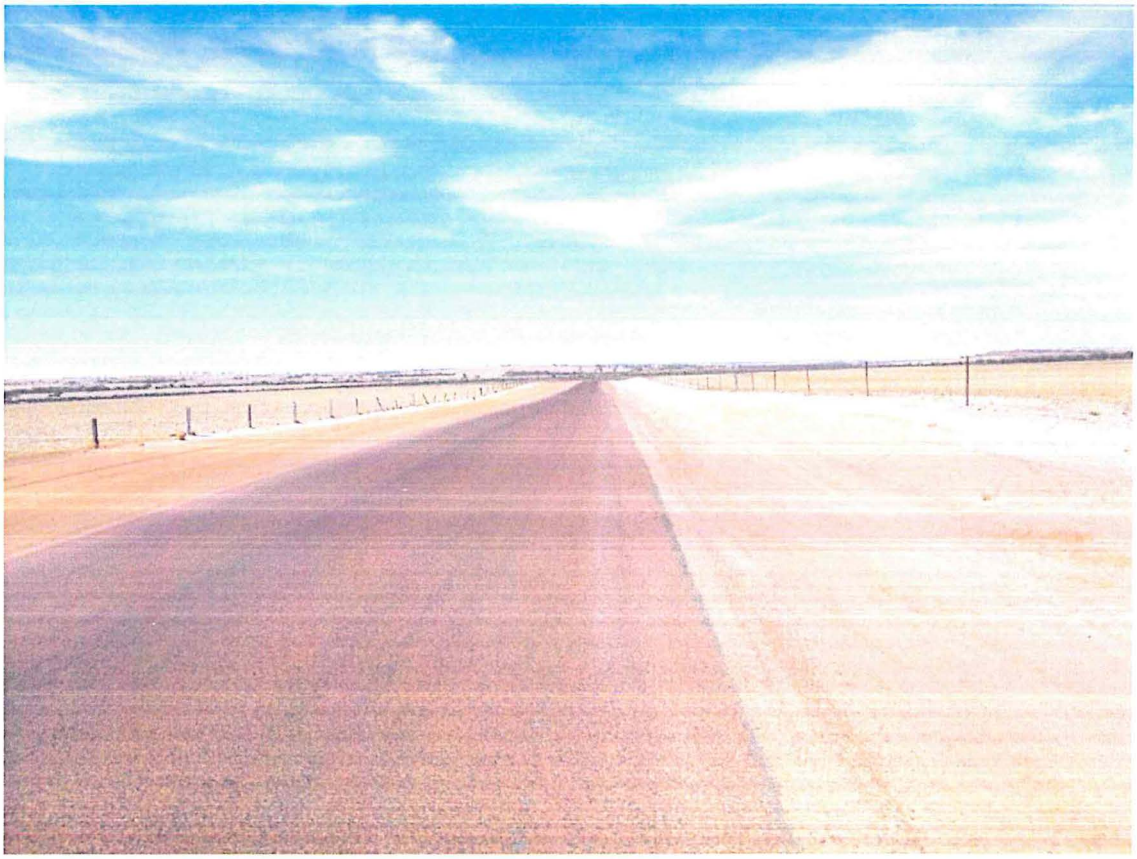
FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1	(2)	Two or more local plant species. (At least - Shrub &the **native Wallaby grass** near post)
STRUCTURE - LAYERS		1		Two (or more) layers of native plants.
EXTENT OF VEGETATION (%)		1		Low cover of native plants (<5%).
WIDTH OF VEGE-TATED VERGE		1		Thin (3-4m).
VALUE AS A CORRIDOR		1		Fair/poor (some shrub structure for fauna, and local plant cross-pollination possible).
WEED LEVELS (%)	0			Many weeds. THIS DRAGS SCORE BACK. Love grass and wild oats.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
MEDIUM-LOW (5 – 6) Orange *** (BUT HAS A HIGH STRETCH - SEE RIGHT)			5 (to 6)	Shrubs and weeds (Moora) RISK: MORE SPECIES THAN FIRST APPEARS ALSO: THREATENED FLORA MUST BE AVOIDED & POST TO POST AREA TO BE TREATED AS HIGH VALUE***

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY	0	(1)		One local plant species. (One threatened flora species; YELLOW POST.)
STRUCTURE - LAYERS	0	(1)		One layer of native plants.
EXTENT OF VEGETATION (%)	0	(1)		Very low cover of native plants (<1%).
WIDTH OF VEGE-TATED VERGE		1		Thin (3-4m).
VALUE AS A CORRIDOR		1		Fair/poor (no shrub or tree structure for fauna, and local plant cross-pollination not possible).
WEED LEVELS (%)	0			Many weeds. THIS DRAGS SCORE BACK. Wild radish everywhere.
CLASS	**TOTAL SCORE OR "RCV"**			**EXAMPLE SHOWN**
LOW (0 – 4) Yellow * (BUT HAS A HIGH STRETCH - SEE RIGHT)**			**2 (to 5)**	**Weed bed ALSO: THREATENED FLORA MUST BE AVOIDED & POST TO POST AREA TO BE TREATED AS HIGH VALUE*** **

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY		1		Two local plant species. (Lone shrub &**native Stipa grass** tuft in front)
STRUCTURE - LAYERS		1		Two layers of native plants.
EXTENT OF VEGETATION (%)	0	(1)		Very low cover of native plants (<1%).
WIDTH OF VEGE-TATED VERGE		1		Thin (3-4m).
VALUE AS A CORRIDOR		1		Fair/poor (no shrub or tree structure for fauna, and local plant cross-pollination not possible).
WEED LEVELS (%)	0			Many weeds. THIS DRAGS SCORE BACK. Grasses at front, wild radish at back.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
LOW (0 – 4) Yellow			4 (to 5)	Weed bed (Moora) that *still has a native grass present*

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY	0	(1)		One local plant species. (Essentially 1 shrub in foreground.)
STRUCTURE - LAYERS	0	(1)		One layer of native plants.
EXTENT OF VEGETATION (%)	0	(1)		Very low cover of native plants (<1%).
WIDTH OF VEGE-TATED VERGE		1		Thin (3-4m).
VALUE AS A CORRIDOR		1		Fair/poor (no shrub or tree structure for fauna, and local plant cross-pollination not possible).
WEED LEVELS (%)	0			Many weeds. THIS DRAGS SCORE BACK. Love grass at front, wild radish in middle.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
LOW (0 – 4) Yellow			2 (to 5)	Weed bed (Wongan Hills)

FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY	(0)	1		No understorey plant species. Tree on right may have been planted.
STRUCTURE - LAYERS	(0)	1		One layer.
EXTENT OF VEGETATION (%)		1		Cover low (5 – 10%).
WIDTH OF VEGE-TATED VERGE	0			Essentially none.
VALUE AS A CORRIDOR	0			Very low.
WEED LEVELS (%)	0			Will host weeds in season. THIS DRAGS SCORE BACK.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
LOW (0 – 4) Yellow			3 (to 0)	Cleared roadside Isolated trees.



FEATURE (in order of importance)	0	1	2	COMMENT
MIXTURE – DIVERSITY	0			No localplant species. (Essentially 1 shrub in foreground.)
STRUCTURE - LAYERS	0			No layers.
EXTENT OF VEGETATION (%)	0			No cover.
WIDTH OF VEGE-TATED VERGE	0			Thin/none.
VALUE AS A CORRIDOR	0			None. .
WEED LEVELS (%)	0			Will host weeds in season. THIS DRAGS SCORE BACK.
CLASS	TOTAL SCORE OR "RCV"			EXAMPLE SHOWN
LOW (0 – 4) Yellow			0	Cleared roadside

REFERENCES WITH MORE DETAIL ON VEGETATION TYPES AND TYPICAL SPECIES

The following references will help to get "ball-park" value for the plant species number that might be expected.

Muir , B.G. 1977-on Biological survey of the Western Australian Wheatbelt. Records of the Western Australian Museum, published as Supplements.

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Hobbs, R.J., and Saunders, D.A. 1993 'Re-integrating fragmented landscapes: Towards sustainable production and nature conservation.' (Springer-Verlag: New York)

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Lambers, H. (ed.) 2014 Plant life on the sandplains in Southwest Australia: A global biodiversity hotspot. UWA Publishing, Crawley, Western Australia. 332p

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Mitchell, A. A., McCarthy, R., and Hacker, R. B. 1979 A range inventory and condition survey of part of the Western Australian Nullarbor Plain, 1974. Technical Bulletin 47. Western Australian Department of Agriculture. 141p.

Pettit, N.E., and Froend, R.H. 2001 Long-term changes in the vegetation after the cessation of livestock grazing in *Eucalyptus marginata* (jarrah) woodlandremnants. Austral Ecology 26: 22–31.

Prober, S.M., Standish, R.J. and Wiehl, G. 2011 After the fence: vegetation and topsoil condition in grazed, fenced and benchmark eucalypt woodlands of fragmented agricultural landscapes. Australian Journal of Botany: 59: 369–381

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Saunders 1979 The biology of the short-billed form of the white-tailed black cockatoo, *Calyptrhynchus funereus latirostris* (Carnaby). Phd Thesis, the University of Western Australia.

Saunders. D.A., and Ingram, J.A. 1987 Factors affecting survival of breeding populations of Carnaby's cockatoo *Calyptrhynchus funereus latirostris* in remnants of native vegetation. In: Saunders, D.A., Arnold, G.W., Burbidge, A.A., and Hopkins, A.J.M. (eds) Nature conservation: the role of remnants of vegetation. Surrey Beatty and Sons Pty Ltd, Sydney.

Western Australian Herbarium (WAHERB) (2010) 'FloraBase – The Western Australian flora.' (Department of Biodiveristy, Conservation and Attractions). Available at http://florabase.calm.wa.gov.au/ [accessed November 2010].

RCV SCORES GUIDE – SURVEY SHEET & SPREADSHEET SHOWING CORE RCV COLUMNS

RCV GUIDE II - SHEET_I SURVEY.

RCV SURVEY SHEETS

1) MAIN SHEET
2) SUPPLEMENTARY SHEET FOR SUB-SECTIONS IF REQUIRED
3) WEED SHEET FOR THE MOST COMMON WEEDS IN A SECTION

SURVEY OF ROADSIDE VALUES - SHIRE OF

_____(No._____)

Date_____ **Direction**_____

Observers_____

Road name_____

Road number_____

Section number_____

No. Subsections: Left_____Right_____

Start location_____

Start lat._____Start long._____

Odometer start_____

End location_____

End lat._____End long._____

Odometer end_____

Section length_____

Road reserve width (if evident)_____

WIDTH OF VEGETATED ROADSIDE

(*option- unknown*)	LEFT	RIGHT
1 – 5 m	☐	☐
5 – 20 m	☐	☐
Over 20m	☐	☐

LAYERS OF NATIVE VEGETATION ON ROADSIDE

Tree layer	☐	☐
Shrub layer	☐	☐
Ground layer	☐	☐

NUMBER OF DIFFERENT NATIVE PLANT SPECIES

0 – 5	☐	☐
6 – 19	☐	☐
Over 20	☐	☐

Dominant species:_____

_____

_____

EXTENT OF NATIVE VEGETATION ON ROADSIDE

(0 – weeds (sparse locals)/bare ground/planted non-local)

Less than 20% (few shrubs & trees)	☐	☐
20 – 80%	☐	☐
Over 80%	☐	☐

VALUE AS A BIOLOGICAL CORRIDOR

Connects uncleared areas	☐	☐
Large trees with hollows	☐	☐
A range of plant resources	☐	☐
Hollow logs	☐	☐
Ecologically Sensitive Areas	☐	☐

WEEDS

Few weeds (<20% total plants)	☐	☐
Half weeds (20 – 80% total)	☐	☐
Mostly weeds (>80% total)	☐	☐

MAIN ADJOINING LAND USE (*a non-road-reserve value*)

Crop or pasture	☐	☐
Plantation of non-native plants	☐	☐
Urban or industrial	☐	☐
Totally cleared	☐	☐
Scattered vegetation	☐	☐
Railway reserve alongside road	☐	☐
Other reserve alongside road	☐	☐

Other (e.g. revegetation) _____

_____

DISTURBANCES (e.g. clearing, earthworks)

Continuous	☐	☐
Common	☐	☐
Scattered	☐	☐
Absent	☐	☐

Type: _____

UTILITIES

Electricity	☐	☐
Gas	☐	☐
Communication	☐	☐

CONSERVATION VALUE

High	☐	☐
Medium	☐	☐
Low	☐	☐

Reason:_____

COMMENTS_____

_____

_____

The next sheet is a shortcut you may choose to use on the same road with the same width & similar adjacent land use, disturbances & utilities.

This means only the section start & end and core values need be recorded.

LEFT - change over 100m wide	I..... m	II.....m	III.....m	IIII.....m
From: LAT.				
LONG.				
To: LAT.				
LONG.				

RIGHT - change over 100m wide	I..... m	II.....m	III.....m	IIII.....m
From: LAT.				
LONG.				
To: LAT.				
LONG.				

LAYERS OF NATIVE VEGETATION ON ROADSIDE ~	I	II	III	IIII
Tree layer	☐	☐	☐	☐
Shrub layer	☐	☐	☐	☐
Ground layer	☐	☐	☐	☐

(~Layers: only lower 2 – shrubland/thickets; any 2 (to 3) – YorkG/jam, wandoo, salmonG)

	I	II	III	IIII
Tree layer	☐	☐	☐	☐
Shrub layer	☐	☐	☐	☐
Ground layer	☐	☐	☐	☐

NUMBER OF DIFFERENT NATIVE PLANT SPECIES #	I	II	III	IIII
0 – 5	☐	☐	☐	☐
6 – 19	☐	☐	☐	☐
Over 20	☐	☐	☐	☐
Dominants:				

(# For York gum, wandoo, salmon gum note if 0/1-5/over5. For thicket note if 0/1-3.)

	I	II	III	IIII
0 – 5	☐	☐	☐	☐
6 – 19	☐	☐	☐	☐
Over 20	☐	☐	☐	☐
Dominants:				

EXTENT OF NATIVE VEGETATION ON ROADSIDE (0 – all weeds/bare/planted non-local)	I	II	III	IIII
Less than 20% (few shrubs & trees)	☐	☐	☐	☐
20 – 80%	☐	☐	☐	☐
Over 80%	☐	☐	☐	☐

	I	II	III	IIII
Less than 20% (few shrubs & trees)	☐	☐	☐	☐
20 – 80%	☐	☐	☐	☐
Over 80%	☐	☐	☐	☐

VALUE AS A BIOLOGICAL CORRIDOR (include evidence of natural regeneration *)	I	II	III	IIII
Connects uncleared areas (*)	☐	☐	☐	☐
Large trees with hollows	☐	☐	☐	☐
A range of plant resources	☐	☐	☐	☐

	I	II	III	IIII
Connects uncleared areas (*)	☐	☐	☐	☐
Large trees with hollows	☐	☐	☐	☐
A range of plant resources	☐	☐	☐	☐

WEEDS	I	II	III	IIII
Few weeds (<20% total plants)	☐	☐	☐	☐
Half weeds (20 – 80% total).	☐	☐	☐	☐
Mostly weeds (>80% total)	☐	☐	☐	☐

	I	II	III	IIII
Few weeds (<20% total plants)	☐	☐	☐	☐
Half weeds (20 – 80% total).	☐	☐	☐	☐
Mostly weeds (>80% total)	☐	☐	☐	☐

WEEDS – THE MOST COMMON TYPES IN THE SECTION

1: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

5: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

2: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

6: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

3: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

7: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

4: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

8: Name_____		
<20% of total weeds present	☐	☐
20 – 80% of total weeds present	☐	☐
>80% of total weeds present	☐	☐

RCV GUIDE II - SHEET_II DATA_A_CORE

SURVEY_ID	SHIRE_NAME	START_DATE	START_TIME	END_DATE	END_TIME	LAT_START	LONG_START	GPS_START
	ESSENTIAL	ESSENTIAL				ESSENTIAL	ESSENTIAL	
COMMENT (if you elect to make an individual number for each section; this is just an internal database housekeeping matter.)	COMMENT	COMMENT	COMMENT incidental	COMMENT incidental	COMMENT incidental	COMMENT in decimal degrees	COMMENT in decimal degrees	COMMENT distance according to GPS
	Your_shire	31/Oct/2014	09:13	31/Oct/2014	09:34	-31.99229887	116.0402571	1.4

NOTE THAT THE TOP ROW IS PIVOTAL AND THE 4 ROWS BELOW IT ARE ONLY GUIDES AND MAY BE REMOVED

LAT_END	LONG_END	GPS_END	SECTION	ODSTART	ODFINISH	SECT_LNGTH	DRIVER_OBS	USER_OBSR
ESSENTIAL	ESSENTIAL		ESSENTIAL	ESSENTIAL	ESSENTIAL		helpful	helpful
COMMENT in decimal degrees	COMMENT in decimal degrees	COMMENT distance according to GPS	COMMENT break each road into sections between junctions from start	COMMENT record odometer at the start of the section at the same time as the coord-inates from GPS	COMMENT record odometer at the end of the section at the same time as the coord-inates from GPS	COMMENT taken from difference in OD at finish and start of section	COMMENT name of driver	COMMENT name of observer
-31.99272134	116.0386959	1.7	1	0	0.1	0.1	Jane Citizen	Joe Bloe

DIRECTION	WIDTH_TOT	ROAD_NO	ROAD_NAME	START_LOC	COMMENTS	FINISH_LOC	SHIRE_NO	ADJ_LUSE_L
ESSENTIAL			ESSENTIAL	helpful		helpful		
COMMENT direction of travel along road (eg N means heading north; NW means north-west)	**COMMENT full road reserve width - if marked by clear markers such as fences; otherwise put "unknown"**	**COMMENT this is the road number from MRWA**	**COMMENT**	**COMMENT (features - if required) nearest named place**	**COMMENT observation on roadside**	**COMMENT (features - if required)**	**COMMENT number fron MRWA data (if avalable)**	**COMMENT see categories in"Assessing roadsides"**
SW	Unknown	1020035	**FIGMENT RD**	Other (spur rd)	zamia. parrot bush. hakea.		15	N

ADJ_LUSE_R	WIDTHVEG_L	WIDTHVEG_R	WIDV_SUM_L	WIDV_SUM_R	VEGTYPE_L	VEGTYPE_R	EXT_VEG_L	EXT_VEG_R
	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	SUPPORTS LAYER SCORE	SUPPORTS LAYER SCORE	ESSENTIAL - RCV	ESSENTIAL - RCV
	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	ACTUAL SCORE	ACTUAL SCORE			ACTUAL SCORE	ACTUAL SCORE
COMMENT see categories in"Assessing roadsides"	COMMENT core RCV; options: 1- 5m 5- 20m over 20m unknown	COMMENT core RCV; options: 1- 5m 5- 20m over 20m unknown	COMMENT core RCV SCORE; options: 0 (1-5m) 1 (5-20m) 1 (over 20m) 1 (unknown)	COMMENT core RCV SCORE; options: 0 (1-5m) 1 (5-20m) 1 (over 20m) 1 (unknown)	COMMENT describe the basic or common elements of the vegetation (eg thicket, shrubland, woodland, forest)	COMMENT describe the basic or common elements of the vegetation (eg thicket, shrubland, woodland, forest)	COMMENT core RCV SCORE; 0 (*less than 20% local vegetation*; MOSTLY: non-native weeds/disturbed bare ground; planted non-natives; planted non-local natives) 1 (20 to 80% local vegetation) 2 (over 80% local vegetation)	COMMENT core RCV SCORE; 0 (*less than 20% local vegetation*; MOSTLY: non-native weeds/disturbed bare ground; planted non-natives; planted non-local natives) 1 (20 to 80% local vegetation) 2 (over 80% local vegetation)
N	Unknown	Unknown	1	1	Mixed shrubland	Jarrah Marri Wandoo	1	2

SPECIES_L	SPECIES_R	GEN_WEEDS_L	GEN_WEEDS_R	TREE_DEC_L	REASON_DEC_L	TREE_DEC_R	REASON_DEC_R	VEG_TREE_L
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV					ESSENTIAL - RCV
ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE	ACTUAL SCORE					SUB-SCORE TO ACTUAL SCORE>
COMMENT core RCV SCORE; Number of different native species 0 (0 to 5) 1 (6 to 19) 2 (20 & over) _____h owever - thickets may score 2 (for only 3 species or so) and York gum-jam, open salmon gum & wandoo score 1 (for 1-5)	COMMENT core RCV SCORE; Number of different native species 0 (0 to 5) 1 (6 to 19) 2 (20 & over) _____h owever - thickets may score 2 (for only 3 species or so) and York gum-jam, open salmon gum & wandoo score 1 (for 1-5)	COMMENT core RCV SCORE; 0 (mostly weeds [>80% total] /ground layer totally weeds) 1 (half weeds [20-80% total]) 2 (few weeds [<20% total])	COMMENT core RCV SCORE; 0 (mostly weeds [>80% total] /ground layer totally weeds) 1 (half weeds [20-80% total]) 2 (few weeds [<20% total])	COMMENT tree decline 0 (absent) 1 (present)	COMMENT reason for tree decline (eg fire, salinity, disease, unknown, n/a)	COMMENT tree decline 0 (absent) 1 (present)	COMMENT reason for tree decline (eg fire, salinity, disease, unknown, n/a)	COMMENT core RCV score; 0 (absent) 1 (present)
2	2	1	1	1	Recent Fire	0	N/A	0

VEG_TREE_R	VEG_SHRB_L	VEG_SHRB_R	VEG_GRND_L	VEG_GRND_R	NVEG_SUM_L	NVEG_SUM_R	CONNECT_L	CONNECT_R
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV
SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	ACTUAL SCORE	ACTUAL SCORE	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>
COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV score; 0 (absent) 1 (present)	COMMENT core RCV SCORE; 0 (T+S+G=0) 1 (T+S+G=1or2) 2 (T+S+G=3)	COMMENT core RCV SCORE; 0 (T+S+G=0) 1 (T+S+G=1or2) 2 (T+S+G=3)	COMMENT core RCV score; connects uncleared areas 0 (absent) 1 (present)	COMMENT core RCV score; connects uncleared areas 0 (absent) 1 (present)
1	1	1	1	1	2	2	1	1

TREEHOL_L	TREEHOL_R	SHRUBS_L	SHRUBS_R	HOLOGS_L	HOLOGS_R	ESA_L	ESA_R	HAB_SUM_L
ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	ESSENTIAL - RCV	supplementary	supplementary	supplementary	supplementary	ESSENTIAL - RCV
SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUB-SCORE TO ACTUAL SCORE>	SUPPLEMENTARY	SUPPLEMENTARY	SUPPLEMENTARY	SUPPLEMENTARY	ACTUAL SCORE
COMMENT core RCV score; tree hollows/ mature trees present 0 (absent) 1 (present)	COMMENT core RCV score; tree hollows/ mature trees present 0 (absent) 1 (present)	COMMENT core RCV score; A RANGE OF RESOURCE INCLUDING shrubs that can flower present 0 (absent) 1 (present)	COMMENT core RCV score; A RANGE OF RESOURCE INCLUDING shrubs that can flower present 0 (absent) 1 (present)	COMMENT core RCV score; hollow logs present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; hollow logs present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; ecologically sensitive areas (including threatened flora) present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; ecologically sensitive areas (including threatened flora) present (supports "A RANGE OF RESOURCES/ SHRUBS" column) 0 (absent) 1 (present)	COMMENT core RCV score; 0 (0+0+0) 1 (1+0+0) 2 (1+1+0) 3 (1+1+1) from any mix of CONNECT, TREE HOL (MATURE TREES), SHRUBS (A RANGE OF RESOURCES)
0	1	1	1	0	1	0	0	2

HAB_SUM_R	REVEG_L	REVEG_R	CLEARING_L	CLEARING_R	ELECT_L	ELECT_R	TELSTRA_L	TELSTRA_R
ESSENTIAL - RCV								
ACTUAL SCORE								
COMMENT core RCV score; 0 (0+0+0) 1 (1+0+0) 2 (1+1+0) 3 (1+1+1) from any mix of CONNECT, TREE HOL (MATURE TREES), SHRUBS (A RANGE OF RESOURCES)	COMMENT has there been revegetation or replacement of local native vegetation? 0 absent 1 - present	COMMENT has there been revegetation or replacement of local native vegetation? 0 absent 1 - present	COMMENT has there been any form of clearing or loss of local native vegetation? 0 absent 1 - present	COMMENT has there been any form of clearing or loss of local native vegetation? 0 absent 1 - present	COMMENT are power poles or other power infrastructure present? 0 absent 1 - present	COMMENT are power poles or other power infrastructure present? 0 absent 1 - present	COMMENT is communication infrastructure such as TELSTRA present? 0 - absent 1 - present	COMMENT is communication infrastructure such as TELSTRA present? 0 - absent 1 - present
3	0	0	1	0	1	0	0	0

GAS_L	GAS_R	WATER_L	WATER_R	RABBITS_L	RABBITS_R	RCV_LEFT	RCV_RIGHT	DOM_WEED1
						FINAL RESULT RCV	FINAL RESULT RCV	OWN TABLE
						SUM OF ALL ACTUAL SCORES	SUM OF ALL ACTUAL SCORES	
COMMENT is gas infrastructure present? 0 - absent 1 - present	COMMENT is gas infrastructure present? 0 - absent 1 - present	COMMENT is water infrastructure present? 0 - absent 1 - present	COMMENT is water infrastructure present? 0 - absent 1 - present	COMMENT are rabbits or signs of rabbit activity present? 0 - absent 1 - present	COMMENT are rabbits or signs of rabbit activity present? 0 - absent 1 - present	COMMENT the sum of adding: WIDV_SUM_L EXT_VEG_L SPECIES_L GEN_WEEDS_L NVEG_SUM_L HAB_SUM_L	COMMENT the sum of adding: WIDV_SUM_R EXT_VEG_R SPECIES_R GEN_WEEDS_R NVEG_SUM_R HAB_SUM_R	COMMENT DOMINANT WEED 1
0	0	0	0	0	0	9	11	

EXT_DWEED1	DOM_WEED2	EXT_DWEED2	DOM_WEED3	EXT_DWEED3	DOM_WEED4	EXT_DWEED4	DOM_WEED5	EXT_DWEED5	DOM_WEED6
OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE	OWN TABLE
COMMENT EXTENT OF DOMINANT WEED 1 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT DOMINANT WEED 2	COMMENT EXTENT OF DOMINANT WEED 2 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT DOMINANT WEED 3	COMMENT EXTENT OF DOMINANT WEED 3 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT DOMINANT WEED 4	COMMENT EXTENT OF DOMINANT WEED 4 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT DOMINANT WEED 5	COMMENT EXTENT OF DOMINANT WEED 5 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT DOMINANT WEED 6
			FLEABANE	1	PLANTAIN	1		0	

EXT_DWEED6	DOM_WEEDS	WEEDS_OTH
OWN TABLE		
COMMENT EXTENT OF DOMINANT WEED 6 PROPORTION 0 (<20% of total Weeds); 1 (20 to 80% of total weeds); 2 (>80% of total weeds)	COMMENT STATES WHICH DOMINANT WEEDS WERE PRESENT	COMMENT NOTES THE OTHER WEEDS THAT MAY HAVE BEEN RECORDED
	FLEABANE PLANTAIN	WILD_OATS FLAT_WEED BLOWFLY_GRASS WATSONIA BROME_GRASS VELDT_GRASS SOWTHISTLE CLOVER PIMPERNEL