

# Interim Guidelines for the Management of Roadside Native Vegetation

*Under Native Vegetation Regulation 11(23)*

Native Vegetation Council

Endorsed for public consultation 29 August 2018



Government  
of South Australia



Native Vegetation  
Council

Natural Resources

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# CONTENTS

INTRODUCTION.....	4
Managing Roadside Vegetation.....	6
Quick Reference Guide to Legal Requirements .....	7
PART 1: MANAGEMENT OF ROADSIDE VEGETATION .....	9
Section 1. Primary Clearance Envelopes.....	10
Section 2. Secondary Clearance Envelopes .....	11
Section 3. Verge Clearance .....	12
PART 2: FRAMEWORK FOR PUBLIC SAFETY .....	15
Section 4. Public Safety Categories .....	15
PART 3: OTHER ACTIVITIES RELATING TO ROADSIDE VEGETATION.....	18
Section 5. Clearance for Access to Adjoining Land.....	18
Section 6. Clearance for Fencelines .....	19
Section 7. Pest Plant and Animal Control.....	20
Section 8. Removal of Plant Material .....	21
Section 9. Undeveloped Road Reserves.....	23
PART 4: DEVELOPING A MANAGEMENT PLAN .....	24
Section 10. Roadside Vegetation Management Plan .....	24
GLOSSARY.....	28
APPENDIX 1. CLEARANCE PROPOSAL FORM UNDER REGULATION 11(23) – Verge clearance >1m.....	29
APPENDIX 2. CLEARANCE PROPOSAL FORM UNDER REGULATION 11(23) Public Safety Framework.....	29

# INTRODUCTION

Roadside vegetation provides a range of environmental and social benefits. These include both aesthetic and amenity values as well as significant biodiversity values. The legacy of clearance in South Australia means that a disproportionately high amount of remnant native vegetation occurs on roadsides and in road reserves, especially in the agricultural zone. Therefore it may be the only remnant of the pre-European vegetation in a region and often contains threatened species and vegetation communities. Additionally, roadside vegetation can also have benefits for road maintenance and safety including providing shelter from wind and shade from sun glare, define curves in roads and enhance driver alertness, whilst also lowering local water tables that may affect the road formation, stabilising batters and embankments and preventing weeds becoming established.

However, native vegetation can also create issues for road users such as impeding vehicle movement, affecting sightlines and presenting possible hazards to errant vehicles. Therefore, local councils and the Department of Planning, Transport and Infrastructure (DPTI), as the authorities responsible for road maintenance, need to be able to manage roadside vegetation to allow for the safe movement of vehicles.

This document provides guidance for local councils and DPTI in relation to the removal native vegetation to maintain the safety and visibility of roadsides, while retaining important native vegetation values. These guidelines clearly state the circumstances where approval is required by the Native Vegetation Council and how it is to be obtained.

These guidelines will provide local councils and DPTI with greater capacity to undertake clearance of roadside vegetation. In particular, the management of native vegetation regrowth on roadsides has been extended up to 20 years of age (previous only regrowth of 5 years of age or less was permitted to be cleared). This will allow local councils and DPTI to undertake most of their roadside vegetation management without requiring any approval, or when approval is required, only providing a limited amount of information.

These guidelines also provides the pathway for removal where native vegetation posing a safety concern. This replaces the previous *Framework for clearance of Native Vegetation under Regulation 5(1)(b) – Public Safety for Rail crossing, Road intersections and Roadsides (October 2012)*.

For native vegetation clearance that involves broader clearance envelopes than what is specified through the provisions in these guidelines for clearance height, roadside furniture, visibility or sight distances or verge clearance, local councils can develop a management plan for the Native Vegetation Council consideration and endorsement.

## Guideline Themes

These guidelines are divided into four themes, which are:

**Part 1:** Management of roadside vegetation – for clearance activities that can be undertaken on roadsides relating to the:

- Primary envelope
- Secondary envelope
- Verge

and associated process where approvals are required.

**Part 2:** Framework of public safety - process for applying to clear native vegetation for road intersections, and roadsides for safety purposes.

**Part 3:** Other clearance activities relating to roadside vegetation - that may occur within a roadside impacting native vegetation.

**Part 4:** Developing a management plan - information required in a management plan for consideration by the Native Vegetation Council.

This guideline, once approved by the Native Vegetation Council, is prepared in accordance with Section 25 of the *Native Vegetation Act 1991*. These guidelines have legal status (pursuant to Section 25 of the *Native Vegetation Act 1991*) and must be followed by local councils or DPTI with regard to roadside vegetation management.

## Managing Roadside Vegetation

Native vegetation on roadsides is protected by the **Native Vegetation Act 1991**. However, vegetation on roadsides is also protected by the **Local Government Act 1999** and any removal or disturbance of roadside vegetation requires the permission of the Local Council. Under the *Native Vegetation Act*, such removal or disturbance also requires the approval of the Native Vegetation Council unless a specific exemption applies through the *Native Vegetation Regulations 2017*. Generally, clearance of vegetation on roadside or railway corridor vegetation will be undertaken in accordance with **Native Vegetation Regulation 11(23)**

### - Roadside or rail corridor vegetation management.

This regulation allows for clearance of roadside vegetation by, or on behalf a Local Council or DPTI where the vegetation that is growing or is situated on land comprising a road reserve for the purpose of—

- a. ensuring the safety of persons entering or passing the land, or of property on the land; or
- b. controlling pests on the land

Under this regulation, clearance of vegetation can only occur if;

- i. the clearance complies with these guidelines approved by the Native Vegetation Council;

**OR**

- ii. the clearance complies with a Roadside Management Plan prepared by the Local Council or DPTI and approved by the Native Vegetation Council (developed in accordance with Part 4 of these guidelines), and  
the clearance meets all the other requirements of Regulation 11.

### Defining what is a roadside

The diagram below defines the terminology used within these guidelines - particularly the primary envelope and verge. **Information defining the secondary envelope (not included in Figure 1) is provided in section 2 and figures 4 and figure 5.** It is important that any users of these guidelines are familiar with these terms as they are central in guiding what activities can and cannot be undertaken. This diagram must be read in conjunction with the definitions contained in the Glossary on page 28.

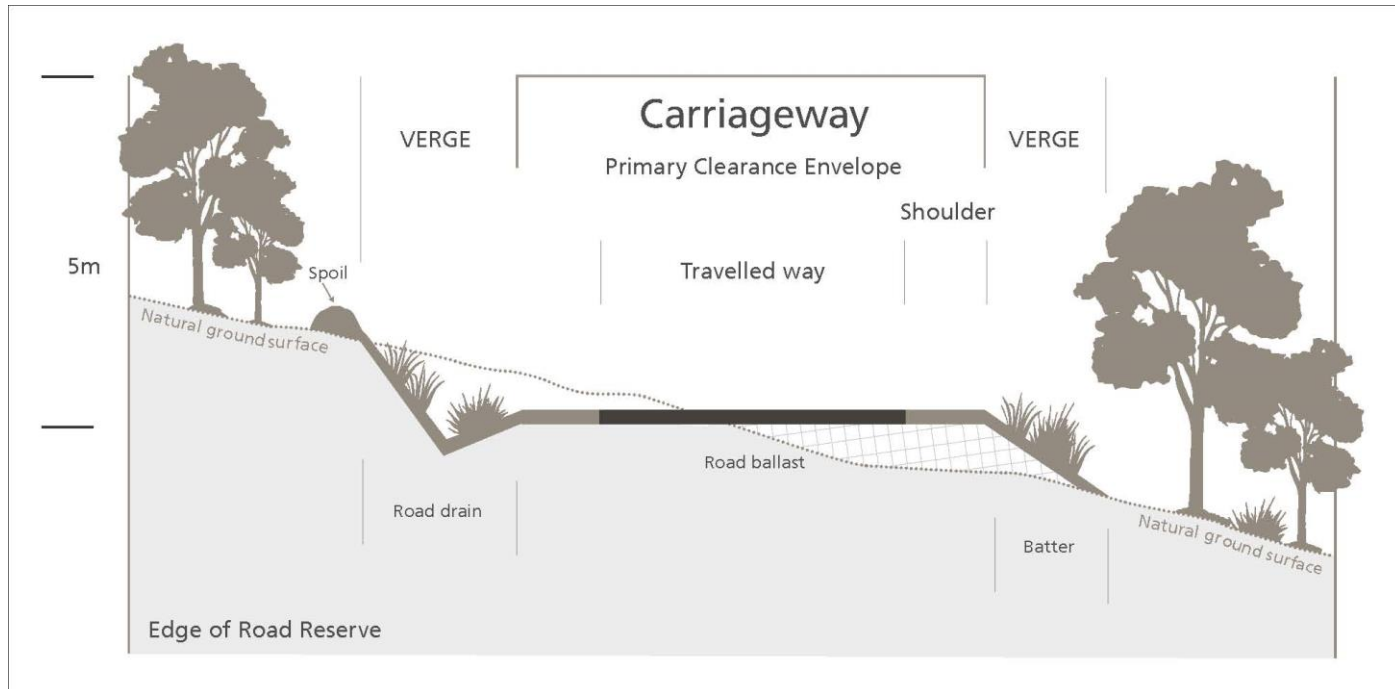


Figure 1. Roadside definitions.



## Quick Reference Guide to Legal Requirements

Table 1 is a quick reference guide to the legal requirements of clearing native roadside vegetation. Refer to each section for all the relevant criteria.

*Table 1. Clearance approval and consultation requirements for activities that are approved through a Roadside Vegetation Management Plan as per the Native Vegetation Regulations 2017.*

ACTIVITY	CLEARANCE APPROVAL	
	NOT REQUIRED (Does not require approval of the Native Vegetation Council)	REQUIRED (Requires approval or consultation under these guidelines or through the development of a management plan)
<b>Roadside vegetation maintenance</b> - Primary envelope (Part 1, Section 1)	Any vegetation that occurs in or extends into the primary envelope. This includes tree branches or trunks hanging into primary clearance envelope from verge or natural ground surface.	Not applicable
<b>Roadside vegetation maintenance</b> - Secondary envelope (Part 1, Section 2)	Maintenance of existing clearance around roadside furniture, for sight lines for signs, mitre drains and at intersections.	Not applicable
<b>Roadside vegetation maintenance</b> - Verge clearance of re-growth (Part 1, Section 3)	Maintenance of vegetation within the verge if; <ul style="list-style-type: none"> <li>- clearance is within 1 metre from the edge of the carriageway, and</li> <li>- clearance is with low impact methods, and</li> <li>- vegetation is less than 20 years old.</li> </ul>	Maintenance of vegetation within the verge if; <ul style="list-style-type: none"> <li>- clearance is greater than 1 metre (but must be less than 3 metres) from the edge of the carriageway.</li> </ul> The vegetation must be less than 20 years old and the width of vegetation that can be cleared is depended on the Category of road and the biodiversity significance of the vegetation.
<b>Public safety</b> (Part 2, Section 4)	Not applicable	Any clearance for public safety that includes new clearance or increased clearance.
<b>Access to adjoining Land for an existing use</b> (Part 3, Section 5)	Maximum 5m wide – normal access. Maximum 10m wide – machinery. (Careful site selection to minimise clearance).	<b>Any</b> clearance exceeding standards.
<b>Fencelines</b> (Part 3, Section 6)	Trees on boundary; branches over/through fence; where shrubs or bushes are growing through the fence, those within 1m of the fence may be cleared.	<b>Any</b> clearance exceeding standards.
<b>Removal of Plant Material</b> (Part 3, Section 7)	Dead vegetation other than that defined in the Native Vegetation Regulations.	Live timber, flowers or other vegetation removed e.g. brush-cutting Clearance of dead plants of a class declared by Regulation to be included in the definition of native vegetation.
<b>Maintenance of roadside vegetation not covered by Part 1 of the guidelines</b> (Part 4)	Not applicable	Management Plan to be submitted in accordance with Part 4 of these guidelines
<b>New works or upgrades or any clearance involving remnant native vegetation growing on the natural ground surface</b>	Not applicable	Application submitted to the NVC under Regulation 12(34) Infrastructure

NOTE: As well as the above requirements under *Native Vegetation Act 1991*, ANY removal of roadside native vegetation needs Local council approval and may require approval under other legislation, e.g. *Environment Protection and Biodiversity Conservation Act 1999*.

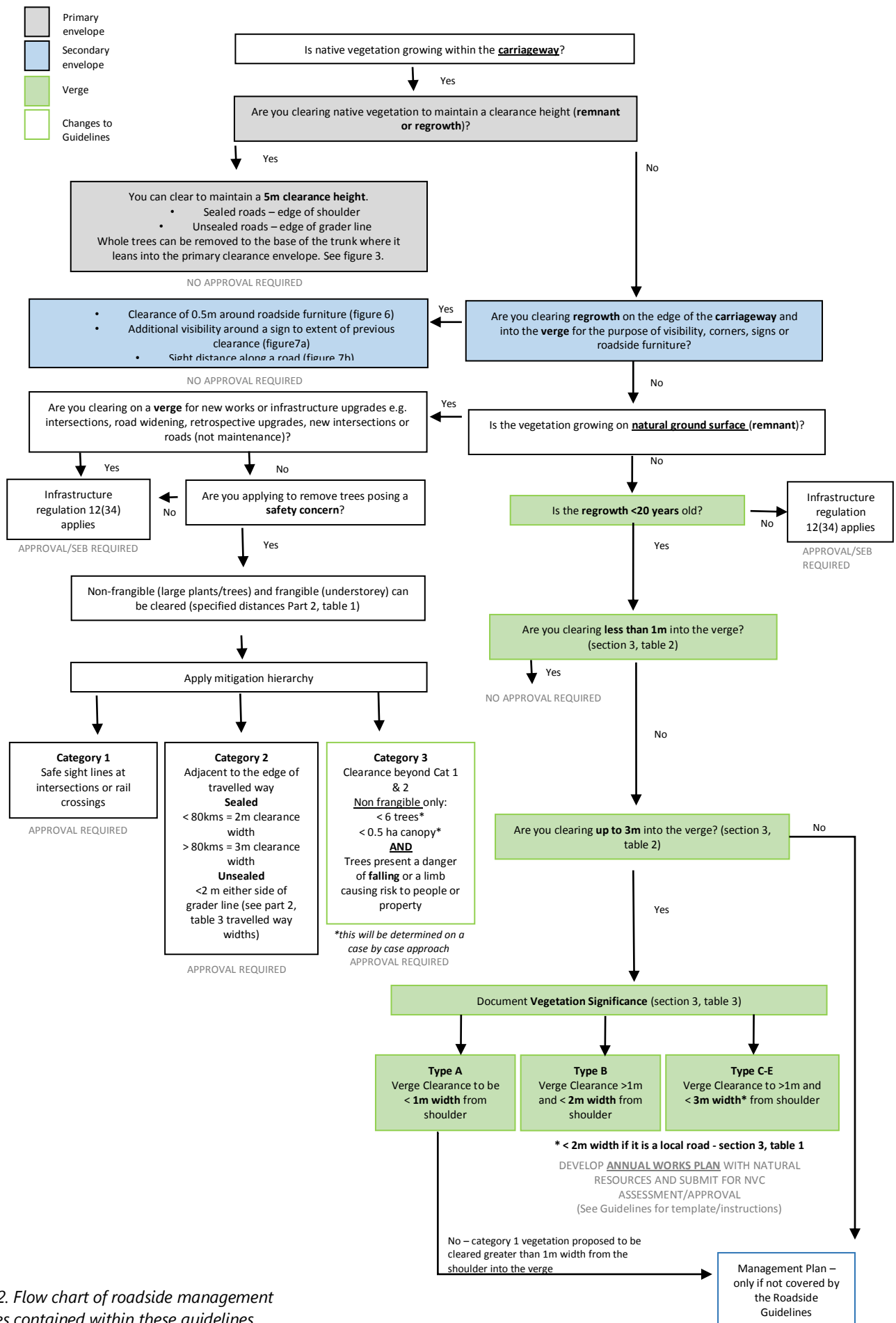


Figure 2. Flow chart of roadside management activities contained within these guidelines.



# PART 1: MANAGEMENT OF ROADSIDE VEGETATION

## Roadside Maintenance

Adequate vertical and lateral clearance of roadside vegetation is needed for the safe movement of legal height vehicles across the full width of the traffic lanes. Additional clearance is usually also needed at intersections, crests, the inside of curves and around roadside furniture such as signs and delineation devices. The degree of clearance needed will vary according to the standard of the road, the type and amount of traffic and the characteristics of the vegetation. Clearance that is permitted for roadside vegetation maintenance and the process that needs to be followed is detailed in the following sections;

- Section 1 – Primary Clearance Envelope
- Section 2 – Secondary Clearance Envelope
- Section 3 – Verge clearance.

## General Roadside Maintenance Principles

Any clearance activities need to consider the "Mitigation Hierarchy", this hierarchy comprises of four principles:

- (a) **Avoidance**—measures should be taken to avoid clearance of native vegetation wherever possible;
- (b) **Minimisation**—if clearance of native vegetation cannot be avoided, measures should be taken to minimise the duration, intensity and extent of impacts of the clearance on biological diversity to the fullest possible extent (whether the impact is direct, indirect or cumulative);
- (c) **Rehabilitation or restoration**—measures should be taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems that have been destroyed, by impacts of clearance of native vegetation that cannot be avoided or minimised;
- (d) **Offset**—any adverse impact on native vegetation or ecosystems that cannot be avoided or minimised should be offset by the achievement of a significant environmental benefit that outweighs that impact.

## Operating Principles

All roadside vegetation management should be undertaken in accordance with the following principles:

- Use the **lowest impact methods** possible for the given activity, including minimal ground disturbance, cutting cleanly rather than breaking branches, slashing, trimming, mowing, or rolling.
- Limit the use of **herbicides** to spraying around roadside furniture and for selective weed control.
- Ensuring **graders and other high impact machinery** do not intrude beyond the existing carriageway width (grading a little further each time can have significant impact over a number of years).
- Locating **water cut-off drains** in areas devoid of native vegetation (unless clearance approval is given). Also ensure that drains do not deposit sediment into native vegetation, waterways or neighbouring private land.
- **Minimising soil disturbance** and general intrusion beyond the designated carriageway. Disturbance encourages weeds that compete with native species, leading to potential increases in maintenance costs. More specifically:
  - Machinery should be parked or turned at a limited number of designated sites which do not have native vegetation;
  - Materials should be stockpiled at a limited number of designated sites which do not have native vegetation;
  - Equipment should be cleaned on site before moving to other sites: this is particularly important where machinery is operating in weed-infested or infected areas (e.g. land affected by *Phytophthora* spp.);
  - Any required tree-trimming should be in accordance with recognised arboriculture standards;
  - Any debris from trimming operations should not be deposited on or amongst other native vegetation but should be disposed of in a manner that does not affect native vegetation, unless it is useful as habitat for wildlife, or is scattered sparsely amongst the remaining vegetation; and
  - Threatened plant species on roadsides will be mapped, where possible, and roadworks at those sites carefully planned to avoid any impact to those plants. Installation of roadside markers to identify sites with threatened plant species and best practice training for staff and contractors is recommended.

- **Retain native vegetation** including dead timber wherever possible and integrate into revegetation programs. Particular care should be taken to preserve areas of native grasses, which can be difficult to distinguish from exotic grasses.
- **Clear exotic vegetation** or locate proposed works on already **cleared land in preference** to clearing native roadside vegetation, wherever possible.
- Start works with **clean machinery in areas of less degraded** vegetation and work towards the more degraded sites. This will assist in the prevention of further spread of weeds and reduce on-going maintenance.

## Section 1. Primary Clearance Envelopes

A **primary clearance envelope** refers to the area of the road that will support regular vehicle movement. Within the primary clearance envelope vegetation clearance is required to allow for **legal height (4.6 m)** vehicles to pass along the full width of the carriageway. To allow for regrowth between pruning and sagging of branches caused by wet or windy conditions, a **clearance height of 5.0 m** is permitted to be maintained within the primary clearance envelope.

### Sealed Roads:

A primary clearance envelope for sealed roads is considered to be up to a vertical **height of 5m** from the **edge of the shoulder**, representing the edge of the carriageway.

### Unsealed Roads:

A primary clearance envelope for unsealed roads is considered to be a vertical **height up to 5m** from the **edge of the grader line**, which is taken to be the edge of the carriageway. Grading must be kept to the pre-existing width, and where possible, must not exceed the maximum widths detailed in table 2.

### Clearance of vegetation within the Primary envelope:

Any native vegetation may be cleared within the carriageway where it extends into the primary clearance envelope (up to 5 m high and across the whole of the carriageway). Any limbs extending into the primary clearance envelope can be trimmed back to the trunk or, if the trunk extends into the primary clearance envelope, back to ground level using a saw or chainsaw, in a manner to ensure the health of the tree is maintained where possible (Figure 3).

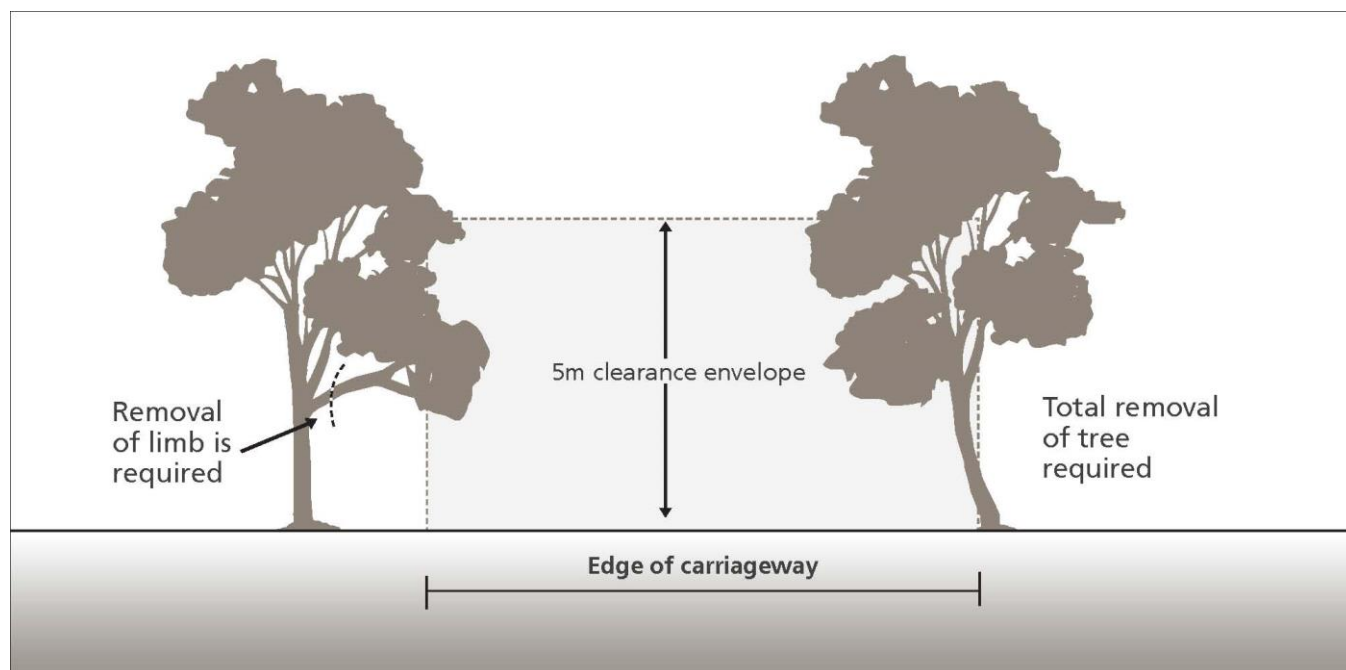


Figure 3. Clearance of vegetation within primary clearance envelope up to 5m high:  
a. (left hand side) removal of limbs hanging into primary clearance envelope; or  
b. (right hand side) removal of whole tree to base if trunk leans into primary clearance envelope.

### CONSULTATION AND APPROVAL PROCEDURES FOR THE PRIMARY CLEARANCE ENVELOPE

No approval or consultation with the NVC is required for clearance within the Primary clearance envelope.

## Section 2. Secondary Clearance Envelopes

Secondary clearance envelopes often require the removal of vegetation for adequate visibility of other traffic, signs and other roadside furniture. Vegetation in this envelope can only be cleared to the extent of the original clearance associated with the road construction (i.e. only vegetation that has grown or regrown in areas previously lawfully cleared for the construction or maintenance of the road or associated infrastructure may be cleared in accordance with this section).

### Clearance of vegetation within Secondary Envelope

The following clearance can occur within the secondary clearance envelope:

- Vegetation growing up to **500 mm around roadside furniture** (Figure 4).
- Vegetation growing on the **approach side of signs and road delineation markers** to ensure they are clearly visible from a distance equivalent to the stopping sight distance for the speed environment of the road according to Austroad standards (Figure 5).
- At road intersections **where corners are created, existing verge clearance can be maintained** for safe sight distance according to Austroad standards.
- To maintain mitre drains, **existing clearance can be maintained**. Clearance is confined to the original extent of the drain and cleared debris are not pushed into native vegetation within the natural ground surface.

No Native Vegetation Council approval is required for clearance within the Secondary Clearance envelope as defined above and within the diagrams below.

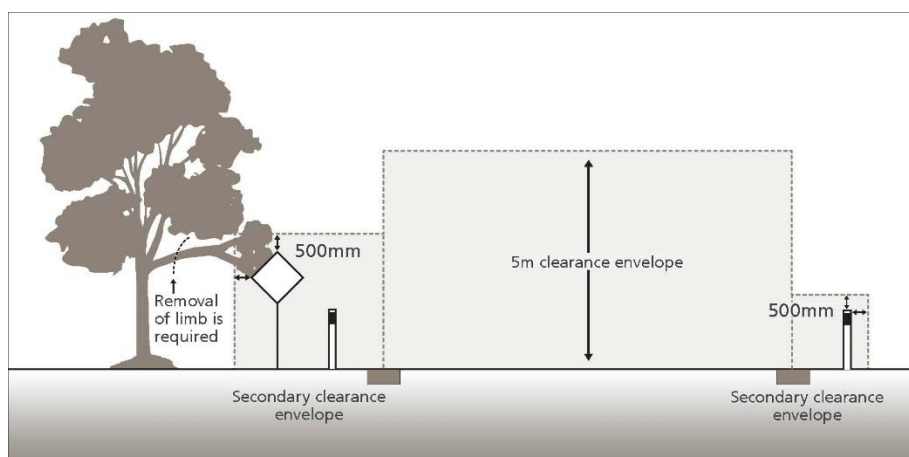


Figure 4. Secondary Clearance Envelope maintained around existing roadside furniture.

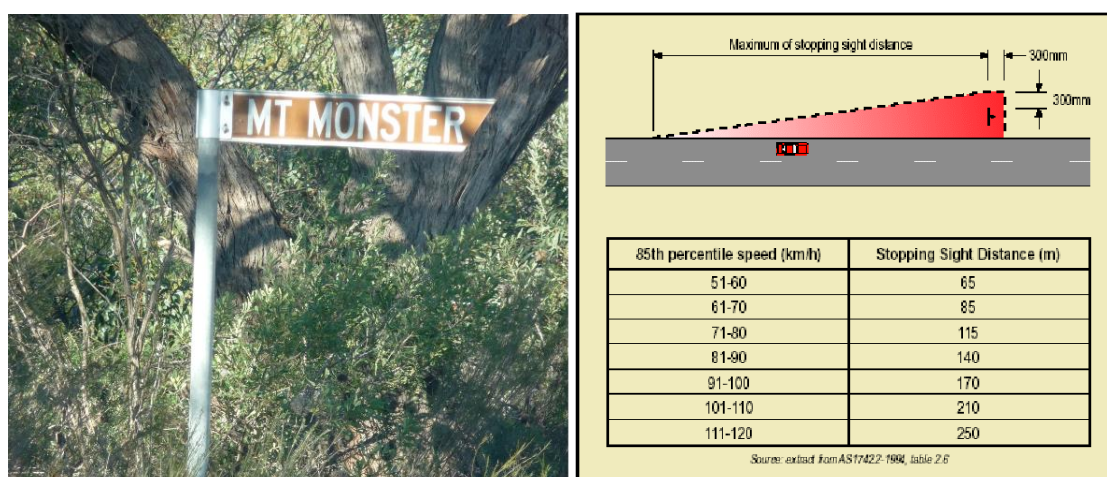


Figure 5. (left): Secondary clearance envelope around a sign (right): Secondary Clearance Envelope along Road.

### CONSULTATION AND APPROVAL PROCEDURES FOR SECONDARY CLEARANCE ENVELOPE

No approval or consultation with the NVC is required for clearance within the Secondary clearance envelope.

## Section 3. Verge Clearance

It may be necessary or preferable on occasions, for a Local Council to undertake additional clearance within the verge beyond what is permitted in the Primary and Secondary envelopes. For example, Local Councils may wish to manage fast growing native vegetation or manage roadside vegetation over a longer rotation period.

Clearance of vegetation within the verge can occur subject to following criteria:

1. Clearance is only of regrowth vegetation less than **20 years old**; and
2. Clearance is undertaken using **low impact methods** only and should retain native vegetation at a minimum height of 10 cm above ground level (Note; high impact methods include any activity that disturbs the soil or results in plants being uprooted, e.g. graders or bulldozers). Any regrowth trees (with a trunk circumference greater than 10cm) can be removed by poisoning or cut and stump-grind only; and
3. Clearance within the verge, measured from the edge of the carriageway, must be within the maximum widths set out in Table 2 (to a maximum of 3 metres for arterial and collector roads, 2 metres for a local road); but
  - a. must be confined to a maximum width of 1 metre in **Type A** (vegetation with high conservation significance) roadside vegetation (Table 3); or
  - b. must be confined to a maximum width of 2 metres in **Type B** (vegetation with moderate conservation significance) roadside vegetation (Table 3).

Verges should be managed in a manner so as not to encourage the growth of introduced plants or fast-growing shrubby natives that lead to worse ongoing management problems (e.g. fire hazard, reduced visibility). This commonly occurs when the soil surface is disturbed using high impact methods. Low impact methods do not generally affect the soil surface and aim to retain existing vegetation (e.g. mower, slasher, hydro-axe). Use of an offset mower/slasher enables regrowth on the verge to be managed effectively without needing to drive machinery on the verge.

In some instances there is no or little verge with the natural ground surface extending to the shoulder or edge of carriageway. This has usually occurred when the carriageway has been widened at some stage after the original road construction. Removal of native vegetation to create a new verge is considered a road upgrade and thus is not considered by this section of the guidelines.

Table 2. Road types with maximum proposed road widths (metres) (based on Austroads 2016 guidelines). (Austroads (2006) Guide to road design. Part 3: Geometric design. Austroads, Sydney.)

Road type	Description	Carriageway		Height (m)	Verge (m)	TOTAL (m)
		Travelled way (m)	Shoulder (m)			
<b>A - Arterial</b>	<b>Principal roads, either sealed or should be sealed</b>	7	1.5	5	3 both sides	16
<b>B - Collector</b>	<b>Unsealed secondary roads</b>	7	1.2	5	3 both sides	15.4
<b>C - Local roads</b>	<b>Local traffic only</b>	6	1	5	2 both sides	12
<b>D - Un-made</b>	<b>Un-opened or vehicle track only</b>	NA	NA	NA	NA	NA

The width of verge varies depending on the category of the road, and whether the carriageway has been widened post construction of the original road. The proposed width of the verge depends on road type, and is based on AustRoads (2016) guidelines (Table 2).

### Process of clearance assessment and approval

In order to undertake clearance within the verge as permitted by this Section, the following process is to be undertaken:

#### 1. Annual works program

Local Councils to determine which roads are to be managed annually, or on an ad hoc basis.

## 2. Regrowth

Determine if the regrowth vegetation is less than 20 years of age. This can be determined from Local Council works records, by the size of the trees in the regrowth, or by comparing aerial images of various dates.

## 3. Extent of proposed clearance

Determination of the width of the verge clearance that is required.

## 4. Native Vegetation Council approval

If clearance of the verge is less than 1 metre from the edge of the carriageway, clearance can occur with no approval.

OR

If clearance of the verge is greater than 1 metre from the carriageway, an assessment of the roadside vegetation must be undertaken by the Local Council with the assistance of a suitably qualified person. The Annual Works Form datasheet contained in Appendix 1 needs to be completed and discussed with the NVC.

The assessment of proposed verge clearance needs to consider the conservation significance as set out in Table 3. The intent is to allow adequate management of roadside vegetation while minimising impacts on areas of significant and important native vegetation.

To assist this process, the quality of roadside vegetation in many areas has been assessed and mapped by a suitably qualified person during development of existing Roadside Vegetation Management Plans (under the 2012 guidelines). In addition, the locations of nationally or state listed plant species along roadsides have been mapped in many areas, as has the roadside marker scheme.

Environmental information is available through the online database (NatureMaps). NatureMaps allows the user to display environmental attributes for their region and roadsides. Figure 6 displays the location of significant native vegetation on roadsides. <https://data.environment.sa.gov.au/NatureMaps/Pages/default.aspx>

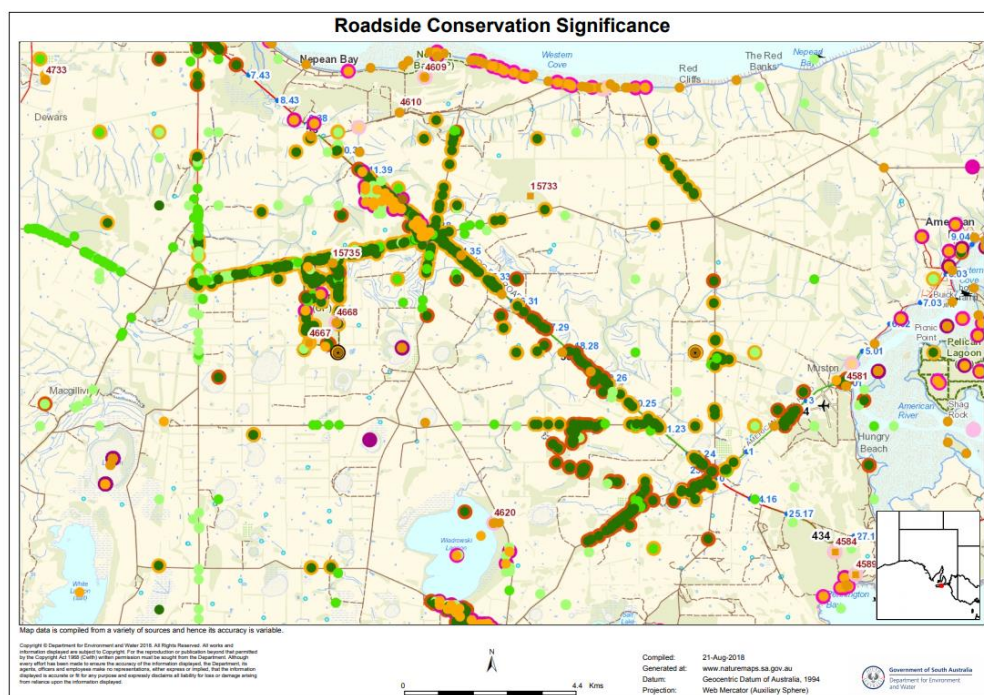


Figure 6. Extract from NatureMaps.

This information is then supplemented by an on ground assessment of the roadside vegetation for the roads to be managed. In undertaking the vegetation assessment, the attributes in Table 3 and the form in the Appendix 1 need to be addressed.

## 5. Submit the form to the NVC for consideration

Complete and submit the form provided in Appendix 1 for the roads that will be subject to vegetation management. The NVC will consider the information provided and once approved, clearance can occur in accordance with the conditions contained in this Guideline.



Table 3. Roadside Vegetation quality categories (adapted from Stokes et al2006). (Stokes A.L, Heard L.M.B, Carruthers S., Reynolds T. (2006) Guide to the roadside vegetation survey methodology in South Australia. DEH, Adelaide).

Vegetation significance categories	Vegetation description
Type A	<ul style="list-style-type: none"> <li>• Vegetation in <b>Excellent</b> condition - Very little or no sign of alien vegetation in the understorey; close resemblance to probable pre-European condition; or</li> <li>• Vegetation containing a species or communities listed under the <i>National Parks and Wildlife Act 1972</i>, or <i>Environment Protection and Biodiversity Conservation Act 1999</i>; or</li> <li>• Vegetation in an IBRA association with vegetation cover of 5% or less.</li> <li>• Roadside vegetation is less than 5 m in width in total (including both sides of the road).</li> </ul>
Type B	<ul style="list-style-type: none"> <li>• Vegetation in <b>Good</b> condition - High proportion of native species and native cover in the understorey; reasonable representation of probable pre-European vegetation; or</li> <li>• Vegetation within an area delineated by roadside marker scheme; or</li> <li>• Vegetation in an IBRA association with vegetation cover of 10% or less, but higher than 5%.</li> <li>• Roadside vegetation is less than 10 m in width in total (including both sides of the road).</li> </ul>
Type C	<ul style="list-style-type: none"> <li>• Vegetation in <b>Moderate</b> condition - Substantial invasion of aliens, but native understorey persists; for example, may be a low proportion of native species and high native cover, or high proportion of native species and low native cover.</li> </ul>
Type D	<ul style="list-style-type: none"> <li>• Vegetation in <b>Poor</b> condition - The understorey consists predominantly of alien species, although a small number of natives persist.</li> </ul>
Type E	<ul style="list-style-type: none"> <li>• Vegetation in <b>Very poor</b> condition - The understorey consists only of alien species.</li> </ul>

#### CONSULTATION AND APPROVAL PROCEDURES FOR THE VERGE

- Clearance of vegetation greater than 1 metre into the verge from the edge of the carriageway requires the approval of the Native Vegetation Council.
  - Consultation with the Native Vegetation Branch is required if the width of the verge is unclear.
- Any other clearance can occur without the approval of the Native Vegetation Branch if undertaken in accordance with the requirements of this Section.
- Where approval is required, complete and submit to the Native Vegetation Branch the Annual Works form contained in Appendix 1.



## PART 2: FRAMEWORK FOR PUBLIC SAFETY

The purpose of this framework is to provide guidance when the Public Safety Framework may apply for clearance of **frangible**<sup>1</sup> (vegetation that can typically bend) and **non-frangible**<sup>2</sup> (vegetation that cannot bend) native vegetation on roadsides, intersections and rail crossings. The section allows for clearance to occur beyond that provided for in Part 1 – Management of roadside vegetation, where required for public safety. The section allows for clearance to occur for safety measures related to sight distances, intersections, clearance adjacent to the travelled way, or other safety concerns that cause a risk to people or property.

The public safety framework **does not** apply to any clearance associated with new works or upgrades of infrastructure. This includes intersection realignment/modification, road widening activities, retrospective upgrade works, new intersections and new road works such as new roads, construction of rest areas, installation of safety cameras, overtaking lanes or weigh stations. Clearance associated with new works or upgrades requires application and approval under Regulation 12(34) Infrastructure.

For the framework to apply, the road authority can clear non-frangible native vegetation within specified distances along sealed and unsealed roads and at rail crossings, intersections and curves with written approval from the NVC. It is a requirement that the road authority as far as practicable addresses the Mitigation Hierarchy to avoid or minimise the impacts that any proposed actions may have on biodiversity or native vegetation (see Part 1 General Roadside Maintenance Principles for full explanation of the Mitigation Hierarchy). Clearance will be approved without the need for an SEB requirement.

Note that some activities may also require approval under other legislation; for example the *Development Act 1993* and the *Environment Protection and Biodiversity Conservation Act 1999*.

Any areas approved for clearance under this framework can subsequently be maintained under Regulation 11(23) either in accordance with the guidelines for the Management of Roadside Vegetation, or incorporated into the Maintenance Section of the Council's Roadside Vegetation Management Plan (RVMP).

### Section 4. Public Safety Categories

In this framework, there are three categories for assessing clearance of native vegetation on roadsides, intersections and rail crossings for public safety purposes. The three clearance categories are:

#### Category 1 - Sight distance line/triangles at road intersections and rail crossings

This section applies to both **frangible** and **non-frangible** native vegetation to address an **existing** risk to public safety along road intersections and rail crossings.

The size of the sight triangle established under the Austroads Guide is dependent upon factors such as traffic volume, designated road speed and daily vehicle and heavy vehicle usage. This approach is easy to implement and transparent in its calculation of approved sight distance lines for vegetation clearance associated with road intersections and rail crossings and is consistent with a nationally accepted benchmark used by road authorities.

Where practicable, calculating the visibility triangle for the clearance of native vegetation should be limited to meet the required standards as outlined in Austroads Guide to Road Design: Part 4: Intersections and Crossings-General (2009). The determination of the offset from the edge of the travel way is dependent on the stopping sight distance, which in turn increases with speed. Consequently alternative mechanisms to remove the safety issue must be fully considered.

The clearance of **non-frangible** native vegetation along sight lines should be limited to targeted removal.

Depending upon the type of vegetation / biodiversity present within the sight triangle, trimming of understorey **frangible** native vegetation (if required) should be limited to a height that sustainably maintains the understory and not cleared down to bare earth.

#### Category 2 - Clearance adjacent to edge of travelled way

This is the area defined as a zone where non-frangible native vegetation can be cleared adjacent to the edge of the travelled way for sealed roads, or adjacent to the edge of the grader line as defined in Councils' infrastructure plan for unsealed roads. It applies differently to the following situations;

- Category 2 (Sealed- ≤80 km/h)
- Category 2 (Sealed- >80 km/h)
- Category 2 (Unsealed)

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<sup>1</sup> Understorey vegetation or plants with slender stems which give way break or uproot on impact

<sup>2</sup> Plant species with a stem diameter (at maturity) of 100mm or greater with rigid, large or sturdy stems which will not readily break, bend or crush upon impact by a typical passenger vehicle, and could be expected to inflict significant damage to the vehicle and possibly cause injury to vehicle occupants.

This section outlines what can be done to manage **non frangible** native vegetation to protect Public Safety along sealed and unsealed roads based on set widths from **the edge of the travelled way**.

**Non-frangible** vegetation may be removed with NVC approval, if it presents a road safety issue and the road authorities first demonstrates that they have considered the Mitigation Hierarchy (Part 1) to avoid or minimise the impacts that any proposed actions may have on biodiversity or native vegetation. The road authority must show it has considered other safety improvement options as opposed to clearance.

On sealed roads, the Category 2 zone is dependent upon road speed design (kms/hr). On unsealed roads the Category 2 zone is not dependent upon road speed design (kms/hr) rather it is based on set widths from edge of travelled way. The Category 2 zone is based on *Austroads guideline* that demonstrate a 50% probability that a vehicle travelling at speeds specified in Table 2, and hitting **non-frangible** native vegetation within that Category 2 zone, would likely result in a casualty or serious injury.

### **Sealed Roads**

On sealed roads with a speed design of less than 80kms/hr, up to 2 metres of **non-frangible** native vegetation can be reduced, modified or removed from **the edge of travelled way** for the purpose of public safety.

On sealed roads with a speed design of greater than 80 kms/hr, up to 3 metres of **non-frangible** native vegetation can be reduced, modified or removed from **the edge of travelled way** for the purpose of public safety.

*Table 4. Sealed roads - Category 2 zone widths adjacent to the edge of travelled way.*

Speed limit (km/hr)	Category 2 zone widths adjacent to the edge of travelled way
≤80 km	2 m
>80 km	3 m

### **Unsealed Roads**

On unsealed roads, up to 2 metres either side of the defined carriageway (the edge of the grader line as defined in Councils' infrastructure plans) can be cleared of **non-frangible** native vegetation for the purpose for public safety. The Category 2 zone is capped at a total width including the carriageway itself of up to 12 metres.

This option is tailored to take into account varying road widths. It caters for narrow unsealed roads where only 2 metres of **non-frangible** native vegetation can be cleared either side (i.e. 4 m carriageway width plus 2 metres **non-frangible** clearance either side = 8 metres.). Conversely a 10m carriageway can only clear 1 metre either side of the carriageway as the Category 2 zone is capped at 12 metres (Table 3).

It caters for wider roads where the road design incorporates an existing safety margin within the carriageway width.

*Table 5. Unsealed roads - Category 2 zone widths adjacent to the edge of travelled way.*

Carriageway width (metres)	Category 2 zone - carriageway width plus 2m either side of carriageway(capped at 12 m)
6m	$6 + 2 + 2 = 10\text{m}$
8m	$8 + 2 + 2 = 12\text{m}$
10m	$10 + 1 + 1 = 12\text{m}$

### **Category 3 - Clearance beyond Category 1 and 2 zones**

This is the area beyond the Category 1 and 2 zones. If the road authority can demonstrate that the non-frangible native vegetation is a risk to public safety, clearance may be approved.

Category 3 applies to the areas/activities that are out of scope of Category 1 and Category 2 but still may present as a public safety concern; this includes:

- Beyond Category 1 approved sight distance triangles/lines, or
- Beyond Category 2 specified distances from the edge of travelled way,
- Applies only to safety treatments which result in clearing:
  - Less than 6 scattered trees (**non-frangible**)

- Less than 0.5 ha canopy area of non-frangible vegetation, and
- Applies to trees that present a danger of falling or a limb or some other part of the plant falling, causing a risk to people or property. Any application in relation to this provision will be considered against the requirements of Native Vegetation Regulation 8(6) – Safety of Persons and property.

If the proposed safety treatments do not fall within this threshold, the framework will generally not apply. However, the Native Vegetation Council will consider matters on a case by case basis where sufficient justification can be provided.

For the justification of clearance of non-frangible native vegetation within this Category, the road authority should demonstrate that they have considered the Mitigation Hierarchy (Part 1) to avoid or minimise the impacts that any proposed actions may have on biodiversity or native vegetation. The road authority needs to show it has considered other safety improvement options as opposed to clearance.

Table 6. Parameters defining Categories 1, 2 and 3 clearance requirements under the public safety framework.

	Category 1 Sight distance line/triangles at intersections and rail crossings	Category 2 Clearance adjacent to edge of travelled way	Category 3 Clearance beyond category 1 and 2 zones
<b>Justification</b>	Consideration must be given to: Mitigation Hierarchy and Other safety improvement options to be detailed in the application form		
<b>Clearance that can be applied for.</b>	<p>Clearance of both <b>frangible</b> and <b>non-frangible</b> native vegetation (if required) for the establishment of safe sight lines at road intersections and rail crossings</p> <p>Clearance must be consistent with clearance guidelines outlined in <i>Austroads Guide to Road Design: Part 4: Intersections and Crossings-General 2009</i>, and AS 1742.7:2007 <i>Manual of uniform traffic control devices, Part 7: Railway Crossings</i>.</p>	<p><b>Sealed Roads</b></p> <p>Removal of non-frangible native vegetation:</p> <ul style="list-style-type: none"> <li>• ≤80kms/hr = up to 2 metres from the edge of travelled way</li> <li>• &gt;80kms/hr up to 3 metres from the edge of travelled way</li> </ul> <p><b>Unsealed Roads</b></p> <ul style="list-style-type: none"> <li>• up to 2 metres either side of the edge of the grader line capped at a total width including the travelled way itself of up to 12 metres</li> </ul>	<p>Areas or activities beyond the scope of Category 1 and Category 2 but still present as a public safety concern,</p> <p>AND</p> <p>Applies only to safety treatments which result in clearing:</p> <ul style="list-style-type: none"> <li>➤ Less than 6 <b>non-frangible</b> scattered trees</li> <li>➤ Less than 0.5 ha canopy area of non-frangible vegetation</li> </ul> <p>AND</p> <p>Applies to trees that present a danger of falling or a limb or some other part of the plant falling, causing a risk to people or property</p> <p>Note: the NVC will consider matters that do not meet the above criteria on a case by case basis, should sufficient justification be provided.</p>
<b>Application</b>	Complete application form – refer to Appendix 2		
<b>Written approval</b>	Clearance approved by the NVC or delegate		

# PART 3: OTHER ACTIVITIES RELATING TO ROADSIDE VEGETATION

## Section 5. Clearance for Access to Adjoining Land

**New access points** are often needed from the road to adjoining land. For example, a primary producer may need new access to a paddock, possibly to cater for wide farm machinery.

When clearing for access, **the highest priority is safety** of the person accessing the property. The conservation of native vegetation is secondary but once safety has been addressed, the option that requires the least disturbance of native vegetation of the lowest conservation significance should be selected.

Where clearance of native vegetation is unavoidable, the following standards should not be exceeded:

- ***For normal vehicle access: 5m wide plus minimum clearance along the road reserve to provide adequate sight distance.***
- ***For wider farm vehicles: 10m wide plus minimum clearance along the road reserve needed to provide adequate sight distance.***

If rare or threatened plant species<sup>3</sup> are present, reasonable care should be taken to protect them. If necessary, contact the Native Vegetation Branch for advice.

These **Guidelines** do not apply for clearance required to establish access for a new development or use (e.g. associated with a new house site) or where an existing access point is available. In this circumstance an application under Regulation 12(34) Infrastructure is required.

### CONSULTATION AND APPROVAL REQUIREMENTS FOR ACCESS TO ADJOINING LAND

- Clearance of roadside vegetation to provide access to adjoining land requires the consent of the Local Council.
- In addition, approval is needed from the Native Vegetation Council for any proposed clearance of native vegetation for access that exceeds the above standards.

<sup>3</sup> Rare and threatened plant species are defined in the Schedule of the *National Parks and Wildlife Act 1972* or the *Environment Protection and Biodiversity Conservation Act 1999*. Removal of plants listed under the *Environment Protection and Biodiversity Conservation Act 1999* may require approval under that Act.

## Section 6. Clearance for Fencelines

A landholder who wishes to clear native vegetation on a road reserve, to enable **construction or maintenance of a boundary fence**, requires Local Council consent.

In granting any consent, the Local Council must comply with the following requirements:

- **Where the roadside vegetation consists largely of trees, only branches protruding through or overhanging the fence, or trees growing on the actual fence alignment, should be removed.**
- **Where shrubs or bushes are growing through the fenceline, those plants growing within one metre of the fence alignment can be removed.**

If rare or threatened plant species<sup>4</sup> are present, reasonable care should be taken to protect them. If necessary, contact the Native Vegetation Branch for advice.

These requirements take into account that the adjoining landholder can usually clear up to five metres in width on the private land abutting the road, thus allowing for vehicular access to the fence – refer to Regulation 8(14) – Fences.



Figure 7. Maintenance of fence by removal of a branch growing through the fence.

### CONSULTATION AND APPROVAL REQUIREMENTS FOR CLEARANCE FOR FENCELINES

Clearance approval is required for any native vegetation clearance along fencelines that exceeds the above standards. Consultation with the Native Vegetation Branch should occur through the Local Council.

**NOTE: (1) In many areas, landholders are re-locating new fencing three to five metres into their properties so as to conserve roadside vegetation and reduce construction costs. This is strongly supported.**

**(2) An alternative to the removal of trees in line with the property boundary may include constructing a simple strut arrangement that allows a fence to deviate a short distance around a tree. Wires are not attached directly to the tree, thus minimising potential damage to the tree (Figure 8).**



Figure 8. Fenceline strut arrangement. Note: this approach may not be appropriate for smaller trees, and an effort should be made to avoid structural roots when placing the post hole for the strut next to the tree.

<sup>4</sup> Rare and threatened plant species are defined in the Schedule of the *National Parks and Wildlife Act 1972* or the *Environment Protection and Biodiversity Conservation Act 1999*. Removal of plants listed under the *Environment Protection and Biodiversity Conservation Act 1999* may require approval under that Act.

## Section 7. Pest Plant and Animal Control

**Pest plants and pest animals** are commonly known as ‘weeds’ and ‘feral animals’. They can invade rural land or natural habitats and because of their characteristics and/or location; they can cause economic, ecological, physical or aesthetic problems, often with significant potential impacts on local and regional biodiversity.

Pest plants and animals can be categorised as those that require control under legislation (“**declared**” species) and those that, whilst still damaging, are not considered significant enough to warrant legislative control at this stage.

The control of declared species on roadsides falls under the jurisdiction of the regional **Natural Resources Management (NRM) Boards** under the **Natural Resource Management Act 2004**. Landholders are responsible for the control of pest species on their land and NRM Boards (or NRM Groups, where they exist) have the responsibility to control declared pest plants or pest animals on road reserves.

Within some Local Council areas, **landholders** may be required to contribute to the control of pests on adjacent roadsides. Where landholders opt to control the pests on adjacent roadsides they must seek approval of the NRM Board and the Local Council. Local Councils can only give consent if they are acting in accord with the **Native Vegetation Act 1991** and have the relevant approvals or exemptions regarding clearance. In this instance, any clearance of native vegetation must be compliant with Native Vegetation Regulation 8(15) – Plant and Animal Control. Under this Regulation is a guideline that describes the level of impact on native vegetation that is permitted. See the following link for details -

[https://www.environment.sa.gov.au/files/sharedassets/public/native\\_veg/nvc-guideline-plant-animal-control-fact.pdf](https://www.environment.sa.gov.au/files/sharedassets/public/native_veg/nvc-guideline-plant-animal-control-fact.pdf).

### CONSULTATION AND APPROVAL PROCEDURES FOR PEST PLANT AND ANIMAL CONTROL

- (a) Clearance approval is required where a proposed animal or plant control program is likely to cause significant damage to native roadside vegetation.

*“Significant” in this context includes:*

- ripping of warrens where native vegetation will be affected;
- non-selective spraying in mixed weeds/native vegetation; and
- burning of native vegetation to assist pest control.

*It does **not** include minor damage, such as removal of branches to gain access to pests.*

*The NVB Unit is able to determine whether the proposed clearance is of a sufficiently significant nature to warrant referral on to the NVC for decision.*

- (b) In districts where there are serious problems with roadside pest control, Local Councils and NRM Boards are encouraged to develop overall management strategies in consultation with the Native Vegetation Branch. This can avoid the need for consultation with the Unit on a case-by-case basis. This approach has been adopted in several local council areas.
- (c) Where pest control works are planned that could affect roadside native vegetation, the local authorised Natural Resources Management Officer should be the first point of contact. The need for consultation with the Native Vegetation Branch can then be determined.



## Section 8. Removal of Plant Material

### Collection of Dead Timber

Dead timber generally refers to woody debris from standing or fallen dead trees or branches. It does not usually encompass fine fuels – which generally refer to grass, leaves, bark and twigs less than 6mm in diameter.

Dead timber on roadsides is not controlled under the **Native Vegetation Act 1991**, except in the case of **dead plants** in some parts of the state that provide habitat for nationally threatened species, which are defined as native vegetation under Section 3(1) of the Act<sup>5</sup>. Contact the Native Vegetation Branch for further details, including a fact sheet, *Dead trees as native vegetation*, also available at [http://www.environment.sa.gov.au/Conservation/Native\\_Vegetation/Managing\\_native\\_vegetation/Clearance\\_guidelines](http://www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation/Clearance_guidelines)

Local Councils are strongly encouraged to **control collection of dead timber** under the **Local Government Act 1999**. Dead timber, both standing and fallen, provides cover and foraging places for native fauna, it shelters young seedlings and small plants from herbivores, severe sunshine and drying winds, and is also important in the recycling of nutrients. The development of hollow timber takes many years and is a limited resource for wildlife, and therefore should not be collected for firewood. Retention of dead timber (and fallen leaves, bark and twigs) should also be encouraged so that soil disturbance and the creation of open areas suitable for weed invasion is minimised.

If dead timber collection is permitted, care should be taken to prevent damaging surrounding native vegetation in the process of removal, and where possible should not be permitted in areas of vegetation of high conservation significance.

### Cutting of Live Timber

Any cutting of live timber, other than that allowed for roadside management under these guidelines, **requires the consent of Local Council** and also **clearance approval of the NVC** under the *Native Vegetation Act 1991*.

### Brush-Cutting

The cutting of brush (*Melaleuca uncinata*) on roadsides **requires clearance approval** unless it is undertaken in accordance with other sections of these guidelines.

### Seed Collection

Revegetation programs using local native species are strongly supported and roadsides are often ideal sites for seed collection. However, care is needed to minimise the damage to the parent plant and to avoid depleting the seed supply to such an extent that natural regeneration of plants on the roadside is affected.

The **collection of seeds, cuttings and specimens** from roadsides, requires the **consent of the Local Council**.

A **permit** is also needed under the **National Parks and Wildlife Act 1972** and can be requested from the Permit Unit, Department for Environment and Water, (08) 8463 4841 or online at [http://www.environment.sa.gov.au/Do\\_It\\_Online/Plant\\_permits](http://www.environment.sa.gov.au/Do_It_Online/Plant_permits). The Permit Unit can also provide guidance on seed collection methods.

On private land, seed collection requires the consent of the landholder and, if the plant is a prescribed species under the *National Parks and Wildlife Act*, a permit from the Department is also needed. It should be noted that expertise is required to know how and when to collect seed from some native plants to ensure collection of viable seed. Such expertise should be sought from the regional NRM Board.

The collection of seeds, cuttings or other specimens from native plants does not require consent from the Native Vegetation Council provided that damage to the plant is not substantial. As a guide, cutting a substantial branch off a tree or bush to collect seed would not be regarded as exempt; nor would the removal of virtually all harvestable seed from a single plant or plant community.

### Flower Harvesting

The harvesting of flowers from roadsides requires the **consent of the Local Council and clearance approval**.

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<sup>5</sup> **Dead plants** (under the definition of native vegetation in section 3(1) of the Act), means the class of plants, or parts of plants, comprising trees of a species indigenous to South Australia –

(a) that have a trunk circumference (measured at a point 300 millimetres above the base of the tree) of –

- (i) in the case of a tree located on Kangaroo Island – 1 metre or more; or
- (ii) in any other case – 2 metres or more; and

(b) that provide or have the potential to provide, or are a [part of a group of trees or other plants (whether alive or dead) that provide, or have the potential to provide, a habitat for animals of a listed threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* of the Commonwealth, is declared to be included in that definition.

The Local Council should be the first point of contact. In general, harvesting of roadside flowers, particularly for commercial purposes, is not favoured because of its impact on the vegetation and on the landscape or amenity of the area.

### **CONSULTATION AND APPROVAL PROCEDURES FOR REMOVAL OF PLANT MATERIAL**

Removal of plant material from roadsides and road reserves requires clearance approval under the *Native Vegetation Act 1991* in the following instances:

- removal of “dead plants” as defined under the *Native Vegetation Regulations 2003*;
- cutting of live timber (requires separate approval process);
- the cutting of brush (*Melaleuca uncinata*) unless it is undertaken in accordance with these guidelines or an approved RVMP; and
- the harvesting of flowers.

*In the case of seed collection, a permit is also needed from the Department for Environment and Water, Permit Unit, who can also provide guidance as to how collect seed.*

*Removal of plant material from road reserves also requires the consent of the Local Council.*

## Section 9. Undeveloped Road Reserves

Throughout South Australia there are many surveyed road reserves that have never been developed as roads. Some are totally cleared and pass unmarked through farm paddocks. Although of low ecological value, these areas may be suitable for revegetation projects. Other undeveloped road reserves have relatively undisturbed native vegetation and are of high conservation value.

### Leased Roads

Many undeveloped road reserves are leased to adjoining landholders for **grazing or cropping**. In this situation, any clearance of native vegetation (e.g. for cropping purposes) would require clearance approval, as would any change in grazing practice, which increased the pressure on native vegetation.

Where important native vegetation is identified on leased roads, it should be protected through a Land Management Agreement<sup>6</sup> or Heritage Agreement<sup>7</sup>, or through removal of the area from the lease.

### Road Closures

Proposed road closures by local councils need careful consideration as these sites are often important for native vegetation conservation or as potential revegetation corridors. Both the opening and closing of roads is controlled in South Australia through the **Roads (Opening and Closing) Act 1991**.

Sale of these areas into private ownership could expose significant vegetation to increased risk of degradation unless provisions for protection are put in place, such as a Heritage Agreement or Land Management Agreement.

#### CONSULTATION AND APPROVAL PROCEDURES FOR UNDEVELOPED ROAD RESERVES

The consultation and approval requirements of these guidelines apply generally to undeveloped road reserves. In addition, local councils should advise the Native Vegetation Branch about any proposed road closures.

Modification of native vegetation on *leased* roads, by direct clearance or changed grazing practice, requires clearance approval.

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<sup>6</sup> Under the *Development Act 1993* and *Development Regulations 2008*

<sup>7</sup> Under the *Native Vegetation Act 1991*

# PART 4: DEVELOPING A MANAGEMENT PLAN

## Section 10. Roadside Vegetation Management Plan

A roadside vegetation management plan (RVMP) can be developed by local councils if they are required to operate outside of the parameters set out in these guidelines (i.e., for clearance within the primary envelope, secondary envelope or verge). RVMPs require endorsement by the Native Vegetation Council under the *Native Vegetation Act 1991* in order to fulfil the legal requirements under *Native Vegetation Regulation 11(23)*.

### What RVMPs need to do

An RVMP must address the following:

- Clearly and precisely describe the actions or activities that the Council is proposing to undertake that is beyond the parameters provided for in Part 1, Part 2 or Part 3 of these guidelines.
- Provide justification supported by evidence for the need for the activities provided for within the RVMP.
- Provide information in relation to matters of conservation significance that occur on roadsides in the Council area or the process that will be employed to identify them.
- Detail the actions that will be taken to avoid and minimise any impacts on native vegetation as a result of the implementation of the RVMP.

If clearance permitted for by the RVMP would be likely to result in residual significant adverse impacts on native vegetation, then the Native Vegetation Council cannot legally approve the plan.

### What RVMPs can do

- Allow for the management of vegetation that has regrown within the previously cleared footprint from when the road was constructed.
- If sufficient detail is included, remove the need for case-by-case consultation associated with on-going or broadly applicable activities.
- Outline the ecological value of roadside native vegetation in the local council area – e.g. what plant associations are present, their conservation significance and quality; the location of any threatened species, and the distribution of weed species of significance;
- Promote protection of roadside native vegetation from direct damage (e.g. roadworks), by either
  - processes and procedures (codes of practice, guidelines, fact sheets) and/or
  - plant identification by vegetation survey, mapping, database, Geographic Information Systems (GIS) and roadside markers for the entire region, OR, on a case-by-case basis by council staff, local experts or Department for Environment and Water staff;

### What RVMPs cannot do

An RVMP is not:

- a means of avoiding liability if native vegetation clearance offences do occur;
- an appropriate mechanism to undertake clearance for new works or upgrades;
- allow for the clearance of remnant native vegetation;
- an approval for all roadside vegetation clearing or mechanism to obtain **approval for bushfire prevention works**; or
- a stand-alone document in isolation of other management structures and controls over activities that occur in road reserves for which local councils have jurisdiction.

## Recommended process to develop an RVMPs

Having identified the need to develop an RVMP, the main steps involved in the preparation of an RVMP are outlined below.

1. Consider establishing a local consultative group comprising representatives of the local council (e.g. Works Manager, planners), relevant State agencies (e.g. NRM representatives), community members and environmental conservation representative. The group should guide the preparation, development and review of the plan. It should include at least one person with expertise in, or a good understanding of, native vegetation management.
2. Decide who will prepare the plan. It is recommended that a person with qualifications and experience in vegetation management prepare the plan. Local council's Natural Resource Officers or suitably qualified consultants may be suitable to prepared plans.
3. Identify the issues or activities that may affect roadside vegetation within the council area. Examples include routine road maintenance (e.g. patrol grading, safety pruning), property access and fence-line construction. Consideration must be given to existing and potential future issues.
4. Establish or identify policies and objectives for the management of roadside vegetation. For example, a roadside vegetation policy may include commitments to prevent harm to the environment / ensure no net loss of vegetation and continually improve vegetation management practices. Different vegetation standards may be required for different types of road (major, minor, sealed and unsealed). These standards should be based on the road classification system according to transport, safety and biodiversity protection needs.
5. Define (including clear parameters and criteria) the activities that will be undertaken under the RVMP and develop procedures for managing activities of the local council, landholders, service authorities, etc. where those activities are likely to affect roadside native vegetation. Procedures may involve internal and external referral and authorisation.
6. Collate any existing information on native vegetation along roadsides in the district and any information the local council has on roadside vegetation management. For example, contact relevant State Environment agencies and search all existing databases, survey, and biodiversity information that is available.
7. Depending on that activity being proposed in the RVMP, the level of existing information available on native vegetation and the risk of impacts, it may be necessary to undertake a roadside vegetation survey of the road network. Where the size of the road network makes a single survey impractical, a survey program staged over several years may be necessary. Roadside vegetation (drive-by) surveys are a key tool in the management of roadside vegetation. They can be used to determine; the type, quality and extent of vegetation along roadsides or road reserves, and the location and extent of key physical impacts. Some additional items, such as the presence of *Phytophthora* and threatened species, can be included in addition to the standard items recorded. Roadside vegetation surveys follow a standard methodology, which sets out methods for collecting, entering and analysing data. Refer to Stokes, A.L., Heard L.M.B., Carruthers, S. and Reynolds T. (2006). Guide to the roadside vegetation survey methodology for South Australia. Department for Environment and Heritage, Adelaide.
8. Clearly detail how impacts on native vegetation will be minimised, with impacts on matters of conservation significance including species or communities listed under *National Parks and Wildlife Act* or *EPBC Act*, roadside marker scheme sites, or vegetation in good or excellent condition, to be avoided.
9. Identify roles and responsibilities of council staff for implementing all aspects of the RVMP, including approval, monitoring and reporting responsibilities.
10. Once a draft RVMP is completed, make a copy available for public comment and advertise the availability, purpose and intent to the local community regarding the draft RVMP.
11. Review and amend the RVMP having regard to the public comments in conjunction with the local consultative group.
12. A copy of the completed draft plan (plus the public comments received) needs to be submitted to the Native Vegetation Branch for assessment prior to consideration by the Native Vegetation Council (NVC) (the NVB is also available to comment on earlier versions of the plan, prior to local council endorsement). The NVB will provide feedback on the plan and work with local councils to finalise the plan for consideration by the NVC. Once the NVC has considered the plan, local councils will be advised of the outcome via a Decision Letter notification, which outlines any further amendments to be made prior to adoption of the plan and specifies the approved period, including the date by which a review of the plan is required.
13. Endorsement of an RVMP is conditional upon review of the plan, initially after 3 years and then at 5 yearly intervals. This enables changes to be made that increase the usability of the plan as well as keep any name or policy changes up to date.

## Example of a possible approach

As part of developing a roadside vegetation management plan, there is a requirement to have sufficient information relating to the condition and conservation values of the vegetation that are present on a Council's roadsides. This allows for appropriate management measures to be put in place to limit any impacts on matters of conservation significance. Previously, this information has been obtained through roadside vegetation surveys conducted as part of developing an RVMP. However, local councils may not have the time or financial resources to undertake an assessment of their roads initially, particularly in Councils with a large road network. In this instance, an RVMP can be developed to allow this information to be collected over time and only where necessary. This allows for a more targeted, efficient and adaptable approach to roadside vegetation management. It also enables multiple parties to participate and be engaged annually in achieving an effective balance between public safety and native vegetation conservation.

Below details an example of how an RVMP might be developed in order to address the requirements of **6, 7, 8 and 9** above for the process of developing an RVMP.

The Annual Works Native Vegetation Management Program:

1. The Local Council undertakes an assessment of the vegetation of conservation significance on their roadsides. Information may be obtained from a range of sources such as NatureMaps, past vegetation surveys and community knowledge. This may be supplemented with targeted on ground assessments if practical.
2. The Local Council drafts annual works program detailing roads to be managed, method and extent of management, vegetation present and possible impacts, and actions taken to minimise impacts.
3. Native Vegetation Branch considers the Annual Works Program with regard to proposed methods for vegetation treatment on a road-by-road basis and possible impacts on vegetation, with particular consideration of matters of conservation significance.
4. If plants of conservation concern are considered likely to be impacted, DEW will request the local council consider and propose further mitigation measures (e.g. altered methods to reduce clearance impacts, patches/species/communities to avoid or protect).
5. Native Vegetation Branch reviews mitigation measures and if acceptable, clearance can proceed. Councils use their own Standard Operating Procedure and contract management procedures to undertake agreed works.
6. If mitigation suggestions are not acceptable, then the issue is presented to the Native Vegetation Assessment Panel (NVAP) for a decision.
7. Local Council report against works program to be provided to Native Vegetation Branch after the end of financial year.



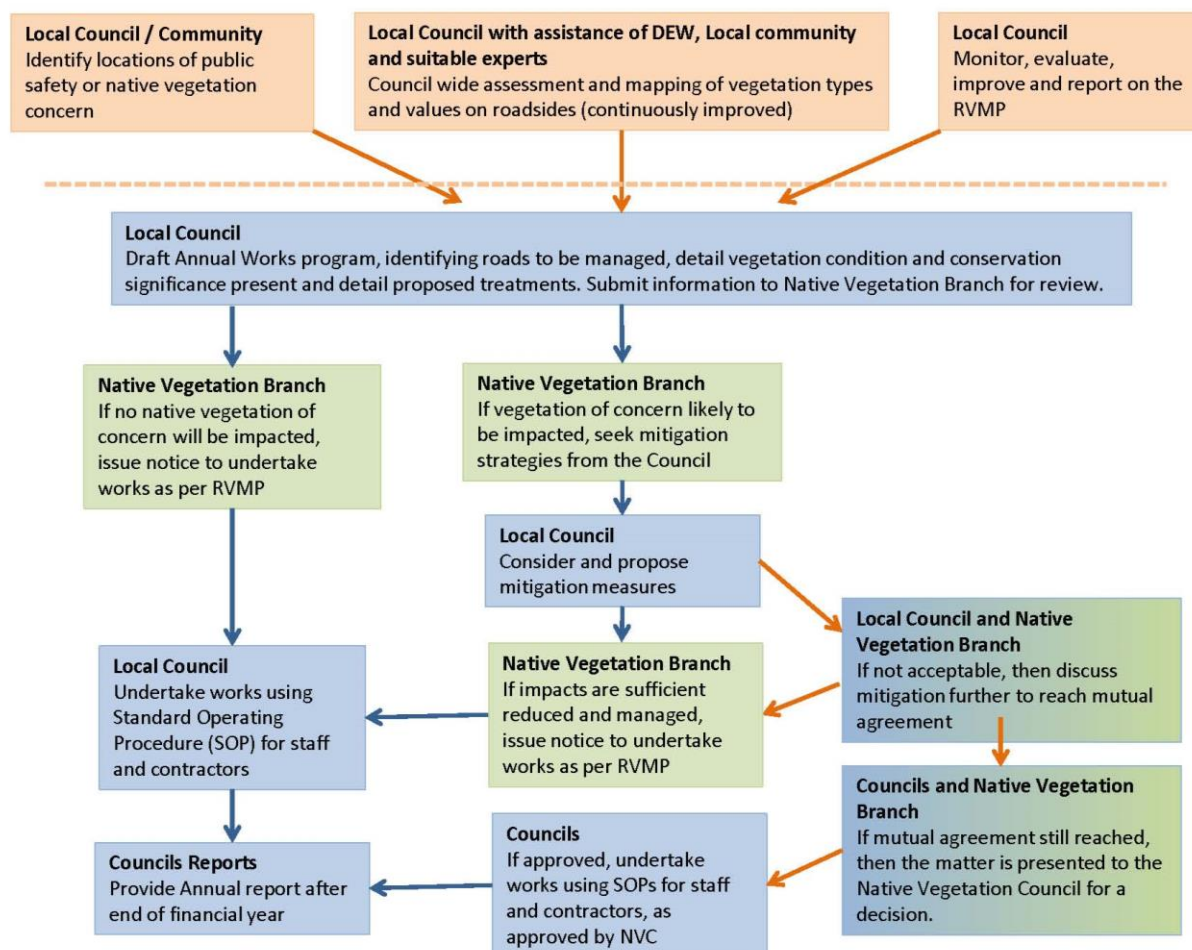


Figure 9. Demonstrates the annual works native vegetation management program approach.

# GLOSSARY

## Definitions for Roadside Vegetation

The definition of a Road (from *Roads (Opening and Closing) Act 1991*) is —

1. a public road within the meaning of Section 4 of the *Local Government Act 1999*; or
2. (ab) an alley, laneway, walkway or other similar thoroughfare vested in a Council; or
3. in relation to a part of the State not within a Council area —
  - a. a road or street delineated and shown on a public map or plan of the State as laid out for public purposes by the Crown; or
  - b. a road or street opened under this Act or any other Act relating to the opening of new roads and streets; or
  - c. a road or street transferred or surrendered to the Minister of Local Government or the Crown by the owner or lessee for use as a public road or street; or
  - d. a road or street declared or dedicated under any other Act to be a public road or street,
4. and includes part of a road.

For the purposes of these guidelines:

**Carriageway** - That portion of a road or bridge devoted particularly to the use of vehicles, inclusive of shoulders and auxiliary lanes (Austroads, 2003).

**Catch drain** - a surface channel constructed along the high side of a road or embankment, outside the batter to intercept surface water (Austroads, 2003).

**Frangible vegetation** - Frangible vegetation refers to plants with slender stems which give way break or uproot on impact.

**Large tree** - A tree (including a dead tree) where the circumference of the trunk of the tree is 2m or more, when measured at a height of 30cm from the base of the tree.

**Mitre drains** - Drains constructed diagonal to the road for draining water from the road, usually extending into area of natural ground surface beyond the verge.

**Natural ground surface** - Remainder of roadside not previously cleared for road construction. Note that it may include soil and vegetative debris that have been graded in from the verge.

**Non-frangible native vegetation** - Plants species with a stem diameter (at maturity) of 100mm or greater with rigid, large or sturdy stems which will not readily break, bend or crush upon impact by a typical passenger vehicle, and could be expected to inflict significant damage to the vehicle and possibly cause injury to vehicle occupants. Note - stem diameter is measured at a height of 1 metre above natural ground.

**Public safety** - The safety of persons or property, including the safety of—

- a) the drivers of and passengers in vehicles; and
- b) persons in or in the vicinity of (or likely to be in or in the vicinity of) roads, road infrastructure and public places; and
- c) vehicles and any loads in or on them: (*Road Traffic Act 1961*)

**Regrowth vegetation** - Any vegetation growing after clearance, this includes re-growing from root-stock, or germination of new plants from seed in the area previously cleared.

**Road authority** - In the *Road Traffic Act 1961* this means—

- a) the Minister; or
- b) the Commissioner of Highways; or
- c) a council; or
- d) anybody or person in whom the care, control or management of a road is vested.

**Road Furniture** - A general term covering all signs, streetlights and protective devices for the control, guidance and safety of traffic, and the convenience of road users

**Roadside** - The strip of land between the road formation and the boundary of the road reserve.

**Roadside Marker Scheme** - An important and valuable means of identifying, managing and protecting important areas of roadside vegetation. The marker system helps protect these areas from disturbance through activities such road maintenance and upgrades, weed and pest control programs or similar.. Sites are identified by small blue marker signs at the start and end of important areas.

Methods for identifying native vegetation for the roadside marker scheme include:

- Broad or targeted roadside vegetation surveys by trained contractors or staff,
- Opportunistic observations by Council staff,
- Database searches e.g. Nature Maps <https://data.environment.sa.gov.au/NatureMaps/Pages/default.aspx>
- Desktop assessments e.g. reviewing NRM Board, LandCare or other Community Group documents
- Citizen science programs.

**Road reserve** - Land set aside for the purposes of a public road, whether or not it is being used for that purpose (*Natural Resources Management Act 1999*; and extends from property boundary on one side to property boundary on the other side.

**Roadside vegetation** - Any vegetation growing on a road reserve, and includes vegetation on a roadside (the area adjacent to a formed road), and vegetation growing on an unmade or undeveloped road reserve; this ranges from native vegetation of conservation value to vegetation dominated by introduced species.

**Sight distance** - The distance over which a road user needs to have unobstructed sight to respond to a visual cue, or safely avoid a conflict.

**Sight triangle** - The area of land between two intersecting roadways over which vehicles on either roadway are mutually visible.

**Shoulder** - The portion of formed carriageway that is adjacent to the traffic lane and flush with the surface of the pavement (Austroads, 2010).

**Travelled way** - That portion of a carriageway ordinarily assigned to moving traffic, and exclusive of shoulders and parking lanes.

**Undeveloped road** - A surveyed road reserve which has never been developed as a road (some are totally cleared and pass unmarked through farm paddocks, and others retain native vegetation).

**Verge** - That portion of the formation not covered by the carriageway or footpath (Austroads, 2010). This is typically the strip beyond the shoulder comprising the area cleared when the road was constructed, including drains (excluding mitre drains) and batters. There is usually a small embankment or change in ground surface which identifies the outer edge of the verge. **It does not include vegetation growing on the natural ground surface.**

### Other relevant statutes

- The *Local Government Act 1999* (Section 221) where any works on road reserves require the permission of the Local Council.
- The *National Parks and Wildlife Act 1972*, which prohibits the removal of native vegetation without a permit from reserves, wilderness protection zones, Crown land, public land or forest reserves in South Australia.
- The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, which promotes the conservation of biodiversity by providing strong protection for nationally listed species of threatened indigenous plants and animals and important habitats. Any action that will have a significant effect on these species or habitats requires assessment and Commonwealth approval.
- The *Natural Resources Management Act 2004* which promotes sustainable and integrated management of the State's natural resources and makes provision for the protection of the State's natural resources.

Numerous other Acts of parliament that may be relevant to roadside native vegetation management include, but are not limited to the *Fences Act 1975*, *Electricity Corporations Act 1994*, *Fire and Emergency Services Act 2005*, *Occupational Health, Safety and Welfare Act 1986* and *Road Traffic Act 1961*.

**APPENDIX 1. ANNUAL WORKS CLEARANCE PROPOSAL FORM UNDER REGULATION 11(23) – Verge clearance**

Local Council details		
Name of Local Council:	Authorised by Name (CE or Delegated Authority):	Signature:
Local Council Project Supervisor:	Phone:	Email:
Local Council Staff/Contractor undertaking work:	Phone:	Email:
Start date:	Finish date:	

[illegible]

- Provide an aerial map locating where the clearance is proposed (clearance area overlay) to be cross referenced to the table.
- Provide representative photos of section of vegetation proposed to be cleared and where possible indicate photo locations.
- Provide for reasons for requiring the clearance of the verge.

**\*Note: a vegetation assessment is not required if there is existing information relating to the roadside vegetation, such as past roadside surveys.**

## APPENDIX 2. CLEARANCE PROPOSAL FORM UNDER REGULATION 11(23) Public Safety Framework

### APPLICANT DETAILS

Name:

Postal Address:

Postcode:

Phone (Business):

Mobile:

Fax:

Email:

Signature (CE or delegated authority):

### LOCATION OF WORKS

Give details of where the proposed works are to be conducted:

Location Address:

Parcel Description (or adjacent to):

Hundred:

District Council:

Are the proposed works located in a stretch of road that has been identified as containing significant roadside vegetation (identified by the Roadside Marker Scheme)

Yes

☐

No

☐

Is this part of an ongoing or staged project?

Yes

☐

No

☐

If Yes, provide details:

### DESCRIPTION OF PROPOSED CLEARANCE AREA

Project purpose and description:

Size/length of project area

### DESCRIPTION OF VEGETATION TO BE CLEARED

#### NON-FRANGIBLE VEGETATION: -

- Describe the non-frangible trees proposed to be cleared by filling in the attached *datasheet for non-frangible vegetation* (page 33) for each tree: -
- Provide an aerial map/GIS layer locating where the clearance is proposed (clearance area overlay). This must show as clearly as possible, individual locations of non-frangible trees. Please provide photos of the vegetation at the site.

#### FRANGIBLE VEGETATION: -

- Describe the frangible vegetation proposed to be modified (by filling in the attached *datasheets for frangible vegetation* (page 34) if information is readily available). Please provide photos of the vegetation at the site.
- Provide an aerial map/GIS layer locating where the clearance is proposed (clearance area overlay). Show as clearly as possible, individual locations of patches of frangible vegetation.

### Category 1 clearances only

Is the clearance consistent with clearance guidelines outlined in Austroads Guide to Road Design: Part 4: Intersections and Crossings-General 2009, and AS 1742.7:2007 Manual of uniform traffic control devices, Part 7: Railway Crossings?

Yes ☐ No ☐

(Attach supporting information)

### Category 2 and 3 applications only

You must show you have considered other safety improvement options as opposed to clearance. Attach additional information if required. These options may include:

Safety improvement options	Implemented		Reasons why not implemented	Estimated cost of options (\$)
Seal shoulder	Y	N		
Install barrier (wire rope/guard rail)	Y	N		
Install guideposts/cat's-eyes	Y	N		
Reduce speed limit	Y	N		
Install audio-tactile line markings	Y	N		
Improve road surface condition	Y	N		
Signage	Y	N		
Painted edge line	Y	N		
Other	Y	N		

Please note where insufficient information and/or inadequate demonstration of alternative safety improvement options are supplied by the applicant, clearance under the framework may not be approved.

### Category 3 applications only

If the risk to public safety is as a result of the danger of a tree falling over or a limb or some other part of the plant falling, causing a risk to people or property, attach a report from a plant health expert.

Note; a plant health expert means a person holding a Certificate V in Horticulture (Arbor culture) or a comparable or higher qualification.

Report Attached:

Yes ☐ No ☐

### All applications

Demonstrate that the Mitigation Hierarchy have been considered (see Part 1, page 9 for greater detail):

Summary Of Minimising Clearance	Discussion
Avoid Clearance	
Minimise Clearance	
Rehabilitate Clearance	
Achieve a Significant Environmental Benefit	No applicable for public safety framework



\* Applies where canopies are overlapping and not easily distinguishable

# Trunk distance from edge of travelled way is measured from point of trunk closest to travelled way

\*# S: - Small hollows = diameter of hollow entrance  $\leq 5$  cm  
M: - Medium hollows = diameter of hollow entrance  $> 5$  cm to  $< 15$  cm  
L: - Large hollows = diameter of hollow entrance  $\geq 15$  cm

[illegible]

**Please provide photos of the non-frangible vegetation on the proposed site**

**DATASHEET FOR FRANGIBLE VEGETATION PROPOSED FOR REMOVAL**[illegible]

### \*\* Key to Conservation Ratings

- |   |   |
|---|---|
| X | Presumed Extinct  |
| E | Endangered, rare and in danger of becoming extinct in the wild  |
| V | Vulnerable, rare and at risk from potential threats or long term threats which could cause the species to become endangered in the future |
| R | Rare, having a low overall frequency of occurrence: confined to a restricted range or scattered sparsely over a wider area                |
| U | Uncommon, less common species of interest but not rare enough to warrant special protective measures                                      |
| Q | Not assessed but flagged as being of possible significance  |
| K | Poorly known, Species that are suspected, but not definitely known, to belong to any of the above categories                              |
| N | Not of particular significance/Common   |

**Please provide photos of the frangible vegetation on the proposed site**



Government  
of South Australia



Native Vegetation  
Council

Natural Resources