



Greater Shepparton City Council

Community Roadside Management Handbook



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This handbook forms part of the Greater Shepparton City Council *Roadside Management Strategy*. It is designed for use by community members who undertake any activities on roadsides.

The development of the handbook and Roadside Management Strategy has been undertaken under the direction of Greater Shepparton City Council. The scope of this Strategy is the management of rural roadsides under the control of Greater Shepparton City Council, specifically excluding roads controlled by Vicroads.

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This publication is intended to be of assistance to all people involved in management of roadsides, but the Greater Shepparton City Council, its staff and consultants do not guarantee that this document is without flaw of any kind or that it is wholly appropriate for the particular purposes of individuals, and therefore disclaim any liability for any error, loss or other consequence that may arise from reliance on information in this publication.

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1.0 Introduction

Prior to European settlement a diverse range of native vegetation types existed across the flat to gently undulating landscape of the City of Greater Shepparton. Most of the Municipality had Grey Box, Yellow Box, Black Box, Yellow Gums and River Red-Gums as the dominant species, the understorey having shrubs, wildflowers and native grasses.

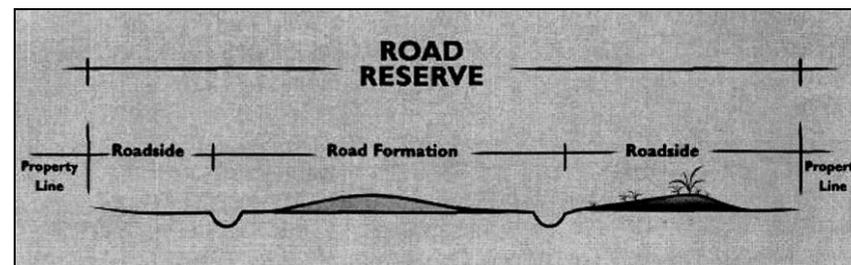
These areas have been extensively cleared for agriculture, leading to a significantly modified landscape contributing to almost total destruction of some native vegetation types. Most remnants now only remain on road reserves and river corridors. These represent the few remaining examples of ecosystems where the remnant vegetation provides fauna habitat, corridors and connections between isolated areas of bushland.

The Greater Shepparton City Council's Council Plan has identified the need to: 'Enhance and protect the natural environment through appropriate asset management strategies' with strategic indicators including retention of indigenous plant species and adherence to sustainable development principles.

The Victorian State Government has also established the primary goal for management of native vegetation as: 'A reversal of the long-term decline in the extent and quality of native vegetation, leading to a Net Gain across the entire landscape.'

1.1 Road Reserves

Road reserves were established to provide a safe and effective network for vehicle movement. They also provide a route for stock movement, access for utility services and fire management. The diagram below defines the various sections of the road reserve.



Recently roadsides have also been recognised as being very valuable for the conservation of native plants and animals. Roadsides also provide amenity value for both the local community and tourists who visit the area, and contain sites of cultural heritage.

This handbook seeks to encourage practices which:

- Protect and enhance the environmental, amenity and cultural values of roadsides.
- Enhance community awareness and knowledge of roadside issues.
- Increase awareness of the importance of indigenous grasslands.
- Promote minimum disturbance techniques.
- Minimise pest plant and animal invasion and spread.
- Minimise land degradation and enhance water quality, while maintaining a safe road network as detailed in the Greater Shepparton Road Safety Plan.

1.2 The Value of Native Vegetation on Roadsides



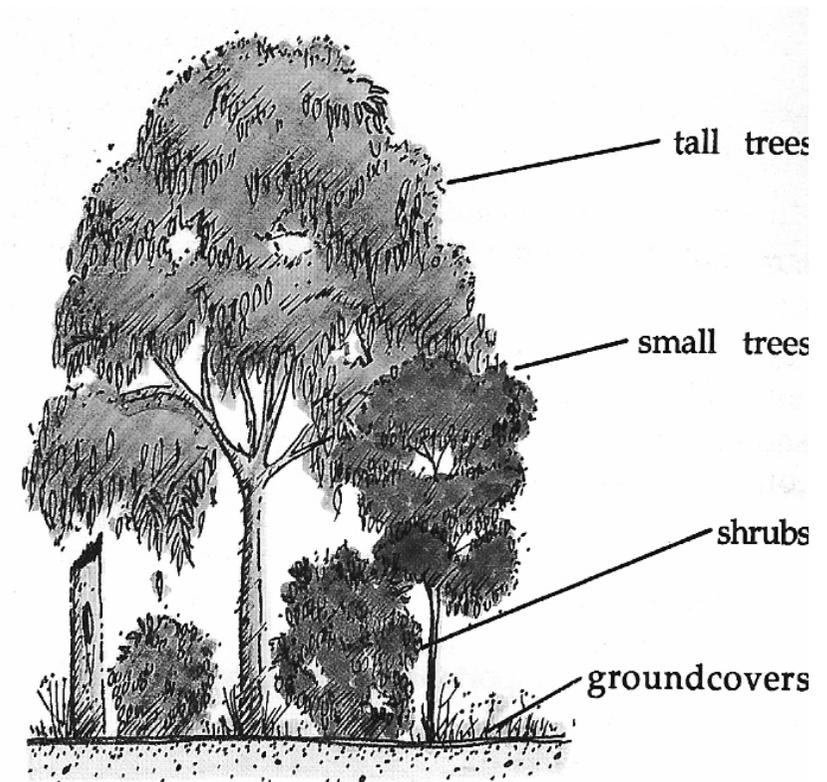
Native vegetation that occurs on roadsides is valuable and important to protect because:

- It provides food and shelter for native wildlife.
- It is often easier to maintain than introduced vegetation.
- It reduces the impacts of erosion and salinity.
- It provides a seed source for revegetation.
- Roadsides now contain some of the last remnants of the vegetation that was originally widespread throughout the City.
- Roadsides often contain endangered native plants and animals.
- Roadsides with native vegetation are important wildlife corridors, linking other areas of native vegetation.

2.0 General Principles

2.1 Trees are Good – Bush is Better

Native vegetation includes trees, shrubs, grasses and groundcovers. In some cases, not all of these types of plants are present. For example, native grasslands that contain no shrubs or trees are still very important as habitat. In the Shepparton area, high priority should be given to the protection of native grasses due to their rarity.



All layers of bush have value

2.2 Protect Native Vegetation

Protection of native vegetation is a key goal of roadside management. It is also a legislative and planning requirement.

The best way to protect native vegetation is to minimise disturbance. This includes minimising soil disturbance and damage to all native plants, including understorey, which is particularly easy to damage.

Disturbance not only directly damages native vegetation, but leads to weed invasion and increases the risk of soil erosion.

As remnant vegetation on roadsides tends to be narrow and linear, it is usually more susceptible to threats – including clearing and fragmentation of native vegetation, pest plants and animals, firewood collection, fire prevention activities, agricultural activities and roadworks.

2.3 Removing Native Vegetation on Roadsides

Councils have control of clearing of native vegetation on road reserves under the *Forest Act 1958* and *Planning and Environment Act 1987*. A permit is required to remove, lop or destroy native vegetation. This includes the following activities (subject to some exemptions):

- Pruning or cutting.
- Slashing or mowing.
- Grazing.
- Spraying.
- Clearing along fencelines.
- Ploughing, cultivation or grading.
- Cropping.
- Seed collection.
- Firewood collection.

The principle of Net Gain will be applied to all permit applications. This involves avoiding vegetation clearance where possible, and minimising and offsetting any vegetation clearance where permits are granted.

At the time of printing a review of the exemptions included in the current legislation is in progress and this review may result in alterations to the exemption provisions.

2.4 Rare, Threatened or Significant Flora and Fauna

The *Flora and Fauna Guarantee (FFG) Act 1988* provides special protection for rare species. Roadsides within Victoria contain 25 per cent of all rare or threatened flora species and communities listed under the *FFG Act*. Within the City of Greater Shepparton, 16 native fauna species and 9 native flora species are listed as threatened. (see Appendix 2)

If a rare species is suspected to be present at a site, Council or the Department of Sustainability and Environment (DSE) should be consulted for confirmation and appropriate management advice. It is an offence to disturb or destroy species listed under the *FFG Act* and *Environment Protection and Biodiversity Conservation (EPBC) Act, 1999*. Heavy penalties apply for breaches of the *EPBC Act*.

2.5 Signage of Special Environmental Areas

Signage is used to highlight significant vegetation and prevent unnecessary damage. If undertaking any activity at a signed area, contact the Council for advice on appropriate management before commencing any works.

'Significant Roadside Area'

Alerts road workers, local residents and road travellers to the conservation value of the roadside.



2.6 Conservation Value of Roadside Native Vegetation

All roadsides in the City have been assessed to determine the quality of native vegetation present and rated as outlined in the table below. A copy of the *Roadside Conservation Values Assessment Map* is available from Council's Environment Officer.

<p>High Conservation Value</p> <p>Fairly undisturbed native vegetation with most expected vegetation layers present and low levels of weed invasion. Supports a range of habitats.</p>	
<p>Medium Conservation Value</p> <p>Moderately disturbed native vegetation with one or more vegetation layers absent or modified. Moderate levels of weed invasion.</p>	
<p>Low Conservation Value</p> <p>Highly disturbed native vegetation. High levels of weed invasion. Also includes scattered or clumps of trees and shrubs over an exotic (introduced) understorey.</p>	

2.7 Protect Native Fauna and Wildlife Habitat

Roadsides contain habitat for a range of native fauna. In particular, scattered large old remnant trees which are features of the Shepparton landscape contain hollows that are vital habitat for many species including gliders, possums, birds and bats.

Other elements such as fallen timber, coarse woody debris, leaf litter and native understorey form equally important habitat for other species including lizards, insects etc.

Many of the threatened fauna species listed in Appendix 2 rely on roadside habitat for their survival. Roadside management minimising fauna and habitat impacts will assist in reducing species decline.

Ecological Vegetation Class (EVC) is the term used to describe particular types of vegetation. Some EVC's are rated as threatened in the municipal area, notably grasslands and grassy woodlands. Plants associated with these threatened EVC's, particularly groundcover plants like the Red Swainson-pea are among the most vulnerable to inappropriate roadside management.

Guidelines:

Written consent from Council is required for most works in a road reserve and conditions may apply. Contact Council for advice before undertaking any works or activities.

- Leave native vegetation undisturbed.
- When signage indicates significant flora species are present on a roadside contact the council for appropriate management advice before undertaking any activities or works.
- Check for nests or other fauna habitat, and avoid disturbance to those areas.
- Retain all habitat such as rocks, dead standing trees, fallen timber and leaf litter unless they pose an identifiable risk in terms of road safety.
- Ensure that large old trees are protected from activities such as firewood collection, agricultural activities, and fire prevention measures.
- Do not slash or disturb regeneration.
- Encourage regeneration by weed and rabbit control, and fencing.
- Do not 'tidy up' areas of native vegetation on roadsides.

2.8 Protect Wetlands and Waterways

The Goulburn Broken Catchment Management Authority (GBCMA) should be contacted and a Works on Waterways permit obtained before undertaking any works within the bed and banks of designated waterways. Designated waterways may be named or unnamed, permanent or seasonal and range in size from a river to a natural depression. Wetlands and waterways are to be protected by appropriate practices based on minimum disturbance principles.

2.9 Protect Cultural Heritage

Indigenous and non-indigenous cultural heritage provides a sense of community identity. Heritage sites include archaeological sites, buildings or structures, created landscapes and community values or beliefs.

As activities on roadsides have the potential to impact on heritage sites, it is important to identify heritage issues to ensure impacts are avoided, minimised or mitigated.

All registered and unregistered Victorian Aboriginal archaeological sites are protected by the *State Aboriginal Heritage Act 2006* and the *Commonwealth Aboriginal and Torres Strait Islander Heritage Protection Act 1984*. All Victorian historical sites are protected by the *State Heritage Act 1995*. These Acts prohibit the wilful destruction or disturbance of any cultural heritage site, place or object, whether on private or public land.

Heritage Victoria and Aboriginal Affairs Victoria are the Victorian State Government instrumentalities that administer these Acts. The Heritage Services Branch, Aboriginal Affairs Victoria and Department for Victorian Communities must be advised of any proposed works that may affect Aboriginal sites, or if any new sites are located. If the proposed works are a high impact activity and are in an area of cultural heritage sensitivity, a Cultural Heritage Management Plan will be required under the *Aboriginal Heritage Act 2006*. Additionally the 'Co-operative Management Agreement between Yorta Yorta Nation Aboriginal Corporation and The State of Victoria' also deals with proposed works in designated areas specified in the agreement.

Community education to increase awareness of heritage issues and to increase recognition of indigenous artefacts such as mounds, middens, surface scatters, tools, stone quarries, burial sites and scar trees would assist in the identification and subsequent protection of new sites.

3.0 Guideline Summary for Roadside Activities

Under the *Road Management Act 2004*, written consent is required from Council before undertaking works in a road reserve. Mowing nature strips by adjoining landowners does not require consent.

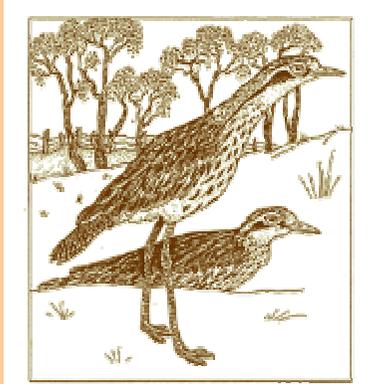
Activity	Approval Required	Point of Contact
NATIVE Vegetation on Roadsides		
To remove, lop or destroy native vegetation	Planning Permit subject to exemptions.	Council Phone 5832 9700
Revegetation	Permits may be required.	Council
Collection of firewood	Not permitted on roadsides.	Council
Droving	Local Law permit is required.	Council
Grazing	Local Law permit is required.	Council
Ploughing or grading	Permits may be required.	Council
Cropping	Permits may be required.	Council
Mowing /Slashing	Permits may be required.	Council
Haymaking	Permits may be required.	Council
Fire Prevention	Permission from MFPO.	Council
Spraying	Planning permit may be required.	Council
Fencing	Planning permit may be required.	Council
Seed Collection	Permit may be required.	Council/DSE
Earthworks	Permits may be required.	Council
Waterways and Wetlands		
Any works on the banks or beds of a waterway.	Works on Waterways permit. Planning permit if native vegetation being removed.	GBCMA Council
Cultural Heritage		
Any works or activities that may disturb or damage site of cultural heritage.	Notification or approval, depending on the nature of the works.	Aboriginal Affairs for Aboriginal sites. Heritage Victoria for European Sites.

3.1 Firewood Collection and Timber Removal

Firewood collection is not permitted on roadsides.

Dead and fallen timber is very important habitat for many native mammals, birds, bats, reptiles and insects with firewood collection listed as a threat to many native vegetation types contributing to the decline of some species of fauna.

Bush Stone-curlew



Endangered in Victoria. Very rare in terms of abundance and distribution. Roost and nest sites are in grassy Buloke, Gum or Box woodlands with sparse grassy or herb understorey.

Clearing and fragmentation of native vegetation has led to loss of habitat. The main current threats are foxes and cats. Needs lots of fallen timber - removal of fallen logs for firewood and tidying up trees and fallen wood removes this habitat and makes them susceptible to predation from foxes.

3.2 Fire Prevention and Management

Under the *Country Fire Authority Act 1958*, the Council has a responsibility to 'take all practicable steps to prevent the occurrence of fires on, and minimise the danger of the spread of fires on, any road under its care and management'.

Specific road reserves have been used as Fuel Reduced Corridors for many years. Fire prevention measures outlined in the Municipal Fire Prevention Plan (MFPP), including periodic fuel reduction and the making of firebreaks can only occur with approval from the Municipal Fire Prevention Officer (MFPO) and require written consent from Council for works being undertaken on roadsides.

Guidelines for Landowners

Only works in accordance with the MFPP are permitted on road reserves. Any fire prevention works on roadsides, including burning, require written consent from Council and approval from the MFPO. (The Country Fire Authority (CFA) is the only body authorised to conduct burning on roadsides).

- No new ploughed or graded firebreaks should be constructed by landowners on roadsides.
- Landowners are encouraged to undertake fire prevention works, including new firebreaks, on their own property.
- Existing ploughed or graded firebreaks can be maintained, providing they are not expanded or do not encroach on native vegetation. Breaks generally should not exceed three metres.

Landowners should refer to CFA publications and CFA website www.cfa.vic.gov.au for further information.

Guidelines for the CFA

General

- Implement all fire prevention activities in accordance with the MFPP and current CFA Roadside Fire Management Guidelines.
- Liaise with the Council regarding the location of wildlife corridors and high and medium conservation significance roadside sites.
- When reviewing the location of firebreaks preference should be given to placement on low conservation value roadsides or cleared private land. Avoid breaks in high conservation areas.
- Train CFA volunteers to ensure that fire prevention activities cause minimal damage to native vegetation and fauna.

- Burning is the preferred method of fuel reduction.
- Schedule burning to protect and enhance native vegetation.
- Sites of significant flora and fauna species should be protected by appropriate actions prior to fire prevention works being undertaken.
- To avoid the spread of weeds, water points should be regularly inspected for weeds and appropriate control undertaken.
- Burning is the preferred fuel reduction method for native grasses.
- On medium and high conservation value roadsides fuel reduction burning should preferably mimic natural fire frequency, intensity and season. For woodland areas a minimum rotational period of fifteen years is recommended.
- Avoid burning areas of regenerating native plants where possible.

Spraying

- Although commonly used, spraying is the least preferred fuel reduction method as it encourages further weed colonisation and long term use can result in herbicide resistance in target species.
- Slashing or burning are the preferred methods of fuel reduction.
- Herbicide use by CFA members should only be undertaken where documented in the MFPP and in accordance with a works plan.
- Herbicides should be used in accordance with the CFA Herbicide Use (fire prevention) Guideline (2004).
- Appropriate Chemcert / ACUP qualifications or an equivalent should be held by operators.
- Record all herbicide use. Regularly monitor effect on target species.
- Where necessary clean machinery to minimise weed spread.
- Use correct personal protective equipment.

Slashing

- Slashing is preferable to ploughing, spraying or grading in native vegetation areas, but can still damage plants if not done carefully.
- Areas of medium and high conservation value preferably should not be slashed. Consult DSE for alternative fire prevention measures.
- Consult with the Council prior to removal of stumps or fallen timber.
- If slashing of native grasses is necessary, it should not occur between November and January to allow native seed set. Blades on slashers should be set no lower than 150mm above the ground.
- Avoid scalping the ground during slashing as it encourages weeds.
- Begin slashing in areas of higher conservation value then work to more degraded areas (eg high to medium, medium to low).
- Clean machinery after works in weed infested areas.
- Slashing for guide post visibility should be undertaken one metre behind the guideposts to reduce ignition from traffic sources.

3.3 Pest Animals

Pest animals have many detrimental impacts on the natural environment, including:

- Limiting remnant vegetation regeneration by eating seedlings.
- Contributing to land degradation by burrowing and scratching soils.
- Reducing biodiversity by killing native animals, or outcompeting them for available food sources.
- Spreading weeds.

The major pest animal species in the municipality are hares, rabbits, foxes and feral cats.

Under the *Catchment and Land Protection (CaLP) Act 1994* 'A land owner must take all reasonable steps to prevent the spread of regionally controlled weeds and established pest animals on a roadside that adjoins the land owner's land.' (except roads controlled by Vicroads).

Guidelines:

- Written approval is required from DSE for removal of native vegetation associated with vermin control (eg. ripping rabbit warrens).
- Undertake control in a manner that causes least disturbance to indigenous vegetation (eg fumigation of rabbit burrows instead of ripping as is the conventional practice).
- Ripping with a tyne on an extendable boom is less damaging than rear mounted tynes.
- Assess planned works in the GBCMA Local Area Plan context and implement the GBCMA Rabbit Action Plan.
- Pest animal control should be carried out in conjunction with weed control.
- Undertake in conjunction with adjacent landowners.
- Written consent from Council is required for pest animal control work undertaken by third parties on roadsides under the *Road Management Act 2004*

3.4 Pest Plants (Weeds)

Pest plants are a major threat to native vegetation on roadsides and have a large economic impact.

Noxious weeds are plants that are legally declared to be a serious threat and economic cost to agriculture and the environment. These are classified as either Regionally Prohibited (P) or Regionally Controlled (C) weeds, the following being the most common in the municipality requiring priority action.

Table 1 - Weed classifications

Artichoke Thistle	<i>Cynara cardunculus</i>	(P)
Blackberry	<i>Rubus fruitcosus spp.agg.</i>	(C)
Boxthorn	<i>Lycium ferocissimum</i>	(C)
Cape Tulip [Two leaf]	<i>Homeria miniata</i>	(P)
Hardheads	<i>Acroptilon repens</i>	(C)
Paterson's Curse	<i>Echium plantagineum</i>	(C)
Prairie Ground Cherry	<i>Physalis viscosa</i>	(C)
Silver Leaf Nightshade	<i>Solanum elaeagnifolium</i>	(P)
St. John's Wort	<i>Hypericum perforatum</i>	(C)
Sweet Briar	<i>Rosa rubiginosa</i>	(C)
Noogoora burr	<i>Xanthium occidentale</i>	(C)

Under the *CaLP Act*, landholders are responsible for the control of Regionally Controlled Weeds on adjacent local roadsides (not controlled by Vicroads). The interpretation of this Act is currently under review.

Regionally Prohibited weeds are the responsibility of the Department of Sustainability and Environment and Vicroads on roadsides.

Assess all weed control works in the context of any Local Area Plan (refer to GBCMA) as funding may be available. Landcare groups are encouraged to pursue weed funding through state and federal programs.

Environmental weeds are plants that invade areas of natural bushland and include both introduced plants and native plants that originally come from other areas of Australia.

Unlike *Regionally Prohibited* and *Regionally Controlled* weeds, these species are not declared under the *CaLP Act*, however adjoining land holders are encouraged to consider removal of these species on roadsides to reduce spread. Written consent is required from Council for this work to be done on roadsides under the *Road Management Act*.

The following are recognised as the most common Environmental Weeds currently threatening roadside vegetation in the municipality.

Trees and Shrubs

Cootamundra Wattle	<i>Acacia baileyana</i>
Golden Wreath Wattle	<i>Acacia saliga</i>
Desert Ash	<i>Fraxinus rotundifolia</i>
Canary Island Date Palm	<i>Phoenix canariensis</i>
Poplar	<i>Poplar spp.</i>
Cherry Plum	<i>Prunus cerasifera</i>
Willows	<i>Salix spp.</i>
Peppercorn	<i>Schinus molle</i>
Cotoneaster	<i>Cotoneaster divaricata</i>
Montpellier Broom	<i>Genista monspessulana</i>
Privet	<i>Ligustrum lucidum</i>

Aquatic Plants

Yellow Water-lily	<i>Nymphaea mexicana</i>
Arrowhead	<i>Sagittaria graminea</i>

Climbers/Creepers

Bridal Creeper	<i>Asparagus asparagoides</i>
Wandering Jew	<i>Tradescantia albiflora</i>
Blue Periwinkle	<i>Vinca major</i>

Herbs and Grasses

Wild Oat	<i>Avena fatua</i>
Chicory	<i>Chicorium intypus</i>
Fennel	<i>Foeniculum vulgare</i>
Chilean Needlegrass	<i>Nassella neesiana</i>
Phalaris	<i>Phalaris paradoxa</i>
Curled Dock	<i>Rumex crispus</i>

Strategies for the management of weeds have been developed at a national, state and regional level. The Weed Action Plan prepared by the GBCMA outlines the strategic approach for weed management within the City. Landcare groups are encouraged to pursue funding for weed control eg. Good Neighbour Program.

Guidelines:

Avoid the Spread of Weeds

- Minimise disturbance.
- Learn to identify weeds of the region.
- Dirty vehicles and machinery can spread weeds. Before transporting any machinery along a roadside remove all soil and seed from machinery with a high-pressure water hose. Where these are unavailable, scrape and brush soil from machines.
- Avoid activities that spread weeds, eg dumping garden waste, ploughing or grading roadsides.
- Do not plant environmental weeds near roadsides.

Undertaking weed control on roadsides

- Early intervention is the most cost effective means of weed control.
- Control weeds before they set seed where possible.
- Revegetate treated areas with appropriate indigenous species to minimise recolonisation by weeds.
- On high or medium conservation roadsides, consult DSE for best weed control methods.
- Undertake weed control in conjunction with adjacent landowners.
- Treat small outbreaks and isolated patches first, isolate major infestations and work from outside to centre of the infestation.
- A planning permit is required from the Council where weed control will result in removal or damage to native vegetation.

Slashing of Weeds

- Contact the Council before undertaking any slashing on roadsides to determine if any **native** vegetation is present.
- Avoid regenerating **native** vegetation during slashing.
- If **native** grasses are present, blades on slashers should be set no lower than 150-200mm above groundlevel to prevent damage.
- Slash roadsides from native vegetation areas towards weed infested areas to minimise spread of weed seed.
- Clean contaminated machinery after working in known weed areas, by broom, air blast, washing, or steam cleaning. Select appropriate site for washdown to avoid further spread of weeds.

Using Herbicide to Control Weeds

- Herbicides should only be used to control weeds when other alternatives are not suitable.
- Herbicides should be used in according to manufacturer's instructions and appropriate Chemcert/ACUP qualifications held.
- Only non-residual herbicides such as 'glyphosate' should be used to control weeds along roadsides, unless advice from DSE is given and Council approval is obtained to use other herbicides. Rotation of herbicides may reduce the risk of resistance.
- Application of herbicides using a rope-wick applicator or back-pack spot spraying is preferred. The use of boomsprays is only permitted after seeking advice from DSE / DPI and with approval of Council.
- Alternative application methods such as stem injection or cut and paint, reduce chemical usage and minimise any off-target damage to indigenous vegetation.
- Do not use herbicides near wetlands or waterways, or if unavoidable, use frog friendly products.

Disposal of Weeds

- A permit from DSE is required to dispose of noxious weeds capable of germinating or to deposit on land noxious weeds or weed seeds.
- Dispose of any weeds likely to set seed or re-shoot by burning on-site (subject to fire prevention) or at a designated dump site (cover during transport).
- Under The *CaLP Act* (Sect. 71) a person needs to ensure they maintain vehicle hygiene when moving any equipment or machinery onto or along a roadway. Transport of weeds or weed seeds is an offence.
- A DSE permit is required to sell soil, sand or gravel which could result in the transfer of noxious weeds.

3.5 Fencing

Council consent is required for fencing works being undertaken by a third party in a road reserve (*Road Management Act 2004*). Council consent is further required for any fencing works requiring vegetation removal which shall be subject to environmental assessment and conditions if necessary.

3.6 Farming and Associated Activities

Stock Movement, Droving and Grazing

It is acknowledged that livestock are an important economic factor within the City. However the Roadside Management Strategy seeks to achieve balance between the advantages and disadvantages of livestock activities on roadsides such as the potential to spread weeds.

Stock crossing (livestock regularly crossing a road at a particular location) that is part of normal existing farm practice is permitted.

Moving of stock (individual or regular movement of livestock as part of normal farm management operations) from one property to another does not require a permit. Stock are only allowed on a road during daylight hours, must be supervised by a competent person and adequate warning must be given to drivers on that road. Stock movement is not allowed on sections of the road that are determined by the Council to have high or medium conservation value.

Droving (irregular movement of livestock being driven to another location or to or from market) or grazing (livestock being in an area for the purpose of feeding off roadside vegetation) requires a permit. In granting a permit the council must consider whether damage to plants of conservation value is likely and may impose permit conditions.

Guidelines:

- Droving or grazing is not recommended on High Conservation Value roadsides.
- Limited droving or grazing on Medium Conservation Value roadsides may be permitted where ecological benefits such as weed control can be demonstrated, or to reduce fuel in accordance with the MFPP.
- Droving on Low Conservation Value roadsides will only be permitted when soils are not saturated or prone to compaction.
- Supplementary feeding of stock is not permitted on any roadsides.
- Avoid weed prone areas when moving stock.

Cultivation and Ploughing

Ploughing, grading or cultivation on roadsides requires written consent for works on roadsides under the *Road Management Act 2004* and a planning permit from the Council. Landholders are required to install firebreaks for private benefit on private land. Firebreaks for community benefit can only be constructed on public land on sites listed in the Municipal Fire Prevention Plan. Any infringement will result in rehabilitation works to compensate for any biodiversity loss.

Slashing

Slashing of **native** vegetation requires written consent from Council and a permit and consultation with DSE, except by authorised Council staff or contractors to improve traffic safety ie. at intersections to improve line of sight. Slashing of **native** grasses should not occur between November and January to allow native seed set, and blades on slashers should be set no lower than 150mm above the ground.

Slash roadsides from native vegetation areas towards weed infested areas to minimise spread of weed seed.

Clean contaminated machinery after working in known weed areas, by broom, air blast, washing, or steam cleaning. Select appropriate site for washdown to avoid further spread of weeds.

Cropping and Haymaking

Cropping or haymaking activities on roadsides require written consent from Council for works on roadsides (*Road Management Act 2004*). Non-compliance could result in an infringement notice being issued.

Anyone wishing to undertake these activities should apply to Council for the above permit and consent. Council will assess each application on a case by case basis subject to conditions at the time.

As a guide, cropping and haymaking are generally permitted where exotic grasses present a fire risk, subject to:

- assessment of conservation status of roadside.
- the absence of native vegetation or grassland communities.
- direction in the Municipal Fire Prevention Plan.

Machinery Movement

Due to the value placed on remnant vegetation, Council is reluctant to approve machinery movements requiring vegetation removal beyond normal clearance distances.

Drainage of Land

Landholders require a permit to use, pollute, obstruct or in any way interfere with the passage of water in a drain or drainage works. (Local Law 'Drainage of Land' – Section 14)

Ensure retention of on-farm water through improved irrigation practices. Penalties may be imposed for irrigation water outfalling onto roadsides. (Local Law no. 1 Clause 4.8)

Farm Storage

Storage of stockfeed on Low Conservation Value roadsides is permitted for periods less than two months, however storage of farm equipment, refuse, fencing materials or chemicals is prohibited on roadside reserves.

3.7 Landcare and Revegetation Activities on Roadsides

Landcare Groups are encouraged to become involved in protecting and enhancing remnant vegetation on roadsides, including 'adopting' particular roadsides for ongoing involvement in management.

Priorities for managing native vegetation at a State & regional level are:

1. Retain and Protect Existing Remnants.
2. Enhance Existing Remnants.
3. Connect Existing Remnants by Biolinks (Wildlife Corridors).

Projects should reflect this strategic landscape approach, including:

- enhancing existing remnants by weed and pest animal control and adding habitat components, such as logs.
- supplementary plantings of shrubs and understorey and buffer plantings around existing remnants.
- establishing biolinks in appropriate locations.

Most activities associated with revegetation on roadsides would be considered as works under the *Road Management Act 2004* and thus require written consent from Council. As roads are primarily for safe transit, revegetation works must not compromise road safety.

Guidelines for Seed Collection on Roadsides

- Seed collection is encouraged to ensure that seed supplies are available for appropriate revegetation purposes on roadsides.
- Seed collection or removal of cutting material on roadsides requires a permit from DSE and written consent from Council (or Vicroads on arterial roads). Commercial collection requires a DSE license.
- Ensure ecologically sustainable seed collection practices are used and disturbance to sites is avoided. For detailed guidelines for seed collection view the FloraBank website www.florabank.org.au.
- Large-scale collections are not permitted, except if larger quantities of seed are required for direct seeding of appropriate sites.
- Written consent from Council is required for works on roadsides.

Guidelines for Planting or Direct Seeding along Roadsides

- Contact Council to assess suitability of planting – a checklist for this purpose has been developed – Refer Appendix 3.
- Adjacent landholders must be consulted.
- Plantings should not be undertaken on Fuel Reduced Corridors or within the cleared areas of Priority Access Roads designated in the Municipal Fire Prevention Plan.
- Only use indigenous species grown from locally collected seed. Aim to re-establish the relevant EVC as far as possible.
- Allow adequate time (up to 12 months) to ensure indigenous plant species can be sourced.
- Trees or shrubs should not be planted in native grasslands.
- Encourage natural regeneration where possible, eg. by guarding plants and weed control.
- Plantings should aim for a natural appearance (avoid rows).
- Plant shrubs and understorey species in dense clumps.
- Plantings under powerlines should be less than 3m tall.
- Set back plantings 3 metres from fences to allow maintenance.
- Plantings should not obscure traffic sight lines and visibility. Do not plant trees with a mature trunk diameter of 100mm at base within sight lines. Council will advise on appropriate set backs for the road safety aspects as specified in the Vicroads Design Guidelines.
- Direct seeding is the most cost effective means of revegetating large areas or long linear corridors,
- Use best practice at all times, including suitable site preparation, diverse species selection and ongoing maintenance.
- Plantings shall not be undertaken in high conservation areas, except for enrichment plantings of significant or specific species, undertaken by people with suitable experience.
- Written consent from Council is required for works on roadsides.

Biolink or Wildlife Corridors

The existing network of roadside and streamside vegetation plays a critical role in maintaining corridors for wildlife. These networks can be enhanced by the strategic establishment of biolinks. Important components of biolinks are:

- they are continuous and link larger patches of native vegetation, such as flora reserves, National Parks or streamside reserves.
- they provide the diverse natural vegetation expected to occur on that site, including shrubs and groundcover, and habitat such as fallen logs and leaf litter.
- be wide enough, and have suitable habitat for animals to live as well as move through.

Corridors that are 40 metres wide or greater are best for wildlife movement. Therefore wide roadsides will be most suitable, especially where landowners can be encouraged to undertake revegetation on adjacent private land. Any roadsides used for biolinks should also have low traffic volumes to reduce the likelihood of road kill of native fauna.



The most appropriate locations for biolinks are best considered at a landscape level using aerial or satellite photographs. Other options for corridors include private land, waterways or unused road reserves.

Biolink projects should be developed in conjunction with local Landcare Groups, including applying for appropriate grants.

4.0 Table 2 - Management Guideline Summary

LOW CONSERVATION VALUE	MEDIUM CONSERVATION VALUE	HIGH CONSERVATION VALUE
<p>Avoid removing native vegetation beyond the road formation where possible. Apart from exempt works a permit is required to remove native vegetation from roadsides.</p> <p>No firewood collecting permits are issued for roadsides.</p> <p>Identify machinery turn around points in areas that will not result in disturbance to native vegetation.</p>	<p>Avoid removing native vegetation beyond the road formation where possible. Apart from exempt works a permit is required to remove native vegetation from roadsides.</p> <p>No firewood collecting permits are issued for roadsides.</p> <p>Identify machinery turn around points in areas that will not result in disturbance to native vegetation.</p>	<p>Avoid removing native vegetation beyond the road formation where possible. Apart from exempt works a permit is required to remove native vegetation from roadsides. Council will provide support to any proposal aimed at creating a vegetation link for a wildlife corridor.</p> <p>No firewood collecting permits are issued for roadsides.</p> <p>Identify machinery turn around points in areas that will not result in disturbance to native vegetation.</p>

Table 2 - Management Guideline Summary (cont)

LOW CONSERVATION VALUE	MEDIUM CONSERVATION VALUE	HIGH CONSERVATION VALUE
<p>⁶ Landholder groups are encouraged to contact Council to implement a program to revegetate roadsides and to create wildlife corridors.</p> <p>Check all sites prior to slashing operations and identify regenerating native vegetation with a stake or other appropriate method [e.g. temporary fencing]</p>	<p>Landholder groups are encouraged to contact Council to implement a program to revegetate roadsides and to create wildlife corridors.</p> <p>If slashing is unavoidable, plan works to occur during early spring or autumn.</p>	<p>Regeneration is preferred.</p> <p>If slashing is unavoidable, plan works to occur during early spring or autumn.</p>

Table 2 - Management Guideline Summary (cont)

LOW CONSERVATION VALUE	MEDIUM CONSERVATION VALUE	HIGH CONSERVATION VALUE
<p>Identify location of prominent weeds. Inform adjacent landholders of proposed weed control and encourage their involvement. Plan to slash weeds in late spring. To ease slashing consult with Council prior to removing stumps and fallen timber. Implement a program to remove woody weeds between March and July (except Blackberries which require control during November to March).</p>	<p>Same as for Low Conservation Value roadsides. If additional weed slashing is necessary for fuel reduction, the area should be checked and all regenerating native plants identified with a stake or other appropriate methods [temporary fencing]. Burn weeds on site or on cleared area.</p>	<p>No broadacre spray applications to be conducted on these roadsides. Use hand weeding, rope wick applicator or spot spraying to remove isolated weeds in areas of native vegetation. Dispose at Municipal Disposal site.</p>

Appendix 1 Agency Contact Details

Agency	Description	Contact details
Department of Primary Industries (DPI)	Weed issues	5833 5222
Department of Sustainability and Environment (DSE)	Referral authority for planning permit applications involving native vegetation	5761 1611
Goulburn Broken Catchment Management Authority (GBCMA)	Regulate waterways	5820 1100
Greater Shepparton City Council Sustainability and Environment Department	Council contact for enquiries	5832 9741
Goulburn Murray Landcare Network	Coordinate Landcare activities in region	5832 1133

Appendix 2 Threatened Fauna

Bandy Bandy	<i>Vermicella annulata</i>
Barking Marsh Frog	<i>Limnodynastes fletcheri</i>
Barking Owl	<i>Ninox connivens</i>
Brolga	<i>Grus rubicundus</i>
Brush-tailed Phascogale	<i>Phascogale tapoatafa</i>
Bush-stone Curlew	<i>Burhinus magnirostris</i>
Carpet Python	<i>Morelia spilota variegata</i>
Grey-crowned Babbler	<i>Pomatostomus temporalis</i>
Murray Cod	<i>Maccullochella peelii</i>
Regent Honey Eater	<i>Xanthomyza phrygia</i>
Squirrel Glider	<i>Petaurus norfolcensis</i>
Striped Legless Lizard	<i>Delma impar</i>
Superb Parrot	<i>Prolytelis swainsonii</i>
Swift Parrot	<i>Lathamus discolor</i>
Trout Cod	<i>M. macquariensis</i>
Woodland Blind Snake	<i>Ramphophyphlops proximus</i>

Threatened Flora

Catkin Wattle	<i>Acacia dallachiana</i>
Kanarooka Mallee	<i>Eucalyptus froggattii</i>
Narrow Goodenia	<i>Goodenia manbarrionii</i>
Purple Diuris	<i>Diuris punctata</i> var. <i>punctata</i>
Red Swainson-pea	<i>Swainsona plagiotropis</i>
Waterbush	<i>Myoporum acuminatum</i>
White Cypress-pine	<i>Callitris glaucophylla</i>
Western Silver Wattle	<i>Acacia decora</i>
Yellow-tongued Daisy	<i>Brachyscome chrysoglossa</i>

**Appendix 3
Checklist for Revegetation on Roadsides**

Checklist for Revegetation	Checked
Plans for the revegetation or tree planting project have been submitted to the Council at least two months prior to works and permission has been granted.	
Plantings are not being undertaken on the cleared areas of Priority Access Roads or Fuel Reduced Corridors designated in the Municipal Fire Prevention Plan.	
Plans identify the location of all utility services.	
Adjacent landholders have been consulted.	
Indigenous plants (plants that naturally occur in an area and grown from seed collected in that area) have been sourced and used in the project. (Allow up to 12 months to ensure indigenous plants can be sourced).	
The project includes adequate maintenance including weed control for a minimum of two years from planting.	
Plantings are compatible with planned and existing biolinks (wildlife corridors).	
Site is not a registered remnant grassland. Existing native grasses will not be damaged or replaced with trees or shrubs.	

**Appendix 3 (cont)
Checklist for Revegetation on Roadsides**

Checklist for Revegetation	Checked
Are there unused road reserves close by which may be suitable for revegetation?	
Plantings will have a natural appearance (rows avoided).	
Shrubs and understorey species are being planted in dense clumps.	
Plantings are setback 9 metres from the centreline of road, 3 metres from fences, 10 metres from gates and 80 metres from intersections. No plants growing on private land are to encroach upon any road at a height of less than 3 metres [Local Law No. 1 Section 2.9].	
Plantings under powerlines are less than 3m tall.	
Plantings do not obscure traffic sight lines and visibility. Trees with a mature trunk diameter of 100mm at base are not being planted within sight lines. Has Council advised on appropriate set backs for the road safety aspects as specified in the Vicroads Design Guidelines?	
Plantings are not being undertaken in high conservation areas, except for enrichment plantings of significant or specific species, undertaken by people with suitable experience.	

References

Country Fire Authority Act, 1958

Flora and Fauna Guarantee Act, 1988

Planning and Environment Act, 1987

Catchment and Land Protection Act, 1994 (including 2004 amendments)

Environment Protection and Biodiversity Conservation Act, 1999

Victoria's Native Vegetation Management - a Framework for Action, 2003

Planning Practice Notes - Department of Sustainability and Environment, 2006

Goulburn Broken Regional Catchment Strategy, 2003

Goulburn Broken CMA Native Vegetation Management Strategy, 2003

Goulburn Broken Weed Action Plan, 2001-2005

Revegetation Guide for the Goulburn Broken Catchment, 2001

Native Vegetation Retention Controls - Regional Guidelines for the Goulburn Broken Catchment, 2003

Save the Bush Toolkit - Central West Post Graduate Students of Charles Stuart University and Orange Agricultural College 1997

What Should I Plant and Why - Revegetation Guide for Shepparton Irrigation Area - DSE 1998

Your Role in Preserving Native Vegetation in the Goulburn Broken CMA and Greater Shepparton City Council 1998 - pamphlet

Environmental Weeds in the Shepparton Irrigation Region - DSE - 1997 - pamphlet

Greater Shepparton Road Safety Plan, 2003

Municipal Fire Prevention Plan - Greater Shepparton City Council - 2007

Roadside Management Guidelines for Fire Prevention Planners - CFA - 1994

Roadside Fire Management Guidelines - CFA 2001

