



Roadside Conservation Management Plan
2012-2017



Cover page: a high conservation roadside in the Shire's north, a 'grassy woodland' that is listed as endangered (or critically endangered) under the Federal legislation *Environment Protection and Biodiversity Conservation Act 1999*.

This page: flood recovery road works that were adapted during construction to allow the threatened Bibrons Toadlet species to cross through the drain.

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EXECUTIVE SUMMARY

This Roadside Conservation Management Plan is a supportive tool designed primarily for use by Council staff to provide them with the opportunity to make clear and consistent decisions in their roles relating to the management of roadsides within the Mount Alexander Shire. It will also guide how Council engages with the community regarding matters of roadside conservation. Further, this Plan will be available for the community to use in assisting them to gain a better understanding of managing roadside conservation.

The 2009-2013 Council Plan has identified four key priorities including 'creating a sustainable future' which contains an objective 'to protect our natural environment and minimise our impact on non-renewable resources'. This Plan has a strong focus on actions to achieve this objective.

The previous Mount Alexander Shire Council Roadsides Management Strategy (1998), prepared by the Mount Alexander Roadsides Management Working Group, has provided a basis for this Plan's development. This new Plan builds on the work undertaken by Council and the community and brings together new ideas, concepts and available data to make informed management decisions.



Figure 1 A high conservation roadside in the Shire's north that contains large old trees, dead standing trees, fallen branches, woody shrubs and a native plant ground layer.

In May 2008 a thorough ecological assessment of the Shire's roadsides was undertaken. It showed that 19% of roadsides have a high conservation value and 27% have a medium conservation value (refer Figure 2). This combined figure of 46% clearly demonstrates the role roadsides have in preserving local biodiversity.

Roadsides in Mount Alexander Shire, as in many other municipalities across Australia's fragmented wheat/sheep belt, are arguably the most significant biodiversity asset. The network comprises a cross-section of almost all habitat types present at the time of European settlement, many of which are rare or threatened (some nationally) and supports most of Mount Alexander's vulnerable or threatened species. The roadsides are a habitat for significant species and sustain vital ecosystem processes such as movement pathways for animals and insects.

The policy surrounding roadside weed management may change in the near future, with new funding programs and expectations being mooted by the State Government. For this reason, this Plan will be reviewed within twelve months of adoption to ensure it remains consistent with State legislation and policy.

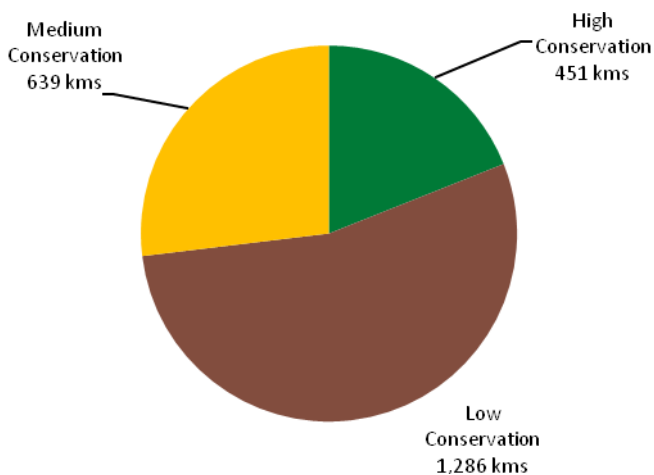


Figure 2 Conservation Value of Roadsides in the Mount Alexander Shire.

1. INTRODUCTION

1.1 Background

The region is an ancient landscape which bears the imprint of many cultures. Over tens of thousands of years, Aboriginal people put the region's founding cultural layer in place. This is Jaara Jaara or Dja Dja Wurrung country and the heritage of these people can be seen in scar trees, rock wells, artefacts and ancient meeting places.

The area was settled by Europeans in 1851 and much evidence of early settlement and mining still remains today. From the time of European settlement until the late 1940s, much of the original native vegetation of the Shire was cleared, initially for mining and later agriculture as townships, communities and other developments prospered.

The landscapes have dramatically altered primarily through a reduction or complete loss of native flora and fauna communities. In many areas what remains are isolated patches of native vegetation in an otherwise largely cleared landscape. Roadside native vegetation is often the last remaining examples of local or regional intact vegetation types and is considered a significant environmental asset.

In recent years there has been much change in the way society views and values native flora and fauna. This has led to political commitment through the development of both State and

Federal legislation. However, protecting and enhancing this natural asset while maintaining the other functions of roadsides remains difficult.

While road reserves were initially established to provide legal access and a route from one place to another, they have since evolved to cover a range of activities such as service corridors for gas, electricity, drainage, sewage and communication infrastructure as well as being recognised as a biodiversity asset.

The recent events of Black Saturday, the recommendations of the Bushfire Royal Commission and the direction that the State Government has chosen to take in response to these events adds to the complexity of the development of management decisions and actions taken by councils.

The environments of the Mount Alexander Shire are defined by four bioregions: 'Goldfields' covers the majority of the Shire and the 'Central Victorian Uplands', 'Victorian Volcanic Plain' and 'Victorian Riverina' cover smaller areas.

In the Goldfields bioregion the Box-Ironbark ecosystem dominates the relatively poor soils that support fragmented native forests and woodlands. The more fertile areas are dominated by the Valley and Riverine Grassy Woodlands. The flatter and more fertile productive areas of the Central Victorian Uplands bioregion were once dominated by forests and woodlands. The Victorian Volcanic Plain bioregion is characterised by open grassland areas, patches of open woodland, stony rises denoting old lava flows, the low peaks of extinct volcanoes and scattered lakes. The Victorian Riverina Bioregion is characterised by flat to gently undulating land on recent unconsolidated sediments with evidence of former stream channels. Plains Woodland and Plains Grassland Ecological Vegetation Classes (EVCs) were the predominant vegetation communities here. The species-rich woodlands are characterised by low density tree cover with an understorey of scattered shrubs and a well developed grassy layer.



Figure 3 Looking west from Mount Tarrangower, Maldon. The role of roadside vegetation is clear: it provides vital linkages between larger blocks of native vegetation.

1.2 Council's Role in Roadside Management

Council is responsible for all local roads within the municipality. VicRoads is the responsible authority for all main roads, state highways and freeways. Under the *Local Government Act 1989* Council is responsible for the care and management of public highways and roads defined under Section 205. *The Road Management Act 2004* sets out the role and responsibilities of road managers. Council has a responsibility for biodiversity conservation and improving roadside conservation outcomes by developing networks and cooperative relationships with agencies and the community.

Council will, in consultation with other authorities, manage road reserves to:

- Provide safe transport corridors.
- Ensure safe property access.
- Protect service assets.
- Minimise fire impact.
- Protect and enhance biodiversity values.
- Protect cultural heritage and amenity values.

Council also has a role in working with the community in roadside conservation. Council's annual community grants scheme is one example of the organisation working closely and collaboratively with Landcare and Friends groups to improve the ecological condition and value of native vegetation on roadsides.

1.3 Objectives of the Plan

The key objectives of the Plan are to:

- Improve conservation values and connectedness of roadsides to bushlands and adjacent farms.
- Reduce fuel for fire and increase bushfire preparedness consistent with recommendations of Royal Commission into the Black Saturday Fires.

- Reduce feral animals and control the spread of existing weeds and avoid outbreak of new weed species on roadsides.

1.4 Area of the Plan

This Plan covers all defined streets and rural roads outside the townships of the Mount Alexander Shire that are not under the direct control of VicRoads. It does not include urbanised streetscapes nor concern itself with matters pertaining to mowing or other horticultural maintenance. While some rural roads and streets may undergo slashing for bushfire preparedness or road maintenance, this slashing is restricted to the road, road shoulder and table drain, not the roadside.

1.5 Plan Review and Updates

The State Government policy surrounding roadside weed management may change in the near future, with new funding programs and expectations being mooted. For this reason, this Plan will be reviewed within twelve months of adoption to ensure it remains consistent with State legislation and policy.



Figure 4 A high conservation roadside in the Shires' east that contains large old trees, dead standing trees, woody shrubs and a mostly native plant ground layer.

2. NATURAL VALUES OF ROADSIDES



Figure 5 The critically endangered Spiny Rice-Flower, as listed under the *Environment Protection and Biodiversity Conservation Act 1999*, occurs on two known roadsides in the Shire.

2.1 The Conservation Value of Roadsides in Mount Alexander Shire

Roadsides support pockets of native vegetation, are a source of indigenous seed stock and provide corridors linking isolated stands of indigenous vegetation on unused roads, strategic farm plantings and riparian corridors through both public and private land. While roadside vegetation may vary from highly disturbed to almost intact, it is home to many locally or regionally significant, rare or threatened vegetation communities or species.

A detailed ecological assessment of the majority of the road reserves of the local roads in the rural area was completed by the North Central Catchment Management Authority (NCCMA) during May 2008. A total of 2376km of roadside (both sides of the road) was surveyed equating to 1188km of roads surveyed within the municipality. The roadsides assessed across the municipality were classified as a low, medium or high conservation value.

The conservation value was based on a range of attributes including:

- The proportion of native vegetation, including grasslands.
- Percentage of weed cover.
- Degree of site disturbance.
- Potential habitat value.
- Width of road reserve.
- The presence of any threatened flora or fauna species.

It must be noted that the 2008 assessment was a point in time assessment and it doesn't exclude the possibility that a road's rating could improve in the future, particularly with management intervention. Unmanaged, it is highly likely that the condition of the roadsides will deteriorate over time.

The figures in Table 1 provide a useful indicator of the direct contribution roadsides make to biodiversity conservation.

Table 1 Conservation Value of Roadsides in the Mount Alexander Shire

Conservation Value	Roadside Length	% of Roadside Length
High	451km	19%
Medium	639km	27%
Low	1286km	54%
Total roadside surveyed (both sides of the road)	2376km	
Total length of local roads surveyed	1188km	

Roadsides within the Mount Alexander Shire Council area contain rare and threatened flora and fauna populations or locally significant species and the endangered ecological communities, "Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia" listed federally under the *Environment Protection and Biodiversity Conservation Act 1999*.

The *Flora and Fauna Guarantee Act 1988* provides protection for threatened species and roadsides within Victoria which contain 25% of all rare or threatened flora species and communities listed under the act. If a rare or threatened species is suspected to be present at a site, Council and/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 *Flora and Fauna Guarantee Act 1988* and the *Environment*

Protection and Biodiversity Conservation Act 1999 and heavy penalties apply for breaches.

2.2 Protecting Natural Values

The principal objectives and guidelines in *Victoria's Biodiversity Strategy 1997* and *Victoria's Native Vegetation Framework 2002* are recognised by this Plan. The general principles for the protection of native vegetation and wildlife are:

- **Retain existing** native vegetation by avoiding clearance where feasible, minimising disturbance while installing or maintaining services, providing safe functioning roads and protecting community assets from fire. Where native vegetation removal is unavoidable the principle of 'Net Gain' will be applied.
- **Prevent the decline** of native vegetation, rare and threatened species populations, critical fauna habitat and landscape qualities by actively managing roadsides to protect and conserve native vegetation.
- **Enhance priority habitats** and ecosystems through targeted action.
- **Improve landscape connectivity** and viability by revegetating potential wildlife corridors (biolinks) which form crucial links between isolated habitats.

2.3 Managing Threats to Roadside Conservation

Due to the narrow linear nature of roadsides they are more susceptible to infestation of invasive plants and animals, encroachment by agricultural activities, urban development, firewood collection, road maintenance and construction works, inappropriate fire prevention activities and the installation and maintenance of services.

Poor management, planning or engineering practices can result in increased construction costs, create a maintenance liability, reduce biodiversity quality and quantity and diminish visual amenity.

The following will assist in ensuring that roadsides continue to provide the range of habitats critical to the survival of resident species:

- Dead standing trees, fallen limbs, branches and leaf litter will be retained on roadsides to provide habitat unless they are identified as a safety risk. Council will permit 'tidying up' of roadsides when the proposed activity and location form part of the Municipal Fire Management Plan.



Figure 6 High conservation value roadside in the Shires' west, a 'Plains Woodland'. Although narrow it contains locally significant flora, Buloke, and has an endangered regional conservation significance.

- Ensure that large old trees are protected from activities such as road making and maintenance, firewood collection and agricultural activities.
- Enhance critical habitats and rare or threatened species populations by targeting actions to designated critical ecological communities and species populations such as wetlands.
- Where appropriate, mark sites of specific importance with an environmental marker such as Significant Roadside Area or Wildlife Corridor for strategic wildlife corridors.
- When proposing to undertake works an on-site assessment should occur identifying natural assets as outlined in this document. The assessment and associated works should comply with best practice, as outlined in

Appendix 2 titled 'Best Practice for Works Commonly Undertaken within Road Reserves'.

To ensure the preservation and enhancement of landscape connectivity on roadsides, Council will:

- Support projects that aim to protect and/or enhance indigenous vegetation on unused road reserves.
- Support projects that aim to enhance existing native vegetation rather than revegetating bare ground.
- Prioritise projects that support areas where natural regeneration of indigenous species has occurred.



Figure 7 High conservation value roadside in the Shire's west. This wetland is part of the wider Moolort wetland complex that has regional conservation significance and is part of the Victorian Volcanic Plain, Victoria's only National Biodiversity Hotspot.

2.4 Cultural Heritage Values of Roadsides

Indigenous and non-indigenous cultural heritage provides a sense of community identity and is also enjoyed by people and communities as part of the valued character of their own neighbourhood.

Heritage sites include Aboriginal places and objects, archaeological sites and relics, buildings and structures, landscapes and community values and beliefs. Many roads, particularly in rural areas

are traditional roads that were once used by the local Aboriginal communities. 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, and to understand that there is a legal obligation to do so.

All registered and unregistered Victorian Aboriginal archaeological sites are protected by the *Aboriginal Heritage Act 2006*. The Act defines cultural heritage significance to include archaeological, anthropological, contemporary, historical, scientific, social, or spiritual significance and significance in accordance with Aboriginal tradition.

The *Victorian Heritage Act 1995*, administered by Heritage Victoria, defines non-indigenous cultural heritage to mean places and objects of cultural heritage significance. The Act prohibits the destruction or disturbance of any cultural heritage site, place, or object, whether on private or public land. Where harm is unavoidable this legislation provides legal mechanisms for resolution via a permit application for proposed works. Further to this council can play a role in protecting cultural heritage through provisions in the planning scheme such as a Heritage Overlay.



Figure 8 This scarred tree on a roadside is protected by the *Aboriginal Heritage Act 2006*.

3. FUNCTIONAL VALUES OF ROADSIDES

Roadsides have many functional values, including:

- Fire management.
- Movement of livestock.
- Horse riding.
- Machinery movement.
- Provision of service.
- Road drainage.

These are discussed in greater detail in this section.

While some may consider them functional values, the following are not permitted on roadsides:

- Extraction of soil, sand, gravel or rock.
- Disposal of waste or refuse.
- Collection of firewood or “tidying up”.
- Storage of equipment or other goods.
- Cropping or hay making.
- Water or wastewater discharge (without a permit).

All functional values of roadsides must minimise disturbance of vegetation and soil. Such disturbance promotes invasion of weeds, spread of pathogens, and increases the risk of soil erosion and possible pollution of waterways. All of these problems may require expensive long-term management. Therefore it is sound environmental and business practice to keep disturbance to a minimum, whatever the scale of works that are being undertaken.



Figure 9 A medium and high conservation value roadside with weeds growing in spoil.

3.1 Fire Management

Roadsides have been traditionally used extensively for the implementation of fire prevention programs. With changes in land and resource management and a shift to risk based emergency management, there is a need to review fire prevention on roadsides to keep pace with community expectations and ensure a consistent approach to fire management.

Although road user safety is always a priority, (*Roadside Fire Management Guidelines CFA June 2001*) the CFA (and subsequently Council) has a number of objectives of roadside fire management:

- Prevent fires on roadsides.
- Contain roadside fires.
- Manage safety of road users.
- Provide control lines.
- Recovery from roadside fires.

The *Country Fire Authority Act 1958* in Section 43 (1) states that:

It shall be the duty of every municipal council and every public authority to take all practicable steps to prevent the occurrence of fires on and to minimise the danger of the spread of fire on or from:

- Any land vested in it or under its control or management, and

- Any highway, road, street, lane or thoroughfare the maintenance of which is charged upon it.

Section 55A of The *Country Fire Authority Act 1958* also states that each municipal council must prepare and maintain a Municipal Fire Management Plan (MFMP) which is a three year rolling plan that is continuously reviewed and updated. Only works that are included in the MFMP are permitted on road reserves. These works include any fire management activity including grading, ripping, burning, spraying, slashing or the removal of vegetation and as stated in the MFMP it is recommended that these works be integrated with existing weed control programs.

Where planned burns, new strategic breaks or other fire management activities are proposed to occur on high and medium conservation value roadsides consideration must be given to this Plan and its Strategic Action Plan.

It must be noted that only the Country Fire Authority (CFA) and Council are authorised to conduct burning on roadsides under conditions outlined in the 2001 Guidelines.

The Municipal Fire Prevention Officer will monitor and evaluate fire prevention works to determine the effectiveness of works in terms of fire management and the impact on vegetation quality.



Figure 8 A medium conservation value roadside in the Shire's east where the fallen branches and limbs add directly to the conservation value of the roadside.

The Victorian Bushfires Royal Commission Recommendations and resulting State Government response requires some changes to roadside vegetation management. These include:

- Undergrounding of powerlines, which will lead to vegetation and soil disturbance. (Recommendation 27)
- Removal of 'hazard trees' (trees that may come in contact with power lines in high wind/storm conditions). (Recommendation 31)
- Amending roadside vegetation conservation legislation to allow for annual bushfire prevention activities. (Recommendation 61)

Mount Alexander Shire Council will manage fallen branches, limbs and fine fuel loads to minimise fire risk and pest animal harbour. As considered by the CFA, fine fuels such as fallen leaves and branches, long dry grass, weeds and some shrubs that are 6mm in diameter or less are the most common hazard. These can act as kindling for a fire by providing easy ignition and allowing it to spread easily, as opposed to branches and limbs that are greater than 6mm in diameter. Fallen trees,

branches and limbs greater than 6mm in diameter must be left on any council managed roadside.

It should be noted that dead and fallen trees, branches and limbs are very important habitat for many native mammals, birds, reptiles and insects. Firewood collection is listed as a legislative threat to many native vegetation types contributing to the decline of some species of fauna. Council does not permit timber harvesting on roadsides.

3.2 Movement of Livestock

Local Law No. 4 of 2010 Animals details Council's requirements around the movement of livestock.

Droving of livestock requires a permit issued by Council. The person engaged in driving livestock on a road must comply with the requirements set out in Council's *Procedures Manual*.

Similarly, roadside grazing can again only be carried out along a road with a permit and must comply with Council's *Procedures Manual*.

Further to this Council encourages landholders to consider the impacts of livestock activities such as the potential spread of weeds and the direct impact they can have on areas of high conservation value native vegetation.

3.3 Horse Riding

Local Law No. 4 of 2010 Animals details Council's requirements around horse riding. They are:

- A person must not ride a horse on a road or Council land, including a road reserve or footpath, if the activity causes damage to the road or Council land.
- A person must not ride a horse on Council land, including a road reserve or footpath, if the activity causes a nuisance to any person.

Many of the roadsides in the Shire are highly attractive, as well as valuable ecologically. While horse riding is not prohibited, it is important that all horse riding be done in a sensitive way that causes no damage.

3.4 Machinery Movement

Due to the value placed on native vegetation, Council encourages machinery operators to move machinery via roads that do not require vegetation removal beyond normal clearance distances. If necessary, request for the trimming/lopping of roadside vegetation can be made through a customer request service. The *Catchment and Land Protection Act 1994* requires land managers to take reasonable precautions to ensure that any vehicle is free from the seeds of any noxious weed and any other part of a noxious weed that is capable of growing when moving any equipment or machinery along a road.

3.5 Provision of Services

In urban areas roadsides are commonly used for the provision of services, such as electricity, gas, telephone, water and sewerage. This is less common in rural areas, however there are exceptions.

Where vegetation must be cleared in order to access these services the service provider must obtain appropriate native vegetation clearance permits from Council. In rural areas, electricity service providers can clear vegetation without a permit from Council providing any clearance is done in accordance with the *Electricity Safety (Electric Line Clearance) Regulations 2010*.

3.6 Road Drainage

Often in rural areas informal or earthen drains utilise the roadside to handle and treat (partially) stormwater runoff from roads. The construction and maintenance of road drainage infrastructure is a core part of Council's regular operations to ensure a safe passage for travelling vehicles.

However, road drainage can negatively impact roadside vegetation in three key ways. The use of inappropriate or poorly designed or maintained drainage can lead to the transport of weed seeds, spreading weeds at the expense of native species. Similarly, they can permit the transfer of pollutants to adjoining vegetation and potentially on to waterways. Finally, vegetation can be inappropriately cleared or covered with spoil during the construction and maintenance of the drains.

3.7 Works on Roadsides

The management of each of the previously discussed roadside values can bring about damage or disturbance of roadside vegetation. One of the key aims of this Plan is to minimise such risks during any necessary works or activities.

As detailed in Section 2.1 a detailed vegetation assessment of roadsides has been undertaken resulting in classifications of low, medium or high conservation values.

Given that nearly 50% of roadsides are assessed as high or medium conservation value, and that the location of all cultural and heritage sites/places is not known or recorded it is difficult to develop a range of management options that will protect these assets (and therefore hard to expect officers to implement).

Regarding any works on the roads themselves, or their associated drainage infrastructure, a single management guideline is proposed that **works on roads will be conducted between the back of table the drain to the back of table drain on the other side of the road regardless of a road's conservation value.** (Refer to Figure 9.) Rationale for this decision is that, whether the road is weed infested or contains high value native vegetation, minimum disturbance principles of management will provide the best environmental, cultural and economic outcomes.

Further, existing individual areas used for 'cutting in' or as 'mitre drains' are to be kept to a minimum size (length and width) and are adequately maintained. No new areas should be developed as areas for 'cutting in' on any roadside, as the rationale for this is that minimum disturbance principles of management always provide the best environmental, cultural and economic outcomes. Where adverse impacts occur by mistake or because there was no other prudent or feasible alternative repairs and reinstatement should occur where possible.

A table of Best Practice for Works Commonly Undertaken within Road Reserves can be found in Appendix 2 and should be read and implemented in conjunction with this section.

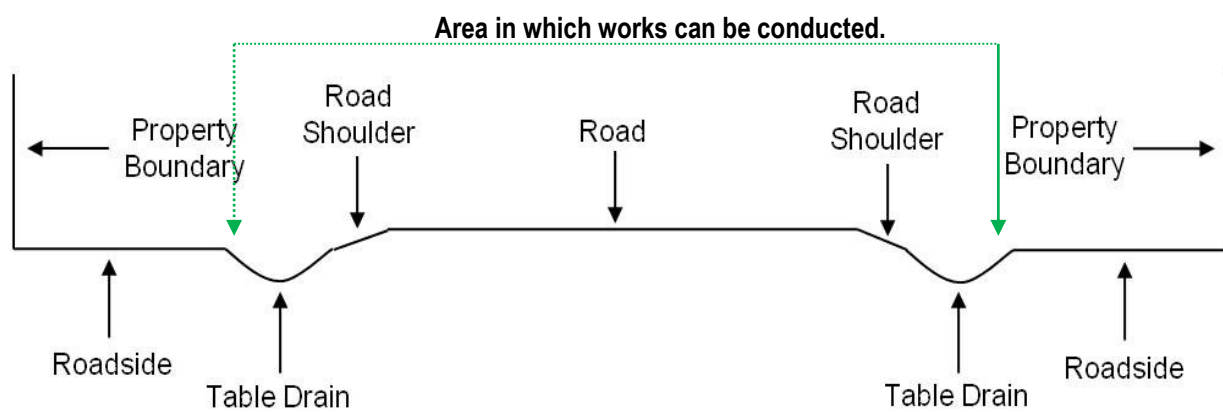


Figure 9 Commonly used road terms.

4. STRATEGIC ACTION PLAN

The following Strategic Action Plan details the specific actions that will be carried out by 2017. Council's Natural Environment Officer will co-ordinate the implementation of the actions. The implementation will be reported to Council and the community annually and the entire plan will be reviewed in 2017.

It should be noted that all actions, unless specified otherwise, are subject to budget considerations and may require external funding.

	Actions	Responsible Unit	Partners	Indicator	Estimated Cost	Timing
1	Review existing locations of Significant Roadside Vegetation signage and install new signage across the municipality.	Healthy Environments	Connecting Country, Depot	Existing signage reviewed and signs installed.	\$15,000	December 2012
2	Identify knowledge gaps, then develop and deliver training for council staff promoting best practice for works conducted on road reserves to increase organisational awareness of roadside conservation issues.	Healthy Environments	Depot	Training gaps identified and training plan developed/sourced.	\$10,000	June 2013, then ongoing
3	Develop an induction package to be incorporated into the existing council depot staff induction package that promotes best practice for works conducted on road reserves and raises awareness of roadside conservation issues.	Healthy Environments	Depot, Organisational Development	Package developed and included into induction program.	Included in above cost	June 2013, then ongoing
4	Install the ecological data provided by the NCCMA into Council's internal GIS system.	Information Services	Healthy Environments	Data available and accessible on the system.	Internal cost (officer time)	Sep 2012
5	Develop a spatial layer of Council's gravel dumps to be incorporated into the Council's GIS system.	Information Services	Depot, Healthy Environments	As above.	Internal cost (officer time)	Sep 2012

	Actions	Responsible Unit	Partners	Indicator	Estimated Cost	Timing
6	Investigate options for installing the ecological data provided by the NCCMA into portable devices for Council employees to access whilst undertaking road work activities, with a focus on graders, backhoes and vehicles used for emergency after hours call outs.	Healthy Environments and Depot	Information Services, Local Laws	Business case developed to implement.	Internal cost (officer time)	Dec 2013
7	Develop tools and processes for identifying and reporting roadside conservation issues from the community and council employees spatially so that data is continuously updated.	Healthy Environments	Information Services, Depot, community groups	System of reporting and data entry developed and publicised internally and externally.	Internal cost (officer time)	June 2013
8	Develop and print user friendly field maps for Council staff that display the ecological data collected by the NCCMA.	Information Services	Depot, Healthy Environments	Map book developed, printed and distributed.	Internal cost (officer time)	Jan 2013
9	Provide direction and support for road reserve management through other Council Plans, strategies, policy and procedures.	Healthy Environments	All units	Roadside vegetation conservation and management becomes regular consideration in all roadside planning and management.	Internal cost (officer time)	Ongoing
10	Develop a conservation works register in conjunction with Landcare and other groups that tracks details of works undertaken by community groups on roadsides.	Healthy Environments	Connecting Country, Community Development (re grants), Depot	Works register developed and maintained.	Internal cost (officer time)	Sept 2012 then ongoing

	Actions	Responsible Unit	Partners	Indicator	Estimated Cost	Timing
11	Increase community awareness and understanding of the existing work undertaken by Council staff in relation to roadside conservation management.	Healthy Environments	Communications Officer	One article Shire News per annum and content of the website improved.	Internal cost (officer time)	Ongoing
12	Develop clear processes, procedures and communication material for customer requests regarding roadside weeds and vegetation management.	Healthy Environments	Customer Service Unit, Communications Officer	FAQ sheet developed and maintained. Roles and responsibilities agreed internally between units. Roles and responsibilities clearly outlined to CSU. Website updates to contain relevant, clear information. Link on council's website to the NCCMAs on-line interactive mapping system.	Internal cost (officer time)	June 2013 then ongoing
13	Ensure that the Roadside Conservation Management Plan is included in all relevant external contract documentation.	Procurement	Infrastructure	RCMP included in all tender and contract docs.	Internal cost (officer time)	Dec 2012 then ongoing
14	Review the ecological data provided by the NCCMA every 5 years and incorporate the necessary changes into Council's GIS system.	Healthy Environments	CMA	Data updated and incorporated.	Subject to special project bid or grant funding	Ongoing

	Actions	Responsible Unit	Partners	Indicator	Estimated Cost	Timing
15	Distribute the Plan to the appropriate organisations, agencies and community groups and make available on Council external website.	Healthy Environments	Communications Officer	Plan received by relevant authorities and organisations.	Internal cost (officer time)	Sept 2012
16	Report on the implementation of the Plan annually and review the Plan every 5 years.	Healthy Environments	All units and agencies listed as partners	Implementation Report brought to Council annually. Reviewed Plan brought to Council in 2017.	Internal cost (officer time)	Ongoing
17	Support inter-council and agency cooperation, information sharing and joint projects.	Healthy Environments	External partners as required	Number of projects implemented with partners or external projects supported.		Ongoing
18	Adopt and implement Best Practice for Works Commonly Undertaken Within Road Reserves Model (as per Appendix 2)	Infrastructure, Depot, Procurement	Contractors	Table, as per Appendix 2 included in all council issued contracts that involve works on road reserves. Best practice applied and implemented in all works conducted on road reserves whether conducted by Council staff or its contractors.	Internal cost (officer time)	Ongoing

	Actions	Responsible Unit	Partners	Indicator	Estimated Cost	Timing
19	Review Council's roadside slashing program with view to identify pertinent weed spread issues and to link in with Councils MFMP.	Healthy Environments	Local Laws, Depot, Infrastructure	Review conducted, issues and actions identified.	Internal cost (officer time)	Dec 2012
20	Develop and implement a process of reviewing proposed fire management activities to occur on roadsides.	Healthy Environments	Local Laws, Infrastructure	Process developed and being implemented.	Internal cost (officer time)	June 2013 then ongoing

APPENDIX 1: LEGISLATION INFLUENCING MANAGEMENT OF ROAD RESERVES

Federal

Environment Protection and Biodiversity Conservation Act 1999

Provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places.

Aboriginal and Torres Strait Islander Cultural Heritage Protection Act 1984

Recording and protection of sites of significance. Issuing of consent to carry out activities which will have an impact on Aboriginal place or object.

State

Aboriginal Heritage Act 2006

Provides for the protection of Aboriginal culture.

Catchment and Land Protection Act 1994

The CaLP Act 1994 aims to regulate the management of noxious weeds, prohibit the movement and sale of noxious weeds throughout the state, address the occurrence of weed seeds contaminating seed lots or other plant products and allow the recommendation by the Minister to declare as noxious a plant that is, or has the potential to become, a serious threat to primary industry, Crown land, the environment or community health anywhere in the Commonwealth.

However, it should be noted that current confusion exists due to different interpretations surrounding the management and control of noxious weeds on roadsides and that negotiation between the Department of Primary Industries and the Municipal Association of Victoria is currently occurring.

Country Fire Authority Act 1958

The general duty and aim of the CFA is to prevent and suppress fires and protect life and property in the case of fire in the Country area of Victoria.

Flora and Fauna Guarantee Act 1988

Legislates for the conservation of threatened species and communities and for the management of potentially threatening processes.

Heritage Act 1995

Provides for the protection and conservation of places and objects of cultural heritage.

Local Government Act 1989

Assigns powers to Councils including the care and management of roads.

Planning & Environment Act 1987

Governs development and administration of Planning Schemes and includes native vegetation removals and required for Municipal Strategic Statement. Local Government can influence environmental weed control through its statutory planning responsibilities.

Road Management Act 2004

Assigns Council as the responsible authority for local roads including the responsibility of managing all third party activities occurring on these road reserves and under the act written consent is required from Council before undertaking works in a road reserve.

Wildlife Act 1975

Provides for the protection of all native Victorian fauna.

Forest Act 1958

Control and management of all trees, saplings, shrubs and underwood. Prosecution for unauthorised cutting of timber. The DSE has the control and management of all matters of forest policy, licenses, royalties and plans and works relating to State Forests. Local Government has responsibility for vegetation on any road except those in or adjoining a State Forest.

Transport Act 1983

Regulation of use of freeways, State highways, main roads, tourist roads, forest roads or a stock route. VicRoads is responsible for management of highways and other declared roads. Local Government may be delegated this responsibility

The Land Act 1958

Gives the Crown ownership of all vegetation on roadsides, Royalties for timber collection, cropping & haymaking payable.

Crown Land (Reserves) Act 1978

Provides for the reservation of Crown land for public purposes and the appointment of Trustees and Committees of Management.

Telecommunications Act 1997

Provides for the planning, installation and maintenance of services. Carries powers and immunities. Provisions for threatened species, environmental impact assessment.

Environment Protection Act 1970

Key aims of the Act include sustainable use and holistic management of the environment, ensuring consultative processes are adopted so that community input is a key driver of environment protection goals and programs and encouraging a co-operative approach to environment protection

Environment Protection (Amendment) Act 2006

Brings in a range of changes to the *Environment Protection Act 1970*, these changes strengthen EPA's role in helping Victorians to live sustainably, and help EPA achieve its purpose of protecting, caring for and improving the environment. In addition, the legislative changes make some key reforms to waste management to keep Victoria at the forefront of resource efficiency.

Electrical Safety Act 1998

Prescribes the regulation of power line safety. It establishes clearances between power lines and vegetation through the Code of Practice for Power line Clearances.

Energy and Resources Legislation Amendment Act 2010.

Primarily purpose was to amend a number of Acts including the *Electricity Safety Act 199*. This particular amendment now requires municipal councils to include in their Municipal Fire Prevention Plans procedures for the identification and notification of hazard trees.

Victoria's Biodiversity Strategy 1997

Is Victoria's current policy document – *Directions in Management* sets the goals and directions for the management of biodiversity in Victoria. However, DSE is currently working with a range of stakeholders regarding the management and protection of Victoria's flora and fauna. This work will further inform government priorities.

Victoria's Native Vegetation Framework 2002

Was developed to implement the objectives of *Victoria's Biodiversity Strategy* and the *Australia's Biodiversity Conservation Strategy 2010-2030*. The framework' is the State Government's strategy to protect, enhance and revegetate Victoria's native vegetation.

DSEs Managing Native Vegetation on Roadsides – A Guideline for Implementing Agreements under the Local Government Public Road Exemption.

Council is currently holding discussions regarding the implementation of these guidelines within the municipality. The purpose of these guidelines is to assist Local Government to determine if works involving the removal of native vegetation are exempt under the *Planning and Environment Act 1987*. Clause 52.17 of the Victoria Planning Provisions (VPP) lists exemptions from the requirement for a permit in relation to native vegetation. The guide lists the activities covered by the exemption, notification requirements, data collection, reporting and auditing process.

APPENDIX 2: BEST PRACTICE FOR WORKS COMMONLY UNDERTAKEN WITHIN ROAD RESERVES

The following table should be read in conjunction with the detail outlined in Section 3.7 'Works on Roadsides' and should be used and implemented by council staff and its contractors when planning to undertake works on roadsides. It should be used and implemented whether or not a written work plan is been developed for each new job. This table should also be read in conjunction with Strategic Action No 18.

Activity	Planning for Works	Implementing Works
Define construction or work zone	Identify the construction or work zone on site plans, including the identification of any conservation assets.	<p>Conduct an on-site induction session for all operators so they are aware of the 'work zone', the site's limitations, conservation assets and restrictions, that is, 'no go' zones.</p> <p>Clearly mark the construction or work zone on-ground prior to the commencement of works.</p> <p>Ensure all operators are made aware of the work zone boundaries before works commence.</p>
Machinery turn around points	Identify turning points on the site's work plan ensuring that they are sited at appropriate locations, i.e., driveways or intersections, previously used points.	<p>Ensure machinery is operated within the boundaries identified in the site's work plan.</p> <p>Ensure all operators are made aware of turn around points before works commence.</p>
Parking areas	Identify parking areas on site's work plan.	Ensure they are situated on cleared land off the road reserve and road formation as well as away from native vegetation.
Machinery operations	<p>Identify the appropriate type and size of machinery for the specific job.</p> <p>Use the smallest size of machinery possible for each job.</p>	<p>Confine machinery operations to the existing road formation, working only from the back of table drain to the back of table drain regardless of a roads conservation value.</p> <p>Disturb the minimum amount of soil necessary to perform the work.</p> <p>Minimise bark scarring, root compaction and root cutting on adjacent trees to the work zone.</p> <p>Utilise dust suppression procedures when necessary.</p>
Vehicle, machinery and equipment hygiene	Incorporate stringent hygiene procedures.	Clean all machinery and equipment before moving equipment between work sites to ensure all noxious weeds (or part of) and pathogens are removed.
Stockpiling	<p>Identify stockpiles sites on site's work plan.</p> <p>Identify gravel source and only use construction material from weed free sources.</p>	<p>Only place stockpiles at designated locations.</p> <p>Regularly monitor stockpiles for weeds.</p> <p>Define the outer limits of each stockpile site to avoid encroachment of the roadside vegetation.</p> <p>Topsoil should be stripped, stockpiled and reused as soon as possible, if weed free.</p>
Removal of topsoil	Identify on site's work plan where topsoil will be located, avoiding native	Remove all stripping from widening and reconstruction

Activity	Planning for Works	Implementing Works
	vegetation, avoiding damage to native vegetation.	works to a recognised dump site or landfill.
Spoil	Identify where spoil from grading and drain clearing will be placed as it must not be placed or spread on the roadside.	If suitable, the spoil may be graded back on to the road for use with new gravel as part of the resurfacing works. If it is not suitable it should be removed to a recognised dump site or landfill with the load securely covered during transportation.
Table drains	Identify location, condition and mark on site's work plan. Ensure all operators are aware of the policy that all works should only be conducted from the back of table drain, to the back of table drain regardless of a roads conservation value before works commence.	Clean table drains regularly so they do not become clogged with silt or vegetation. Any works should only be conducted from the back of table drain to the back of table drain regardless of a roads conservation value.
'Cutting in' or Mitre Drains	Identify existing locations of mitre drains ('cutting in') before works commence and mark on a site's work plan.	Use only the previously established mitre drains or areas for drainage. No new areas for cutting are to be created.
Fuel, chemical and waste management	Ensure chemical and fuel handling procedures are in place and staff trained prior to commencement of works.	Ensure chemical and fuel handling procedures are implemented according to best practice standards.
Protection of roadside vegetation adjacent to work site	Identify exclusion zones ('no go' zones) on site's work plan and the back of the back of table drain on each side of the road.	Tape off areas such as habitat trees, fallen branches, logs and limbs, threatened species, significant grasslands or cultural heritage assets before works commence. Minimise vegetation disturbance by: <ul style="list-style-type: none"> • Conducting all works from the back of table drain, to the back of table drain regardless of a roads conservation value • Working outside the trees canopy drip line • Storing fill, material or equipment at only the designated locations on the works plan • Avoid undercutting (soil removal) within the canopy drip line. • Avoid 'cleaning up' (pushing up soil or debris windrows or creating disturbance of the ground layer) in the roadside vegetation after completing road works.
Protection of waterways and water quality	NCCMA must be contacted and a Works on Waterways permit obtained before undertaking any works within the bed and banks of designated	Maintain drainage systems to ensure that the water levels of wetlands and waterways are not altered. Sediment control measures should be installed during works to filter discharge, to reduce erosion and

Activity	Planning for Works	Implementing Works
	waterways.	potential pollution problems.
Weed and pathogen control	<p>Include weed management as a central part of the works plan.</p> <p>Identify and map the weeds present on site and their method of spread before works commence.</p> <p>Spoil from drains is generally high in weed seeds, and should be moved offsite from areas of significant vegetation. Offsite disposal should occur at landfill, any other site will require approval from DPI.</p>	<p>Ensure vehicle and machinery hygiene procedures are conducted.</p> <p>Minimise soil disturbance and movement.</p> <p>Obtain soil and gravel from weed free sites.</p> <p>Tape off areas of significant weed infestation.</p> <p>When transporting spoil (and other material) from the work zone ensure that the load is adequately covered.</p> <p>Conduct work in clean (weed free) areas first before working in contaminated areas. Vehicles and machinery should then be cleaned down before leaving the work zone.</p> <p>Avoid working in weather when seedheads will stick to machinery or vehicles.</p>
Herbicide usage	<p>For approved works on roadsides ensure spraying is performed at optimum period.</p> <p>Only spot spraying is permitted along High and Medium conservation roadsides (no blanket spraying).</p>	<p>Minimise the use of herbicides, select appropriate product and where possible rotate herbicides to lessen the possibility of developing herbicide resistance.</p>
Rehabilitation	<p>Develop rehabilitation and/or revegetation plans.</p>	<p>Implement any rehabilitation plans required as part of planning permission.</p> <p>Retain dead standing trees, tree stumps, fallen trees, branches, limbs, understorey and native grasses on-site wherever possible.</p>
Monitoring	<p>Allow time for on-site monitoring of completed works involving all individuals.</p>	<p>Monitoring of completed works should occur between council and its contractor/s and internally between council staff involved with the work.</p> <p>Constructive feedback should be provided and all stakeholders allowed input into process. All findings should be communicated to all involved individuals thus allowing for continuous improvement and learning.</p>

APPENDIX 3: TOOLS FOR LANDHOLDERS FOR MANAGING PEST ANIMALS AND PLANTS

Responsibilities for landowners in invasive plant management.

Classes of Weeds and Pest Animals	What is it?	Responsibilities Described in the CALP Act (1994)
State Prohibited Weeds	Either does not occur in Victoria; or it occurs in Victoria but it is reasonable to expect that it can be eradicated from the State.	The Victorian Government must take all reasonable steps to eradicate State prohibited weeds from all land in Victoria.
Regionally Prohibited Weeds	Does not occur or it is not widely distributed throughout the region and; it is capable of growing or spreading further in the region; it is reasonable to expect that it can be eradicated from the region.	Landowners must take all reasonable steps to eradicate regionally prohibited weeds on their land. In relation to roadsides on Crown land the state must take all reasonable steps to eradicate regionally prohibited weeds. This does not however apply to a freeway or an arterial road within the meaning of the Road Management Act 2004; or Crown land held under a lease or licence.
Regionally Controlled Weeds	Occurs in the region; and are capable of spreading further in the region and should be stopped from doing so; and to prevent its spread, continuing control measures are required.	Landowners must take all reasonable steps to prevent the growth and spread of regionally controlled weeds; and A landowner must take all reasonable steps to prevent the spread of regionally controlled weeds on a roadside that adjoins the land owner's land. This does not however apply to a roadside which is: a freeway or an arterial road within the meaning of the Road Management Act 2004; or Crown land held under a lease or licence by a person other than the land owner; or Land exempted from that subsection by a special area plan; or Crown land in a national park or park within the meaning of the National Parks Act 1975 or in a protected forest within the meaning of the Forests Act 1958; or Crown land managed by a public authority other than the Secretary, or a Minister other than the Minister; or Crown land reserved under the Crown Land (Reserves) Act 1978 for a purpose other than a road.
Restricted Weeds	It is a serious threat to primary production, Crown land, the environment or community health in another State or Territory.	Can not be sold or traded.

Responsibilities for landowners in invasive animal management.

Classes of Weeds and Pest Animals	What is it?	Responsibilities Described in the CALP Act (1994)
Prohibited Pest Animals	<p>Did not occur naturally in the wild in Australia before European settlement; and either—</p> <p>it is a serious threat to primary production, Crown land, the environment or community health in a place outside Victoria; or</p> <p>its potential to threaten primary production, Crown land, the environment or community health in Victoria is unknown.</p>	<p>Importing, keeping, selling or releasing is not allowed.</p>
Controlled Pest Animals	<p>Did not occur naturally in the wild in Australia before European settlement; and</p> <p>it has a high potential to become a serious threat to primary production, Crown land, the environment or community health in Victoria; and</p> <p>it should only be kept in high security collections approved by the Minister.</p>	<p>A permit from DPI is required to import, keep or sell a controlled pest animal.</p>
Regulated Pest Animals	<p>it did not occur naturally in the wild in Australia before European settlement; and</p> <p>it is, or has the potential to become, a serious threat to primary production, Crown land, the environment or community health in Victoria; and</p> <p>it should only be kept in collections or at premises approved by the Minister.</p>	<p>A permit from DPI is required to import, keep or sell a regulated pest animal.</p>
Established Pest Animals	<p>It is established in the wild in Victoria; and</p> <p>it is a serious threat to primary production, Crown land, the environment or community health in Victoria; and</p> <p>it should be eradicated or controlled or its spread in the wild should be prevented.</p>	<p>A landowner must take all reasonable steps to prevent the spread of established pest animals on a roadside that adjoins the land owner's land. This does not however apply to a roadside which is:</p> <ul style="list-style-type: none"> a freeway or an arterial road within the meaning of the Road Management Act 2004; or Crown land held under a lease or licence by a person other than the land owner; or land exempted from that subsection by a special area plan; or Crown land in a national park or park within the meaning of the National Parks Act 1975 or in a protected forest within the meaning of the Forests Act 1958; or Crown land managed by a public authority other than the Secretary, or a Minister other than the Minister; or Crown land reserved under the Crown Land (Reserves) Act 1978 for a purpose other than a road.

GLOSSARY OF TERMS

Spoil: Is the soil and other matter that accumulates in table drains and is removed or relocated during maintenance works.

Table drains: Are generally v-shaped surface drains located immediately next to the road shoulder.