

# Roadside Management Strategy

July 2014

## Table of Contents

Acknowledgements .....	5
1. Introduction .....	6
2 Background .....	7
2.1 The City of Whittlesea Profile .....	7
2.2 History of the Roadside Management Strategy .....	7
2.3 Scope & terms of reference .....	8
2.4 Integration with other municipal strategies and plans.....	8
3 Rural roadside management objectives .....	10
4 Roadside legislation and regulations .....	11
4.1 Roadside definition.....	11
4.2 Roadside management responsibility.....	11
4.3 Environment Protection and Biodiversity Conservation Act 1999	12
4.4 Flora and Fauna Guarantee Act 1988 .....	16
4.5 Catchment and Land Protection Act 1994 .....	17
4.6 Country Fire Authority Act 1958 .....	18
4.7 Local Government Act 1989 .....	20
4.8 State Planning Policy Framework – Native Vegetation Permitted Clearing Regulations .....	21
4.9 Whittlesea Planning Scheme .....	22
4.10 Victorian Bushfire Royal Commission: Recommendations and Legislation changes.....	22
4.11 Road Management Act 2004 .....	25
4.12 Further legislation .....	25

4.13	Regional Bushfire Planning Assessment.....	26
5	Roadside Conservation Value.....	27
5.1	Methods.....	27
5.2	Results.....	29
5.2.1	Noxious weeds.....	29
5.2.2	Vegetation types.....	30
5.2.3	Roadside Conservation Value.....	31
5.2.4	Sites of flora significance.....	32
5.2.5	New and emerging management issues.....	32
6	Objectives, guidelines and specific actions.....	33
6.1	Fire management.....	34
6.2	Functional use management.....	41
6.2.1	Road design and construction.....	42
6.2.2	Road maintenance.....	46
6.2.3	Service installation and maintenance.....	48
6.3	Land protection and conservation management.....	50
6.3.1	Pest plants, animals and other organisms.....	51
6.3.2	Soil erosion.....	53
6.3.3	Significant biodiversity conservation sites.....	54
6.3.4	Natural regeneration, revegetation and wildlife corridors...	56
6.3.5	Agricultural production.....	59
6.4	Cultural heritage and landscape management.....	61
6.4.1	Cultural and heritage values.....	61
6.4.2	Amenity and landscape values.....	62
6.4.3	Recreational values.....	63
6.4.4	Waste/litter control.....	64
7	Implementation.....	66

7.1	Key implementation actions .....	66
7.2	Monitoring & review .....	68
	List of acronyms .....	69
	References .....	71
	Appendix 1. Fire Priority Roads .....	74
	Appendix 2. Declared noxious weeds.....	75
	Appendix 3. Legislation .....	77
	Appendix 4. Regional Bushfire Planning Assessment – City of Whittlesea (DPCD 2012).....	79
	Appendix 5. Geographic data used to inform desktop analysis.....	83
	Appendix 6. Roadsides supporting heritage values. ....	84
	Appendix 7. Summary of vegetation types.....	85
	Appendix 8. Roadside Conservation Value map .....	87
	Appendix 9. Roadsides of High Conservation Value. ....	89
	Appendix 10. Sites of flora significance.....	90
	Appendix 11a. Standard Operating Procedure – Fire Management .....	91
	Appendix 11b. Standard Operating Procedure – Road Design and Construction .....	93
	Appendix 11c. Standard Operating Procedure – Road Maintenance .....	95
	Appendix 11d. Standard Operating Procedure – Service Installation and Maintenance.....	97
	Appendix 11e. Standard Operating Procedure – General procedures for all works.....	98
	Appendix 12. Vehicle and Machinery Hygiene Procedure .....	101
	Appendix13a. Roadside Slashing Guidelines .....	108
	Appendix13b. Roadside Slashing Guidelines – Management Areas .....	112

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## 1. Introduction

Roadsides in the City of Whittlesea support a number of values that provide numerous community benefits. Environmental and cultural heritage conservation, fire prevention and service provision are all major features of roadsides, in addition to their role in maintaining the safe and efficient use of the road network. Contrasts between the objectives of Council, the community, the road user and other agencies sometimes make roadside management seemingly conflicting. A variety of legislative and regulatory mechanisms exist that inform roadside management, hence decision makers can face a complex task in balancing multiple competing objectives.

This Strategy aims to provide a balanced approach to the protection and sustainable management of environmental and cultural heritage values on roadsides in the City of Whittlesea, while meeting key functional and fire prevention requirements.

## 2 Background

### 2.1 The City of Whittlesea Profile

The City of Whittlesea is located approximately 20 kilometres north of Melbourne CBD and covers an area of approximately 490 km<sup>2</sup>, making it one of the largest municipalities in metropolitan Melbourne. It extends from the suburbs of Thomastown, Bundoora and Mill Park in the south to Kinglake West, Whittlesea and Eden Park in the north. The south of the city comprises a mix of industrial, commercial and residential development (approximately 30% of the City's land) which transitions to agricultural and conservation areas in the north (70% of the land).

The City of Whittlesea is among the fastest growing municipalities in Victoria, having grown at a rapid rate over the past 30 years, more than quadrupling its population. The estimated population of the City of Whittlesea at June 2011 was 163, 500 residents and, growing at a rate of 5% per year, this is forecast to double in the next 20 years.

### 2.2 History of the Roadside Management Strategy

Council developed its first Roadside Management Strategy in 1998. The Strategy was prepared with a great deal of rigour with respect to its development within Council and extensive community consultation. Its preparation involved a variety of staff from multiple agencies with a stake in roadside management in the municipality, encompassing DNRE, VicRoads, CFA, utilities companies and local conservation groups.

The strategy was largely lauded as a success by virtue of its clear delineation of guidelines and actions specific to each of the relevant Council departments. It contributed to a greater awareness and understanding of the values associated with roadsides, both within Council and amongst the wider community. Despite this, without formal endorsement by Council it remains largely incomplete, highlighting a key issue for resolution in this Strategy.

The original Conservation Value assessment was also undertaken during the Strategy development period (1998) and was subsequently updated in 2003. These assessments provided practical benchmarks based on vegetation quality to inform roadside management practices. The methodology employed for these assessments has been largely superseded since this time through development of the more detailed Vegetation Quality Assessment Manual (VQAM, DSE 2004) and provisions of the Victorian Native Vegetation Management Framework, although these original assessments are in many ways consistent with VQAM.

## 2.3 Scope & terms of reference

This Strategy is based on a review of the Roadsides Management Strategy 1998 and related operational procedures. It applies to rural roadsides throughout the municipality and covers a five year implementation period spanning 2014-18.

To achieve this, the following actions were implemented as part of its development:

- review of the Roadside Management Strategy 1998;
- identification of strategic and legislative updates, including the outcomes of the Bushfire Royal Commission;
- desktop analysis of municipal roadsides to identify significant flora and fauna and cultural heritage values;
- map and categorise significant roadsides within the municipality to ensure management regime is complementary to management requirements;
- provide a management regimen that is complementary to management requirements;
- improve operational performance with regard to native vegetation management, erosion and sedimentation, vehicle hygiene and preventing the spread of noxious and environmental weeds; and
- retain and increase positive relationships with landholders adjacent to significant roadside vegetation.

## 2.4 Integration with other municipal strategies and plans

This Strategy relates closely to, and is intended for integration with the following City of Whittlesea strategies and plans:

- Municipal Fire Management Plan 2012-2015 (CoW 2012a & b)
- Municipal Waste and Resource Recovery Strategy 2012-2020 (CoW 2012c)
- Environmental Sustainability Strategy (CoW 2012d)
- Electric Line Clearance Management Plan 2013 – 2014
- City of Whittlesea Street Tree Masterplan 2000
- Green Wedge Management Plan



- Road Management Plan
- Stormwater Management Plan
- Heritage Strategy (in press)
- Open Space Strategy (in press)
- Urban Naturestrip Guidelines

### 3 Rural roadside management objectives

Rural roadsides within the City of Whittlesea contain many conservation, landscape and heritage values that need to be protected and managed carefully. In the City of Whittlesea, a large proportion of the original native vegetation has been lost due to agricultural practices, urban growth and weed invasion. In many areas, the roadsides provide clear examples of vegetation communities that once were widespread across the municipality. These isolated patches of remnant vegetation are valuable because they link areas of key habitat, playing an important part in providing corridors for the movement of native animals. This conservation imperative is notably relevant at the municipal scale, where key decisions are made by both private and public land managers and where significant changes to management often occurs over relatively short time spans.

The key objectives of roadside management are to:

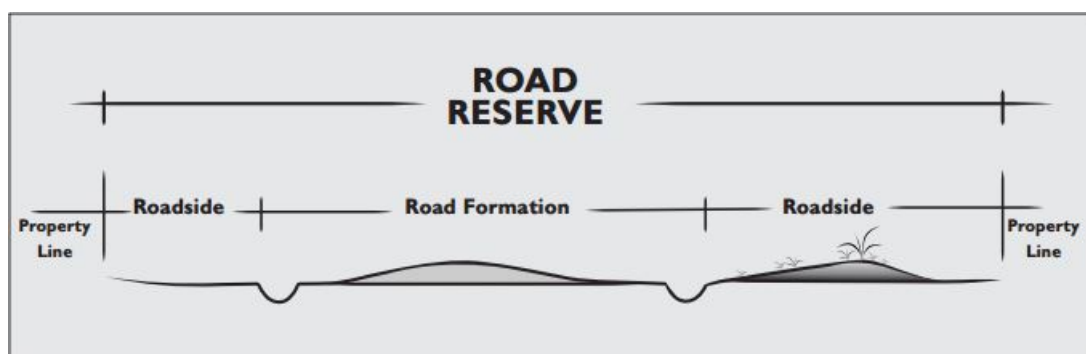
- Protect, maintain and enhance conservation values;
- Provide fire prevention and fire management functions;
- Ensure safe and efficient utility and road use functions; and
- Protect and enhance cultural heritage values.

## 4 Roadside legislation and regulations

A variety of legislation and regulations govern the management of roadsides within the City of Whittlesea. This section summarises each regulatory provision and provides basic guidelines to assist interpretation and application of their various requirements (refer to Appendix 3 for a graphical representation of the relationships between relevant legislation at different levels of government).

### 4.1 Roadside definition

The roadside is all land within the road reserve that falls within the boundaries of a road and which is not the road formation or a pathway (see Figure 1 below). The roadside includes crossings that are constructed or otherwise from the roadway or pathway to other land (e.g. driveways). The formal definition of the roadside and similar related terminology is set out in Section 3 of the *Road Management Act 2004*.



### 4.2 Roadside management responsibility

Section 37 of the Road Management Act 2004 specifies the responsible road management authority for various road classifications. Within rural areas of the City of Whittlesea, the entire road reserve of all freeways and arterial roads are the management responsibility of the State road authority, VicRoads. Council is responsible for the management of all declared municipal roads. The Department of Environment and Primary Industry (DEPI) or other State Road authority (excluding VicRoads) may also be responsible for licensing and/or management of roads where such roads are part of a Crown land reserve under the *Crown Land (Reserves) Act 1978*.

Private landowners are also responsible for management, in part, of the road reserve adjoining their property (see section 4.5)

### *Code of Practice for Operation Responsibility for Public Roads*

Throughout the road network, different sections of the road reserve fall within the responsibility of different authorities, depending on whether the road is in an urban or rural area and the designated road type. Visual depictions of these different management areas are provided in the *Code of Practice for Operational Responsibility for Public Roads* (State of Victoria 2004).

On freeways and arterial roads of rural areas, the only road sections outside of the management responsibility of VicRoads, where Council performs the functions of a responsible road authority, includes: service roads, off road bicycle paths within the road reserve, pathways, associated local signage, and underground drainage that is part of a municipal drainage scheme.

VicRoads and Council can share or change responsibilities by agreement.

### *Register of Public Roads*

The *Road Management Act 2004* requires that each road authority must keep a register of public roads specifying the roads in which it is the coordinating authority. Both VicRoads and City of Whittlesea provide these documents to the public via their websites, and VicRoads also have an online interactive mapping application for identifying all declared roads (i.e. not restricted to those listed on the VicRoads register of public roads).

### *Inter-agency roads in the City of Whittlesea*

Arterial roads relevant to this Strategy with regard to rural roadside management include Cooper Street, Craigieburn Road, Donnybrook Road, Epping Road, Merriang Road, Plenty Road, Wallan Road and Yea Road. Some of these roads (particularly major roads running east to west across the municipality) are included in the municipal list of fire priority roads (CoW 2012a) These are roads that form the basis of a control line for gaining control of a fire. A list of fire priority roads is provided in Appendix 1.

## **4.3 Environment Protection and Biodiversity Conservation Act 1999**

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the primary Commonwealth legislation for environment protection. Under the EPBC Act, an action will require approval from the Commonwealth Minister for the Environment if it has, will have, or is likely to have a significant impact on a matter of 'National environmental significance' and it is not subject to certain specified exceptions.

Matters of National environmental significance trigger the Commonwealth's environmental assessment and approval responsibilities. Matters relevant to the present strategy are: nationally listed threatened species and ecological communities and migratory species protected under international agreements.

If a project might impact on a matter of National environmental significance, a 'referral' to the Commonwealth Minister for the Environment, Heritage and the Arts is required. If the Minister considers it likely that a proposed action will impact on a matter of National environmental significance, the action is considered 'controlled' and requires a detailed assessment and permit approval to proceed.

### *Significant Impact Guidelines*

The Commonwealth Department of the Environment, Water, Heritage and the Arts provides Significant Impact Guidelines on their website regarding the treatment of nationally significant environmental assets. Two fact sheets of relevance to Local Government activities should be consulted by Council when planning for works on roadsides that may have a significant impact on EPBC-listed species and communities (DEWHA 2009a & b).

Typical roadside management activities taking place prior to the listing of threatened species and communities under the EPBC Act can generally continue without Commonwealth approval, for example:

- Maintaining existing facilities;
- Routine vegetation management;
- Road verge maintenance; and
- Widening an existing road where the road verge has previously been cleared or the vegetation beside the road has been heavily modified;

Examples of activities that would be likely require a referral to the Commonwealth include:

- A proposed new road that constitutes a significant impact to EPBC-listed species or ecological community; and
- Road widening that requires removal of native vegetation that contains EPBC-listed plant species or ecological communities.

### *EPBC-listed species and ecological communities on roadsides*

EPBC-listed species and ecological communities have potential to persist on roadsides in the City of Whittlesea. They should be considered in all works proposals that could have a significant environmental impact on roadsides.

The following listed ecological communities are known or potentially occur on roadsides within the City of Whittlesea:

- Natural Temperate Grassland of the Victorian Volcanic Plain (VVP) (Critically Endangered, listed 21 June 2008);

A highly variable ecological community on both a spatial and temporal scale with regard to species composition due to season, weather patterns, site and land management practices. Although just one component of a group of lowland temperate grasslands, it is distinguishable from others by its association with Quaternary basalt soils and limitation to the VVP bioregion. Vegetation is mostly limited to a ground layer of tussock grasses such as Kangaroo Grass *Themeda triandra*, Spear Grass *Austrostipa* spp., and Wallaby Grass *Austrodanthonia* spp. The ground layer also supports a diversity of herbs from the daisy, lily, orchid and pea families with large shrubs and trees effectively absent.

- Grassy Eucalypt Woodland of the Victorian Volcanic Plain (Critically Endangered, listed 25 June 2009).

Distributed on poorly draining soils across flat to gently undulating plains and associated stony knolls up to 500m above sea level. An open Eucalypt woodland characterised by River Red Gum *Eucalyptus camaldulensis*. Swamp Gum *E. ovata* and Manna Gum *E. viminalis* become the dominant canopy species in higher rainfall areas and Grey Box *E. microcarpa* and Yellow Box *E. melliodora* are present at lower rainfall sites. The midlayer is most often composed of a diversity of Wattles *Acacia* spp. with the ground layer dominated by a range of tufted graminoids and providing the majority of vegetative cover.

Grassy Eucalypt Woodland can be present in a non-characteristic state where the historical management regime has resulted in changes to vegetation structure and diversity. These patches form part of this protected ecological community where they meet the required condition thresholds.

- Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains (Critically Endangered, listed 27 March 2012).

In Victoria across Lowland Plains and limited to plains and lower slopes or stony rises below 500m above sea level. Generally fertile but poorly draining clays and in the Victorian Volcanic Plains, soils around wetlands may contain larger stones

or rocks. Occurs on seasonally inundated, ephemeral drainage lines or depressions. A generally treeless community dominated by herbaceous species characteristic of wetter sites with a good cover of graminoids. Most of the dominant herbaceous species are absent from adjoining grasslands and woodlands.

Confirmation of the presence of these communities and species, determination of whether they meet quality thresholds to warrant federal referral for works approval, and whether any proposed works necessitate consideration at the federal level needs to be determined by detailed assessment against the Commonwealth listing advice respective to the community in question.

Victorian Ecological Vegetation Classes (EVCs) and some floristic communities listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act) can serve as surrogates for the presence of threatened ecological communities. The listing advice for *Grassy Eucalypt Woodland of the Victorian Volcanic Plain* acknowledges that although EVC benchmarks do not equate directly to the condition thresholds for the community, it is likely that patches that meet the relevant Victorian EVC benchmarks could also be assessed as good quality patches of this EPBC-listed community (DEHA 2009). In the absence of further information on the application of this, Council should interpret 'meeting the benchmark' as commensurate with meeting the Framework criteria of an 'assessable 'intact' native vegetation patch'.

The relevant Victorian EVCs and FFG-listed floristic communities that are specified in the EPBC listing advices as constituent of the above EPBC-listed communities include:

- EVC 132: Plains Grassland (all sub-types)
- EVC 649: Stony Knoll Shrubland
- EVC 651: Plains Swampy Woodland
- EVC 55: Plains Grassy Woodland (sub-types 61 & 63)
- FFG Community 55-04 'Victorian Volcanic Plains Grassy Woodland'
- FFG Community 'Western (Basalt) Plains Grassland'

With respect to threatened species, all roadside works outside of typical maintenance activities should be evaluated by suitably qualified and experienced personnel to determine if a referral to the Commonwealth is required. It is notable that many roadsides in the City of Whittlesea have a reasonable likelihood of supporting the EPBC-listed Matted Flax-lily *Dianella amoena*, regardless of the assessed conservation value. A conservative approach to roadside construction works should therefore be taken in all proposals, and site surveys should be

undertaken by suitably qualified and experienced personnel to inform these projects.

Assessments being undertaken for EPBC-listed species and ecological communities on private land should assess adjacent roadsides where negative impacts could result from land management practices and development.

#### **4.4 Flora and Fauna Guarantee Act 1988**

The *Flora and Fauna Guarantee Act 1988* (FFG Act) is the primary State legislation for the protection of native plants, animals and ecological communities on public land and water in Victoria. Species and ecological communities can be listed as threatened under the Act based on determination by an independent Scientific Advisory Committee. Threatening processes may also be listed.

##### *Flora and fauna listings*

Vegetation communities, plants, animals and other taxa may be listed under the FFG Act if they are known to be in decline or under the threat of extinction. Listing is intended to protect threatened taxa or communities from further threats to their survival on public land in Victoria. Threatened taxa are listed under Schedule 2 of the Act. Whilst not immediately threatened, a number of species, genera and families of plants may be declared by Government Gazette under the provision of Section 46 of the Act to protect them from unauthorised clearing, harvesting and collection on public land. Flora that is a part or member of a listed taxon or community is also protected.

A permit is required to clear any listed plant, protected flora, or a part or member of a listed community on public land (including Crown lease land), or to conduct works on public land where there may be impacts on listed fauna species. The threatened and protected lists are readily available from the DEPI website, and Council requires a permit independently of Victorian planning provisions for actions that will impact on roadsides that are not otherwise exempt through Ministerial agreements.

##### *Victorian Advisory Lists of Rare or Threatened Flora and Fauna*

Experts within and external to the Victorian Department of Sustainability and Environment (DSE) contribute to advisory lists of rare or threatened flora and fauna species occurring in Victoria (DSE 2005, 2007 & 2009). Listing in these advisory documents does not automatically confer FFG Act protection or any other legislative protection, however listing can trigger enhanced vegetation protection via the Victorian Native Vegetation Management Framework.

For example, if roadside works could negatively impact a patch of native vegetation that supports the 'best 50% of remaining habitat' for a species from the above



advisory lists, the patch will qualify under the Framework as Very High conservation significance and thus require referral to DEPI irrespective of whether the species is FFG listed. The presence of FFG listed species in this scenario may trigger more rigorous approval processes if their presence results in vegetation being of Very High conservation significance.

## **4.5 Catchment and Land Protection Act 1994**

The *Catchment and Land Protection Act 1994* (CaLP Act) seeks to protect Victorian land and water resources from degrading processes. It provides a classification system for declared noxious plants and pest animals and specifies the requisite management responsibilities for roadside authorities. This was most recently updated in Victorian Government Gazette No. S 399 Friday 1 October 2010.

The definitions of declared noxious species and species relevant to roadside management within the City of Whittlesea are listed in Appendix 2.

### *General provisions*

Under the Act, land owners must take all reasonable steps to conserve soil, protect water resources, eradicate regionally prohibited weeds and pest animals and avoid causing or contributing to land degradation which causes or may cause damage to land of another land owner.

In November 2013 amendments were made to the CaLP Act to introduce a new system which requires municipal councils to prepare a roadside weed and pest animal management plan for land in their municipal district that is the subject of a declaration published in the Victoria Government Gazette, to address regionally prohibited weeds, regionally controlled weeds and established pest animals on rural municipal roads. These amendments were made to clarify responsibility for roadside weed and pest control.

Prior to the amendments, adjoining landowners were responsible for managing most noxious weeds and established pest animals on roadsides. Currently, private land owners have no responsibility for roadsides adjoining their land, unless they have an unused road reserve for which they have an active lease for. VicRoads and the City of Whittlesea are responsible for invasive plant and animal control on any roadside they manage.

### *Roadside provisions*

With respect to roadsides, the land owner is the roads corporation (VicRoads) for freeways and arterial roads and required to take all reasonable steps to prevent the spread of regionally controlled weeds and established pest animals on these roadsides (i.e. adjacent land owners are exempt from this responsibility). The

Secretary (the Victorian Department of Sustainability and Environment) must take all reasonable steps to eradicate State prohibited weeds from roadsides, and regionally prohibited weeds from all roadsides excepting freeways, arterial roads, which is the responsibility of VicRoads.

### *Special area plans*

Division two of part four of the Act defines special area plans that could include this Roadside Management Strategy. These plans can set land management requirements for the special area, on the basis of protecting the quality and condition of land or other water catchment protection functions. An authority that prepares a special area plan may recommend to a planning authority under the *Planning and Environment Act 1987* amendments to a planning scheme to give effect to that plan.

### *Changes to the Act*

New Invasive Species Management legislation is currently being developed by DEPI and is proposed for implementation during the term of this Strategy. Relevant changes should be incorporated into the next Roadside Management Strategy.

## **4.6 Country Fire Authority Act 1958**

The *Country Fire Authority Act 1958* stipulates a range of responsibilities and measures of municipal councils in reducing the risk of fire to life and property.

### *Municipal fire prevention provisions*

A municipal fire prevention officer (MFPO) is a person appointed by a municipal council to be the fire prevention officer for that council. Section 41 of the Act states that an officer may serve a fire prevention notice on the owner or occupier of land (other than a public authority) to remove from the adjacent half width of any private street that abuts the land, material that constitutes or may constitute a fire danger.

Section 42 states that brigades may carry out fire prevention work (including burning), on land at the request of, and under the authority of an owner or occupier or municipal council at the expense of that authority.

### *Roadside fire prevention responsibility*

Section 43 requires that in the country area of Victoria (outside the metropolitan district) it is the duty of every municipal council to take all practicable steps (including burning) to prevent the occurrence of fires on, and minimise the danger of the spread of fires on and from any road under its care and management.

### *Municipal fire prevention planning*

Part four of the Act encompasses regional and municipal fire prevention, and Section 54 states that the CFA may appoint a municipal fire prevention committee with the functions to plan the burning or clearing of firebreaks within the designated area for which the committee is appointed, advise relevant authorities on the existence and steps in place to remove fire hazards, advise and recommend to the municipal council on the preparation of its Municipal Fire Management Plan, and refer to the regional fire prevention committee for consideration all matters considered for referral.

### *Municipal Fire Management Plan*

The current Municipal Fire Management Plan (MFMP) 2012-2015 (CoW 2012a) has been developed as required under the Country Fire Authority Act 1958 and is designed to consolidate and coordinate the variety of plans that relate to fire within the City of Whittlesea. The primary objective of municipal fire management planning is the protection of life and property, with a more specific focus of the Whittlesea MFMP being on bush and grass fire risk.

The MFMP is reviewed and updated annually to incorporate new strategies, programs and tools and to ensure it meets stakeholder and community needs and expectations. The current plan does not adopt direction from the Roadside Management Strategy 1998 in Section 4.

Appendix C of the plan provides guidelines for the identification, notification and procedures for responsible persons for the management of hazardous trees on the roadside. The primary responsible person for the City of Whittlesea is the Senior Arborist.

Appendix D specifies Priority Fire Roads that form part of the Primary Fire Breaks in the municipality. These breaks are slashed to a height of 100 mm fence to fence where practicable.

Appendix F provides numerous fire management maps, including a Victorian Fire Risk Register (VFRR) risk assessment classification for the municipality, which is linked to the Multi-agency Workplan (CoW 2012b).

The Multi-agency Workplan provides a risk register that lists localities and/or assets at risk of bush or grass fire in the municipality (based on the VFRR), and the multi-agency workplan that specifies responsible authorities for treatment works (including prevention works such as fuel reduction burning, roadside vegetation management and grass slashing). Key Council responsibilities relating to roadsides include high and low voltage powerline clearance and the municipal wide vegetation management that currently includes fire prevention slashing from October to March.

Additionally, SP AusNet is also required to undertake vegetation clearance treatments in relation to numerous high and low voltage powerlines and extra high voltage transmission lines that cross roadsides throughout the municipality.

## **4.7 Local Government Act 1989**

The *Local Government Act 1989* provides municipalities powers in relation to the management of roads (Schedule 10) and in the making and enforcing of local laws (Part 5).

### *Local laws*

City of Whittlesea has one local law (No. 1 of 2008, General Municipal Law) of fourteen parts with numerous sub-parts, and six schedules.

Specific local laws of most relevance to roadside management include the following:

- law 3.6 (protection of council trees) states that without the written approval of Council a person cannot interfere with roadside trees or plant trees and shrubs on roadsides;
- law 8.1 (transportation of waste) states that a person must not convey or allow to be conveyed any waste materials on roadsides;
- law 5.6 (pest plants) lists eight pest plants that are required for removal at the request of Council (listed in Appendix 2); and
- law 10.11 states that a person must not carry out any planting on any roadside with the exception of turf grass.

Local laws also have permit requirements, regulations and specification regarding the use roadsides for the following:

- trade waste skips and clothing bins;
- permanent, temporary and redundant vehicle crossings;
- prevention of vegetation or signage on private land from becoming a road interference;
- stormwater drainage connections;
- livestock grazing and horse grazing;
- riding horses on roadsides;
- road trading and advertising signs.

Local laws are anticipated for update in 2014 which is likely to involve an update to the list of pest plants. Any local law changes of relevance to roadside management should be incorporated into the current Strategy via an addendum.

## **4.8 State Planning Policy Framework – Native Vegetation Permitted Clearing Regulations**

In December 2013 a planning scheme amendment was gazetted to implement a number of changes to Victoria's native vegetation permitted clearing regulations, particularly Clauses 12.01 (Biodiversity), 52.16 (Native vegetation precinct plan) and 52.17 (Native vegetation). As part of these reforms the previously incorporated document Victoria's Native Vegetation – a Framework for Action (the Framework) was replaced by a new incorporated document and online assessment tool.

Before issuing a planning permit, Responsible Authorities are obligated to refer to Clause 12.01 (Biodiversity) in the Planning Scheme. This refers in turn to the following document and online tool, both incorporated into the Victoria Planning Provisions and all planning schemes in Victoria:

- The Native Vegetation Information Management (NVIM) system (DEPI 2014); and
- *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (DEPI 2013a).

Clause 52.17 of the Victorian Planning Provisions and the Biodiversity Assessment Guidelines (DEPI 2013), are publicly available documents covering regulatory and technical requirements of assessing applications that propose to impact upon native vegetation. Guidelines to assessment of Risk-based Pathways (DEPI 2013) and the Biodiversity Assessment Tools (including the Native vegetation location risk map, Strategic biodiversity map, the Native vegetation condition map and Habitat importance maps for rare or threatened species) provide additional supporting information to assess applications that may impact native vegetation.

Under Clause 66.02-02 of the Planning Scheme, DEPI is referred all applications to remove, destroy or lop native vegetation on Crown land (i.e. roadsides) which is occupied or managed by the responsible authority (i.e. Council or VicRoads). In certain cases, exemptions may apply to the requirement to obtain a planning permit. These are specified within local schedules to Clause 52.17 (i.e. within the Whittlesea Planning Scheme) and the table of exemptions (52.17-6), which covers numerous items of relevance to roadsides.

When interpreting the exemptions listed in 52.17-6, it is important to recognise that other legislation often still applies that would otherwise require a permit. A common

example is that most roadside vegetation is protected in some capacity under the Flora and Fauna Guarantee Act 1988.

## **4.9 Whittlesea Planning Scheme**

The Whittlesea Planning Scheme provides the basis of Council's implementation of Victorian Planning Provisions for the municipality and establishes policy and overlays that could impact on roadside management.

### *River Red Gum Protection Policy*

Clause 22.10 of the Whittlesea Planning Scheme is designed to account for the presence, retention, enhancement and long term viability of River Red Gums in urban areas. Although this Strategy is specific to rural areas of the municipality, many River Red Gums within these areas may be at risk from future development, hence this policy should be applied to these areas where appropriate to do so, such as when roadside activities and other works have potential to impact River Red Gum trees.

### *Planning Overlays*

Most roadsides within the City of Whittlesea are likely to be affected by the provisions of various Council overlays. These are designed for a range of purposes, many of which have native vegetation and cultural heritage conservation objectives. The following overlays are potentially relevant to roadside management:

- Environmental Significance Overlay;
- Vegetation Protection Overlay;
- Significant Landscape Overlay; and
- Heritage Overlay.

Note that certain exemptions under Clause 52.17 do not apply under some overlays, and that all proposals that include the removal of native vegetation on Crown Land (including all roadsides) require referral to DEPI.

## **4.10 Victorian Bushfire Royal Commission: Recommendations and Legislation changes**

### *Roadside fire protection exemption under Clause 52.17*

In November of 2011, changes to clause 52.17 were implemented in response to a recommendation by the Victorian Bushfire Royal Commission. The recommendation specifically stated that *'The state amend the exemptions in clause 52.17-6 of the*

*Victorian Planning Provisions to ensure that the provisions allow for a broad range of roadside works capable of reducing fire risk and provide specifically for a new exemption where the purpose of the works is to reduce bushfire risk' (Parliament of Victoria 2010).*

The new exemption allows for a range of roadside works (including vegetation treatments) to be undertaken by the responsible road authority for fire protection purposes.

The exemption is subject to an agreement between the relevant road authority and the Secretary of DSE (now DEPI) based on a process involving:

- risk assessment to identify priority roads for fire mitigation treatments;
- selection of appropriate risk management treatments;
- inclusion of any vegetation treatments for high bushfire risk roads in a relevant plan (e.g. Municipal Fire Management Plan); and
- a works plan developed that describes the location, objective and types of works proposed.

With respect to vegetation treatments, the Agreement authorises some, but not all, activities and issues a license that addresses the FFG Act requirements but does not address EPBC Act requirements.

Exempt activities as written in the guidelines (DSE 2012) include:

- Removal of fallen trees and branches within the road reserve.
- Removal of fine fuels such as grasses, understorey shrubs and leaf litter within the road reserve, including their physical removal, fuel reduction burning, edge trimming and slashing, and selective weed control.
- Removal of hazardous trees and tree limbs that are dead, diseased, defective and have the potential to fall onto and block the road as a result of high winds before or during a bushfire.
- Removal of vegetation associated with routine maintenance of existing bushfire risk mitigation works such as established fire breaks, control lines and access tracks.

Activities or works likely to have a significant environmental impact on the road reserve will require a permit, including the removal of all trees within the fall line of a road through direct removal or the broad-scale removal of grasslands using chemicals, grading or ploughing.

The DEPI has developed a clear guideline that sets the criteria and procedures for implementing the new exemption (DSE 2012). As per the guideline:

*“If a road authority applies the exemption incorrectly (e.g. not part of an approved plan) and proceeds with such works without obtaining the required planning permit, the road authority may be liable for a penalty under section 127 of the Planning and Environment Act 1987 and/or other enforcement proceedings under that Act.*

*In addition, the road authority may separately be liable for breaches of the Victorian Flora and Fauna Guarantee Act 1988 and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.” (p. 6, DSE 2012)*

### *Particular Provisions for bushfire protection*

Clause 52.48 of the Planning Scheme was adopted on 18 November 2011 subsequent to findings of the Victorian Bushfire Royal Commission. This clause replaced the interim controls contained in clause 52.43 – *‘Interim measures for bushfire protection’*, which included an exemption to allow for the removal of fallen wood for personal use from the roadside of an existing public road. This exemption now no longer applies under clause 52.48.

Clause 52.48 provides an exemption for vegetation removal along a fence line or surrounding a dwelling where a Defendable space is required to be created. A Defendable space is defined as “An area of land around a building where vegetation is modified and managed to reduce the effects of flame contact and radiant heat associated with bushfire; specifically:

*“The removal, destruction or lopping of any vegetation for a combined maximum width of 4 metres either side of an existing fence on a boundary between properties in different ownership that was constructed before 10 September 2009.” (p. 2, Bushfire Protection: Exemptions, Particular Provision – Clause 52.48, Victorian Planning Scheme)*

An Advisory Note prepared by the Victorian Department of Planning and Community Development (2011) to accompany the new exemption, clarifies the interpretation of this exemption as such:

The exemption applies to both native and non-native vegetation;

- The maximum width of four metres can be divided in any manner that the two landowners agree to;



- Before removing vegetation adjacent to a boundary fence, each landowner and resident should seek agreement from their neighbours on how much can be removed;
- If there is already at least four metres of cleared land on one side of the fence, vegetation cannot be removed on the other side of the fence without a planning permit;
- Before any vegetation is removed from a neighbour's property, or public land, including roadsides, parks and reserves, written permission must first be obtained from the landowner or land manager.

## **4.11 Road Management Act 2004**

The *Road Management Act 2004* specifies key definitions and responsible authorities for various parts of the road and adjacent areas. The Act is closely tied with several Gazetted Codes of Conduct of relevance to roadside management, including:

- *Operational Responsibility for Public Roads;*
- *Management of Infrastructure in Road Reserves;*
- *Worksite Safety – Traffic Management; and*
- *Road Management Plans.*

### *Exemption to mow roadsides*

An exemption applies to Section 63 (1) of the Act in accordance with Section 12 of *Road Management (Works and Infrastructure) Regulations 2005*, which specifies that a person is exempt from obtaining written consent of the coordinating road authority for the conduct or completion of works consisting of:

- driveway works giving access to an arterial road; or
- mowing any part of a roadside.

Note that this excludes traffic impact works, which would require written consent from the responsible road authority and possibly impose additional requirements on the person undertaking works.

## **4.12 Further legislation**

Other legislation is also relevant to roadside management, although has less relevance to the practical implications of this Roadside Management Strategy. This includes:

- Aboriginal and Torres Strait Cultural Heritage Protection Act 1984
- Aboriginal Heritage Act 2006
- Australian Heritage Commission Act 1975
- Crown Land (Reserves) Act 1978
- Electrical Safety Act 1998
- Environment Effects Act 1978
- Environment Protection Act 1978
- Forests Act 1958
- Heritage Act 1995
- Land Act 1958
- Mineral Resources Development Act 1990
- Road Management (Works and Infrastructure) Regulations 2005
- Telecommunications Act 1997
- Transport Act 1983

### **4.13 Regional Bushfire Planning Assessment**

Regional Bushfire Planning Assessments map where a significant bushfire hazard may affect land use planning, and identify features such as settlements, urban interfaces and single access roads. They are a resource to assist councils to support community resilience to bushfire with their strategic planning such as preparing a planning scheme amendment. The Melbourne Metropolitan Region assessment (DPCD 2012) identified significant features of bushfire planning interest in rural areas of the City of Whittlesea with particular emphasis on the north-east and north-west parts of the municipality where single access roads, medium density lots and vegetation of conservation significance exist (Appendix 4).

## 5 Roadside Conservation Value

A roadside conservation assessment was undertaken to inform the development of roadside management guidelines and actions for the term of the strategy. This section briefly defines the assessment methods and summarises results.

### 5.1 Methods

To evaluate roadside conservation value, two main procedures were applied, including a desktop analysis and field survey. Each method is briefly described below.

#### *Desktop analysis*

Desktop analysis of roadsides in the City of Whittlesea involved a review of key geographic resources to inform the field survey, including datasets of vegetation types, extent, geomorphology, and historic flora records from roadsides. This was designed to provide pre-survey guidance for developing field survey methods and to assist post-production of field data.

Key geographic data that were used in this analysis are listed in Appendix 5.

#### *Field survey*

Field survey of rural roadsides was undertaken in December 2012, encompassing two main tasks:

- documentation of all notable (new, restricted, significant) infestations of CaLP Act-listed noxious weeds, Local Law pest plants and other weeds; and
- determination of Roadside Conservation value with respect to the previous assessment and in light of current vegetation assessment methods.

Historically, roadside assessments were based on the methods of Thomas & Lindsay (1984), which was not applied in the current study. Here, roadsides have been allocated a Conservation Value of low, medium or high, based on the DEPI criteria for 'intact' assessable vegetation (DSE 2006). It is important to note that this did not encompass detailed Vegetation Quality Assessment Method assessment (DSE 2004), which is commonly applied under the Framework in relation to vegetation assessment and proposals to remove native vegetation.

Ecological Vegetation Classes (EVCs) were broadly circumscribed as part of the assessment, although the survey was undertaken with a view to evaluating the local conservation significance of remnant vegetation. EVCs are nonetheless important at the bioregional scale with respect to the Framework. Additionally, several sites were highlighted as supporting outstanding examples of remnant vegetation or sites of

flora significance, based on the presence of listed rare or threatened species, high diversity remnant vegetation and some sites where locally depleted species persist.

Field survey was almost entirely undertaken from a vehicle. Assessment on foot was only undertaken where searches for significant species and closer examination of vegetation types were warranted.

This survey adopted the structure of the preceding assessment and makes additional splits or regrouped segments where relevant.

Roadsides were classed in accordance with the criteria in Table 1 below.

*Table 1. Criteria for determining roadside vegetation conservation value*

Conservation Value		
Low	Medium	High
Supports $\geq$ 75% cover of weeds	Supports $\geq$ 50% cover of weeds	Supports $\leq$ 50% cover of weeds
<ul style="list-style-type: none"> <li>Typically composed of non-indigenous vegetation (included planted), associated with extensive weed cover and/or high site disturbance.</li> </ul>	<ul style="list-style-type: none"> <li>Low to moderate lengths or disjunct remnant patches</li> <li>Scattered trees</li> <li>Derived grassy vegetation (i.e former woodlands and forests that now function as grasslands due to historical management practices)</li> <li>Revegetated areas with moderate to high habitat or connectivity qualities (typically indigenous revegetation although sometimes including non-indigenous natives)</li> </ul>	<ul style="list-style-type: none"> <li>Discrete patches of remnant vegetation with a high site condition quality (i.e. high richness)</li> <li>Extensive contiguous remnant patches (i.e. <math>&gt;75\%</math> of the respective roadside length); of moderate site condition (i.e. retaining multiple strata or moderate to high diversity)</li> </ul>

### *Sites of Heritage Significance*

Roadsides that support heritage values were identified at a basic level, including drystone walls, notable River Red Gum trees and aqueducts.

Roadsides supporting heritage values are listed in Appendix 6.

### *Limitations*

Several key limitations of field surveys undertaken for this Roadside Conservation Value assessment:

- rapid, vehicle-based assessments are inherently brief and involve limited scope for detailed data collection, and rare opportunities to investigate sites on foot;
- surveys were undertaken over a short period following below-average spring rainfall, conditions that may have hampered the likelihood of detecting a greater extent of roadside flora.
- high frequency mowing by landholders of roadsides throughout the municipality hampered the ability to make conservation value determinations, as many mown areas have moderate to high likelihood of supporting native vegetation that would otherwise typically qualify as Medium conservation value.

Further detailed and thorough assessments of roadsides, including targeted surveys for particular species, vegetation types and habitats would provide fine scale data commensurate for informing sensitive planning decisions (e.g. proposals to remove native vegetation) on the basis of the presence, absence or likelihood of key flora and fauna values.

## **5.2 Results**

### **5.2.1 Noxious weeds**

A total of 112 environmental weeds were recorded on roadsides in the City of Whittlesea. This includes high priority, new and emerging and poorly known species. It does not include numerous grassy and herbaceous species that are either specifically not included in the survey, or were overlooked due to the brief nature of the survey.

Ninety-two weed species are of exotic origin and the remaining twenty are non-indigenous native species. Many of these weeds were recorded from their presence as planted ornamentals on roadsides, some of which showed evidence of naturalising (i.e. spreading by various means without direct human mediation).

### *CaLP Act declared noxious weeds*

Nine of the recorded species are declared regionally controlled under the CaLP Act and five are regionally restricted. No regionally prohibited species were recorded, however Texas Needle-grass *\*Nassella leucotricha*, a very serious weed that is not listed under legislation, was recorded once on Gorge Road. This species could warrant declaration under future changes to the CaLP Act and City of Whittlesea Local Law as it is currently regarded as a 'high risk' weed in the Advisory List of Environmental Weeds of the Inland Plains Bioregions of Victoria (DSE 2009b).

The most frequently encountered species were Hawthorn *\*Crataegus monogyna* and Chilean Needle-grass *\*Nassella neesiana*, while other species such as Flax-leaf Broom *\*Genista linifolia* and Scotch Broom *\*Cytisus scoparius* had a more restricted distribution. The distribution of Chilean Needle-grass and other herbaceous species was likely to be underestimated where roadside mowing preceded field survey.

### *Whittlesea Local Law Pest Plants*

Seven of eight pest plants listed under Whittlesea Local Law were recorded, the exception being Scotch Heraldic Thistle *\*Onopordum acanthium*. All of the recorded species are also listed under the CaLP Act. Serrated Tussock *\*Nassella trichotoma*, Patterson's Curse *\*Echium plantagineum* and Artichoke Thistle *\*Cynara cardunculus* were least frequently encountered, but also likely to be overlooked due to the brief nature of the survey and high frequency of intensively mown roadsides.

### *Other species of interest*

Numerous roadsides in the City of Whittlesea are characterised by native and exotic species by virtue of their being planted. Most of these observations were not recorded due to their high frequency of occurrence. Additionally, several species of fruit tree occur at high frequency throughout most roadsides and these were also not recorded.

## **5.2.2 Vegetation types**

Most vegetation types recorded on roadsides are common within the municipality and their broader geographic range. They are also commonly degraded where they persist on private land, and poorly conserved at both the municipal, and greater northern Melbourne areas. Across all roadsides within the municipality these vegetation types are also typically restricted due to extensive historical vegetation clearance, and their occurrence is likely to relate primarily to landscape position and land use history. For example, those vegetation types occurring on plains and lower foothill areas are prone to clearance due to their accessible location and suitability for alternative land uses.

The most common vegetation types on roadsides in the municipality include Grassy Dry Forest, Valley Grassy Forest, Grassy Woodland and Plains Grassy Woodland. There is considerable ecotonal variation between and within these vegetation types and others, particularly along roadsides in foothill landscapes that encompass notable altitudinal, aspect, soil and climate gradients. All remaining vegetation types have a restricted distribution and are often present by virtue of limited sections of a small suite of roads.

Vegetation types recorded during field survey are summarised in Appendix 7. All of the EVCs listed in the previous section 4.3 as being constituents of EPBC listed communities have been recorded within the shire. These areas will require further detailed investigation against the required condition thresholds where impacts to vegetation are likely or proposed.

### **5.2.3 Roadside Conservation Value**

All roadsides were assessed from a vehicle, with the exception of several smaller sections that were closed from access and required a visual inspection from nearby areas. Most roadsides are subject to high variation in vegetation composition and structure, due to numerous factors, notably relating to the roadside management regime, vegetation type and land use history. For example, some roadsides included in the assessment occur within recently established urban areas that included roadside development and native vegetation removal. Conversely, numerous rural roadsides are actively managed by local residents through frequent mowing and planting (e.g. Eden Park).

Due to these factors, roadside management units are inherently difficult to determine within the scope of a brief drive-by assessment.

Most roadsides are degraded, although the survey method highlighted the high frequency of remnant native vegetation and relative proportion of 'intact' assessable patches of varying quality. As this differs substantially to the previous RMS assessment method no comparison with the preceding survey has been undertaken, although some sections that were previously recognised as High conservation value were recorded in the current study as Low, and this has been highlighted in GIS data for comparative purposes. A variety of management issues that are inherent in rural roadside management and recognised in the previous RMS were recorded to some level, such as erosion, illegal litter dumping and weed invasion.

A municipal scale map of roadside conservation value is provided in Appendix 8 and a list of sites of High roadside conservation value is provided in Appendix 9.

### **5.2.4 Sites of flora significance**

Several sites were recorded during the current survey that are of particular value for local and regional flora conservation, termed 'sites of flora significance'. These sites support significant examples of remnant vegetation or locations supporting important stands of locally depleted and rare species, but also support state significant flora (DEPI advisory list).

Sites of flora significance are listed in Appendix 10.

### **5.2.5 New and emerging management issues**

One new and emerging issue has been identified, with other on-going management issues having been addressed in the previous roadside management strategy. This emerging issue primarily relates to fire prevention works, where roadsides are frequently mown by local residents. Although this is an exempt activity (under clause 52.17), considerable risk exists where local residents recognise native vegetation or the legal requirements associated with how it is managed. Several roadside stretches, including large areas along Merriang Road, have been cleared of understorey vegetation as an apparent fire prevention measure and it is probable that fallen timber has been removed from roadsides both during and following the cessation of the interim bushfire protection roadside timber removal exemption, although this could not be quantified during the current survey.

In areas where urbanisation is occurring, several roadside sections previously documented as High roadside conservation value were assessed in the current survey as Low. Native vegetation no longer occurs along these roadsides. These sites typically include construction sites or recently established naturestrips, mostly in southern parts of the municipality.



## 6 Objectives, guidelines and specific actions

To ensure appropriate management of roadsides in the City of Whittlesea, this section sets the objectives, guidelines and actions for roadside management based on roadside management programs and issues. These were developed through discussions among the technical reference group with a view to ensuring a balanced and effective approach to roadside management in the municipality, while maintaining the primary objective of ensuring the safety of the travelling public.

The objectives clarify the key goals of roadside management for the particular project or issue, while the guidelines are standard operating procedures for both planning and works programs (Appendix 11). The actions provide a link between current key management issues and the objectives by specifying a task, responsible Council department and priority level to be achieved as part of implementing the plan.

This section is intended for application by the relevant Council departments and is expected to flow throughout Council across planning and higher managerial levels to on-ground works that includes external organisations. It was developed through discussions within the Council reference group.

The four key areas of roadside management include:

- Fire management (fire safety programs and issues);
- Functional use management (construction and maintenance programs and issues);
- Land production and conservation management (ecological and agricultural programs and issues); and
- Cultural and heritage management (conservation and community use programs and issues).

Each action specified within these management areas are tied to specific Council department(s) and has a management priority ranking.

## 6.1 Fire management

Fire management of roadsides includes those activities primarily associated with fire prevention planning and vegetation treatments. Council seeks to achieve a balance between fire management outcomes and conservation and cultural heritage management outcomes.

**Key objectives:**

- Prevent fires on roadsides
- Contain roadside fires
- Manage safety of road users
- Provide control lines
- Avoid and minimise negative impacts to roadside conservation values

### *Application of the DEPI fire prevention vegetation treatment exemption*

Roadside fire prevention vegetation treatment is exempt from permit requirements if the action will not have a significant environmental impact. The fire prevention vegetation removal exemption requires that roadside managers undertake an assessment using an agreed process, focussing on priority roads, identifying appropriate vegetation treatments for priority roads and recording the result of this in a plan.

Exempt activities under a DEPI Agreement can include:

- Removal of fallen trees and branches within the road reserve.
- Removal of fine fuels such as grasses, understory shrubs and leaf litter within the road reserve, including their physical removal, fuel reduction burning, edge trimming and slashing, and selective weed control.
- Removal of hazardous trees and tree limbs that are dead, diseased, defective and have the potential to fall onto and block the road as a result of high winds before or during a bushfire.
- Removal of vegetation associated with routine maintenance of existing bushfire risk mitigation works such as established fire breaks, control lines and access tracks.

A permit is required to undertake the following vegetation treatments for fire prevention:

- Remove all trees within the fall line of a road through direct removal; and
- Broad-scale removal of grasslands using chemicals, grading or ploughing.

Key areas of the municipality that have been assessed as having a high bushfire risk rating under the VFRR risk assessment also support a high proportion of the medium and high conservation value roadsides. These roadsides will require detailed consideration should Council propose to change the current fire prevention vegetation treatments. The following guidelines and actions have been developed in consideration of this.

### *Firewood collection*

Since Clause 52.48 of the Planning Scheme superseded Clause 52.43, there is now no longer an exemption for the removal of fallen wood for personal use from the roadside of an existing public road.

### *Planning guidelines*

- A nominated Sustainability Planning officer experienced in environmental and/or vegetation management is to determine and record whether any required vegetation treatments are exempt or may have a significant environmental impact and record and refer these determinations to DEPI in accordance with the Roadside Works for Bushfire Purposes guidelines (DSE 2012);
- A permit is unlikely to be required on low conservation value roadsides.
- On **High conservation** value roadsides, any vegetation treatment exemptions should avoid negative impacts to conservation values through the following actions:
  - a) retain live and dead understorey vegetation (including logs) as wildlife habitat;
  - b) retain felled hazardous tree materials on site as wildlife habitat; and
  - c) avoid vegetation treatments that could reduce existing wildlife corridor functions.
- On **Medium conservation** value roadsides, any vegetation treatment exemptions should avoid negative impacts to conservation values through the following actions:

- a) retain native vegetation that provides a wildlife corridor function, including live and dead understorey plants;
- b) consider the suitability of the site for enhancing wildlife corridor functions (e.g. revegetation potential), particularly where disjunct High conservation value remnants could be reconnected.
- On Sites of flora Significance (Appendix 10) there should be no fire prevention works (with the exception of fire prevention burning/ slashing where the appropriate assessment has been conducted, see Appendix 13a Slashing Guidelines) undertaken as these sites should be strictly managed from an ecological perspective to achieve conservation outcomes.
- Where a DEPI Agreement provides for an exemption to roadside vegetation treatments and no further referral is required to DEPI under the terms of the Agreement, ensure the Agreement clearly stipulates the following:
  - a) activities and locations where vegetation treatments are exempt;
  - b) activities that constitute breaches to the Agreement (i.e. activities that are a 'significant environmental impact');
  - c) locations and actions that may trigger an EPBC Act referral to the Commonwealth;
  - d) link the Agreement to this Strategy to provide principles of good roadside vegetation management for exempt activities.
- Provide due consideration of the Roadside Management Strategy during each review of the Municipal Fire Management Plan, with particular emphasis on sensitive application of 'vegetation treatments' with consideration of the following:
  - a) undertake treatments in a responsible manner;
  - b) avoid soil disturbance;
  - c) observe vehicle hygiene procedure (Appendix 12);
  - d) removal of understorey plants, fallen timber and selective weed control should be undertaken by a suitably qualified and experienced bushland works crew to a high standard within the scope of the Agreement with DEPI;
  - e) removal of hazardous trees and tree limbs should be undertaken by a suitably qualified and experienced arboriculture crew to AS4373 and within the scope of the Agreement with DEPI; and

- f) the removal of hazardous trees, limbs and fallen timber should, where appropriate, involve translocation of these materials into an appropriately selected, secured conservation reserve in a sensitive manner to provide wildlife habitat, where practical opportunities exist to do so.
- Review any proposed changes to current fire prevention practices in consideration of roadside conservation value and the new fire prevention works exemptions.
  - Locate firebreaks on roadsides of low conservation value or private property where possible.
  - Encourage local residents to restrict roadside mowing to weedy areas, avoiding negative impacts to native understorey plants resulting from high frequency, low mowing heights, and to avoid potential implications under the FFG and EPBC Acts.
  - Discourage 'cleaning up' of roadsides by local residents (e.g. removal of understorey plants, woody debris and leaf litter), and provide extension materials on the entitlements and responsibilities of local residents with regards to native vegetation management.
  - In preparation for the annual review of the Municipal Fire Management Plan, monitor and evaluate fire prevention works to determine their effectiveness on both fire management and conservation outcomes.
  - Plan and consult widely to incorporate roadside fuel reduction burns into the Municipal Fire Management Plan at strategic roadside locations where this will dually meet conservation objectives, for example:
    - a) wide road reserves;
    - b) isolated wide 'nodes' in the road network;
    - c) disused terminations of single access roads (e.g. numerous examples throughout Eden Park).
  - Where fuel reduction burning is proposed as a high frequency fire prevention treatment, preference should be placed on grassy vegetation types (i.e. grasslands and grassy woodlands) and derived grassy vegetation (e.g. extensive treeless sections of Ridge Road that now support a low frequency of trees and shrubs).

- Fuel reduction burning should be considered on an infrequent basis for selective use on medium and high quality conservation value roadsides where understory fuel levels are high.
- Fuel reduction burning should be considered where it dually enhances weed management, for example:
  - a) to improve herbicide spray effectiveness;
  - b) to minimise off-target herbicide spray damage to native species; and
  - c) to promote mass-recruitment of woody legume weeds for follow-up control.
- Undertake fire prevention slashing after Chilean Needle-grass control programs have been completed (i.e. the autumn to spring control period).
- When reviewing the roadside slashing guidelines (Appendices 13a and 13b), consider the following recommendations for achieving both weed management and fuel reduction objectives:
  - a) where applicable, delay roadside slashing of high quality grassy vegetation or slash early in the season to allow flowering and seed-set in late spring/summer (e.g. Ridge Road, where a wide fuel break already exists within the Yan Yean reservoir boundary);
  - b) treat high quality sites prior to treating sites with significant weed infestations, with particular emphasis on Chilean Needle-grass infestations; and
  - c) reducing soil nutrient levels on low quality roadsides and exotic-dominated sections of medium quality roadsides can reduce slashing requirements and meet both fire prevention and conservation outcomes, particularly roadsides that are wide and those adjacent to private land supporting exotic grasslands.
- If roadsides are significantly disturbed during emergency works, undertake appropriate follow-up monitoring and respond accordingly, with particular emphasis on preventing the growth and spread of weeds.
- Encourage and promote community consultation as part of fire prevention planning for roadsides.
- Engage with, and seek assistance from, local CFA brigades where roadside fuel reduction burning is proposed by Council
- Investigate proposals where roadside fuel reduction burning is proposed by local CFA brigades

### Actions

No.	Description	Responsibility	Priority
1	Review roadside fire prevention vegetation treatments on medium and high fire risk roads when changes are proposed as part of the implementation of the Roadside Works for Bushfire Purposes exemption process with DEPI.	MFMPCC (lead) SP (support)	O
2	Nominate an appropriately qualified and experienced Council staff member to determine, record, and report where necessary whether roadside fire prevention treatments require planning approval under various legislation and regulations (i.e. may have a 'significant environmental impact')	SP	O
3	Review and continue to deliver a community engagement program to inform local residents in high fire risk areas of roadside fire prevention provisions including entitlements and restrictions relating to roadsides. This should cover Local Laws, the Bushfire Prevention and Native Vegetation exemptions, the Roads Management Act 2004 (and associated regulations) and what Council expects local residents to do as part of Bushfire Management and how to appropriately and responsibly go about applying fire prevention guidelines	MFPO (lead) LL, SP (support)	O
4	Develop a program to investigate and implement roadside fuel reduction burns that includes the development of slashing 'no go' zones with appropriate field markers and integrate these measures into Council GIS.	MFPO,SP (lead), P&OS (support)	M
5	Review the roadside slashing guidelines to incorporate new weed distribution data and roadside conservation values. This will include: <ul style="list-style-type: none"> <li>development of a process that ensures the guidelines filter through all council departments and other relevant agencies;</li> </ul>	SP, IM, MFPO	O

No.	Description	Responsibility	Priority
	<ul style="list-style-type: none"> <li>• addresses slashing areas and timing to improve weed management outcomes;</li> <li>• incorporating a high standard for vehicle and machinery hygiene (appendix 12)</li> </ul>		
6	Ensure slashing personnel, and encourage other authorities working along roadsides, have undertaken Weed Stop (or other relevant) training.	IM	S
7	Ensure there is recognition of the Roadside Management Strategy and map within the Municipal Fire Management Plan.	MFPO	O



## 6.2 Functional use management

Functional uses of roads and roadsides include those activities primarily associated with engineering and construction practices. This section seeks to achieve a balance between construction and maintenance programs with fire safety and conservation and land management programs.

Three key aspects of functional road uses include:

- Road design and construction;
- Road maintenance; and
- Service installation and maintenance.

### *Permit and referral requirements for native vegetation removal on roadsides*

The removal of native vegetation from roadsides as part of functional road management uses generally requires a planning permit and referral to DEPI with the exception of standard road maintenance activities associated with maintenance and fire prevention activities that are specified exemptions under Section 52.17 of the Planning Scheme.

#### **Referral and permit requirement triggers:**

- Under Clause 66.02-2 of the Planning Scheme, DEPI is referred all applications to remove, destroy or lop native vegetation on Crown land (i.e. roadsides) which is occupied or managed by the responsible authority (i.e. Council or VicRoads), excepting various exempt activities listed under Clause 52.17-6, and ministerial approval is required for applications to remove native vegetation of Very High conservation significance.
- Under Section 47 of the FFG Act to take, trade in, keep, move or process protected flora without a license or permit.
- Any action that will have, or is likely to have a significant impact on a species listed under the EPBC Act as extinct in the wild, critically endangered, endangered or vulnerable, or a threatened ecological community listed as critically endangered or endangered, for example:
  - A proposed new road that constitutes a significant impact to EPBC-listed species or ecological community; and
  - Road widening that requires removal of native vegetation that contains EPBC-listed plant species or ecological communities.

## 6.2.1 Road design and construction

### ***Key objectives:***

- Maintain the safe and efficient function of roads.
- Design with a view to ensuring efficient maintenance and effective access to road reserves and easements.
- Minimise soil disturbance and negative impacts to conservation values on roadsides and adjacent land.
- Ensure high quality post-construction site remediation.

### ***Exemptions to native vegetation permit requirements***

Most road design and construction activities are likely to require a permit and referral to DEPI under Planning Scheme provisions and the FFG Act, and the Commonwealth under the EPBC Act where native vegetation removal is proposed. Widening an existing road where the road verge has previously been cleared or the vegetation beside the road has been heavily modified is unlikely to require Commonwealth referral.

A permit is not required to remove, destroy or lop native vegetation to enable the construction or maintenance of a vehicle access across a road reserve from a property boundary to a public road, subject to authorization from the relevant public land manager and to a maximum of 6 metres. The exemption only applies to properties which share a common boundary with a road reserve, and does not apply where there is a practical opportunity to site the accessway to avoid the removal, destruction or lopping of native vegetation.

### ***Planning guidelines***

#### **General provisions**

- Ensure road design and construction projects follow the guidelines in the Engineering Design and Construction Manual for Subdivision in Growth Areas (GAA 2011)
- Ensure road design and construction projects conform with Vicroads and Austroads Standards
- Consult the roadside management map during project design and consider the following:

- a) roadside conservation value;
  - b) key flora and fauna sites;
  - c) key cultural and recreational sites;
  - d) areas of significant erosion and pest incursions; and
  - e) fire management arrangements
- Engage other relevant Council departments and external authorities on project design and implementation to optimise project outcomes.
  - Ensure external agencies involved in the project are aware of and familiar with the Roadside Management Strategy.

#### **Native vegetation provisions**

- Make clear reference in project proposals and designs on how the project will meet the established principles and guidelines of section 22.10 of the Whittlesea Planning Scheme (River Red Gum Protection Policy), where relevant.
- Where native vegetation removal is proposed, engage appropriate qualified and experienced personnel to undertake detailed site assessments on behalf of the responsible business unit and referred to Council's statutory planning section.
- Apply for relevant permits where required, including but not restricted to the following regulatory and legislative mechanisms:
  - f) Native vegetation removal under the Planning Scheme
  - g) Removal of protected or threatened species under the Flora and Fauna Guarantee Act 1988
  - h) An impact of 'National Environmental Significance' under the Environment Protection and Biodiversity Conservation Act 1999
- Refer to DEPI all permit applications to remove native vegetation outside of exempt activities (refer to Clause 52.16, 52.17 and 52.48 of the planning scheme).
- The permitted (or otherwise exempted) removal of native vegetation should involve discussions with Sustainability Planning to minimise impacts and provide for site rehabilitation measures.
- Council is obliged under Victoria's Native Vegetation Management Framework to avoid and minimise the removal of native vegetation in the first instance, hence

where vegetation removal is unavoidable the minimum amount necessary to complete the task will be removed.

### **Construction site provisions**

- Inform construction site design on site with the relevant Council departments providing due consideration for all roadside management issues, including but not restricted to:
  - i) construction site boundaries, access arrangements, and relevant temporary machinery and material storage/stockpile locations;
  - j) sensitive roadside areas to avoid and protect
  - k) hygiene and waste management provisions;
  - l) tree protection requirements in accordance with AS4970;
  - m) vegetation removal requirements and allowances;
  - n) pest plants and soil-borne disease management;
  - o) existing stockpiles (avoidance of establishing new stockpiles)
  - p) management of soil erosion and disturbance; and
  - q) site rehabilitation.
- Locate construction sites and various construction site provisions on cleared land with an appropriate buffer and protective measures from roadside conservation values.
- When Council is acting as a referral authority, review the standard operating procedures (Appendix 11b), safe work method statements and job safety analyses of external agencies and the various contractors and sub-contractors working on their behalf, prior to works approval.

### **Management procedures**

- Consult adjacent landholders and utility services authorities (Power, Gas and Telecommunications) where works will take place in close proximity to their assets or areas of other roadside value.
- Only engage contractors and staff to implement works at a demonstrated high standard of environmental best practice, with a proven and current use of vehicle, machinery and equipment hygiene practices, that are bound by and party to the project's environmental management standards (contractors having

successfully completed the DEPI WeedStop Vehicle Hygiene Program will be highly sought after).

- Hold external agencies accountable for best practice standards of practice in all aspects of their involvement with municipal managed roadsides.
- Machinery and equipment selected for use should be of appropriate size and type for the relevant works.
- Plan for the use of Council depots for waste disposal in the first instance, and when outside project provisions alternatively specify the designated waste disposal and/or stockpile site.
- Ensure works contracts include clauses that clearly state hygiene requirements, including provision for pre- and post-works inspections and wash-down and reporting arrangements (see appendix 12).
- Specify erosion control requirements for roadside works programs
- Designate appropriate brush-down and washing locations for vehicle cleaning purposes.
- Where specified in works plans, clearly mark vegetation permitted for removal to minimise off-target impacts.
- Where possible, avoid establishing new stockpile sites and use existing sites where practicable.
- Avoid working on known problem sites with regards to erosion and pest species, these sites can be identified through use of the roadside management map and discussion with other Council departments.
- Undertake regular monitoring of construction sites to ensure protective measures are effective, and apply immediate correction when shown to be defective.

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
8	Incorporate the Planning Guidelines into the design phase of projects and the construction site provisions into works contracts and project briefs.	ET	S

No.	Description	Responsibility	Priority
9	Continue to engage local landholders and interest groups of relevance to road construction projects via design checklist and construction notices sent to affected parties”.	ET	O
10	Develop specific standards and operating guidelines for key problem sites with respect to pest plants and diseases, erosion and other issues as they arise.	SP (lead) E&T (support)	O

### 6.2.2 Road maintenance

**Key objective:**

- Maintain the safe and efficient function of roads.
- Coordinate maintenance operations in an effective manner across all departments.
- Manage disturbance to reduce erosion and prevent the spread of weeds and other pests.
- Minimise negative impacts to roadside conservation values

*Exemptions to native vegetation permit requirements*

Under Clause 52.17-6 of the Planning Scheme, no permit is required to remove, destroy or lop native vegetation to the minimum extent necessary:

- to maintain the safe and efficient function of an existing road managed by a public authority or municipal council in accordance with the written agreement of the Secretary of the DSE;
- the native vegetation is a grass and is to be mown or slashed for maintenance only at a height of at least 100 millimetres above ground level;

It is likely that these activities are generally exempt from permit requirements under the EPBC and FFG Acts. However if management regimes change from standard prescriptions, referral to both DEPI and the Commonwealth should be undertaken. Refer to Section 4.3.1 for some road maintenance activities generally exempt from Commonwealth referral.

### *Planning guidelines*

- Plan maintenance activities such as slashing and grading to begin with clean machinery and work from high to low conservation value roadsides.
- Grading programs should be planned with a view to sensitive operation along roads supporting medium and high conservation value roadside values.
- Plan to adequately protect existing trees where upgrade works are proposed.
- Prevent establishment of new woody vegetation within table drains or on the road shoulder ('exclusion zones').

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
11	Incorporate the roadside slashing guidelines with existing roadside maintenance slashing programs, with particular emphasis on roadside clean-down locations and other vehicle hygiene procedures (appendix 12)	IM, P&OS, SP	S
12	Enlist road maintenance vehicle and machinery operators and drivers in Weed Stop training.	IM, P&OS (lead) SP (support)	S
13	Review and update the current list of roadside management issues to be checked and used with all road maintenance activities, and distribute to the relevant Council departments and external agencies.	IM, SP	S
14	Integrate road grading maintenance with weed monitoring and control programs.	IM (lead) SP (lead)	O

### 6.2.3 Service installation and maintenance

**Key objectives:**

- Service authorities carry out their required works in accordance with the Roadside Management Strategy.
- Service authorities take into consideration the roadside conservation value and sites of significance when planning service alignment and installation.
- The Roadside Management Strategy is considered in all assessments as a result of Council's referral process.

#### *Exemptions to native vegetation permit requirements*

Under Clause 52.17-6 of the Planning Scheme, no permit is required to remove, destroy or lop native vegetation:

- to keep the whole or any part of any native vegetation clear of an electric line in accordance with a code of practice prepared under Part 8 of the *Electricity Safety Act 1998*;
- in accordance with any code of practice prepared in accordance with Part 8 of the *Electricity Safety Act 1998* in order to minimise the risk of bushfire ignition in the proximity of electricity lines; and
- to maintain a Minor utility installation.

It is likely that these activities are also exempt from permit requirements under the EPBC and FFG Acts, depending on the specific nature of the vegetation removal.

#### *Planning guidelines*

- Service authorities will consult the roadside management map during project design and consider the following:
  - r) roadside conservation value;
  - s) key flora sites;
  - t) key cultural and heritage sites;
  - u) any areas of significant erosion and pest incursions; and
  - v) fire management arrangements.



- Council to consult with service authorities to identify alternative methods of service provision where preferred, for example, to remove hazardous trees.

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
15	Distribute the Roadside Management Strategy and map to all relevant service authorities.	ET	S
16	Ensure all external agencies working along Council managed roadsides have submitted their works code of conduct, and Council to continue to monitor their performance against their code of conduct.	ET	O

## 6.3 Land protection and conservation management

Land protection and conservation management is associated with a variety of activities that influence the productive value of roadsides, adjacent land and the surrounding landscape, while conserving biodiversity at varying scales. This section seeks to achieve a balance between land protection and conservation management programs with fire safety programs.

Five key areas of land protection and conservation management are recognised, including:

- Pest species management;
- Soil erosion management;
- Management of significant roadside conservation sites;
- Native vegetation regeneration, revegetation and wildlife corridors; and
- Agricultural production.

### *Permit and referral requirements for native vegetation removal on roadsides*

The removal of native vegetation from roadsides as part of land protection and conservation management generally requires a planning permit and referral to DEPI with the exception of standard land management activities that are specified exemptions under Section 52.17 of the Planning Scheme. These exemptions are specified in the relevant sections below, however the exemption relating to weed removal has no basis in the Schedule to the Clause in the Whittlesea Planning Scheme.

Note that the above exemptions may not apply under the provisions of a relevant planning overlay, such as a Vegetation Planning Overlay or an Environmental Significance Overlay.

### 6.3.1 Pest plants, animals and other organisms

**Key objectives:**

- Prevent the spread of pest plants and soil borne pathogens through best practice management standards
- Control and where possible eradicate high threat weeds from roadsides
- Manage pest animal harbor on roadsides
- Educate the community on pest management of roadsides

*Exemptions to native vegetation permit requirements*

Under Clause 52.17-6 of the Planning Scheme, no permit is required to remove, destroy or lop native vegetation to the minimum extent necessary to enable the removal of pest animal burrows in the Farming Zone or the Rural Activity Zone. Although no burrows are known from roadsides in the municipality, this exemption could apply in the respective zones. This exemption does not forgo requirements under the EPBC and FFG Acts.

*Planning guidelines*

- When selecting contractors for works programs, consider the distances and locations of their works outside the municipality as a factor contributing to potential spread of weeds and other pests.
- Works scheduling should aim to work from high conservation value roadsides through to low conservation roadsides.
- Where possible, the timing of roadside slashing should coincide with plant flowering (i.e. prior to seed-set) to reduce the spread of weed seed on slashing machinery (refer to Appendix 12) .
- Carefully select weed control machinery, equipment and herbicides to minimise off-target damage to native plants.
- Where weed infestations dually occur on roadsides and neighboring land, engage the responsible land manager/s to coordinate control programs.
- Enforce weed control requirements (for those species prescribed under local law) where appropriate in the context of roadside weed control programs, for example, when neighbouring land manager/s fail to comply with Council's coordinated weed control programs.

- Undertake seasonal survey and control of disturbed roadside soil (e.g. windrows) resulting from road grading.
- Engage weed control contractors with a high standard of plant identification skill and proven application of sensitive control methods when working in or near to native vegetation.
- Incorporate weed control quality standards into works contracts.

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
17	Develop an annual control program for roadside Chilean Needle-grass infestations that precedes fire prevention slashing and is integrated with other roadside maintenance activities.	SP	O
18	Develop strategies for the control and monitoring of priority weeds on roadsides based on new weed distribution data.	SP (lead) IM (support)	S
19	Implement quality control standards for weed control contracts.	P&OS (lead) SP (support)	S
20	Develop a standard procedure for weed monitoring and control for disturbed soil associated with road maintenance activities, primarily relating to road grading activities.	SP (lead) IM (support)	M
21	Engage appropriately qualified and experienced personnel to formally test for soil-borne pathogens at suspect locations.	SP	M
22	Integrate the updated Vehicle and Machinery Hygiene procedure (appendix 12) into all relevant Council procedures, roadside management guides and tender contracts.	P&OS, IM	S
23	Develop and distribute educational and operational guides on hygiene protocols to relevant roadside management and works personnel, including signs around depots.	P&OS, SP	M
24	Update Council Local Law on pest plants and develop and distribute appropriate extension	SP	M

No.	Description	Responsibility	Priority
	materials on these changes and other appropriate information (e.g. who will undertake roadside weed control).		

### 6.3.2 Soil erosion

**Key objectives:**

- Minimise the threat of soil erosion to natural and production values on roadsides and adjacent land.
- Educate the community on erosion management.

*Planning guidelines*

- Dust, silt and sediment management should be built into projects at the design stage and be a standard consideration in all construction activities on roads and roadsides.
- Protect natural waterways and their tributaries.
- Consult with local residents when off-site erosion management impacts need to be considered during road and roadside management projects.
- Consider future erosion management issues during the design phase by minimising tree removals.
- Where significant erosion issues are evident on roadsides or nearby neighbouring land, consult with relevant land managers as part of planning for remedial works.
- Incorporate erosion management standards into works contracts.
- As part of works that will result in soil disturbance, only use approved grass seed for soil stabilization purposes.
- Grass seed appropriate for soil stabilization should either be a sterile exotic species (e.g. sterile rye-grass and various other sterile seed mixes), or an approved native grass species or mix from a Council endorsed supplier.
- Adopt EPA best practice erosion management standards (e.g. EPA 1991 & 1996).

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
25	Develop a register of high impact erosion sites on or near to roadsides, and identify and document the extent of erosion risk areas in Council's GIS.	SP (lead) GIS (support)	M
26	Develop an erosion management program with a view to protecting high risk locations on roadsides and adjacent land.	SP	L
27	Develop guidelines and procedures for soil erosion control measures for both construction sites and problem erosion areas that meet EPA standards and specify appropriate treatment measures, and integrate these with tender contracts and standard works briefs.	SP	S
28	Develop and distribute extension materials on soil erosion issues and treatments in high risk areas.	SP	L

### **6.3.3 Significant biodiversity conservation sites**

#### ***Key objectives:***

- Protect, conserve, maintain and enhance significant roadside flora & fauna sites
- Improve understanding of significant flora and fauna sites
- Educate the community on the value of significant flora & fauna sites

#### ***Planning guidelines***

- Engage appropriately qualified and experienced experts to undertake site-specific investigation of key flora sites to collect detailed site data, define threatening process and management requirements, and implemented recommendations accordingly. Avoid losses to key flora sites by actively pursuing their protection and management.
- Undertake formal detailed study of significant flora and fauna sites and their management requirements, including identification of sites at substantial risk of loss or degradation.

- Incorporate significant flora and fauna data with relevant conservation and government agency databases (e.g. the National Herbarium of Victoria and the Victorian Biodiversity Atlas).
- Implement the recommendations of detailed reports, with particular emphasis on actively managing threats, such as weed control, erosion and inappropriate use of fire.
- Establish standards for the treatment of weeds on roadsides and integrate these with tender briefs and standard works briefs.
- Engage contractors and staff to implement works at a demonstrated high standard of environmental best practice with respect to undertaking sensitive works in native vegetation.
- Prepare and distribute community extension materials that highlight special roadside biodiversity values and legal provisions for native vegetation on roadsides.

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
29	Engage appropriately qualified and experienced experts as required to undertake site-specific investigation of key flora sites to collect detailed site data, define threatening process and management requirements and implement recommendations accordingly.	SP	O
30	Integrate roadside flora and fauna data with relevant conservation and government agency databases.	SP	M,O
31	Develop a register of all assessments that document roadside biodiversity values and include on Council GIS	SP (lead) GIS (support)	S,O
32	Implement works standards for roadside weed management in Medium and High conservation value roadsides and integrate these with tender briefs and standard works briefs. Refer to Appendix 11 and 12	SP	S

No.	Description	Responsibility	Priority
33	Inform local landholders of significant roadside conservation areas, habitat corridor areas and associated legal provisions through extension materials including roadside signage	SP	M

### 6.3.4 Natural regeneration, revegetation and wildlife corridors

**Key objectives:**

- Identify and document roadside wildlife corridors, with particular emphasis on riparian corridors and ecologically viable opportunities.
- Promote natural regeneration on roadsides to improve site condition and landscape connectivity.
- Manage natural regeneration on roadsides to reduce hazards and maintain road function.
- Strategically and responsibly revegetate roadsides to improve landscape connectivity.
- Enhance wildlife corridor functions of roadside vegetation via strategic and responsible revegetation and natural regeneration.
- Protect, conserve, maintain and enhance existing wildlife corridors.

#### *Exemptions to native vegetation permit requirements*

Under Clause 52.17-6 of the Planning Scheme, no permit is required to remove, destroy or lop native vegetation to the minimum extent necessary if the vegetation has been planted or grown as a result of direct seeding for aesthetic or amenity purposes, including agroforestry, shelter belts, woodlots, street trees, gardens or the like. This exemption does not apply if public funding was provided to assist in planting or managing the native vegetation and the terms of the funding did not anticipate removal or harvesting of the vegetation.

Although this exemption has limited applicability to roadside management, areas supporting inappropriate revegetation undertaken by other agencies (e.g. adjacent private landholders) that serve as part of a wildlife corridor could warrant removal under fire prevention treatments. Under this scenario, Council would not be



expected to offset the native vegetation removal even if a permit and DEPI referral is required.

There is also an exemption for a permit requirement to remove, destroy or lop native vegetation to the minimum extent necessary if the native vegetation is regrowth which has naturally established or regenerated on land lawfully cleared of naturally established native vegetation and is less than 10 years old, or Bracken *Pteridium esculentum*. This exemption does not apply to land on which native vegetation has been cleared or otherwise destroyed or damaged as a result of flood, fire or other natural disaster.

Note that the above exemptions may not apply under the provisions of a relevant planning overlay, such as a Vegetation Planning Overlay or an Environmental Significance Overlay.

### *Planning guidelines*

- Identify and document all existing and potential roadside wildlife corridors in Council's Geographic Information System and integrate this with fire break data to inform appropriate management actions.
- Where possible, avoid designation of proposed roads through existing areas of high or medium conservation value.
- Allow natural regeneration to occur on high quality roadsides with due consideration of fire prevention prescriptions and in consultation with local residents where relevant and appropriate.
- Manage natural regeneration on medium quality roadsides with consideration of the following:
  - regeneration should not impede road function;
  - regeneration should not constitute a significant hazard to overhead services;
  - regeneration should not impede or contravene significant fire prevention prescriptions along that roadside;
  - regeneration should be promoted where it complements planned or spontaneous wildlife corridor functions.
- Revegetation using tall shrubs and trees should only take place on roadsides in the following situations:
  - the roadside does not support or is subject to an existing plan proposing the installation of powerlines or other overhead services;

- the roadside is located within a Council endorsed wildlife corridor; and
  - the revegetation will not impede or contravene significant fire prevention prescriptions along that roadside.
- Ensure the protection and conservation of existing wildlife corridors by avoiding vegetation removal.
  - Exploit natural regeneration processes in preference to revegetating.
  - Use indigenous plant species in roadside revegetation programs, selected in consultation with appropriate information resources based on their suitability to the planting site.
  - Only use high quality site preparation and plant establishment methods, including consideration of the use of soil scalping and native ground layer reseeding on low conservation value roadsides to dually assist fire prevention objectives (this would not be used where it could result in increased soil erosion).

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
34	Develop a municipal habitat corridor action plan that involves the identification and documentation of all existing and potential roadside and riparian wildlife corridors into Council's GIS and integrates these with municipal fire break data to inform appropriate wildlife corridor management actions.	SP (lead) GIS, Strategic Planning (support)	M
35	Investigate the potential for using soil scalping and native ground flora reseeding as part of wildlife corridors and fire prevention on low conservation value roadsides outside of erosion prone areas.	SP	L
36	Mark out areas of natural regeneration to be retained as part of wildlife corridor provisions, to be avoided by slashing programs. This could be undertaken as part of a municipal habitat corridor action plan (see above Action 35).	SP (lead) P&OS (support)	M
37	Mark out areas of potential natural regeneration where ecological burning may be used to promote wildlife corridor development and to be avoided by slashing programs.	SP, MFPO	M

### 6.3.5 Agricultural production

**Key objectives:**

- Prohibit roadside cropping activities.
- Reduce the risk of roadside agricultural production spreading pest plants and other organisms

#### *Exemptions to native vegetation permit requirements*

Under Clause 52.17-6 of the Planning Scheme, no permit is required to remove, destroy or lop native vegetation as a result of moving stock along a road, excepting removal as a result of holding stock in a temporary fence (including an electric fence) on a roadside for the purpose of feeding.

It is likely that these activities are also exempt from permit requirements under the EPBC and FFG Acts, depending on the specific nature of the vegetation removal. Note that the above exemption may not apply under the provisions of a relevant planning overlay, such as a Vegetation Planning Overlay or an Environmental Significance Overlay.

#### *Planning guidelines*

- Do not allow roadside haymaking on roadsides infested with Noxious weeds, particularly Needle-grasses (*Nassella* species).
- Manage grazing, livestock movement and haymaking through Council permits and Local Laws.
- Stock movement on roadsides requires a permit if it exceeds a 2 kilometre length under Council Local Law 11.1 (1).
- Roadside grazing requires a permit under Council Local Law 11.1 (2).
- Review and update the requirements of roadside agricultural permit holders.
- Restrict roadside grazing and stock movement to dry periods to reduce soil compaction and disturbance.
- Develop standards for responding to illegal roadside agricultural activities.

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
38	Develop standard procedures to inform illegal roadside agricultural activities, such as non-permitted grazing (e.g. inadequate paddock fencing) and illegal vegetation clearance (e.g. assessment and DEPI referral procedures).	LL	M

## 6.4 Cultural heritage and landscape management

Cultural heritage and landscape management of roadsides relates primarily to the protection and maintenance of a broad suite of social values that exist on roadsides, in accordance with other road and roadside uses. It also covers the issue of waste management.

Four key areas of cultural heritage and landscape management are recognised, including:

- Cultural and heritage values
- Amenity and landscape values
- Recreational values
- Waste/litter control

These areas are all linked to other aspects of Council's management, with close ties to the Heritage Strategy (in press), Open Space Strategy (in press) and Municipal Waste Management and Resource Recovery Strategy. The objectives, guidelines and actions listed below seek to improve the recognition and documentation of these values on roadsides to better ensure their protection and maintenance.

### 6.4.1 Cultural and heritage values

***Key objectives:***

- Identify and manage all roadside cultural and heritage values
- Protect and maintain roadside cultural and heritage values in a manner consistent with other road and roadside uses and in accordance with Council's Heritage Strategy

***Planning guidelines***

- Identify and document roadside cultural and heritage values in Council's Geographic Information System (GIS)
- Adopt principles and guidelines of Council's Heritage Strategy (upon completion)
- Integrate cultural heritage protection requirements with all road and roadside tender contracts and other relevant projects

- Ensure cultural and heritage values are assessed during the planning stage of all relevant road, roadside and adjacent land proposals
- Ensure cultural heritage protection measures are provided in all relevant project proposals relating to roadside areas.
- Incorporate cultural heritage protection in the design and construction stages of all relevant road, roadside and adjacent land proposals
- Develop roadside cultural heritage monitoring requirements to ensure the maintenance of these values, with sections on general long-term provisions and detailed project-specific provisions (this could be developed as part of Council’s Heritage Strategy)

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
39	Identify and document roadside cultural and heritage values in Council’s GIS.	SP (lead) GIS (support)	L
40	Incorporate the principles and guidelines of Councils Cultural Heritage Strategy in an annex to this Strategy, upon its completion.	SP	L
41	Ensure cultural heritage protection measures are provided in all relevant project proposal relating to roadside areas	SP	L
42	Develop roadside cultural heritage value monitoring and reporting methods and requirements, including general long-term provisions and detailed project-specific provisions.	SP	M

## **6.4.2 Amenity and landscape values**

### ***Key objectives:***

- Identify and manage roadside amenity and landscape values
- Conserve roadside amenity and landscape values in a manner consistent with other road and roadside uses

### *Planning guidelines*

- Identify and document roadside amenity and landscape values in Council’s GIS
- Where possible, avoid designation of proposed roads through existing areas exhibiting high or medium landscape and amenity values
- Develop planning resources that provide for the conservation of roadside amenity and landscape values, including recognition of current Council planning overlays that serve this purpose, and promote these materials to relevant Council roadside management authorities
- Integrate the conservation of roadside amenity and landscape values into tender contracts and other projects
- Promote the conservation of roadside amenity and landscape values via relevant extension materials

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
43	Identify and document roadside amenity and landscape values in Council’s GIS.	SP	M
44	Review planning resources that seek to conserve roadside amenity and landscape values (including planning overlays) and integrate these materials within Council roadside management provisions (including works contracts).	SP	M

### **6.4.3 Recreational values**

#### ***Key objectives:***

- Identify and manage roadside recreational values
- Conserve roadside recreational values in a manner consistent with other road and roadside uses
- Promote sustainable roadside recreational values
- Discourage inappropriate roadside recreational value

### *Planning guidelines*

- Identify and document roadside recreational areas and relevant community groups (roadside recreational users) in Council’s GIS
- Monitor and report on roadside recreational areas to ensure they don’t conflict with other road and roadside uses
- Consult key community groups where changes to roadside recreational uses are proposed
- DO NOT establish or expand recreational roadside uses on High conservation value roadsides
- Avoid establishing or expanding recreational roadside uses on Medium conservation value roadsides, and preferentially utilise degraded sections of these roadsides

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
45	Identify and document roadside recreational areas and relevant community groups in Council’s GIS.	SP (lead) P&OS (support)	M
46	Develop and implement methods to monitor and report on roadside recreational uses as part of standard roadside maintenance.	SP (lead) IM (support)	L
47	Develop extension materials on roadside recreational uses	SP (lead) P&OS (support)	L

## **6.4.4 Waste/litter control**

### ***Key objectives:***

- Ensure waste materials are disposed of appropriately
- Identify key problem areas relating to waste dumping on roadsides
- Promote good waste and litter management behaviours
- Minimise the risk of waste materials degrading conservation and amenity values



### *Planning guidelines*

- Develop waste management provisions in tender contracts and for other works programs, including requirements for personnel to:
  - dispose of general rubbish
  - dispose of specialized rubbish (e.g. sharps)
  - dispose of large volumes of waste (e.g. construction materials)
  - reporting on litter management issues
- Encourage a stronger integration of litter management on roadsides within the Municipal Waste and Resource Recovery Strategy where opportunities exist
- Identify and remove waste/litter from roadsides, define key problem areas requiring additional management provisions and recognise these areas in Council's GIS

### *Actions*

<b>No.</b>	<b>Description</b>	<b>Responsibility</b>	<b>Priority</b>
48	Continue to implement waste management provisions for use in tender contracts and other works programs.	ET (lead) EO (support)	O
49	Develop extension materials on waste and litter management on roadsides including litter reporting procedures.	EO (lead) LL (support)	M
50	Define waste dumping problem areas and develop appropriate management provisions for these areas.	EO (lead) LL (support)	M

## 7 Implementation

To ensure the effective implementation of the Strategy, the following section specifies key implementation actions, contingency and conflict resolution mechanisms, and monitoring & review requirements.

### 7.1 Key implementation actions

The following Six key actions will be implemented during the term of this Strategy. Several of these are of high priority, and their implementation to a high standard will ensure that the Strategy is integrated into current management systems and provide the necessary guidance of roadside managers. These actions were established during the previous Roadside Management Strategy and have been determined by the Council reference group as appropriate measures for adoption in this Strategy.

All actions are scheduled for completion within two years of Strategy endorsement. The priority levels specified in this section are therefore specific in nature to a monthly basis.

#### *Implementation Group*

Establish an implementation group that will coordinate the implementation of the Strategy. The group will consist of representatives from the following Council departments: Sustainability Planning, Engineering and Transportation, Community Services, Local Laws, Infrastructure Maintenance, Parks and Open Space and Environmental Operations.

Responsibility	Sustainability Planning
Priority	Within three months of Strategy endorsement

#### *Publicise the Strategy*

Publicise the Roadside Management Strategy through relevant articles in WhittleScene, Leader newspaper and on the City of Whittlesea website. Develop and distribute extension materials on roadside management for various roadside users, including local residents and management staff. Materials should relate to management issues, for example weeds, erosion, sites of significance, cultural heritage and fire management.

Responsibility	Sustainability Planning with assistance from Community Services and Council Marketing departments
Priority	Within six months of Strategy endorsement

### *Roadside Management Handbook*

Develop a Roadside Management Handbook which will include a detailed version of the roadside management map for internal use and to provide to external agencies where relevant. The Handbook will include a summary of key roadside assets and management issues, and provide practical management guidelines for roadside construction, service and maintenance works. The map will depict roadside conservation value, key flora sites, and the locations of other relevant features.

The handbook should be developed both in hard copy and electronic formats (e.g. ArcGIS).

Responsibility	Sustainability Planning
Priority	Within twelve months of Strategy endorsement

### *Roadside Management Training – Council staff*

Develop training materials and undertake training sessions for relevant Council staff on roadside management planning and operations. The sessions are to summarise roadside values and management issues using local examples, and provide guidelines for roadside activities, including introduction to the use of roadside GIS resources, key planning processes and works requirements.

Training should be appropriately tailored to relevant departments and levels of management, which could include separate training sessions for planning staff and works staff, and include a dedicated session in relation to fire management and linked with the review and implementation of the Municipal Fire Management Plan. Sessions should include both an office and field based practical component.

Responsibility	Sustainability Planning with assistance from various Council departments and external agencies
Priority	Within 24 months of Strategy endorsement

### *Roadside Management Training – External agencies*

Develop training materials and undertake training sessions for relevant external agencies on roadside management planning and operations. The sessions are to summarise roadside values and management issues using local examples, and provide guidelines for roadside activities, including key planning processes and works requirements.

Training should be appropriately tailored to relevant authorities, contractors and different levels of management, which could include separate training sessions for planning staff and works staff. Sessions should include both an office and field based practical component.

Responsibility	Sustainability Planning with assistance from various Council departments and external agencies
Priority	Within 24 months of strategy endorsement

## 7.2 Monitoring & review

To ensure the Strategy is effectively implemented and meets roadside management objectives, annual monitoring and review will be undertaken following Strategy endorsement. This will be scheduled to occur during a relevant practical period, such as at completion of each financial year to provide a thorough evaluation of the preceding period and provisions for the new financial year.

Monitoring and review should cover all aspects of the Strategy's implementation. This would in practice involve consultation with the Implementation Group and other relevant representatives from Council and external agencies to adjudicate the effectiveness of the Strategy in balancing roadside management issues. The review should provide short-term guidance for the remaining period of the Strategy, and provide comment on long-term considerations relevant to the development of the next Council Roadside Management Strategy.

Results will be presented in a short report that itemises the relevant actions and issues that have been addressed or neglected by management, and the consequent management requirements. All relevant document appendices will be updated to reflect new information to be annexed to the current Strategy and retained for the succeeding Strategy.

## List of acronyms

Agencies, authorities and key documents:

CFA Country Fire Authority

CoW City of Whittlesea

DPCD Department of Planning and Community Development

DEPI Department of Environment and Primary Industries

DNRE Department of Natural Resources and Environment

DEPI Department of Environment and Primary Industries (formerly Department of Sustainability and Environment (DSE))

MFMP Municipal Fire Management Planning Committee (formerly Municipal Fire Prevention Committee)

MFMP Municipal Fire Management Plan

PPWCMA Port Phillip and Westernport Catchment Management Authority

RMS Roadside Management Strategy

VFRR Victorian Fire Risk Register

Relevant Council departments (predecessors in parentheses):

CS Community Support

EO Environmental Operations

ET Engineering and Transportation (Technical Services)

GIS Geographic Information System (Department)

IM Infrastructure Maintenance (Operations Section)

LL Local Laws (Traffic and Local Laws)

M Marketing

MFPO Municipal Fire Prevention Officer

P&OS Parks and Open Space (Parks and Gardens)

SP Sustainability Planning (Strategic Planning)

Priority

- L Long-term (4-5 years)
- M Medium-term (2-3 years)
- O Ongoing (continual)
- S Short-term (1 year)

## References

- CoW(1999) Roadside Management Handbook: Environmental Guidelines for Roadside Activities. The City of Whittlesea, South Morang.
- CoW (2012a) Whittlesea Municipal Fire Management Plan 2012-2015. The City of Whittlesea, South Morang.
- CoW (2012b) Municipal Fire Management Plan 2012-2015 Multi Agency Workplan. The City of Whittlesea, South Morang.
- CoW (2012c) Municipal Waste Management & Resource Recovery Strategy 2012-2020. City of Whittlesea, South Morang.
- CoW (2012d) Draft Environmental Sustainability Strategy 2012-2022. City of Whittlesea, South Morang.
- DEHA (2009) Grassy Eucalypt Woodland of the Victorian Volcanic Plain listing advice. Prepared by the Threatened Species Scientific Committee for the Commonwealth Department of Environment, Heritage and the Arts.
- DEWHA (2009a) Matters of National Environmental Significance: Significant Impact Guidelines 1.1. Commonwealth Department of the Environment, Water, Heritage and the Arts.
- DEWHA (2009b) Farming and nationally protected grasslands and woodlands of the Victorian Volcanic Plain. Commonwealth Department of the Environment, Water, Heritage and the Arts.
- DNRE (1998) Guidelines for Preventing the Spread of Weeds. Victorian Department of Natural Resources and Environment, Geelong.
- DNRE (2002) Victoria's Native Vegetation Management – A framework for action. Victorian Department of Natural Resources and Environment, East Melbourne.
- DPCD (2011) Amendment VC83 – Bushfire protection: Vegetation exemptions. Victorian Department of Planning and Community Development, Melbourne.
- DPCD (2012) Regional Bushfire Planning Assessment: Melbourne Metropolitan Region. The Victorian Government Department of Planning and Community Development, Melbourne.
- DPI (2006) Machinery Hygiene Guidelines for Roadside Managers: Minimising the Spread of Chilean Needle Grass. Department of Primary Industries, Bacchus Marsh, Victoria.

DPI&F (2008) Petroleum Industry – Pest Spread Minimisation Advisory Guide. Invasive Plants & Animals, Biosecurity Queensland, DPI&F (Queensland Department of Agriculture, Fisheries and Forestry), Brisbane.

DSE (2004) Vegetation Quality Assessment Manual – Guidelines for applying the Habitat Hectares scoring method. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2005) Advisory List of Rare or Threatened Plants in Victoria – 2005. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2006) Guidelines for assessment of referred planning permit applications. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2007) Advisory List of Threatened Vertebrate Fauna in Victoria. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2009a) Advisory List of Threatened Invertebrate Fauna in Victoria – 2009. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2009b) Advisory List of Environmental Weeds of Inland Plains Bioregions of Victoria. Victorian Department of Sustainability and Environment, East Melbourne.

DSE (2012) Roadside Vegetation Management for Bushfire Risk Mitigation Purposes. Victorian Department of Sustainability and Environment, East Melbourne.

EPA (1991) Construction techniques for sediment pollution control. Environmental Protection Agency, Melbourne.

EPA (1996) Environmental Guidelines for Major Construction Sites – Best Practice Environmental Management. Environmental Protection Agency, Melbourne.

GAA (2011) Engineering Design and Construction Manual. Growth Areas Authority, Melbourne

PWWCMA (2006) Port Phillip and Western Port Native Vegetation Plan. Port Phillip and Western Port Catchment Management Authority, Frankston.

Parliament of Victoria (2010) 2009 Victorian Bushfires Royal Commission Final Report. Parliament of Victoria, East Melbourne, Victoria.

State of Victoria (2004) Victoria Government Gazette No. S267 Road Management Act 2004 Code of Practice Operational Responsibility for Public Roads. Victorian Government Printer, State of Victoria, Melbourne.

TSSC (2008) Commonwealth Listing Advice on Natural Temperate Grassland of the Victorian Volcanic Plain. Prepared by the Threatened Species Scientific Community



(TSSC) for the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

TSSC (2008) Commonwealth Listing Advice on Grassy Eucalypt Woodland of the Victorian Volcanic Plain. Prepared by the Threatened Species Scientific Committee (TSSC) for the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

TSSC (2012) Commonwealth Listing Advice on Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains. Prepared by the Threatened Species Scientific Committee (TSSC) for the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

## Appendix 1. Fire Priority Roads

The following list of roads is taken from Appendix D of the current Municipal Fire Management Plan (CoW 2012a). Please refer to that document for further detail.

<b>Fire Priority Roads</b>		
Arthurs Creek Road	Glenburnie Road	Plenty Valley Rise
Beveridge Road	Gorge Road	Recreation Road
Bindts Road	Grants Road	Ridge Road
Boscoe Drive	Halls Road	Summerhill Road
Boundary Road	Harvest Home Road	Towts Road
Bridge Inn Road	Hume Freeway	Vearings Road
Bruces Creek Road	Humevale Road	Wallan Road
Clarks Road	Jacks Creek Road	Western Ring Road
Coombs Road	Janna Road	Wildwood Road
Cooper Street	Masons Road	Yan Yean Road
Craigieburn Road	Merriang Road	Yea Road
Donnybrook Road	O'Herns Road	
Epping Road	Plenty Road	

## Appendix 2. Declared noxious weeds.

Regionally controlled weeds occur within the region and are capable of spreading further in the region and should be stopped from doing so, for which the *Catchment and Land Protection Act 1994* provides that land managers are required to undertake continuing control measures to prevent spread.

Regionally restricted weeds are a serious threat to primary production, Crown land, the environment or community health in another State or Territory, for which the *Catchment and Land Protection Act 1994* prohibits the sale and trade in Victoria to reduce an unacceptable risk of its spread within Victoria and other States or Territories.

Regionally prohibited weeds are not widely distributed throughout the region, are capable of spreading further and it is reasonable to expect that they can be eradicated from the region. Landowners are required to take all reasonable steps to eradicate regionally prohibited weeds on their land.

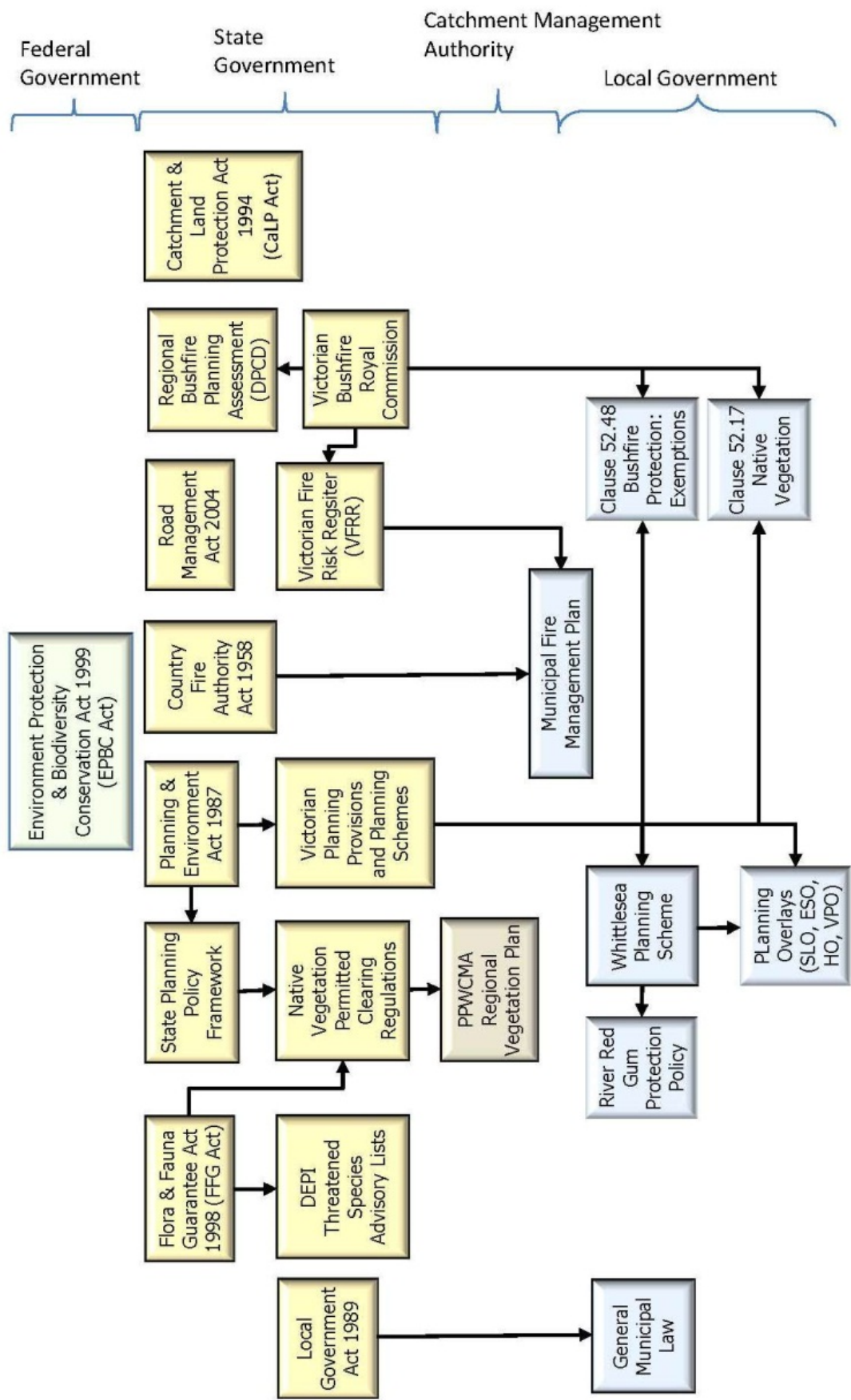
Scientific Name	Common Name
<b>Regionally controlled weeds</b>	
<i>Carduus pycnocephalus/tenuifolius</i>	Slender Thistle Species Aggregate
<i>Chrysanthemoides monilifera ssp. monilifera</i>	Boneseed
<i>Cirsium vulgare</i>	Spear Thistle
<i>Crataegus monogyna</i>	Hawthorn
<i>Cynara cardunculus</i> <sup>1</sup>	Artichoke Thistle
<i>Cytisus scoparius</i>	English Broom
<i>Echium plantagineum</i> <sup>1</sup>	Paterson's Curse
<i>Genista linifolia</i>	Flax-leaf Broom
<i>Genista monspessulana</i>	Montpellier Broom
<i>Hypericum perforatum ssp. veronense</i>	St. John's Wort
<i>Lycium ferocissimum</i>	African Box-thorn
<i>Moraea</i> spp.	Cape-tulip
<i>Nassella trichotoma</i> <sup>1</sup>	Serrated Tussock
<i>Opuntia</i> spp.	Prickly Pear

<b>Scientific Name</b>	<b>Common Name</b>
<i>Rosa rubiginosa</i> <sup>1</sup>	Briar Rose
<i>Rubus fruticosus</i> spp. agg. <sup>1 2</sup>	Blackberry
<i>Rubus laciniatus</i>	Cut-leaf Blackberry
<i>Silybum marianum</i>	Variegated Thistle
<i>Tamarisk aphylla</i>	Tamarisk
<i>Ulex europaeus</i> <sup>1</sup>	Gorse
<i>Watsonia meriana</i> var. <i>bulbilifera</i>	Bulbil Watsonia
<b>Regionally restricted weeds</b>	
<i>Ailanthus altissima</i>	Tree-of-heaven
<i>Allium triquetrum</i>	Angled Onion
<i>Allium vineale</i>	Crow Garlic
<i>Asparagus asparagoides</i>	Bridal Creeper
<i>Foeniculum vulgare</i>	Fennel
<i>Nassella neesiana</i> <sup>1</sup>	Chilean Needle-grass
<i>Salix fragilis</i>	Crack Willow
<b>Regionally Prohibited Weeds</b>	
<i>Onopordum acanthium</i> <sup>1</sup>	Scotch Thistle

<sup>1</sup> Listed as a pest plant under Section 5.6 of City of Whittlesea General Municipal Law No. 1 and are required for removal at the request of Council










<sup>2</sup> Infestations of this taxon are primarily of *Rubus anglocandicans*, and one occurrence of *Rubus laciniatus* was recorded on Humevale Road

## **Appendix 3. Legislation**










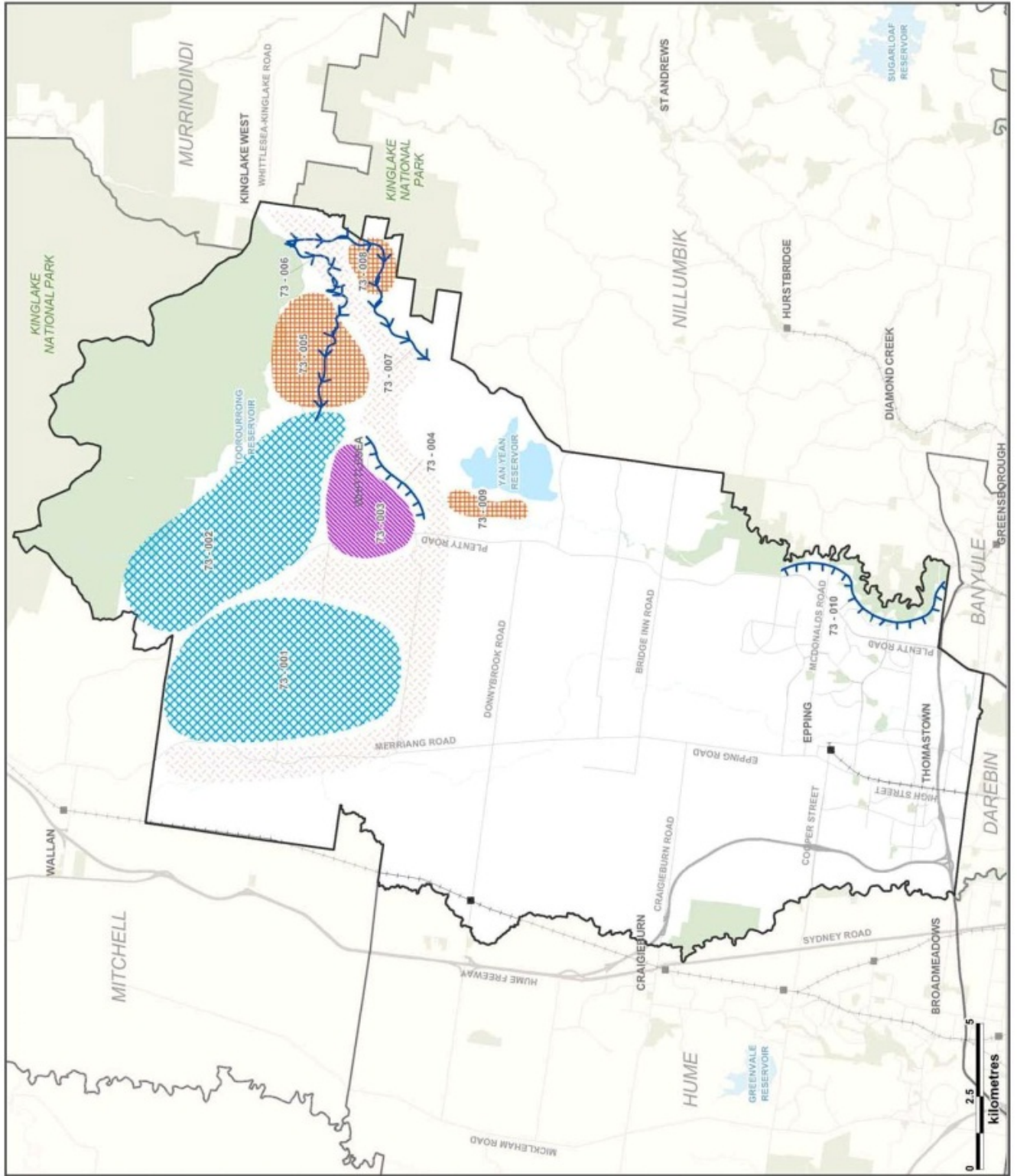
## **Appendix 4. Regional Bushfire Planning Assessment – City of Whittlesea (DPCD 2012)**

# Identified Areas

-  Small lots in or close to hazard (0 - 0.4 hectares)
-  Medium lots in or close to hazard (0.4 - 4 hectares)
-  Specific local knowledge
-  Other information of interest to planning
-  Multiple matters
-  Limited access and egress
-  Urban/bushfire hazard interface
-  Future strategic directions and bushfire hazard conflict
-  Bushfire landscape of consideration

# Features

-  Major road
-  Road
-  Railway
-  Railway station
-  Watercourse
-  Waterbody
-  Public land





**Table A1 Whittlesea Identified Area Description Table**

<b>IDENTIFIED AREA CODE</b>	<b>LOCATION</b>	<b>IDENTIFIED AREA DESCRIPTION</b>
73-001	Eden Park	Multiple bushfire matters including: <ul style="list-style-type: none"> <li>• medium lots in a bushfire hazard area generated by the extent of remnant vegetation.</li> <li>• southern section of area is subject to a restructure overlay which seeks to consolidate lots and address access issues associated with multiple dead-end roads.</li> <li>• area currently includes various roads with limited access and egress caused by long single access roads.</li> <li>• Includes stands of vegetation of high and very high conservation significance.</li> </ul>
73-002	Whittlesea / Upper Plenty	Multiple bushfire matters including: <ul style="list-style-type: none"> <li>• grazing land located between Whittlesea and Kinglake National Park is a known bushfire hazard.</li> <li>• area contains a mixture of disbursed medium lots and large rural lots at the bushfire hazard interface with Toorourrong Reservoir, Mount Disappointment and Kinglake National Park to the east and north-east.</li> <li>• bushfire hazard generated by the extent of remnant vegetation.</li> <li>• area contains roads with limited access and egress caused by single access roads.</li> <li>• area includes vegetation of high conservation significance.</li> </ul>
73-003	Whittlesea	Development pressure is being experienced to the north of Whittlesea which would result in expansion towards bushfire hazard areas.
73-004	Whittlesea	Urban bushfire hazard interface with existing development between the south-east edge of Whittlesea and the Yan Yean Reservoir catchment area.
73-005	Humevale	Cluster of medium size lots in proximity to bushfire hazard associated with the Kinglake National Park to the north, and Yan Yean Reservoir catchment area to the south. Includes scattered patches of vegetation of high conservation significance.
73-006	Humevale / Kinglake West	Major access road of concern due to the length of the single road extending through a bushfire hazard area providing access to settlements.
73-007	Humevale / Kinglake West	Major access road of concern due to the length of the single road extending through a bushfire hazard area and providing access to settlements.
73-008	Kinglake West	Cluster of medium rural lots in a bushfire hazard area located in a

IDENTIFIED AREA CODE	LOCATION	IDENTIFIED AREA DESCRIPTION
		valley between Kinglake National Park to the north, and Yan Yean Reservoir catchment area to the south.
73-009	Yan Yean	Disbursed medium rural lots adjacent to a bushfire hazard area associated with the vegetation along the western edge of the Yan Yean Reservoir.
73-010	South Morang / Plenty Gorge Corridor	Urban bushfire hazard interface with existing residential areas to the immediate west of Plenty Gorge. Potential bushfire hazard at river interface associated with riparian vegetation.

## Appendix 5. Geographic data used to inform desktop analysis.

**Table A2. Key geographic information resources relevant to pre- and post-production of field surveys of roadsides in the City of Whittlesea.**

Layer name	Title
<b>Data sources © Victorian Department of Sustainability and Environment</b>	
NV2005_QUAL (2010)	Native Vegetation - Modelled Quality (Site condition and landscape context) 2005
NV1750_EVC (2008)	Native Vegetation - Modelled 1750 Ecological Vegetation Classes
GMU250 (2011)	Geomorphology of Victoria
VBA_FLORA25 (2011)	Victorian Biodiversity Atlas flora records for sites with high spatial accuracy
VBA_FLORA100 (2011)	Victorian Biodiversity Atlas flora records for sites with moderate to low spatial accuracy
<b>Data sources © City of Whittlesea</b>	
Whittlesea_01072011	Aerial raster of the City of Whittlesea
FirePriorityRoads	Priority fire roads in the City of Whittlesea
FirePreventionMowing	Fire prevention mowing zones in the City of Whittlesea
BushfireArea2009	Victorian Bushfire Extent 2009

## Appendix 6. Roadsides supporting heritage values.

**Table A3. Roadsides that support heritage values in the City of Whittlesea (Source: City of Whittlesea).**

Road Name	Heritage value/s
Donnybrook Road	Road cutting (Drooping Sheoaks) and drystone walls
Bridge Inn Road	River Red Gum (intersection with Plenty Road) and drystone walls
Cookes Road	River Red Gum (south side, east end)
Recreation Road	Aqueduct along length
Plenty Road	Drystone walls
McArthur Road	Drystone walls
Gordons Road	Drystone walls
O'Herns Road	Drystone walls
Epping Road	Drystone walls
Vearings Road	Drystone walls
Craigieburn Road	Drystone walls
Boundary Road	Drystone walls
Bindts Road	Drystone walls
Harvest Home Road	Drystone walls
Lehmans Road	Drystone walls

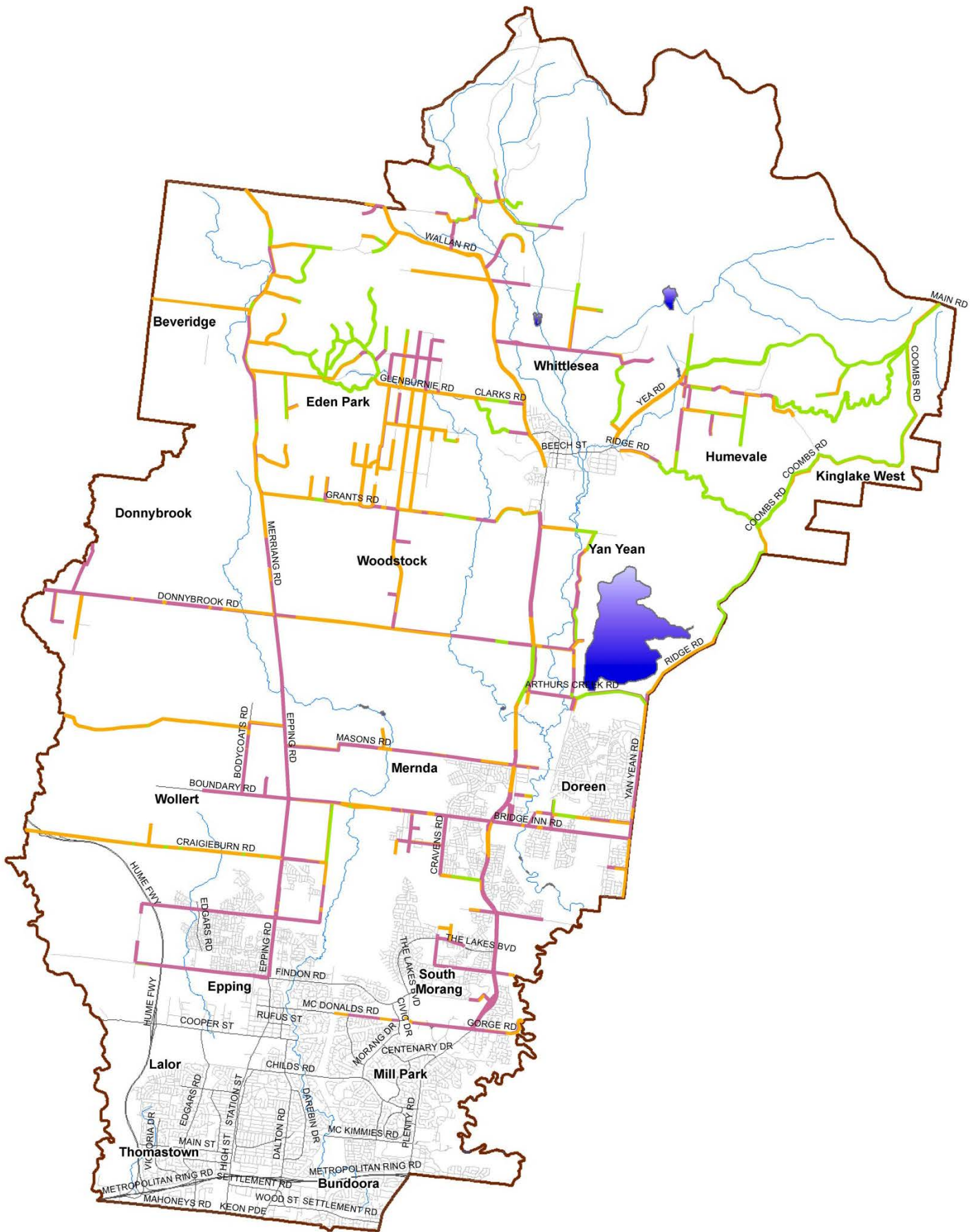
## Appendix 7. Summary of vegetation types.

**Table A4. EVCs and FFG-listed floristic communities recorded from roadsides in the City of Whittlesea**

EVC No.	EVC Name	Bioregional Conservation Significance
<b>Central Victorian Uplands bioregion</b>		
47	Valley Grassy Forest	Vulnerable
55	Plains Grassy Woodland	Endangered
175	Grassy Woodland	Endangered
<b>Highlands - Southern Fall bioregion</b>		
18	Riparian Forest	Least Concern
20	Heathy Dry Forest	Least Concern
22	Grassy Dry Forest	Least Concern
23	Herb-rich Foothill Forest	Least Concern
29	Damp Forest	Least Concern
45	Shrubby Foothill Forest	Least Concern
47	Valley Grassy Forest	Vulnerable
53	Swamp Scrub	Endangered
55	Plains Grassy Woodland	Endangered
106	Grassy Riverine Forest	Data deficient
126	Swampy Riparian Complex	Endangered
164	Creepline Herb-rich Woodland	Vulnerable
175	Grassy Woodland	Depleted
902	Gully Woodland	Vulnerable
<b>Victorian Volcanic Plain bioregion</b>		
55	Plains Grassy Woodland	Endangered
56	Floodplain Riparian Woodland	Endangered

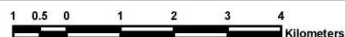
<b>EVC No.</b>	<b>EVC Name</b>	<b>Bioregional Conservation Significance</b>
68	Creekline Grassy Woodland	Endangered
83	Swampy Riparian Woodland	Endangered
126	Swampy Riparian Complex	Endangered
132	Plains Grassland	Endangered
651	Plains Swampy Woodland	Endangered
654	Creekline Tussock Grassland	Endangered
649	Stony Knoll Shrubland	Endangered
<b>Floristic Communities listed as threatened under the <i>Flora and Fauna Guarantee Act 1988</i></b>		
55-04	Victorian Volcanic Plains Grassy Woodland	NA
NA	Western (Basalt) Plains Grassland	NA

## **Appendix 8. Roadside Conservation Value map**



**Legend**

- High Conservation Value
- Medium Conservation Value
- Low Conservation Value
- Water course
- Water body
- Municipality Boundary



Scale 1:100,000

Date Created: September 2013

Created by : Kathy Himbeck

File: J:\Jobs\2012\_Jobs\12060\_RoadsideConservationVaue WhittleseaMarch2013\_V1.0

Abzeco Pty. Ltd  
 Suite 1, 4 Brisbane Street  
 Eltham, Victoria 3095  
 Ph 03 9431 5444  
 www.abzeco.com.au



Note: location of property boundaries, watercourse and topography indicative only



## Appendix 9. Roadsides of High Conservation Value.

<b>Roadsides supporting areas of High conservation value in the City of Whittlesea.</b>		
Arthurs Creek Road	Eighteenth Avenue	Oherns Road
Austins Road	Fifteenth Avenue	Plenty Road
Bassestts Road	Fourteenth Avenue	Plenty Valley Rise
Bindts Road	Gingles Road	Range Road
Bosco Drive	Glenburnie Road	Recreation Road
Braemore Place	Grandview Court	Ridge Road
Bridge Inn Road	Grants Road	Seventeenth Avenue
Bruces Creek Road	Halls Road	Seventh Avenue
Cades Road	Hawkes Road	Sixteenth Avenue
Cameron Rise	Hayes Road	St Georges Road
Capstone Drive	Hilliers Road	Summerhill Road
Clarks Road	Holts Road	The Crest
Cookes Road	Humevale Road	Thirteenth Avenue
Coombs Road	Hunters Road	Twelfth Avenue
Craigieburn Road	Jacks Creek Road	Wildwood Road
Dalls Road	MacGregor Road	Yea Road
Donnybrook Road	Merriang Road	
Dunnetts Road	Murray Road	

## Appendix 10. Sites of flora significance.

**Table A5. Sites of flora significance in the City of Whittlesea.**

Road Name	Locality Description	Note
Arthurs Creek Road	North side at corner of Recreation Road	Remnant Grassy Woodland / Valley Grassy Forest remnant with Drooping Sheoak; south side on nearby Woods Road supports White Cypress-pine (suspected to be planted)
Braemore Place	West side, midway along extent	Remnant stand of Snow Gums of regional significance
Donnybrook Road	Eastern end, both sides	Remnant stand of Drooping Sheoak of local significance
Grants Road	Both sides of the road between Sheridan and Woodside Courts	High diversity Grassy Woodland / Valley Grassy Forest with numerous locally significant flora
Grants Road	South side, east half swampy depression between hills	Degraded Creekline Tussock Grassland remnant supporting Swamp Plantain (DSE provisional 'Vulnerable')
Holts Road	West side, northern end	Grassy Dry Forest remnant with numerous locally significant flora
Merriang Road	Both sides between Donnybrook Road and Janna Road	Extensive tract of Grassy Woodland / Grassy Dry Forest remnants on cuttings
Plenty Valley Rise	North side of western end	A short extent of treeless, diverse and herb-rich area of Grassy Dry Forest,
Ridge Road	Both sides of the road, between Scrubby Creek and Coombs Roads	High quality remnant Grassy Dry and Valley Grassy Forest supporting Matted Flax-lily (federal significance)
Summerhill Road	Isolated, southern side at western end	A short stony knoll section supporting Slender Tick-trefoil (DSE 'Poorly Known')

## Appendix 11a. Standard Operating Procedure – Fire Management

- Avoid the general application and use of herbicides for fuel reduction purposes, except as part of a specific Council endorsed fire management program that sets measurable quality control standards.
- Remove regenerating shrubs and trees along fire priority roads in consultation with Sustainability Planning and with relevant permits or permit-exemption approvals.
- Park and turn Council vehicles and machinery on low conservation roadsides
- Develop a procedure and process to verify whether other authorities working along roadsides have undertaken Weed Stop (or other relevant) training and have procedures in place to limit the spread of weeds and damage to areas of moderate to high conservation value.
- Follow fire prevention program provisions and Council standards for the following:
  - ensuring vehicles, machinery and equipment is free of weeds and other contaminants prior to entering and leaving the works area;
  - utilising brush-down and washing locations to undertake routine cleaning operations; and
  - avoiding works within designated no-go areas.
- When removing woody plants from roadside reserves, use the ‘cut-and-paint’ method (i.e. cutting and administering herbicide to the plant stump) to the following standards:
  - cut stumps as close to ground-level as practicable;
  - administer herbicide immediately following the cut, to minimise regrowth; and
  - retain low-cut stumps in the ground to avoid soil disturbance.
- When working outside a designated maintenance area, minimise vehicle use outside the formed road (travelled area).
- Avoid unnecessarily disturbing vegetation beyond the road formation.
- Council will only import foreign materials to roadsides that are accompanied by a supplier ‘weed-free declaration’, assuring that materials are free of weeds, contaminants and other diseases.

- Maintain and repair designated erosion control measures as required.
- Appropriately dispose of waste materials and recycle where possible.
- Minimise soil disturbance when working in or close to roadside reserves.
- Identify and mark out natural regeneration not formally protected under the Planning Scheme that has been designated for retention prior to fire prevention slashing activities, including:
  - along regularly slashed roadsides for negative impacts to natural regeneration processes.
  - along burnt roadsides for natural regeneration.

## Appendix 11b. Standard Operating Procedure – Road Design and Construction

### *Construction site setup and completion*

- Prior to commencement of works:
  - mark out and delineate the construction zone using fencing, barricades, vehicle access and no-go zones;
  - mark vegetation to be retained within the construction zone, ideally delineating boundaries with temporary fencing where practical to do so;
  - install tree protection fencing to Council tree protection zone standards;
  - induct relevant staff to construction site management requirements of the project.
- Remove vegetation protection measures only after the completion of works.

### *Site access, egress and hygiene provisions*

- Follow Vehicle/Machinery Hygiene Procedures when undertaking all works (see appendix 12)
- Park and turn vehicles and machinery on low conservation roadsides or within marked, degraded sections on medium conservation roads.
- Do not park or turn vehicles on High conservation value roadsides.
- Where a Construction Management Plan (CMP) has been prepared, adhere to all provisions and Council standards, with particular regard to the following:
  - ensuring vehicles, machinery and equipment is free of weeds and other contaminants prior to entering and leaving the works site;
  - utilise brush-down and washing locations to undertake these operations; and
  - avoid works within designated no-go areas.
- Remove spoil materials from site and dispose of appropriately at Council depot/s or an alternative permitted disposal/stockpile site.
- When working outside a designated works zone, minimise vehicle use outside the formed road and road clear zone.
- Avoid disturbing vegetation beyond the road formation.

- Council will only import foreign materials to roadsides that are accompanied by a supplier 'weed-free declaration', assuring that materials are free of weeds, contaminants and other diseases.
- Maintain and repair designated erosion control measures as required.
- Appropriately dispose of waste materials and recycle where possible.

### *Vegetation management provisions*

- Minimise vegetation and soil disturbance when working in or close to roadside reserves.
- Never stockpile soil or fill on native vegetation within the road reserve.
- Fell trees and shrubs away from retained native vegetation, including understory plants.
- Never manage native vegetation with a view to 'tidying up', for example, do not slash or remove understory plants beyond the necessary and approved project requirements.
- On High and Medium conservation value roadsides, woody vegetation should be carefully retained within remnant vegetation patches, with special care to retain hollow-bearing logs.
- When using the 'cut-and-paint' method (i.e. cutting and administering herbicide to the plant stump) as part of an approved project action, apply the following standards:
  - cut stumps as close to ground-level as practicable;
  - administer herbicide immediately following the cut, to minimise regrowth; and
  - retain low-cut stumps in the ground to avoid soil disturbance.
- Where tree protection fencing is permissibly absent, avoid the excavation, placement of fill materials, soil disturbance and working under and within close proximity to the drip-line of retained trees and other native vegetation.

## Appendix 11c. Standard Operating Procedure – Road Maintenance

- All road maintenance works are to be undertaken with a view to minimising roadside soil disturbance from vehicle use to reduce the risk of weed invasion and erosion.
- During road grading operations:
  - avoid soil disturbance within native vegetation on medium and high conservation roadsides; and
  - minimise the number and size of windrows to reduce the spread of weeds and other diseases and contaminants.
- Park and turn vehicles and machinery on low conservation roadsides.
- Adequately protect existing trees in accordance with AS4970
- Follow all maintenance program provisions and Council standards, with particular regard for the following:
  - ensuring vehicles, machinery and equipment is free of weeds and other contaminants prior to entering and leaving the works area;
  - utilising brush-down and washing locations to undertake routine cleaning operations; and
  - avoiding works within designated no-go areas.
- When removing woody plants from designated exclusion zones, use the ‘cut-and-paint’ method (i.e. cutting and administering herbicide to the plant stump) to the following standards:
  - cut stumps as close to ground-level as practicable;
  - administer herbicide immediately following the cut, to minimise regrowth; and
  - retain low-cut stumps in the ground to avoid soil disturbance.
- When working outside a designated maintenance area, minimise vehicle use outside the formed road and road clear zone.
- Avoid disturbing vegetation beyond the road formation.
- Council will only import foreign materials to roadsides that are accompanied by a supplier ‘weed-free declaration’, assuring that materials are free of weeds, contaminants and other diseases.

- Maintain and repair designated erosion control measures as required.
- Appropriately dispose of waste materials and recycle where possible.

### *Vegetation management provisions*

- Minimise vegetation and soil disturbance when working in or close to roadside reserves.
- Never stockpile soil or fill on native vegetation within the road reserve.
- Never manage native vegetation with a view to 'tidying up', for example, do not slash or remove understory plants beyond the necessary and approved maintenance requirements.
- Slashing is to be undertaken to a minimum height of 100 mm above ground level under Clause 52.17-6 of the Planning Scheme.



## Appendix 11d. Standard Operating Procedure – Service Installation and Maintenance

- Service authorities are bound by and party to Council’s roadside construction and road maintenance guidelines (Sections 6.2.1 and 6.2.2) and the following actions specific to service installation and maintenance.
- Follow all Construction Management Plan provisions and Council standards, with particular regard to the following:
  - ensuring vehicles, machinery and equipment is free of weeds and other contaminants prior to entering and leaving the works area;
  - utilising brush-down and washing locations to undertake routine cleaning operations;
  - avoiding works within designated no-go areas; and
  - appropriately reinstating roadside conditions following disturbance.
- Protect all trees in accordance with AS4970 or as agreed with the responsible authority
- Undertake boring as opposed to trenching, particularly when working close to remnant vegetation.
- When boring under trees, Council requires a minimum depth of 800mm and that no machinery is used within 1m of the canopy drip-line of any tree.
- Pruning should be undertaken in accordance with AS4373 the Australian Standard® ‘Pruning of amenity trees’.
- Prune limbs that negatively impact road function by restricting sight lines or pose other hazards as identified.

## Appendix 11e. Standard Operating Procedure – General procedures for all works

### *Pest Plants, Animals and other Organisms*

- Follow Vehicle/Machinery Hygiene Procedures when undertaking all works (see appendix 12)
- Minimise the spread of weeds as a result of control programs by retaining seed laden weed materials on-site or by transferring to an appropriate disposal facility in a secure manner.

### *Soil Erosion*

- Minimise tree removals and soil disturbance during works to reduce the likelihood of erosion issues.
- Regularly monitor erosion control measures to ensure they are in working condition, and maintain or repair these when required.
- Increase the monitoring frequency of erosion control measures during wet periods.
- Wherever possible, divert water away from exposed and loose soil.
- Take additional precautionary measures when working in known problem areas (e.g. areas supporting sodic soils and sedimentary substrates), for example, greater fencing requirements and increased frequency of monitoring.
- Site rehabilitation should take place as soon as possible following soil disturbance.
- Immediately sow grass seed on bare ground to stabilize soil following any resurfacing treatments on unsealed areas.
- Only re-seed roadside soils with Council endorsed seed materials, ideally including sterile rye-fescue blends or preferably native grass seed mixtures, for example Weeping Grass and Wallaby Grasses.

### *High and Medium Conservation Value Roadsides*

- All works in high quality remnant vegetation is to follow industry best-practice standards and project-specific standards as stipulated in works contracts.

- Use herbicides in a responsible manner with particular attention to herbicide selection, preparation and application to minimise off-target damage to indigenous species.
- Avoid soil disturbance.
- Avoid damaging fallen logs and branches as a result of works, and where woody materials are felled carefully retain these in the understorey to provide habitat, with particular emphasis on hollow-bearing logs.
- Dispose of weed seed and other reproductive materials in a responsible manner consistent with hygiene and disposal requirements, possibly requiring retention where treatment occurred.

#### *Natural Regeneration, Revegetation and Wildlife Corridors*

- Identify and mark out natural regeneration not formally protected under the Planning Scheme that has been designated for retention prior to fire prevention slashing activities, including:
  - along regularly slashed roadsides for negative impacts to natural regeneration processes.
  - along burnt roadsides for natural regeneration.

#### *Agricultural Production*

- Monitor roadside agricultural uses to ensure compliance with permit conditions.

#### *Cultural Heritage Values*

- Adhere to contractual requirements for the protection of cultural heritage values, such as protective fencing and works setbacks as specified

#### *Landscape and Amenity Values*

- Follow contractual requirements and Standard Operating Procedure specific to roadside landscape and amenity values

#### *Recreational Values*

- Any programs involving establishment or expansion of roadside recreational areas should adhere to the requirements and principles of roadside construction and maintenance programs (Sections 6.2.2 and 6.2.3)

#### *Waste and Litter Control*

- Dispose of general rubbish in a responsible manner;

- Dispose of specialized rubbish (e.g. sharps) by a WH&S approved means
- Dispose of large volumes of waste by a Council endorsed methodology
- When lacking information on waste disposal measures, contact the appropriate site supervisor or relevant Council works authority on appropriate storage and disposal measures
- Undertake waste removal on Medium and High conservation value roadsides in a sensitive manner with a view to minimising soil disturbance
- Where dumped waste materials have been removed from site, undertake follow-up monitoring for the occurrence of pest species (e.g. weeds and soil-borne plant pathogens) and respond in accordance with pest management provisions (Section 6.3.1).

## Appendix 12. Vehicle and Machinery Hygiene Procedure

### **Procedure for ensuring vehicles and machinery do not actively contribute to the spread of environmental weeds throughout the municipality**

#### Purpose

Environmental weeds pose a significant threat to the integrity of native vegetation within the municipality and the movement of vehicles and machinery proves a major contributor to their introduction and spread. Roadside reserves within the City of Whittlesea support native vegetation ranging from Low to High conservation value and the procedure for roadside management activities such as slashing and weed control should be sensitive to and reflective of these values.

The major objective of this procedure is to ensure Vehicle and Machinery Hygiene is a standard operation for all roadside management activities and to promote consistency in hygiene practice both within Council and amongst contracted operators. In addition, this procedure will allow Council to monitor the effectiveness of hygiene routines and will provide for a feedback loop with regard to roadside hygiene practice and any new and emerging weed issues.

#### Scope

This procedure has been specifically prepared for implementation during Council roadside reserve weed control and slashing programs and is to be adhered to by both Council employees and external contractors alike.

#### Responsibility

- Environment, Sustainability Managers – Procedure review and maintenance
- Project Managers/Supervisors – Procedure issue and implementation
- Vehicle/Machinery operators – Procedure implementation

#### *Machinery & Vehicle Hygiene – Planning Procedure*

#### Contract Stipulation

- External contractors are to submit their Standard Operating Procedure (SOP) for vehicle and/or machinery hygiene as part of a tender response for slashing and/or weed control works.

- Contractors are to adhere to Council procedure for vehicle and machinery hygiene
- Specialist contractors may be used in medium or high conservation value roadside vegetation where flora identification skills would ensure a more sensitive management approach.

#### Roadside Assessment

- Ensure all equipment for clean down eg. Brushes, brooms, air compressors, vacuums and/or high pressure water is supplied or accessible to works staff.
- Determine clean-down locations. These are best located outside medium and high conservation value areas to ensure the highest standard of machinery and vehicle hygiene is met prior to entering these significant areas.

#### Education and Awareness

- Ensure on-ground staff are informed of infestation location and have the ability to identify targeted weeds of significance for the site i.e. Chilean Needle-grass seeds.
- Ensure on-ground staff know the location of wash-down areas as mapped. In particular, on-ground staff should be aware of the location of wash-down points in proximity of medium and high conservation value roadside vegetation.

#### *Machinery & Vehicle Hygiene – Works Procedure*

##### Timing

- Adhere to Council slashing guidelines to ensure works are undertaken prior to the main flowering periods for priority weeds such as Chilean Needle-grass. Or, minimise movement of machinery through infestations during peak flowering periods.
- If possible, undertake works AFTER control program for target weeds has been undertaken.
- Where possible, avoid working immediately following and during rain to reduce chance of 'wheel rutting'.

##### Vehicle/ Machinery movement and operation within roadside reserve

- Undertake works systematically, moving from clean areas to infested areas. This will reduce the need for continual vehicle clean-down, saving time and labour resources.

- Determine the start-point and end-point of each pass-through (slashing or weed control) along the roadside reserve in relation to areas of infestation.
- Strategically allocate clean down sites. The number of clean-down points required will be minimised where slashing/weed control is undertaken systematically from higher quality to lower quality areas.
- Keep to existing tracks, roads and paths where possible and practical.
- Machinery operators should be mindful of changes in topography along road reserves to prevent 'scalping', a process of cutting vegetation too close to the ground and which results in significant contamination of cutting implements. Particular attention is required to avoid scalping in native vegetation as this can result in weed invasion.

#### Clean-down Procedure

- Pre-start and post-use vehicle and machinery inspections are to be undertaken (see attachment 2 for required reporting) and any issues with regard to vehicle hygiene are to be mitigated following the standard clean-down procedure.
- Ensure appropriate disposal of contaminated material as advised by project manager/supervisor.
- Determine the type of clean down required eg. Brush, air or water guns.
- Determine extent of clean down required based on operator actions and risk involved (see attachment 1) and commence clean-down.

#### Mapping and Monitoring

- Map any new infestations or changes in the extent of known infestations to assist Council in planning mitigation works but also to help allocate future stockpiling and vehicle/machinery clean-down and parking areas.

#### Vehicle and Machinery Hygiene Record

A daily pre-start/ post-works vehicle and machinery hygiene record (attachment 2) is to be kept for the duration of slashing and weed control programs.

Vehicle Hygiene records are to be kept with other relevant records such as Job Safety Analysis and Induction records for each project and are to be made available to relevant Council officers upon request.

The vehicle and machinery hygiene daily record allows for communication within Council and with external contractors regarding any new weed infestations or changes in the extent of known roadside infestations (see attachment 2).



**Attachment 1: Risk Matrix, Clean-down Technique & Extent<sup>1</sup>**

	Potential Contact with Weeds			
		Dense infestations Contact with weeds unavoidable	Large numbers of scattered plants or clumps of weeds that can be driven or walked around. Contact probable	Small patches of weeds or individual plants. Easily avoided. Contact with weeds feasible
<u>Operator Actions</u>	Risk	High	Medium	Low
<ul style="list-style-type: none"> <li>• Drove off road through vegetation</li> <li>• Walked extensively through vegetation</li> <li>• Worked in muddy and wet conditions</li> <li>• Worked amongst plants where seed was visibly present</li> </ul>	High	Full Clean	Full Clean	Wash Down
<ul style="list-style-type: none"> <li>• Drove on unsealed roads</li> <li>• Pulled on to the road shoulder</li> <li>• Had some contact with vegetation either on foot or with the vehicle</li> </ul>	Medium	Full Clean	Wash Down	Wash Down
<ul style="list-style-type: none"> <li>• Travelled on sealed roads only.</li> <li>• Did not walk off designated paths</li> </ul>	Low	Visual Inspection	Visual Inspection	Visual Inspection

<sup>1</sup> Adapted from Appendix G, DPI&F 2008

Visual Inspection:

- A visual inspection of the vehicle is made, including the radiator, wheel wells, running boards and particularly carpets, floor mats and seats within cab
- A visual inspection of plant or equipment components is made, including blades, arms, hoses, buckets, wheels, tyres, rims, axles, hydraulic stabilisers, roofs, steps, chains, slashers (including blades and tines), ledges, trays, covers and chassis.

- Any suspicious seeds are brushed, blown or washed prior to leaving the site.
- If seeds or vegetative materials are found and cannot be easily removed and disposed of, the vehicle is taken to a clean-down facility and the 'wash-down' procedure provided below is followed.
- The operators must ensure all personnel effects (equipment and clothing) are free of contaminates prior to leaving the site.

#### Wash down

Follow all the steps for a 'visual inspection' in addition to the following;

- Wash down to be conducted at a designated wash down facility.
- All exposed areas of the vehicle/machinery are cleaned using compressed air, vacuum, brush or high pressure spray.
- Pay particular attention to carpets, floor mats and seats within the cab, wheel wells, running boards and radiator.
- The operators must ensure all personnel effects (equipment and clothing) are free of contaminates prior to leaving the contaminated site.

#### Full Clean

Follow all the steps for a 'Wash down' in addition to the following;

- Entire vehicle/machine is cleaned using appropriate methods
- The operator is to take all reasonable steps to ensure that no contaminants are attached to clothing
- Contaminated clothing is to be removed, shaken out, cleaned and thoroughly inspected prior to leaving the site

## Attachment 2: Vehicle & Machinery Inspection & Clean-down Report<sup>2</sup>

The following report is to be completed at the end of each day of a slashing/ weed control program for the City of Whittlesea. Please file report with daily pre-start records and JSA for the respective project/job.

Company _____ Date _____ Job no./ location _____ Location of pre-start inspection _____ Name _____ Vehicle Registration _____ Plant/ equipment i.d _____
Was the vehicle/machinery free of plant material upon pre-start inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, what procedure was undertaken to remove plant material prior to leaving site? _____ Was all of the required equipment provided for conducting vehicle hygiene measures on site? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, explain _____
Inspection and/or wash down location _____ Inspectors name _____ Signature _____ Driver/Operators Name _____ Signature _____
Were any weeds species encountered which have not yet been recorded for the site? _____ Were there any changes to the extent/location of infestations as mapped? _____ Any further vehicle/machinery hygiene feedback to provide? _____ _____

<sup>2</sup> Adapted from Appendix G, SPI&F 2008

## Appendix13a. Roadside Slashing Guidelines

Councils' annual roadside slashing program serves to meet a number of conflicting objectives with regard to fuel reduction, road safety and drainage line management. While slashing can occur at any time of year for vegetation that is restricting driver visibility or creating dangerous driving conditions, slashing for fuel reduction is undertaken from November, prior to the commencement of the summer fire danger period.

In recent years and as a result of the present study, it has become apparent that a number of factors are contributing to the spread of exotic weeds and simultaneous suppression of indigenous vegetation throughout the shire and that timing and fire prevention slashing standards are likely to play a significant role.

The following guidelines will assist in adapting the present slashing program over the next five years to allow for a more systematic and sensitive approach with regard to roadside conservation value. More specifically, Councils slashing program will be at the forefront of the municipal-wide shift to favour indigenous vegetation over exotics; a move that, in time, will result in roadside vegetation that is less labour intensive and more cost-effective to manage.

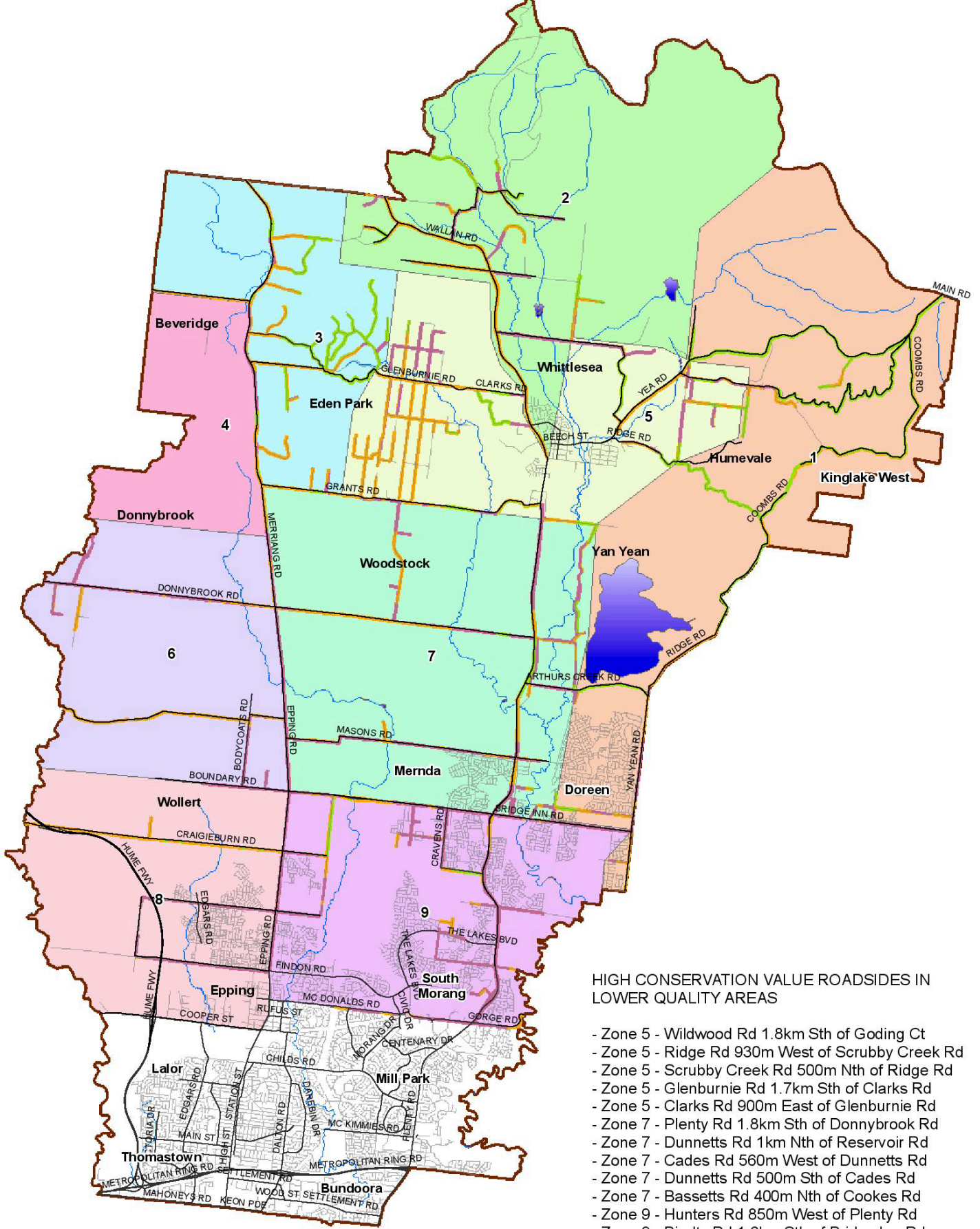
<b>Guideline</b>	<b>Description</b>	<b>Objective/Outcome</b>	<b>Responsibility</b>
Pre-treatment Assessment	Pre-treatment assessment undertaken prior to planned September start time	<p>Pre-treatment Assessment will assist in determining actual start time, given the seasonal condition variability from year-to-year.</p> <p>Assessment of areas 1-3 can determine if a management burn may be more appropriate and beneficial than slashing. In addition, assessment may determine that a treatment for some roadsides in areas 1-3 may not be required at all.</p>	
Stakeholder Negotiation	Contact VicRoads, Melbourne Water or other adjoining municipalities, where appropriate, if a change to annual program for shared roadside management is anticipated	Negotiate changes to annual program with relevant stakeholders to ensure effective and efficient management of roadsides that are a shared responsibility between Council and one or more other regulatory authorities.	
Timing	Where conditions permit, following pre-treatment assessment, commence slashing of Areas 1-3 in September.	<p>On roadsides dominated by native species (areas 1-3) , slashing from September would achieve both a reduction in seed set of winter active exotic grasses but allow native grasses and other species to continue to grow, flower and set seed in late spring/ summer. As the indigenous species flower and set seed later, this early slashing will favour indigenous species</p> <p>This would maintain a greener road verge and delay curing as slashed grasses put on new green growth, then flower and set seed</p> <p>A September cut would reduce time and labour resources as full brush-</p>	

Guideline	Description	Objective/Outcome	Responsibility
		down of vehicles/machinery/persons would not be required given exotic grasses would not have set seed.	
	Slash Areas 4-9 in sequence prior to exotic grass flowering or in October	Reduce seed set of Chilean Needle-grass and other exotic grasses.	
Systematic Approach	<p>Treatment of areas should be in order of the numbered sequence.</p> <p>Following the sequence, treatment will occur in High and Medium Conservation Value Areas first, then move to Low Conservation Value areas</p>	<p>Limiting the spread of exotic weeds from lower quality areas into high and medium value conservation areas.</p> <p>Ensuring native grass dominated roadsides (areas 1-3) are slashed first, being early enough to both reduce fuel load and allow time for natives to grow, flower and set-seed in late Spring/Summer.</p>	
Follow-up Weed Control	Target Chilean Needle-grass in areas 1-3 following slashing as part of annual weed control program	Chilean Needle grass will re-shoot faster than native grasses following slashing so an opportunity will be provided to target 'spot-spray' or 'wick-wipe' while avoiding native grasses.	
Monitoring and Second Treatment	Monitor areas that are slashed early and determine requirement for 'second' treatment in January. This is only to be undertaken after flowering and seed set of native grasses has occurred.	A second treatment will assist in keeping fuel levels down where conditions have favoured growth following initial treatment. Waiting until January for the second treatment, where required, will ensure native grasses have had time to flower and set seed.	
Vehicle and Machinery	Hygiene measures in Areas 4-9 are to strictly follow the Vehicle and	No seed spread into High and Medium Conservation Areas	

<b>Guideline</b>	<b>Description</b>	<b>Objective/Outcome</b>	<b>Responsibility</b>
Hygiene	<p>Machinery Hygiene Procedure (Appendix 12)</p> <p>Hygiene measures may be more responsive for areas 1-3</p>	<p>No spread of seed outside of infested areas (see map, Appendix 13b)</p> <p>Time and labour resources for hygiene practice can be reduced in initial stages of program (areas 1-3) as exotic grass seed set will not yet have occurred</p>	
Specialist Contractor Engagement	<p>Engage contractors with specialist knowledge and experience for High Conservation Value roadsides, in particular those High value areas within areas 4-9</p>	<p>High Conservation Value roadsides within areas 4-9 will require priority and sensitive treatment to ensure weeds are not inadvertently carried in from adjoining lower quality areas. If managed appropriately, the quality of these few high conservation value areas can be maintained and improved.</p>	

## **Appendix13b. Roadside Slashing Guidelines – Management Areas**





**HIGH CONSERVATION VALUE ROADSIDES IN LOWER QUALITY AREAS**

- Zone 5 - Wildwood Rd 1.8km Sth of Goding Ct
- Zone 5 - Ridge Rd 930m West of Scrubby Creek Rd
- Zone 5 - Scrubby Creek Rd 500m Nth of Ridge Rd
- Zone 5 - Glenburnie Rd 1.7km Sth of Clarks Rd
- Zone 5 - Clarks Rd 900m East of Glenburnie Rd
- Zone 7 - Plenty Rd 1.8km Sth of Donnybrook Rd
- Zone 7 - Dunnetts Rd 1km Nth of Reservoir Rd
- Zone 7 - Cades Rd 560m West of Dunnetts Rd
- Zone 7 - Dunnetts Rd 500m Sth of Cades Rd
- Zone 7 - Bassetts Rd 400m Nth of Cookes Rd
- Zone 9 - Hunters Rd 850m West of Plenty Rd
- Zone 9 - Bindts Rd 1.6km Sth of Bridge Inn Rd

**Legend**

- High Conservation Value (Green line)
- Medium Conservation Value (Yellow line)
- Low Conservation Value (Red line)
- Water course (Blue line)
- Water body (Blue area)
- Municipality Boundary (Brown outline)
- Management Area (Brown outline)
- Area 1 - Conservation (Light Orange)
- Area 2 - Conservation (Light Green)
- Area 3 - Conservation (Light Blue)
- Area 4 - General (Pink)
- Area 5 - General (Light Yellow)
- Area 6 - General (Light Purple)
- Area 7 - General (Light Green)
- Area 8 - General (Light Orange)
- Area 9 - General (Light Purple)

Note: location of property boundaries, watercourse and topography indicative only

Scale 1:100,000



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Abzeco Pty. Ltd  
Suite 1, 4 Brisbane Street  
Eltham, Victoria 3095  
Ph 03 9431 5444  
www.abzeco.com.au

